

SCANNER OPERATOR'S CERTIFICATE OF AUTHENTICITY

THIS IS TO CERTIFY THAT THE FOLLOWING ELECTRONIC RECORDS ARE TRUE AND ACCURATE REPRODUCTIONS OF THE ORIGINAL RECORDS OF: JAMES CITY COUNTY RECORDS MANAGEMENT DEPARTMENT AND WERE SCANNED IN THE REGULAR COURSE OF BUSINESS ON THE DATE LISTED; AND PURSUANT TO ESTABLISHED GUIDELINES BY THE LIBRARY OF VIRGINIA AND ARCHIVES; AND THAT WHEN SCANNED THE RECORDS WERE IN THE CUSTODY OF THE INDIVIDUAL LISTED BELOW.

CASE NUMBER: S-0031-2017

FILE CONTAINS: Documents, Drawings, Other Color Information

DATE SCANNED: 12/5/2018

SCANNER OPERATOR: Jennie Waltrip

LOCATION: WILLIAMSBURG, VA.



SCANNER OPERATOR'S CERTIFICATE OF AUTHENTICITY

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CASE NUMBER: S-0031-2017 Add-On

FILE CONTAINS: Documents

DATE SCANNED: 8/2/2019

SCANNER OPERATOR: Clarissa Miller

LOCATION: WILLIAMSBURG, VA.



S-0031-2017,234 Neck O'Land Subdivision

234 Neck O'Land Subdivision

Project Addres	ses:			
Map ID	Address	City	State	Zip Code
4740100014	234 NECK-O-LAND RD	WMSBURG	VA	23185-3132

Applicant Inform	ation:	
Name	e:	FredNice
Comp	oany:	Fred Nice Construction Company
Addr	ess:	3002 Forge Road
City:		Toano
State		VIRGINIA
Zip C	ode:	26138
Phon		(757)871-9506
Alt Pl	none #	fist Reviewed
Fax #		(757)741-2748
Emai	l Address:	fanice@aol.com

Fees Information:

Receipt Number	Date	Amount
6970		
Planning Fee	8/25/2017 11:17 AM	\$410.00
JCSA Fee	8/25/2017 11:17 AM	\$25.00
Total		\$435.00

Cross Reference Parcel Numbers and/or Case Numbers	
cross reference raiser runibers and or case runibers	
	_
Ch - Lli + D · · · · ·	
Checklist Reviewed	

Maintenance Agreement



Subdivision Application

Receipt No.: 4970 Date: 8-24-2017 S: 0031 - 2017

Please complete all sections of the application. Call 757-253-6685 if you have any questions, or go online to www.jamescitycountyva.gov/planning/procedures.html

6.	Are there any special use permit or proffer conditions? Yes No If yes, please list the case number:
7.	Does this application propose any waivers? If so, please give reasons for each request:
	A
	В.
	C
8.	Does project require a VDOT 527 Traffic Study? Yes No No

Deeds/Easements/
 Agreements/Property
 Records

CERTIFICATE OF RECORDATION

Parcel Identification #: 4741700001

Subdivision #: S-0031-17

Subdivision Name: MAGNOLIA GREEN (REVISED)

Date Recorded: 7/23/2018

Document/Plat

Reference#: 180009120

Plat Book:

<u>0</u> Page:

0

PLANNING DIVISION

Signed:

Date: 7/28/2018

JUL **26** 2018

RECEIVED



Stormwater & Resource Protection

Project:

234 Neck O'Land Subdivision

County Plan No.:

S-031-17

Date:

May 18, 2018

Plan is approved by the Stormwater & Resource Protection Division (VESCP/VSMP authority). The following items pertain to the approval:

- A local land disturbing/stormwater construction (VESCP/VSMP authority) permit and Siltation
 Agreement, with surety, is required for this project. Registration for coverage under a state VPDES
 construction general permit (VAR10) is required for this project through the local VSMP authority.
- Because land disturbing activity as proposed for the project exceeds one acre, a site pollution prevention (P2) plan, as a component of overall stormwater pollution prevention plan (SWPPP) for land disturbing activity associated with the project, is required to be submitted, reviewed and approved by the Stormwater & Resource Protection Division (VSMP authority) prior to its site implementation in accordance with Section 8-26(d) of the Chapter 8 of the County Code.
- A Subdivision Agreement, with surety, shall be executed with the County prior to recording of lots for this development section.
- A VDOT Right-of-way permit may be needed. Applicant is advised to contact the VDOT Residency for more information.
- Shared driveway must be constructed in full, as per plan, or bonded in full prior to recordation of subdivision plat.
- Completion of a Stormwater Facilities Data Sheet and payment of Stormwater Facilities Inspection Fees is required prior to issuance of a local land disturbing/stormwater construction (VESCP/VSMP authority) permit.
- Should the developer desire expedited surety review and processing, the design engineer should provide the Stormwater Permitting Specialist, Joe Buchite, with an accurate surety estimate. Example forms for such can be forwarded by request (253-6643 or Joseph.Buchite@JamesCityCountyVA.gov). Submitted surety estimate must be stamped and signed by the design professional.

1.97

AC Disturbed

MC

Watershed

JL33 IIB HUC Code Technical Criteria

CPOD

For questions regarding the bonding and permitting processes, please call either Cheryl Waldren (757-253-6866) or Joe Buchite (757-253-6643).



Stormwater & Resource Protection

Project:

234 Neck O'Land Subdivision

County Plan No.:

S-031-17

Date:

April 13, 2018

Plan is approved by the Stormwater & Resource Protection Division (VESCP/VSMP authority). The following items pertain to the approval:

- A local land disturbing/stormwater construction (VESCP/VSMP authority) permit and Siltation
 Agreement, with surety, is required for this project. Registration for coverage under a state VPDES
 construction general permit (VAR10) is required for this project through the local VSMP authority.
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 prevention (P2) plan, as a component of overall stormwater pollution prevention plan (SWPPP) for land
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 the Stormwater & Resource Protection Division (VSMP authority) prior to its site implementation in
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1.97

AC Disturbed

MC

Watershed HUC Code

JL33

Technical Criteria

IIB CPOD

For questions regarding the bonding and permitting processes, please call either Cheryl Waldren (757-253-6866) or Joe Buchite (757-253-6643).

3. ConstructionCertificate

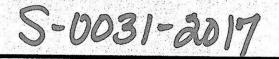


Application for Certificate to Construct Water and Sanitary Sewer Facilities

Date of Application	n:	James City County	Case No. <u>S-003</u>	1-2017	
Developer:	Magnolia Green, Full Name	LLC (Contact: Fre	······································	ess Phone	757-871-9506
	3002 Forge Rd, 7 Address	Coano, VA 23168	· 		
Contractor:	Full Name		Busine	ess Phone	
	Address			-	
Plan Prepared by:	Matthew Conno	lly, PE w/ Landtech	Resources		
	Neck-O-Land Rd e and Description	Subdivision			:
Location: 234	Neck-O-Land Rd				. · · · · · · · · · · · · · · · · · · ·
Description of Wa	ter and/or Sanitar	y Sewer Facilities:			
Length of Water M	Iain: _0	Length of Sanit	ary Sewer Main:	: _266 LF	·
Fees: 0	(\$2	.87 per foot for ever	y foot of water n	nain)	
+ \$763.42		_(\$2.87) per foot for	every foot of m	ain sanitary sev	wer line)
Total Inspection F	ee: <u>\$763.42</u>				
Signature of Deve	loper – Owner		Date		
Inspection Fee of:	\$	Paid On:	(]	Date)	
And Received by:					
Plan Approved:					
Plan Approving A	uthority - JCSA		Date		
Certificate Issued	on:				

Note: A set of approved plans must be submitted with the application. The application will not be accepted without approved plans.

4. Record Drawing(as-built plan)



SUBDIVISION PLAT

MAGNOLIA GREEN

BEING PARCEL ID #4740100014

ROBERTS DISTRICT JAMES CITY COUNTY

DATE: 03/01/2018

JOB # 17-447

VIRGINIA

3925 Midlands Road, Williamsburg, Virginia 23188 Phone: (757) 565-1677 Fax: (757) 565-0782 web: landtechresources.com

SHEET 1 OF 2

JCC-S-0031-2017

GATE HOUSE THE MAP PEOPLI VICINITY MAP 1"= 2000'

OWNERS CERTIFICATE: MAGNOLIA GREEN, LLC

THE SUBDIVISION OF THE PROPERTY AS SHOWN ON THIS PLAT IS WITH FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS AND OR TRUSTEES.

SIGNATIURE

4-16-2018

member

CERTIFICATE OF NOTARIZATION

STATE OF VIRGINIA

CITY/COUNTY OF James City 1, LINDA VERGAKIS, A NOTARY PUBLIC IN AND FOR THE -CITY/COUNTY AND STATE AFORESAID, DO HEREBY CERTIFY THAT THE PERSONS WHOSE NAMES ARE SIGNED TO THE FOREGOING WRITING HAS ACKNOWLEDGED THE SAME BEFORE ME IN THE CITY/COUNTY AFORESAID. GIVEN UNDER MY HAND THIS 16th DAY OF APRIL MY COMMISSION EXPIRES AUGUST 31, 2018

NOTARY PUBLIC

REGISTRATION NO. 7623437

PUBLIC REG. 7623437 MY COMMISSION EXPIRES

CERTIFICATE OF SOURCE OF TITLE

THIS IS TO CERTIFY THAT THE LAND EMBRACED IN THIS SUBDIVISION STANDS IN THE NAME OF MAGNOLIA GREEN, LLC AND WAS ACQUIRED FROM WILLIAM BLAKE ROBERTSON BY THAT CERTAIN DEED DATED OCTOBER 19, 2017 AND RECORDED IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF JAMES CITY COUNTY, VIRGINIA AS INSTRUMENT NO. 170020236.

CERTIFICATE OF APPROVAL

THIS SUBDIVISION IS APPROVED BY THE UNDERSIGNED IN ACCORDANCE WITH WITH EXISTING SUBDIVISION REGULATIONS AND MAY BE ADMITTED TO RECORD.

5/30/18

SUBDIVISION AGENT OF JAMES CITY COUNTY

VIRGINIA DEPARTMENT OF TRANSPORTATION

ENGINEERS OR SURVEYORS CERTIFICATE

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE OR BELIEF, THIS PLAT COMPLIES WITH ALL OF THE REQUIREMENTS OF THE BOARD OF SUPERVISORS AND ORDINANCES OF THE COUNTY OF JAMES CITY, VIRGINIA, REGARDING THE PLATTING OF SUBDIVISIONS WITHIN THE COUNTY.

03/01/2018 PETER FARRELL, L.S. 2036 DATE

PETER FARRELL Lic. No. 2036 03/01/2018

AREA TABULATION

GENERAL NOTES

4 85,470 S.F. / 1.9621 AC.
10,573 S.F. / 0.2427 AC.
13,726 S.F. / 0.3151 AC.
17,968 S.F. / 0.4125 AC.
23,595 S.F. / 0.5417 AC.
19,608 S.F. / 0.4501 AC.
85,470 S.F. / 1.9621 AC.

1. THIS PLAT WAS PRODUCED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT DEPICT ALL EASEMENTS AND/OR ENCUMBRANCES ON THE SUBJECT PROPERTY.

6. PARCEL LIES IN FIRM ZONE "X" ACCORDING TO FLOOD INSURANCE RATE MAP

8. UNLESS OTHERWISE NOTED, ALL DRAINAGE EASEMENTS DESIGNATED ON THIS

9. ANY EXISTING UNUSED WELLS SHALL BE ABANDONED IN ACCORDANCE WITH

10. EASEMENTS DENOTED AS JCSA UTILITY EASEMENTS ARE FOR THE EXCLUSIVE

USE OF THE JAMES CITY SERVICE AUTHORITY AND THE PROPERTY OWNER. OTHER UTILITY SERVICE PROVIDERS DESIRING TO USE THESE EASEMENTS WITH THE EXCEPTION OF PERPENDICULAR UTILITY CROSSINGS MUST OBTAIN

AUTHORIZATION FOR ACCESS AND USE FROM JCSA AND THE PROPERTY

DAMAGE TO IMPROVEMENTS WITHIN THIS EASEMENT, FROM ANY CAUSE.

OWNER, ADDITIONALLY, JCSA SHALL NOT BE HELD RESPONSIBLE FOR ANY

8. WETLANDS AND LAND WITHIN RESOURCE PROTECTION AREA SHALL REMAIN IN A NATURAL UNDISTURBED STATE EXCEPT FOR THOSE ACTIVITIES PERMITTED BY SEC.

STATE PRIVATE WELL REGULATIONS AND JAMES CITY COUNTY CODE.

9. MONUMENTS SHALL BE SET IN ACCORDANCE WITH SECTIONS 19-34

2. THIS FIRM MADE NO ATTEMPT TO LOCATE UNDERGROUND UTILITIES.

3. ALL LOTS ARE TO BE SERVED BY PUBLIC WATER AND SEWER.

5. ALL NEW UTILITIES SHALL BE PLACED UNDERGROUND.

7. A PORTION OF THIS PROPERTY FALLS WITHIN THE RPA.

#51095C0182D, DATED DECEMBER 16, 2015.

23-7 OF THE JAMES CITY COUNTY CODE.

THROUGH 19-36 OF THE COUNTY CODE.

PLAT SHALL REMAIN PRIVATE.

PROPERTY INFORMATION

PARCEL ID: #4740100014 ZONING DISTRICT: R-2 (GENERAL RESIDENTIAL)

PROPERTY OWNER: MAGNOLIA GREEN, LLC INST. #170020236 PROPERTY ADDRESS: #234 NECK-O-LAND ROAD WILLIAMSBURG, VIRGINIA 23185

FINAL	ADD	RES	SES/	1 1	1
FINAL RECEIV	ED 🖢	June	i Xul	larf	<u>e</u>
CODED	11	7/2	3/18	111	

STATE OF VIDCINIA IAMES CITY COUNTY

IN THE CLERKS					HE COUL	ודע מר
JAMES CITY THIS		DAY	OF			2018
THIS PLAT WAS	PRESENTED	AND .	ADMITTED T	O RECORD	AS THE	LAW
INSTRUMENT #						
TESTE						

180009120

S-0031-2017

5/31/18

SUBDIVISION PLAT

MAGNOLIA GREEN

BEING PARCEL ID #4740100014

ROBERTS DISTRICT JAMES CITY COUNTY **VIRGINIA** PROPERTY INFORMATION DATE: 03/01/2018 SCALE: 1"=30' JOB # 17-447 PARCEL ID: #4740100014 ZONING DISTRICT: R-2 (GENERAL RESIDENTIAL) PROPERTY OWNER: MAGNOLIA GREEN, LLC INST. #170020236 Engineering & Surveying Consultants PROPERTY ADDRESS: 3925 Midlands Road, Williamsburg, Virginia 23188 #234 NECK-O-LAND ROAD WILLIAMSBURG, VIRGINIA 23185 Phone: (757) 565-1677 Fax: (757) 565-0782 PETER FARRELL web: landtechresources.com Lic. No. 2036 03/01/2018 SHEET 2 OF 2 JCC-S-0031-2017 474 170000 X LOT 3-D GILLEY PROPERTIES, LLC INST. #100004993 LOT 1 E GILLEY PROPERTIES, LLC P.B. 39, PG. 45 ZONED: R2 ZONED: R2 25' DRAINAGE LIMITS OF WETLANDS EASEMENT TO BENEFIT (PER INST. #100004993) LOTS 2, 3, 4 & 5 ¬ (150.00')682 N 47°02'00" W 407.00' (TOTAL) TALL IPF 142.00' 84.00' 97.00' ROUTE 170000 H 474170000 474/700003 23,595 S.F. 0.5417 AC. LOT 1 109.00, DRAINAGE EASEMENT 10,573 S.F. 0.2427 AC. LOT 2 13,726 S.F. 0.3151 AC. LOT 3 17,968 S.F. 0.4125 AC. S 47°02'00" E N 47°02'00" W 117.00' -20' JCSA 42.58'00" **EASEMENT** N 47°02'00" W NECK-0-L ___10' PRIVATE 126.42 ELM ASSOCIATES LOT 5 19,608 S.F. 0.4501 AC. WATERLINE EASEMENT -& UTILITY EASEMENT S INST. #080006488 94.20' 53.63 67.17 ZONED: R8 S 47'02'00" E 265.00' 6.61 PROPOSED SHARED DRÎVEWAY 30' DRAINAGE EASEMENT-TO BENEFIT PARCELS NORTH OF THE PROPERTY N 47°02'00" W 290.00 25.25' INGRESS/EGRESS & UTILITY EASEMENT EX. 15'x20' VEPCO - EASEMENT PIN FOUND D.B. 510, PG. 40 S 47°02'00" E 407.00' (TOTAL) -15' DRAINAGE EASEMENT EX. 15' JCSA TO BENEFIT PARCELS WATERLINE EASEMENT NORTH OF THE PROPERTY D.B. 228, PG. 405 D.B. 228, PG. 421 D.B. 228, PG. 371 N/F MARTIN 30 60 90 3 POSSIBLE 30' VEPCO -INST. #130008775 R EASEMENT ZONED: R2 (NO REFERENCE FOUND) Scale: 1" = 30'

MINOR SUBDIVISION OF 234 NECK-O-LAND ROAD

S-0031-2017

PLANNING DIVISION

MAY 02 2018

RECEIVED

VIRGINIA

County of James City
Subdivision Construction Plan
DATE of APPROVAL 04/16/2018
Does not constitute final plat approval

STATISTICAL INFORMATION

PROPERTY ADDRESS
PARCEL ID
ZONING

4740100014 R2

TOTAL SITE AREA CURRENT USE PROPOSED USE 85,470 S.F. / 1.962 AC. SINGLE FAMILY RESIDENCE SUBDIVISION

234 NECK-O-LAND ROAD

PROPOSED USE WATER SEWER

PUBLIC PUBLIC

HYDROLOGIC UNITS
SUBWATERSHED
WATERSHED

JAMES RIVER-LOWER CHIPPOKES CREEK (JL33) LOWER JAMES-POWHATAN CREEK (JL-G)

JAMES CITY COUNTY

SUBBASIN LOWER JAMES

SITE SETBACKS
FRONT

REAR

25' 35'

DISTURBED AREA

86,009 S.F. / 1.974 AC.

SEQUENCE OF CONSTRUCTION

-) SCHEDULE PRE-CONSTRUCTION MEETING.
- 2) INSTALL SILT FENCE AS SHOWN ON PLAN SHEET C200.
- 3) REMOVE EXISTING RESIDENCE, GARAGE, BARNS, SHEDS, ASPHALT DRIVE AND OTHER IMPROVEMENTS. INSTALL MITIGATION PLANTINGS IN RPA AND INSTALL RPA SIGNS & TREE PROTECTION (SHEET C201).
- 4) REMOVE STORM PIPES AND NEW STRUCTURE. INSTALL CONSTRUCTION ENTRANCE AND CULVERT (SHEET C201).
- 5) INSTALL SEDIMENT TRAP AND ROCK CHECK DAMS (SHEET C201).
- 6) CLEAR TREES PER CLEARING LIMITS (SHEET C201).
- 7) GRADE SITE AND PROVIDE TEMPORARY SEEDING (SHEET C201).
- 8) INSTALL PG-2A DITCH LINING AND RIPRAP (SHEET C400).
- 9) GRADE BUILDING PADS FOR NEW HOMES. BEGIN NEW HOME CONSTRUCTION PROVIDE PERMANENT SEEDING (SHEET C500).
- 10) INSTALL SANITARY SEWER AND WATER UTILITIES (SHEET C500).
- 11) INSTALL NEW VDOT ENTRANCE AND SHARED GRAVEL DRIVE AS SHOWN ON SHEET C400.
- 12) ONCE SITE IS STABILIZED, REMOVE SEDIMEN TRAP, REGRADE DITCH AND INSTALL TIMBER WIER (SHEET C400).
- 13) UPON COMPLETION OF NEW HOME CONSTRUCTION REMOVE SITE FENCE AND OTHER E&S CONTROLS WITH APPROVAL

SITE FENCE AND OTHER E&S OF JAMES CITY COUNTY.

VICINITY MAP

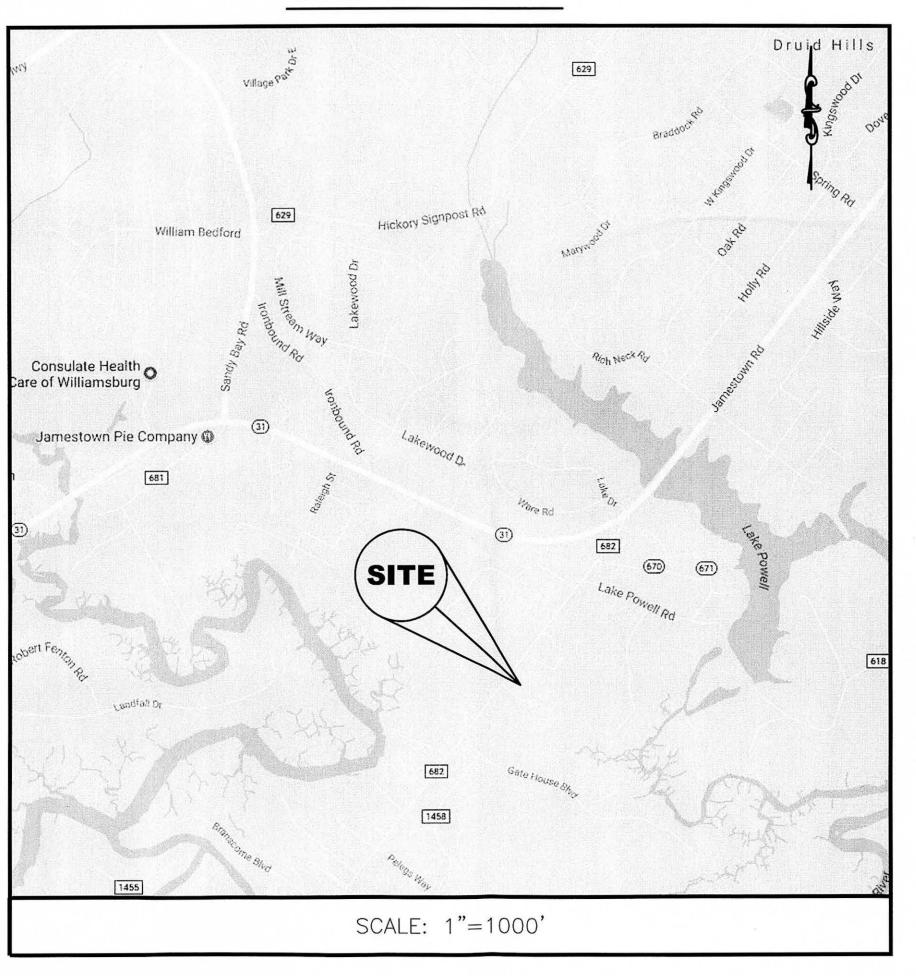


TABLE OF CONTENTS

SHEET NO.	SHEET TITLE
C001	COVER
C100	EXISTING CONDITIONS
C200	DEMO PLAN
C201	PHASE I E&S PLAN
C300	LAYOUT PLAN
C400	GRADING PLAN / PHASE II E&S PLAN
C500	UTILITY PLAN
C900	NOTES & DETAILS
C901	NOTES & DETAILS
C902	NOTES & DETAILS
DA100	EXISTING WATER QUANTITY MAP
DA101	PROPOSED WATER QUANTITY MAP
*	

OWNER

MAGNOLIA GREEN, LLC CONTACT: FRED NICE 3002 FORGE ROAD TOANO, VA 23168 PHONE: 757-871-9506

ER

EMAIL: fanice@aol.com

BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 811

(47-4)(01-1) S-0031-2017DWGC 234 Neck-O-Land Road

D ROAD

I NECK-O-LAND R 8-0031-2017

234 NEC

DATE

02-01-2018

02-29-2018

03-28-2018

REVISED PER COUNTY COMMENTS

03-28-2018

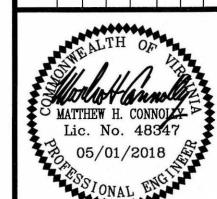
REVISED PER COUNTY COMMENTS

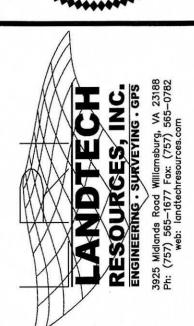
03-28-2018

REVISED PER COUNTY/VDOT COMMENTS

05-01-2018

REVISED PER JCC ERP EMAIL 4-26-2018





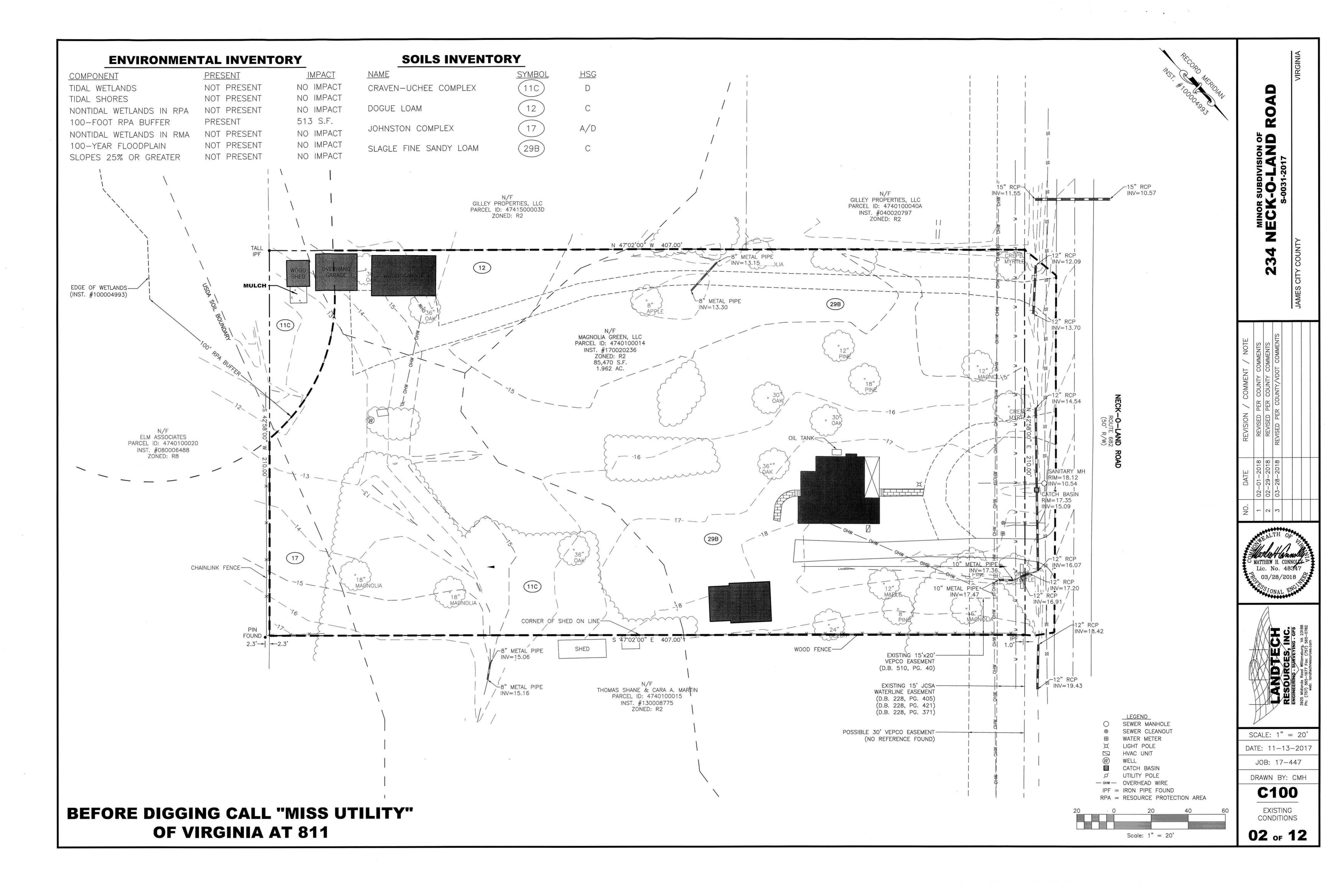
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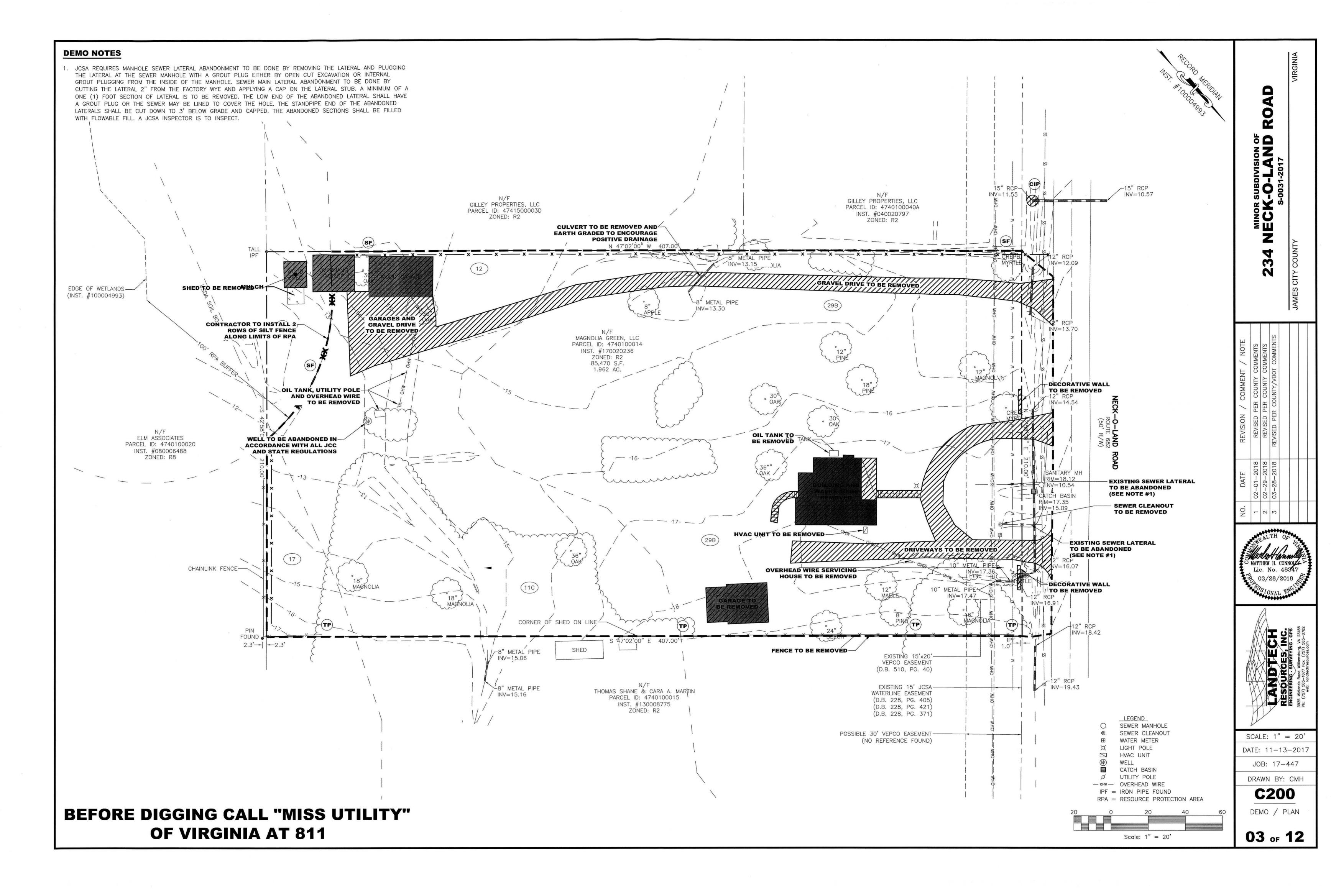
DATE: 11-13-2017 JOB: 17-447

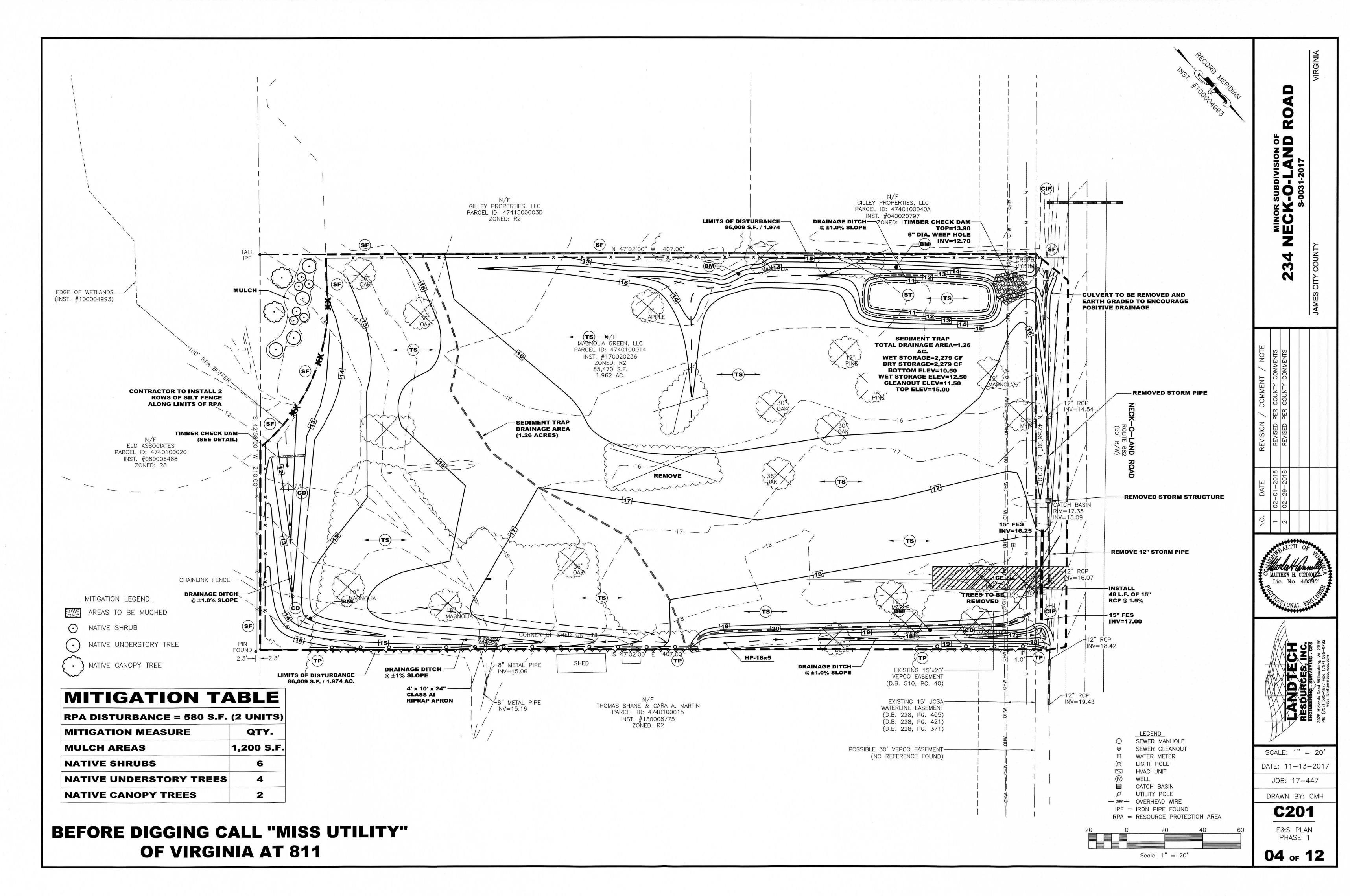
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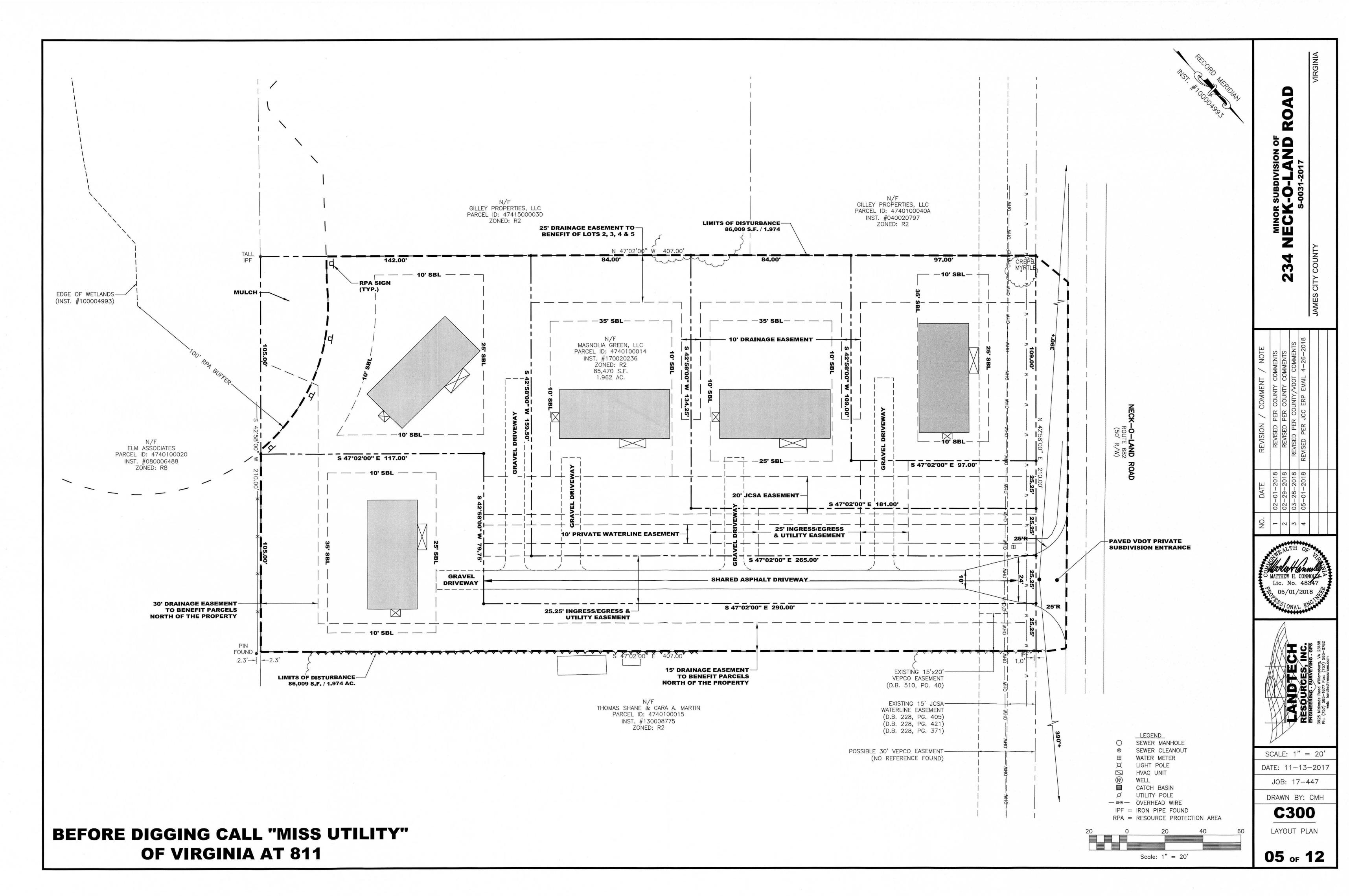
COVER SHEET

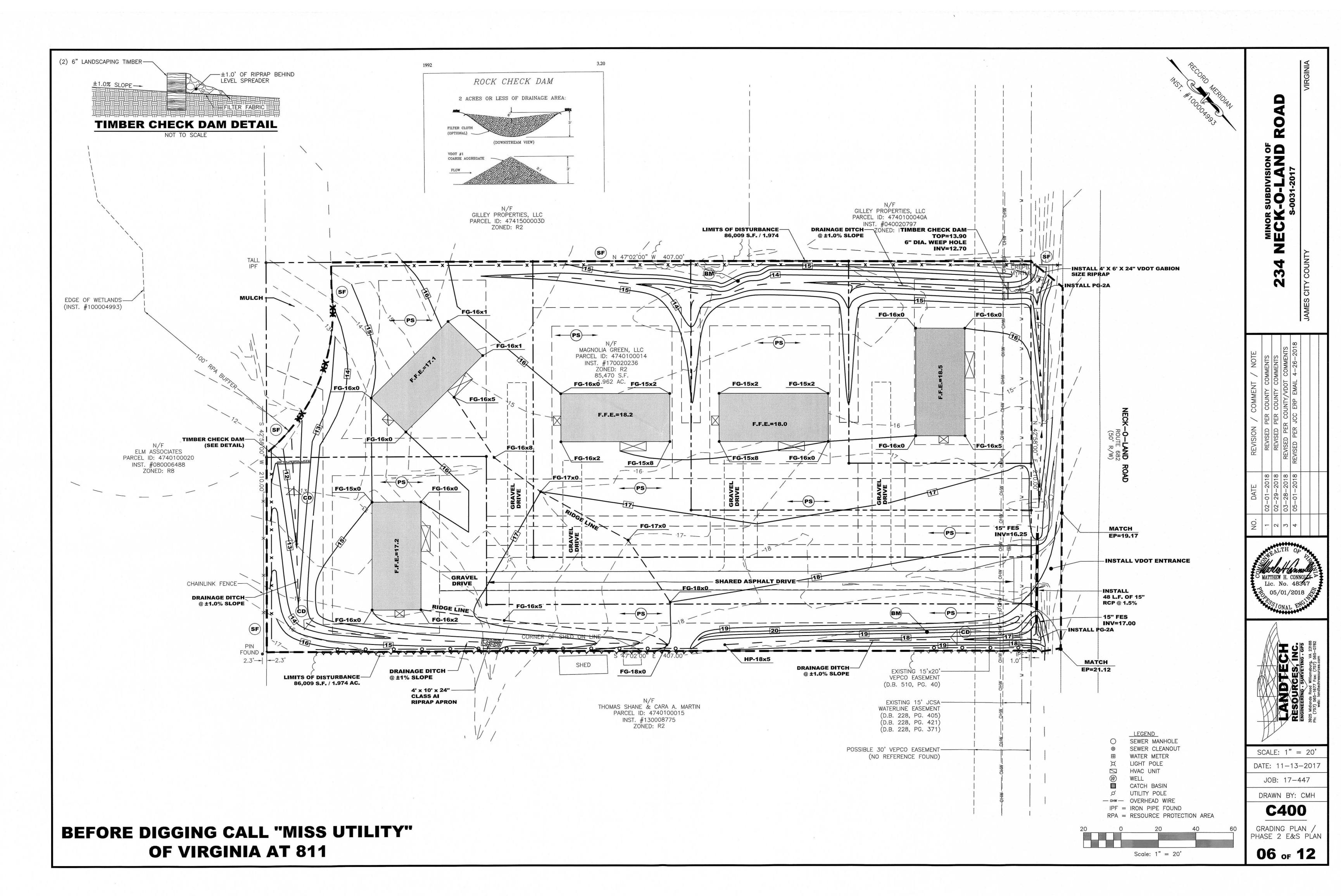
01 of 12











LOT 2

13,726 S.F.

0.3151 AC.

SHARED ASPHALT DRIVE

8" PVC PIPE @:

EXISTING 15'x20'

VEPCO EASEMENT

(D.B. 510, PG. 40)

EXISTING 15' JCSA-

WATERLINE EASEMENT

(D.B. 228, PG. 405)

(DR 228 PG 421)

0.4% SLOPE MIN.

25' INGRESS/EGRESS

& UTILITY EASEMENT

MAGNOLIA GREEN, LLC PARCEL ID: 4740100014

INS LOT 3 236

17,968 S.F.

0.4125 AC.

1.962 AC.

SAN. MANHOLE

25.25' INGRESS/EGRESS &-

UTILITY EASEMENT

THOMAS SHANE & CARA A. MARITIN

PARCEL ID: 4740100015

INST. #130008775

RIM=17.50

INV=11.85

UTILITY NOTES

THIS PLAN IS DESIGNED TO THE HRPDC REGIONAL CONSTRUCTION STANDARDS 6TH EDITION AND THE JCSA DESIGN AND ACCEPTANCE CRITERIA DATED APRIL 2017.

-PROPOSED 5" WATER METERS

TO BE INSTALLED AT EDGE

OF EXISTING 15' JCSA

RIM=18.12

EXISTING WATER

METER TO REMAIN AS

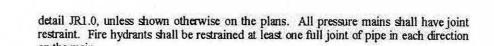
5TH SERVICE TIE-IN

SECTION 5: GENERAL NOTES

5.01. The following notes shall be provided on all Developer constructed water distribution and sanitary sewer system facility construction plans and specifications and compliance is required by the Contractor/Developer:

JCSA GENERAL NOTES FOR WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS: (April, 2017)

- All components of the water distribution and sanitary sewer system shall be installed and tested in accordance with the latest edition of the JCSA Design and Acceptance Criteria for Water Distribution and Sanitary Sewer Systems, the HRPDC Regional Construction Standards (Sixth Edition with amendments dated June 2016), and the Commonwealth of Virginia Department of Health Waterworks and Sanitary Sewerage Regulations. The Contractor shall use only new materials, parts, and products on all projects. All materials shall be stored so as to assure the preservation of their quality and fitness for the work. A copy of the JCSA Design and Acceptance Criteria and HRPDC Regional Construction Standards must be kept on-site by the contractor during time of installing, testing, and conveying facilities to JCSA.
- 2. The Contractor/Developer shall acquire a Certificate to Construct Water and Sanitary Sewer Facilities prior to commencement of construction of any water or sanitary
- 3. A preconstruction meeting shall be held between JCSA, the Developer, and the Contractor including relevant subcontractors, and the Project Engineer prior to issuance of a JCSA Certificate to Construct. It shall be the responsibility of the Contractor to schedule this meeting with JCSA and coordinate with the other attendees.
- 4. The Developer's representative shall submit shop drawings for all materials and receive JCSA approval prior to commencement of construction. All materials ordered and installed prior to JCSA's review and acceptance will be at the Contractor's/Developer's risk. A Shop Drawing Summary Sheet (form provided in Appendix G) shall be completed for all pipes, valves, and appurtenances with the shop drawing submittal.
- 5. Mains and service pipes shall be installed after grading to within 6-inches of final grade and prior to placement of base material.
- 6. All water mains shall be fully flushed, pressure tested, and disinfected and satisfactory bacteriological samples obtained, in accordance with JCSA Design and Acceptance Criteria. Flushing of water mains shall be scheduled with the JCSA Inspector minimum 3 business days prior to the flushing. Contractor shall provide the required duration and volume to the Inspector. Flushing will be scheduled only on Mondays, unless authorized otherwise by JCSA, and will be on a first come-first serve basis.



JESA

- Proposed water and sanitary sewer systems shall maintain a minimum horizontal separation of 5-feet from other utilities and structures, including but not limited to storm sewers, street lights, etc. Water and sanitary sewer facilities shall have a minimum 10-foot horizontal edge-to-edge separation.
- Any proposed backflow prevention device and/or grease trap must be inspected by the JCSA Utility Special Projects Coordinator at (757) 259-4138.
- 20. The Contractor/Developer shall acquire a Certificate to Construct Water and Sanitary Sewer Facilities prior to commencement of construction of any water or sanitary sewer facilities. Plumbing inside of proposed buildings must be inspected by JCSA's Utility Special Projects Coordinator at (757) 259-4138, for potential cross connections. Any cross connections must be protected by the appropriate backflow prevention
- Easements denoted as "JCSA Utility Easements" are for the exclusive use of the James City Service Authority and the property owner. Other utility service providers desiring to use these easements with the exception of perpendicular utility crossings must obtain authorization for access and use from JCSA and the property owner. Additionally, JCSA shall not be held responsible for any damage to improvements within this easement, from any cause.
- JCSA shall not be held responsible for any pavement settlement due to pipe bedding, backfilling, backfill materials, or compaction for Water or Sanitary Sewer facilities for this
- 23. Privately owned utilities, (e.g., water and sewer mains and private fire service mains), shown on this plan are regulated by the Virginia Uniform Statewide Building Code, and enforced by the James City County Building Safety and Permits Division. These privately owned utilities must comply fully with the International Plumbing Code, the National Fire Protection Association Standard 24, and the Virginia Statewide Fire Prevention Code. Contractors working from this site plan are cautioned not to install or conceal privately owned site utilities without first obtaining the required permits and
- 24. Sanitary sewer laterals shall not connect to the main within 5-feet of a manhole. Laterals upstream and within 5-feet of the manhole shall connect directly into the manhole where necessary.
- 25. All private Underground Fuel Storage tanks shall have leak monitors and secondary containment in accordance with Virginia State Department of Environmental Quality

JESA

- Routine periodic inspections during construction will be provided by JCSA. These inspections do not relieve the Developer/Contractor/Owner from his obligation and responsibility for constructing a water distribution and sanitary sewer system in strict accordance with the JCSA Design and Acceptance Criteria.
- 8. Any field modifications or changes to the approved plans shall be verified and checked by the Engineer of Record and approved by JCSA prior to any field modifications or changes. All approved changes and field modifications shall be
- accurately indicated on the record drawings. All lots shall be provided with water service and sanitary sewer connections. The connections shall be extended from the main to the property line or easement line, and

shall terminate with a yoke in a meter box, or at the clean out, set at final finished

grade. Meters for all lots (units) shall be paid for by the Developer or builder and

- 10. Any required easements, permits, and approvals shall be acquired by the Developer prior to commencement of water main and/or sanitary sewer construction.
- 11. The Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction. The Contractor shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. The Contractor shall also notify "Miss Utility" at 1-800-552-7001 or 811 prior to performing any underground excavation.
- 12. Water meter box installation shall maintain a minimum 18-inch horizontal edge-toedge clearance from driveways and/or drive paths, sidewalks, bike paths, curbing and adjacent water meter boxes.
- 13. Only JCSA personnel are authorized to operate valves on existing JCSA water mains and sanitary force mains. Once a system has been hydraulically energized, JCSA will be responsible for operating the valves. The Contractor shall contact JCSA Operations at 757-229-7421 if there is an emergency or need to open/close a valve.
- 14. Any existing unused well(s) shall be abandoned in accordance with State Private Well Regulations and James City County Code.
- 15. Bedding of JCSA utilities shall be in accordance with HRPDC Detail EW_01, Type III for rigid pipe and Type IV for PVC pipe.
- 16. No trees, shrubs, structures, fences, irrigation mains, invisible pet fences or other obstacles shall be placed within an easement which would render the easement inaccessible by equipment. Shrubs shall be a minimum of 5 feet, and trees a minimum of 10 feet, from the center of water and sanitary sewer mains.
- 17. Joint restraint shall be provided in accordance with minimum requirements of JCSA

installed by JCSA.



5.02. The following notes are a supplement to the JCSA General Notes for Water Distribution Systems and shall be provided on all Developer constructed water production facility construction plans and specifications and compliance is required by the Contractor/Developer:

JCSA GENERAL NOTES FOR WATER PRODUCTION FACILITIES: (April,

- All well facilities shall be designed by a Commonwealth of Virginia Licensed Professional Engineer (Consultant), and the design, inspections, construction and installation shall be in accordance with the following:
 - Commonwealth of Virginia Department of Health (VDH) Waterworks

James City Service Authority (JCSA) Design and Acceptance Criteria and

- Approvals of JCSA and VDH shall be obtained prior to commencement of
- Construction plans shall be submitted through the James City County Planning Department for review and approval. The Developer/Contractor/Consultant shall supply minimum three (3) sets of construction plans and specifications detailing all phases of the well and water production construction including testing, materials, shop drawing submittals, painting and installation. These shall be submitted to, and
- The Developer/Contractor/Consultant shall be responsible for assuring that all construction work is performed in accordance with the approved plans and specifications. Any deviation from the approved plans and specifications shall be approved by JCSA and VDH prior to performing such work.
- The well casing shall be stainless steel 316L. PVC well casing may be used with the prior approval of the JCSA and VDH as to material specifications and construction
- The screen shall be stainless steel 316L continuous slot wire wound screen, reinforced with longitudinal bars, the bars having a cross section that will form an opening between each adjacent coil of wire.
- A well plumbness and alignment, 48-hour pump test and recovery test shall be performed and the results documented and submitted to JCSA.
- Water samples shall be collected and analyzed for all parameters, required by the VDH, including VOC's. All entry source VOC sampling shall have results of no detect



Scale: 1" = 20'

LEGEND SEWER MANHOLE SEWER CLEANOUT WATER METER LIGHT POLE HVAC UNIT WELL CATCH BASIN UTILITY POLE - OHW - OVERHEAD WIRE IPF = IRON PIPE FOUND RPA = RESOURCE PROTECTION AREA

BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 811

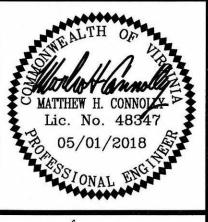
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UTILITY PLAN

07 of 12

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LOT 4

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GRAVEL

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REVISED JULY 1, 2014

- 1.ALL THE PROVISIONS OF VIRGINIA EROSION AND SEDIMENT CONTROL (E&SC) LAW AND REGULATIONS, THE VIRGINIA STORMWATER MANAGEMENT ACT AND REGULATIONS (VSMP), THE VIRGINIA BMP CLEARINGHOUSE WEBSITE, STATE EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT HANDBOOKS, AND ANY ASSOCIATED TECHNICAL BULLETINS AND GUIDANCE DOCUMENTS AS PUBLISHED BY THE STATE WATER CONTROL BOARD, THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ), AND THE LOCAL VESCP AND VSMP AUTHORITY SHALL APPLY TO THE PROJECT.
- 2.MINIMUM STANDARDS NO. 1 THROUGH NO. 19 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS 9VAC25-840 ET SEQ. SHALL APPLY TO THE PROJECT.
- 3.THE OWNER, APPLICANT, OPERATOR, OR PERMITTEE SHALL BE RESPONSIBLE TO REGISTER FOR CONSTRUCTION GENERAL PERMIT (CGP) COVERAGE, AS APPLICABLE, IN ACCORDANCE WITH THE GENERAL VPDES PERMIT FOR DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES (VAR10) CHAPTER 880: THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATIONS CHAPTER 870; AND IN ACCORDANCE WITH CURRENT REQUIREMENTS OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP), THE STATE WATER CONTROL BOARD, THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 8 OF THE COUNTY CODE AND THE LOCAL
- 4.THE OWNER, APPLICANT, OPERATOR OR PERMITTEE SHALL PROVIDE THE NAME OF AN INDIVIDUAL HOLDING A VALID RESPONSIBLE LAND DISTURBER (RLD) CERTIFICATE OF COMPETENCE WHO WILL BE RESPONSIBLE FOR THE LAND DISTURBING ACTIVITY PRIOR TO ENGAGING IN THE LAND DISTURBING ACTIVITY. THIS WILL BE NECESSARY PRIOR TO ISSUANCE OF A LOCAL LAND DISTURBING AND/OR STORMWATER CONSTRUCTION PERMIT FOR THE PROJECT. THE RLD IS REQUIRED TO ATTEND THE PRECONSTRUCTION CONFERENCE FOR
- 5.THE CONTRACTOR IS RESPONSIBLE TO CONTACT MISS UTILITY (DIAL 811 IN VA OR 1-800-552-7001) PRIOR TO ANY UTILITY OR SITE
- 6.ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLANNED, DESIGNED, IMPLEMENTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE CONTRACTOR SHALL MAINTAIN, INSPECT. AND REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED THROUGHOUT THE LIFE OF THE PROJECT TO ENSURE CONTINUED ACCEPTABLE PERFORMANCE.
- 7.A PRECONSTRUCTION CONFERENCE (MEETING) SHALL BE HELD ON SITE AND INCLUDE REPRESENTATIVES FROM THE LOCAL VESCP/VSMP AUTHORITY, THE OWNER/APPLICANT/OPERATOR/PERMITTEE, THE RESPONSIBLE LAND-DISTURBER (RLD), AND THE CONTRACTOR, ENGINEER, AND OTHER RESPONSIBLE AGENCIES, AS APPLICABLE, PRIOR TO AUTHORIZATION AND ISSUANCE OF A LOCAL LAND DISTURBING OR STORMWATER CONSTRUCTION PERMIT. THE OWNER, APPLICANT, OPERATOR OR PERMITTEE IS REQUIRED TO COORDINATE SCHEDULING OF THE PRECONSTRUCTION CONFERENCE BETWEEN ALL APPLICABLE PARTIES. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION AND A REVISED POLLUTION PREVENTION PLAN (P2 PLAN OR PPP), IF APPLICABLE, TO THE LOCAL VESCP/VSMP AUTHORITY FOR REVIEW AND APPROVAL PRIOR TO THE PRECONSTRUCTION MEETING.
- 8.A POLLUTION PREVENTION PLAN (P2 PLAN OR PPP), IF REQUIRED, SHALL BE DEVELOPED, IMPLEMENTED AND UPDATED AS NECESSARY AND MUST DETAIL THE DESIGN, INSTALLATION, IMPLEMENTATION, AND MAINTENANCE OF EFFECTIVE POLLUTION PREVENTION MEASURES TO: MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS; MINIMIZE THE EXPOSURE OF ALL MATERIALS ON THE SITE (SUCH AS BUILDING MATERIALS AND PRODUCTS, CONSTRUCTION WASTE, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, ETC.) TO PRECIPITATION AND STORMWATER; MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS; IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES; AND INCLUDE EFFECTIVE BEST MANAGEMENT PRACTICES TO PROHIBIT THE DISCHARGE OF WASTEWATER FROM: CONCRETE WASHOUT AREAS, DISCHARGE OF WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS; DISCHARGE OF FUELS, OILS, OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE ACTIVITIES; AND THE DISCHARGE OF SOAPS AND SOLVENTS USED FOR VEHICLE AND EQUIPMENT WASHING. THIS PLAN SHALL BE AVAILABLE ONSITE FOR REVIEW AT REASONABLE TIMES BY THE LOCAL VESCP/VSMP AUTHORITY WHEN REQUESTED.
- 9.THE OWNER, APPLICANT, OPERATOR, OR PERMITTEE IS RESPONSIBLE FOR ALL OPERATOR SELF-INSPECTIONS AS REQUIRED IN THE POLLUTION PREVENTION PLAN (P2 PLAN OR PPP) OR AS REQUIRED AS PART OF A DEVELOPED STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THESE INSPECTIONS SHALL BE MADE AVAILABLE, UPON REQUEST, BY THE LOCAL VESCP/VSMP AUTHORITY.
- 10.ALL PERIMETER EROSION AND SEDIMENT CONTROL (E&SC) MEASURES SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE ACTIVITY TAKES PLACE.
- 11.ADDITIONAL SAFETY FENCE OR DUST CONTROL MEASURES, IN ACCORDANCE WITH THE PROVISIONS OF MINIMUM STANDARDS & SPECS. 3.01 AND 3.39 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), MAY BE REQUIRED TO BE IMPLEMENTED ON THE SITE IN ADDITION TO THAT SHOWN ON THE APPROVED PLAN AND SPECIFICATIONS IN ORDER TO ENSURE ADEQUATE PROTECTION OF THE HEALTH, SAFETY AND WELFARE OF THE PUBLIC OR IF SITE CONDITIONS CHANGE, BECOME APPARENT OR ALTER SIGNIFICANTLY FOLLOWING THE DATE OF PLAN APPROVAL.
- 12.EROSION AND SEDIMENT CONTROL MEASURES MAY REQUIRE MINOR FIELD ADJUSTMENTS AT OR FOLLOWING TIME OF CONSTRUCTION TO ENSURE THEIR INTENDED PURPOSE IS ACCOMPLISHED, TO ENSURE ADEQUATE PROTECTION OF THE HEALTH, SAFETY, AND WELFARE OF THE PUBLIC, OR IF SITE CONDITIONS CHANGE, BECOME APPARENT OR ALTER SIGNIFICANTLY FOLLOWING THE DATE OF PLAN APPROVAL LOCAL VESCP/VSMP AUTHORITY APPROVAL SHALL BE REQUIRED FOR ANY DEVIATION OF EROSION AND SEDIMENT CONTROL MEASURES FROM THE APPROVED PLAN.
- 13.0FF-SITE WASTE OR BORROW AREAS SHALL BE APPROVED BY THE LOCAL VESCP/VSMP AUTHORITY PRIOR TO THE IMPORT OF ANY BORROW OR EXPORT OF ANY WASTE TO OR FROM THE PROJECT SITE.
- 14.TEMPORARY SOIL STOCKPILES SHALL COMPLY WITH THE PROVISIONS OF SECTION 24-46 OF THE COUNTY CODE.
- 15.CULVERT AND STORM DRAIN INLET PROTECTIONS, IN ACCORDANCE WITH THE PROVISIONS OF MINIMUM STANDARDS & SPECS. 3.07 AND 3.08 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), MAY BE REMOVED AT THE DISCRETION OF THE ASSIGNED LOCAL VESCP/VSMP AUTHORITY COMPLIANCE INSPECTOR, SHOULD PLACEMENT OF THE MEASURE RESULT IN EXCESSIVE ROAD FLOODING, TRAFFIC OR SAFETY HAZARD, OR RESULT IN THE REDIRECTION OF DRAINAGE ONTO OR TOWARD EXISTING LOTS, HOMES, DRIVEWAYS, GARAGES OR OTHER STRUCTURES. DECISIONS SHALL BE MADE BY THE VESCP/VSMP AUTHORITY ON A CASE-BY-CASE BASIS BASED ON FIELD SITUATIONS ENCOUNTERED.
- 16.DRAINAGE FACILITIES SHALL BE INSTALLED AND FUNCTIONAL WITHIN 30 DAYS FOLLOWING COMPLETION OF ROUGH GRADING AT ANY POINT WITHIN THE PROJECT.
- 17.NO MORE THAN 300 FEET OF TRENCH MAY BE OPEN AT ONE TIME FOR UNDERGROUND UTILITY LINES, INCLUDING STORM WATER CONVEYANCES. ALL OTHER PROVISIONS OF MINIMUM STANDARD NO. 16 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL
- 18.PERMANENT OR TEMPORARY STABILIZATION OF DISTURBED SOIL AREAS SHALL COMPLY WITH MINIMUM STANDARD # 1 AND # 3 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS.
- 19.THE TERM SEEDING, FINAL VEGETATIVE COVER OR STABILIZATION ON THE APPROVED PLAN SHALL MEAN THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF A STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED, IN ACCORDANCE WITH MINIMUM STANDARD \$ 1 AND # 3 FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, MINIMUM STANDARDS & SPECS. 3.29 THROUGH 3.37 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), AND ANY TECHNICAL BULLETINS ISSUED BY THE STATE WATER CONTROL BOARD OR VIRGINIA DEQ, AS APPLICABLE. IRRIGATION, IF NÉCESSARY, SHALL COMPLY WITH ALL APPLICABLE SEASONAL OUTDOOR WATER USE RESTRICTIONS OF THE JAMES CITY SERVICE AUTHORITY.
- 20.IF DISTURBED AREA STABILIZATION IS TO BE ACCOMPLISHED DURING THE MONTHS OF DECEMBER, JANUARY OR FEBRUARY, STABILIZATION SHALL CONSIST OF MULCHING IN ACCORDANCE WITH MINIMUM STANDARD & SPEC. 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). SEEDING WILL THEN TAKE PLACE AS SOON AS THE SEASON PERMITS.
- 21.TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. REMOVAL SHALL NOT OCCUR WITHOUT AUTHORIZATION BY THE LOCAL VESCP/VSMP AUTHORITY. DISTURBANCES ASSOCIATED WITH THE REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY STABILIZED.
- 22.NO SEDIMENT TRAP OR SEDIMENT BASIN SHALL BE REMOVED UNTIL A) AT LEAST 75 PERCENT OF THE SINGLE-FAMILY LOTS WITHIN THE DRAINAGE AREA TO THE TRAP OR BASIN HAVE BEEN SOLD TO A THIRD PARTY FOR THE CONSTRUCTION OF HOMES (UNRELATED TO THE DEVELOPER); AND/OR, B) 60 PERCENT OF THE SINGLE-FAMILY LOTS WITHIN THE DRAINAGE AREA TO THE TRAP OR BASIN ARE COMPLETED AND STABILIZED. A BULK SALE OF THE LOTS TO ANOTHER BUILDER DOES NOT SATISFY THIS PROVISION. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL NOT BE REMOVED WITHOUT AUTHORIZATION OF THE LOCAL VESCP/VSMP AUTHORITY.
- 23.DESIGN AND CONSTRUCTION OF PRIVATE-TYPE STORM DRAINAGE SYSTEMS, OUTSIDE VDOT RIGHT-OF-WAY, SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT VERSION OF THE JAMES CITY COUNTY, ENGINEERING AND RESOURCE PROTECTION DIVISION, STORMWATER DRAINAGE CONVEYANCE SYSTEMS (NON-BMP RELATED), GENERAL DESIGN AND CONSTRUCTION GUIDELINES (IE. COUNTY DRAINAGE STANDARDS)
- 24.RECORD DRAWINGS (ASBUILTS) AND CONSTRUCTION CERTIFICATIONS ARE REQUIRED FOR ALL STORMWATER FACILITIES INCLUDING STORMWATER MANAGEMENT/BMP FACILITIES AND STORM DRAINAGE CONVEYANCE SYSTEMS. THE CERTIFICATION PROCESS SHALL INCLUDE AN INTERNAL CLOSED-CIRCUIT TELEVISION CAMERA (CCTV) POST INSTALLATION INSPECTION PERFORMED BY THE OWNER IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS DEVELOPED BY THE VSMP AUTHORITY. RECORD DRAWINGS AND CONSTRUCTION CERTIFICATIONS MUST MEET ESTABLISHED PROGRAM REQUIREMENTS OF THE COUNTY'S CHAPTER 8 EROSION AND SEDIMENT CONTROL AND VSMP ORDINANCE AND THE LOCAL VESCP/VSMP AUTHORITY.
- 25.ALL STORMWATER FACILITIES INCLUDING BMPS, STORM DRAINAGE PIPES, STORMWATER CONVEYANCES, INLETS, MANHOLES, OUTFALLS AND ROADSIDE AND OTHER OPEN CHANNELS SHALL BE INSPECTED BY THE LOCAL VESCP/VSMP AUTHORITY, THE OWNER, ANT THE APPLICANT/OPERATOR/PERMITTEE DESIGNATED GEOTECHNICAL ENGINEER FOR THE PROJECT IN ACCORDANCE WITH ESTABLISHED COUNTY STORMWATER FACILITY INSPECTION PROGRAM REQUIREMENTS.

EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS

FROM THE CODE OF VIRGINIA 9VAC25-840-40 MINIMUM STANDARDS (MS19)

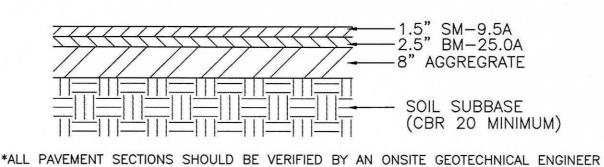
- 1.PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 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 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 SIT
- 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. 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 MADEFUNCTIONAL
- 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. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN. 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.

 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 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.
- 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.
- 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. 14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE
- WATERCOURSES SHALL BE MET. 15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS
- 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.
- 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 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 THIS CHAPTER.
- F. APPLICABLE SAFETY REQUIREMENTS 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
- 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 VESCP AUTHORITY, TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION O TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- 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. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGNCONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND
- VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS: A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE
- PIPE OR PIPE SYSTEM SHALL BE PERFORMED. B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
- (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN
- (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS. (B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
- (C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM. C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL: (1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A
- TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS; OR (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES: (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR
- STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL: OR (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS
- SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION. D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS. E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE
- DEVELOPMENT CONDITION OF THE SUBJECT PROJECT. F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
- G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
- I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET. ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY. J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL

FNGINFFRING CALCULATIONS.

- K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FI OW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LÉVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY
- REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT. M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS.
- N.COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION.



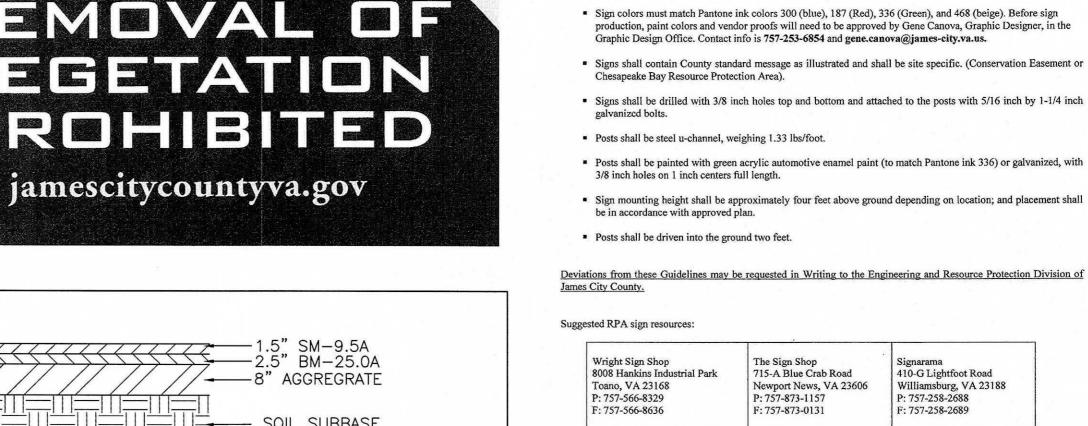


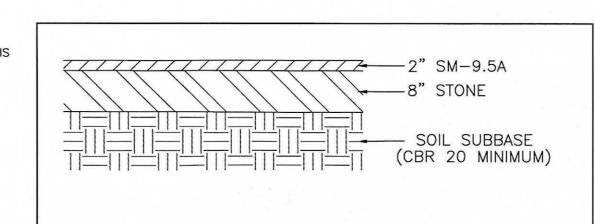
DRIVE AISLE SECTION N.T.S.

PRIOR TO THE COMMENCEMENT OF WORK.

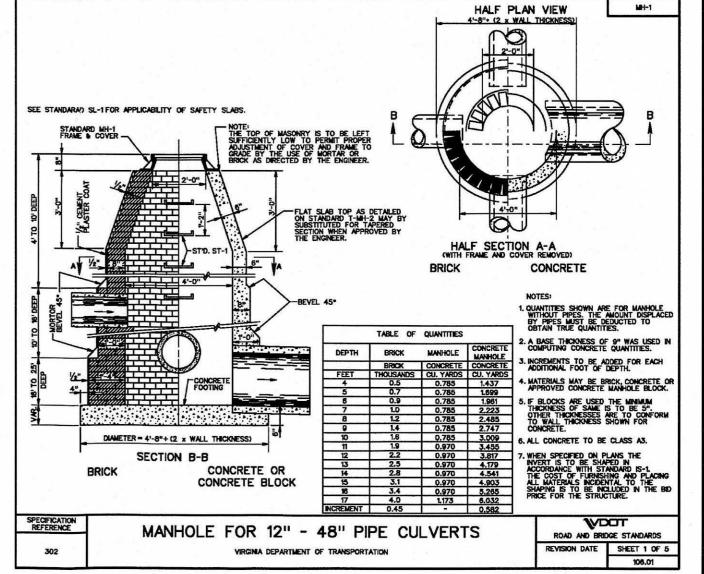
CONTRACTOR MAY REVISE PAVEMENT SECTION TO MATCH EXISTING ROADWAY SECTION WITH THE APPROVAL OF VDOT. NOT TO SCALE

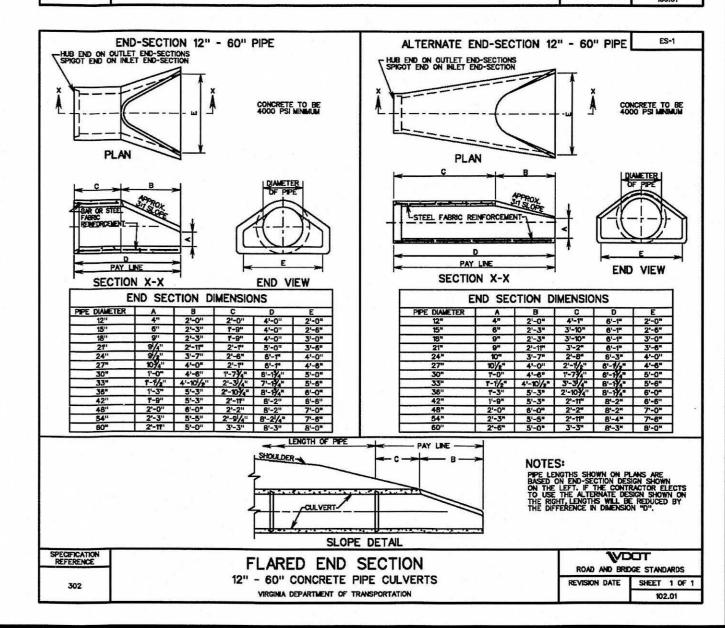
SHARED PRIVATE ROAD PAVEMENT SECTION





PRIVATE GRAVEL DRIVE SECTION







- Signs shall be 12 inches high by 18 inches wide or 6 inches high by 8 inches wide, depending on location, site,
- Sign blanks shall be 0.08 inch thick aluminum with rounded corners (r-3/4 inch).
- Graphic Design Office. Contact info is 757-253-6854 and gene.canova@james-city.va.us.

- Posts shall be painted with green acrylic automotive enamel paint (to match Pantone ink 336) or galvanized, with

Deviations from these Guidelines may be requested in Writing to the Engineering and Resource Protection Division of

Wright Sign Shop	The Sign Shop	Signarama
8008 Hankins Industrial Park	715-A Blue Crab Road	410-G Lightfoot Road
Toano, VA 23168	Newport News, VA 23606	Williamsburg, VA 23188
P: 757-566-8329	P: 757-873-1157	P: 757-258-2688
F: 757-566-8636	F: 757-873-0131	F: 757-258-2689

101-E Mounts Bay Road, P.O. Box 8784 Williamsburg, VA 23187-8784 Engineering and Resource Protection Division Resource.Protection@iamescitycountyva.go

> 02 02 03 05 MATTHEW H. CONNOL Lic. No. 48347 05/01/2018

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O-L 031-20

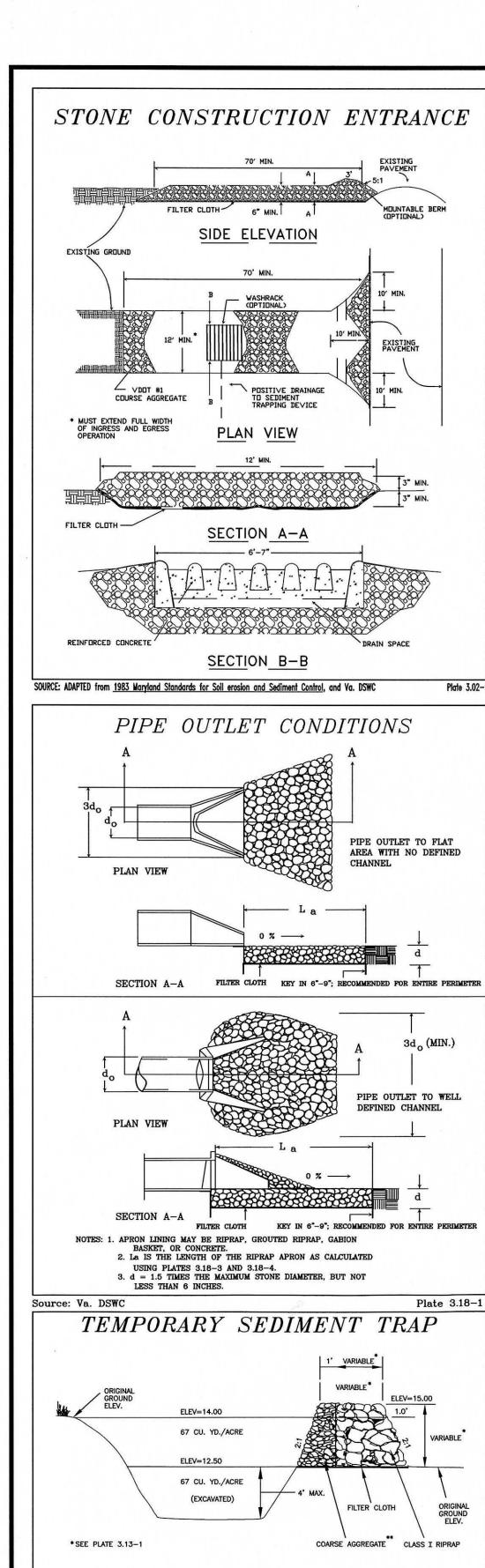


SCALE: AS NOTED DATE: 11-13-2017 JOB: 17-447 DRAWN BY: CMH

NOTES &

08 of 12

DETAILS



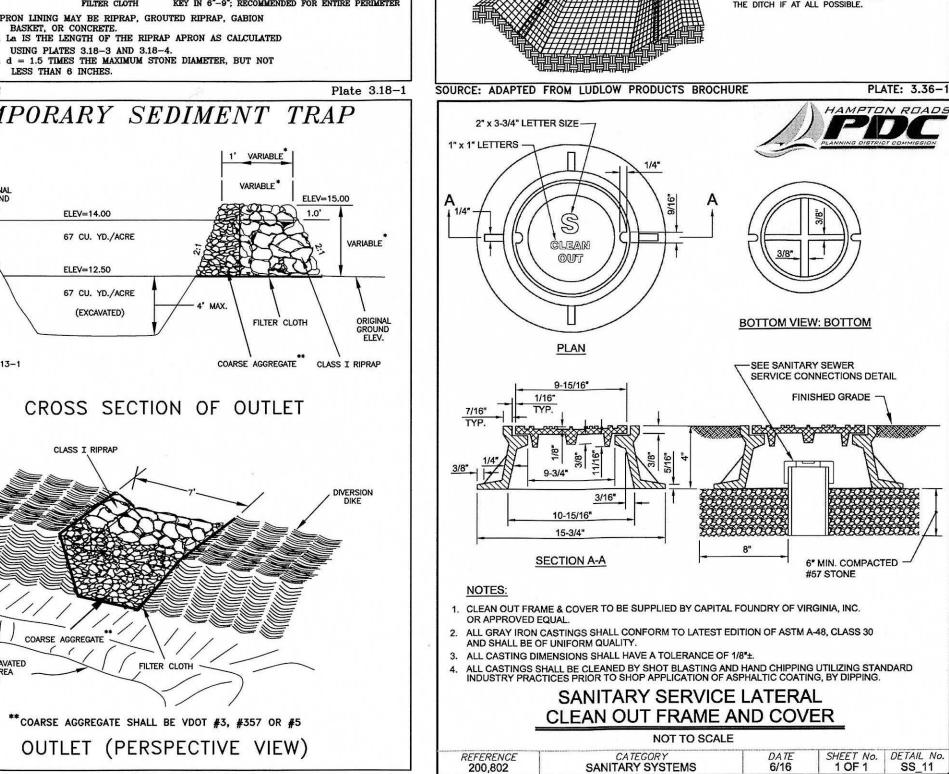


PLATE. 3.13-2

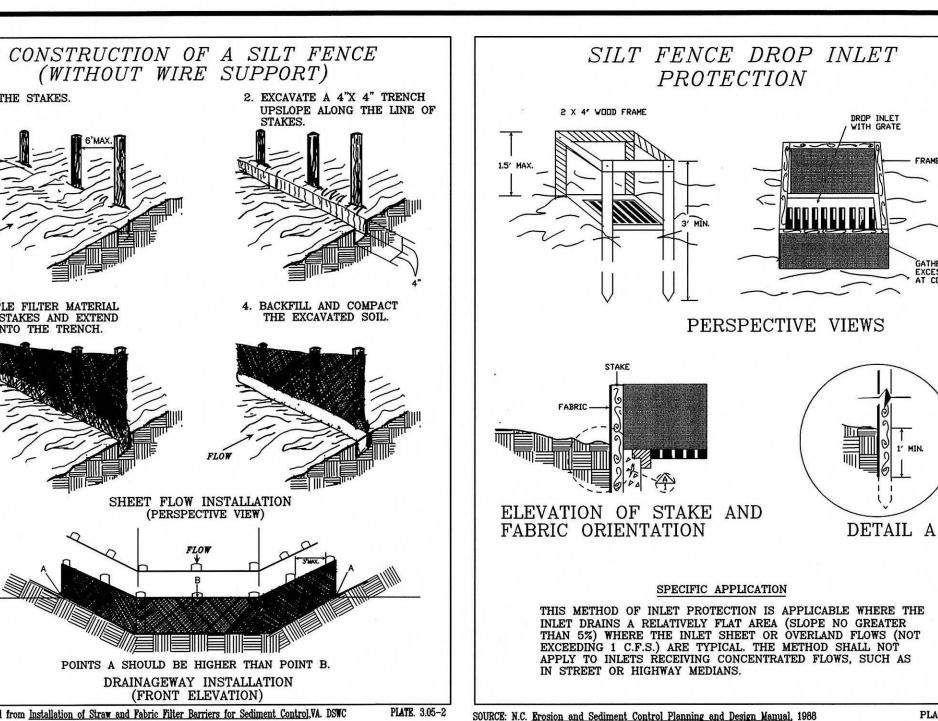
1. SET THE STAKES.

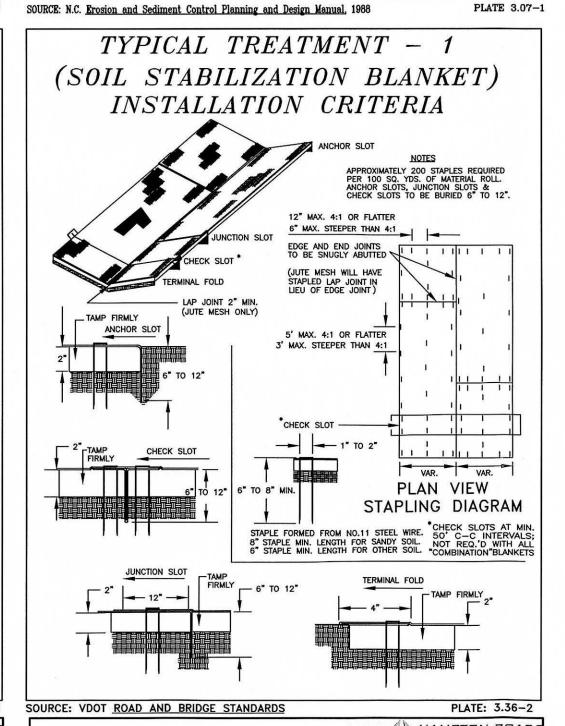
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.

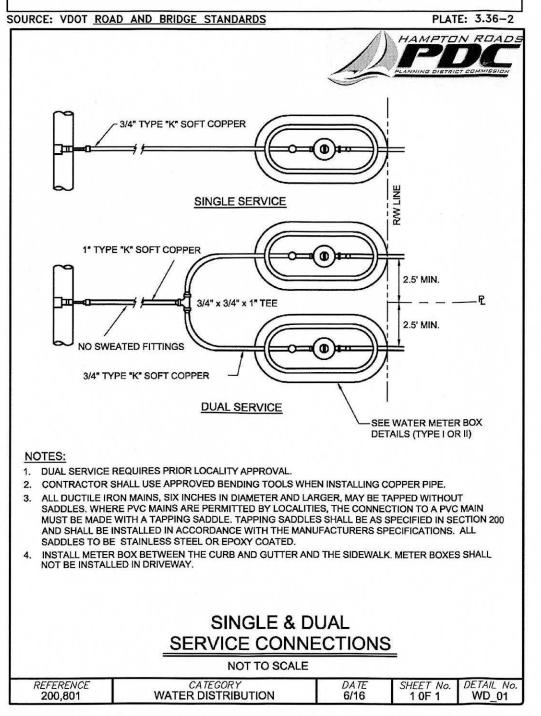
TYPICAL ORIENTATION OF

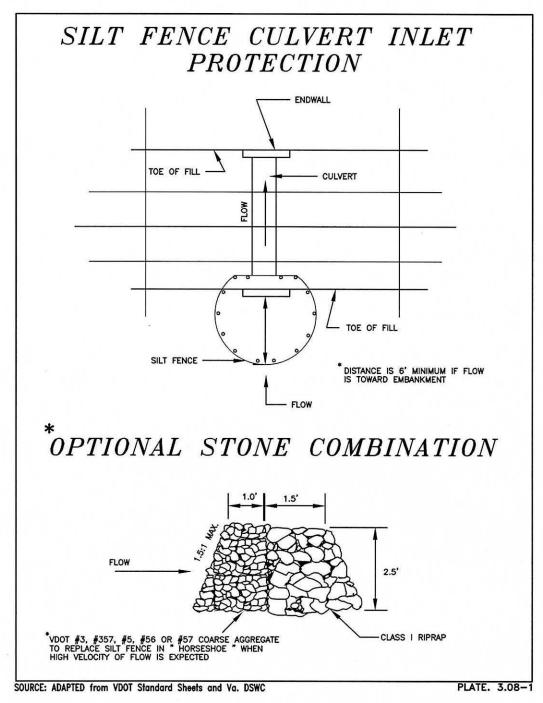
(SOIL STABILIZATION BLANKET)

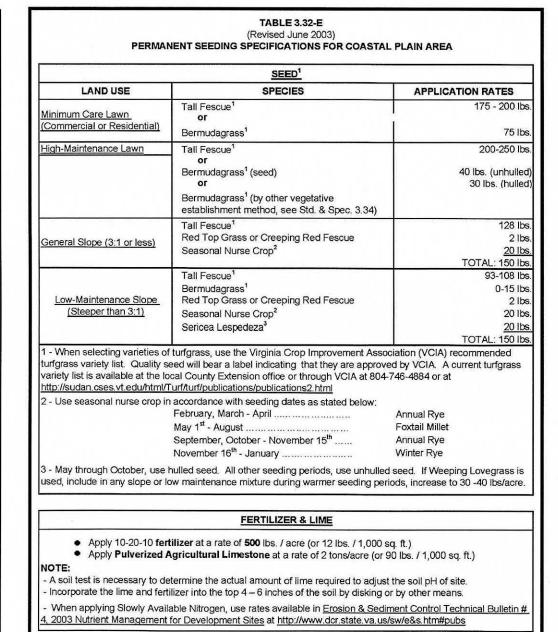
TREATMENT - 1

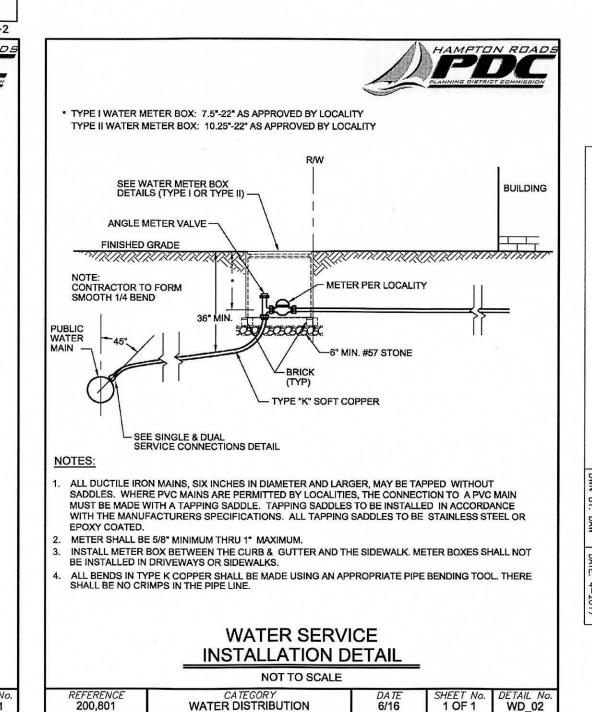


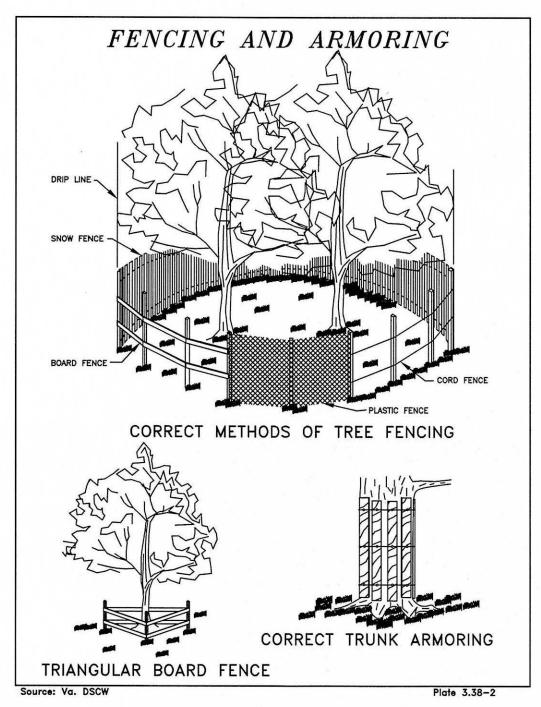


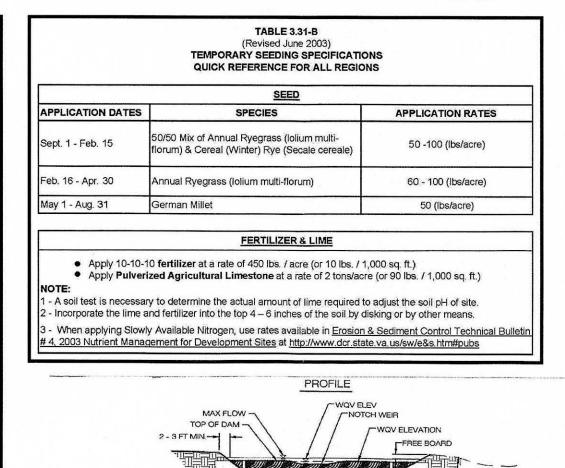












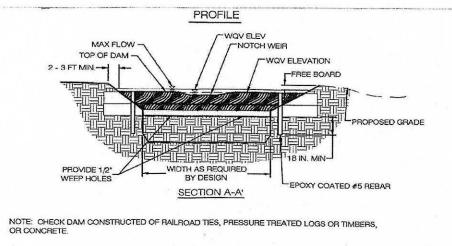
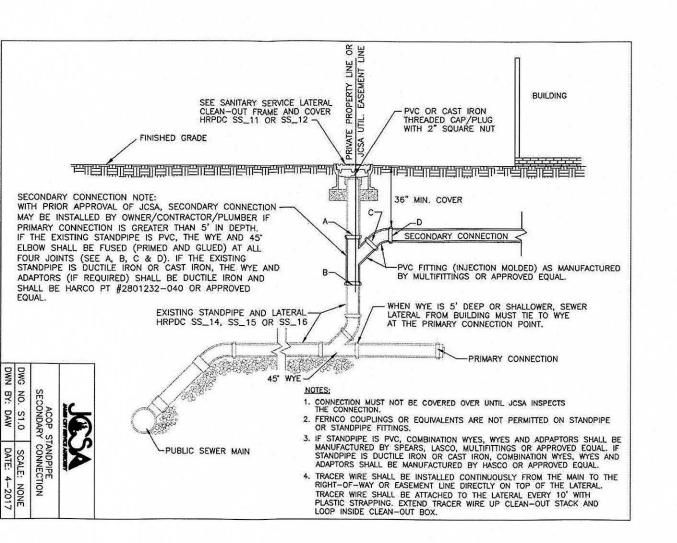


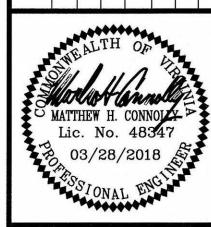
Figure 3.2 Grass Channel with Check Dams - Typical Plan, Profile, and Section

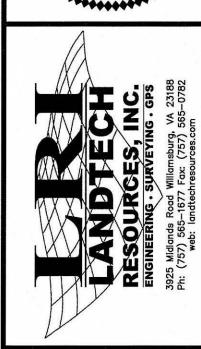




SNO

REVISION / COMMENT / NOTE	REVISED PER COUNTY COMMENTS	REVISED PER COUNTY COMMENTS	REVISED PER COUNTY/VDOT COMMENTS		
DATE	02-01-2018	02-29-2018	03-28-2018		
NO.	-	2	3		





SCALE: AS NOTED DATE: 11-13-2017

JOB: 17-447 DRAWN BY: CMH

> NOTES & **DETAILS**

09 of 12

(47-4)(01-1) S-0031-2017DWGC 234 Neck-O-Land Road

SOURCE: VA. DSWC

VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARD NOTES HAMPTON ROADS DISTRICT

January 2017

1.0 GENERAL INFORMATION

Total Daily Trips:

AM Peak Hour Trips:

PM Peak Hour Trips:

1.1	These plans were prepared in accordance with the requirements of (select one): VDOT Subdivision Street Requirements (SSR) VDOT Subdivision Street Acceptance Requirements (SSAR) N/A
1.2	VDOT Approved Exceptions (select one): Access Management Date of Approval: SSAR Date of Approval: Other Date of Approval: N/A
1.3	Trip Generation Data: Use: ITE Code:

1.4 A Land Use Permit must be obtained from VDOT before any construction is started within State maintained right of way limits. Contact the local VDOT Residency for the permit fee and bond amount.

> Accomac Residency (757) 787-5932 Accomack and Northampton counties Franklin Residency (757) 346-3067 Greensville, Isle of Wright, Southampton, and Sussex counties

> > James City and York counties Suffolk District Office (757) 925-3685

Williamsburg Residency (757) 253-5146

Surry County and Limited Access

All Land Use Permit applications must have one (1) set of approved plans, a copy of the plan approval letter, a check for the processing fee made payable to Treasurer of Virginia, and surety or bond in the required amount.

Applications for Land Use Permits can be made on-line at http://www.virginiadot.org/business/bu-landUsePermits.asp

- 1.5 The VDOT Residency is to receive written notification 48 hours prior to start of any work within State maintained right of way. A pre-construction meeting should be held at least one week prior to any land disturbance or when construction activities will affect traffic operations of any arterial corridor.
- 1.6 All construction methods and materials within State maintained right of way shall comply with the current standards and specifications of the Virginia Department of Transportation.
- 1.7 The contractor shall be available a copy of the Land Use Permit(s), final approved plans, any approved revisions, and a copy of the approval letter on site.
- 1.8 Any errors, conflicts, or discrepancies found on the approved plans shall be reported to the developer's engineer. The VDOT Residency should be notified for resolution before proceeding further with the work if the State maintained right of way is
- 1.9 The developer is responsible for any damages to existing roads, utilities, and any other installations already in place which occur as a result of project construction within or contiguous to State right of way limits. Damages which exist prior to starting construction must be photo documented.
- 1.10 The Commonwealth Transportation board, members of the Board, the Commonwealth, and all Commonwealth employees, agents and offices, shall be absolved from all responsibilities, damages and liabilities as a result of work arising from the exercise of the privileges granted by plan and/or permit approval.
- 1.11 Materials shall not be stockpiled within State maintained right of way or easements.
- 1.12 Private entrances located on streets with curb and gutter (CG-6, CG-7) require installation of curb aprons (CG-9B, CG-9D). Private entrances located on streets with rolltop curb shall be installed in accordance with the detail on page B(1)-29 of the VDOT Road Design Manual. Sidewalk shall be 7" thick at driveway crossings and adjacent to rolltop curb. Installation of pipe culverts and storm sewers shall conform to the current VDOT Standard PB-1. Pipe culverts shall have a minimum of 4" of cover under concrete gutters, or adjustment shall be required to concrete gutter grades in the field to reach this cover or as directed by the VDOT Engineer. Private entrances located on streets with roadside ditches require 9" of cover.
- 1.13 The developer is responsible for hiring a qualified engineer to conduct all required construction inspections. Date stamped photographs are recommended to be a part of every inspection. Certified inspections and reports must be supplied to VDOT
 - a) Fill materials and compaction
 - b) Storm sewer trench bedding materials, thickness and compaction, as well as backfill materials and compaction
 - Materials and compaction reports for all utility installation in right of way Subbase materials and compaction, for roads and sidewalks
 - e) Storm sewer video inspections for all underground storm sewer systems, and for culverts and selected by VDOT
- CBR's and final pavement designs
- g) Aggregate materials, thicknesses and compaction. Aggregate should not be placed without passing all subgrade compaction tests and proof-rolls, and receiving approval from VDOT on CBR reports and final pavement designs. Repeat tests and inspections must be performed for undercuts or geo-technical fabric applications until passing. All fabric applications should be documented with precise locations. Aggregate inspections must include any underdrains and sidewalk applications.
- h) Asphalt base and surface materials, thickness and compaction. Concrete materials and strength tests for all concrete caste on-site.
- j) Source of materials reports for materials used in the right-of-way.
- For more information regarding inspections, please see the Land Development Inspection Documentation Best Practices Manual, available on the VDOT website. Please contact the VDOT residency at least 48 hours in advance if stone depths or proof roll inspections will be requested of VDOT staff, which will be dependent on staff availability.

2.0 DRAINAGE & EROSION CONTROL

- 2.1 VDOT shall not be responsible for the maintenance of any stormwater management facility or outfall structure located outside of State maintained right of way limits and shall be absolved from all responsibilities, damages and liabilities as a result of
- 2.2 All erosion and sediment control measures shall be the responsibility of the contractor in accordance with the Virginia Erosion & Sediment Control Handbook and Virginia Stormwater Management Program. An individual certified by the Virginia Department of Environmental Quality, holding a Responsible Land Disturber Certification, is to be in charge of the land disturbing activity and for continued maintenance of the erosion and sediment control on the work site at all times.
- 2.3 Temporary drainage measures shall be installed during construction to prevent ponding and divert sediment laden water.
- 2.4 All necessary precautions shall be taken to ensure against siltation of adjacent properties, ditches, streams, and construction vehicles tracking silt onto adjacent roadways. Additional ditch linings or siltation and erosion control measures shall be provided as determined necessary by VDOT and/or the county/town during field review. All costs shall be assumed by the
- 2.5 All disturbed areas shall be stabilized immediately upon the end of each day's work and reseeded in accordance with VDOT Road and Bridge Specifications.
- 2.6 Structures exceeding 4' in depth require installation of steps in accordance with standard ST-1. Structures exceeding 12' in depth require safety slabs in accordance with standard SL-1. IS-1 is required on all drainage structures.
- 2.7 Roof drain connections are not permitted in structures within the VDOT right of way.
- 2.8 For safety concerns in residential subdivisions, the minimum length of an entrance culvert should be the entrance width plus 8'. For example, a 16' wide entrance would require a 24' culvert. The length may be lessened when end walls are used.
- 2.9 Manholes and inlet connections are to have inlet shaping (IS-1) to prevent sediment and debris buildup, and improve function. All manhole and inlet joints and tops must be sealed against leaks.
- 2.10 All pipe joints are to be sealed by gaskets or bands per manufacturer's specifications to prevent soil leaks, and to be wrapped in geotextile fabric on the exterior of each joint. Minor holes or cracks are to be repaired prior to placement. Pipes with broken ends or structural cracks, bends or breaks must be replaced. Photos of pipe placement prior to backfill should be in inspection reports submitted to VDOT.
- 2.11 Pavement cross drains (CD-1.2) are to be installed at sags and cut-fill transition points. Pavement underdrains or edge drains are to be installed where required by VDOT specifications, with use of 21B aggregates (UD-4), with raised medians (UD-2), and where called for on plans. Photos of placement prior to backfill should be in inspection reports submitted to

3.0 MATERIALS

- 3.1 Initial pavement design provided is based on a(n) assumed value. Final pavement design shall be submitted in accordance with the Payement Design Guide for Subdivision and Secondary Roads in Virginia. A copy of the CBR report shall be provided prior to construction. 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 proposed pavement structure including the top 6" of the subgrade immediately under the pavement structure compacted to 100% of the theoretical
- 3.2 When unsuitable materials are encountered during construction, such materials shall be undercut and backfilled with VDOT Select Material Type II Minimum CBR-20 according to VDOT specifications. The soil lab test reports of the proposed select material shall be included in the geotechnical soils report.
- 3.3 Asphalt pavement widening shall conform to the current VDOT Standard WP-2.
- 3.4 The Department usually prohibits the open-cutting of hard-surfaced roads except in extenuating circumstances. Therefore, all underground utilities within State maintained right of way, as determined necessary by good engineering practice to serve the complete development of adjacent properties, shall be installed during the streets initial construction and prior to the application of its final pavement surface course. Every effort must be made to minimize the number and size of open cuts. This shall include extensions of all necessary cross-street connections or service lines to an appropriate location beyond the pavement and preferably the right of way line. In the event it is necessary to open the street pavement to work on utilities after the surface has been placed, additional compaction tests and paving as necessary to restore the integrity and appearance of the roadway may be required.

4.0 RIGHT OF WAY & UTILITIES

- 4.1 All fixed objects such as utility cabinets, pedestals, and streetlights shall be located in accordance with clear zone requirements, as noted in the Road Design Manual or AASHTO Roadside Design Guide. There shall not be any cabinets, pedestals, or fire hydrants located on the shoulder.
- 4.2 Flowers, shrubs, and trees 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, endwalls, and/or brick mailboxes will be constructed or installed within State maintained right of way limits without a permit. Any of the above or other non-standard 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.
- 4.3 The contractor shall be responsible for locating and protecting all underground and overhead utilities, whether or not they are shown on the plans, prior to construction. The contractor will be responsible for repairs at his own expense of any utilities damaged by his construction methods. MISS UTILITY must be contacted at 811 at least 72 hours prior to the commencement
- 4.4 The permit holder shall be responsible for protecting all VDOT owned facilities and utilities within the right of way. The permit holder must contact VDOT Eastern Region Transportation Operations Center at (757) 361-3033 or (757) 361-3038 on the business day preceding 48 hours before any excavation within 1,000 feet of a traffic signal or adjacent to other VDOT utilities is to occur. No excavation should occur until all underground VDOT utilities are marked, VDOT has notified the permit holder that no utilities are present at the excavation site(s), or the 48 hour time limit has expired and the permit holder has not received notification from VDOT that additional time to mark the utilities is necessary. As there is potential for underground VDOT utilities anywhere within the state right-of-way, all permit holders excavating on the state highway system that may impact VDOT utilities should follow these notification and marking procedures prior to commencing excavation.
- 4.5 Authorized underground utility installations shall maintain a minimum of 36 inches of cover.
- 4.6 Overhead utility installations within limited access and non-limited access right of way shall be installed in accordance with VDOT Land Use Permit Regulations.
- 4.7 All roadway lighting shall be designed in accordance with IESNA lighting criteria and installed in accordance with VDOT Road and Bridge Specifications. All roadway lighting shall adhere to the Virginia Lighting Law.

5.0 TRAFFIC

- 5.1 The contractor is responsible for the replacement of any pavement markings disturbed by construction. The contractor is responsible for installing pavement markings on final pavement overlay within 14 days after completion of surface treatment. Pavement Markings shall be installed and eradicated in accordance with VDOT Standards and Specifications.
- 5.2 Contact Eastern Region Transportation Operations Center at (757) 361-3033 or (757) 361-3038 a minimum of 48 hours in advance whenever excavation is within 1000 feet of a traffic signal, or located within Limited Access Highways, so the lines can be marked. Failure to do so could be a costly repair for the developer.
- 5.3 Sight distances at entrances and intersections shall be maintained at all times during and after construction. Any object or landscaping that obstructs driver view shall be relocated at the developer's expense or the entrance may be closed at VDOT's
- 5.4 When working within VDOT right of way, all traffic control, whether permanent or temporary, shall be in accordance with the current edition of VDOT's Work Area Protection Manual.
- 5.5 Contractor is responsible for the maintenance of all existing signs and posts in the work zone. This includes, but is not limited to, stop, yield, street name, and speed limit signs. Any sign or post damaged during construction or missing shall be replaced by the contractor at his expense.
- 6.0 ENVIRONMENTAL
- 6.1 The permittee is responsible for pursuing and obtaining any and all environmental clearances and/or permits, including, but not limited to, water guality, threatened and endangered species, hazardous materials, and cultural resources, required to pursue the proposed activity before any construction is started within State maintained right of way limits. Documents related to these activities shall be submitted with the Land Use Permit application.

7.0 PROJECT CLOSEOUT

- 7.1 Inspection documentation for streets to be accepted for state maintenance will be required in accordance with the Land Development Inspection Documentation Best Practices Manual. see Note 1.13. Additional testing may be required as directed by the Area Land Use Engineer or other representative.
- 7.2 The permittee shall submit an as-built drawing of the completed improvements within and adjacent to the public right of way unless waived by VDOT. The as-built drawing information shall be prepared using the same vertical datum as that used to develop the original approved plan. The as-built drawing shall bear the seal of a Professional Engineer or Land Surveyor registered in Virginia.
- 7.3 Prior to return of the project surety, the permittee shall, in a manner that is satisfactory to VDOT, complete all punchlist items as identified by VDOT in writing. Completion of all punchlist work within the right of way shall be performed under an active Land Use Permit.

Commercial Entrance Design to Serve A Private Subdivision Road / Street

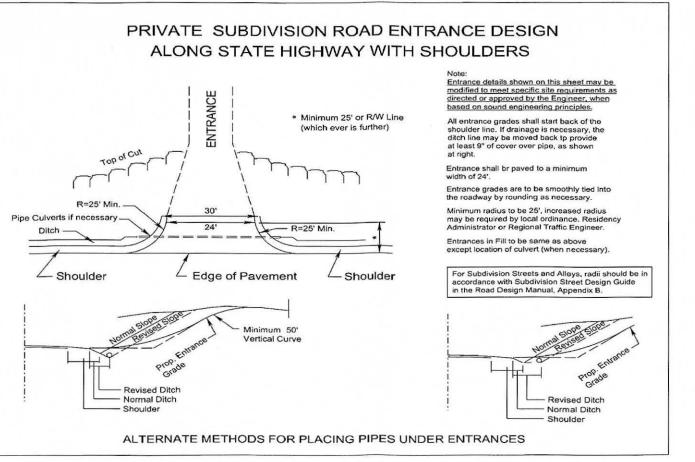
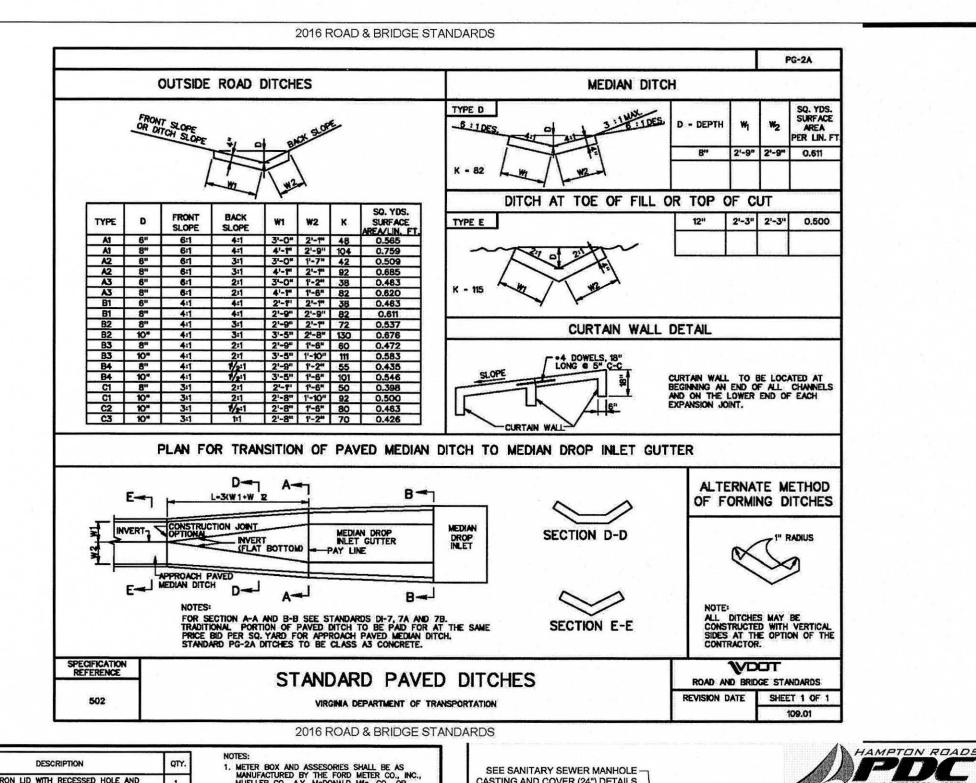
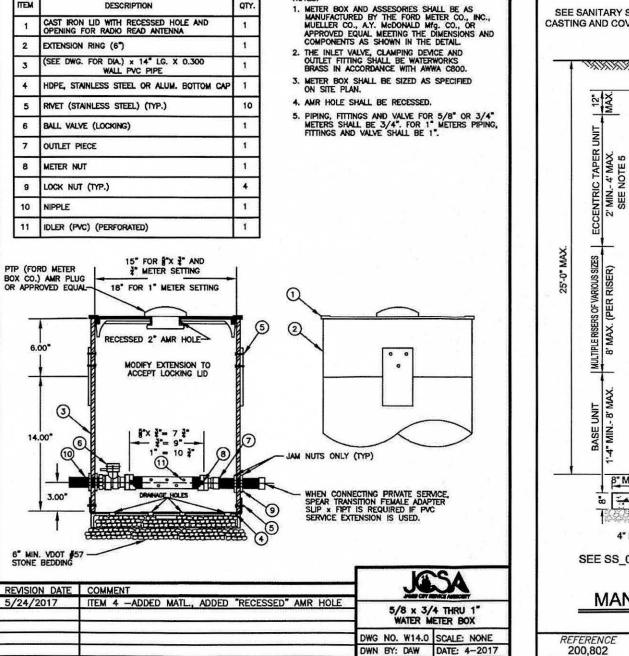


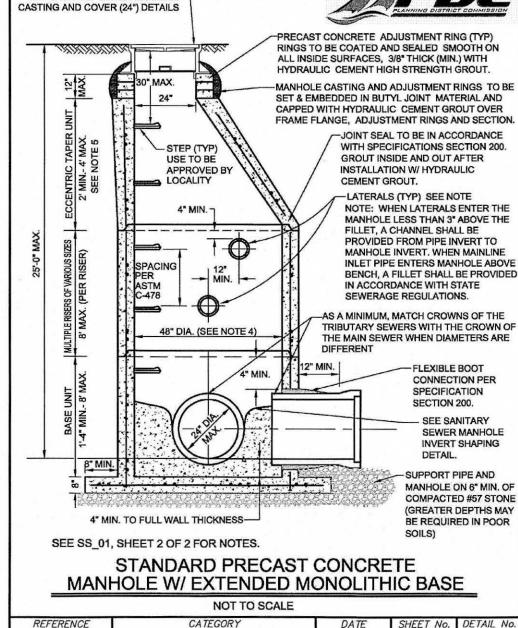
FIGURE 4-8 COMMERCIAL ENTRANCE DESIGN TO SERVE A PRIVATE SUBDIVISION ROAD / STREET

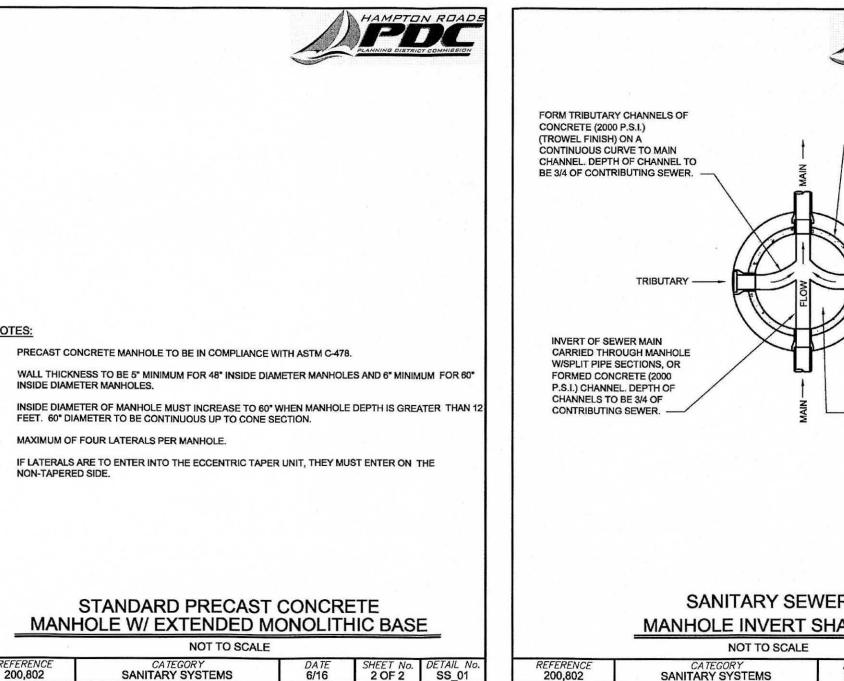


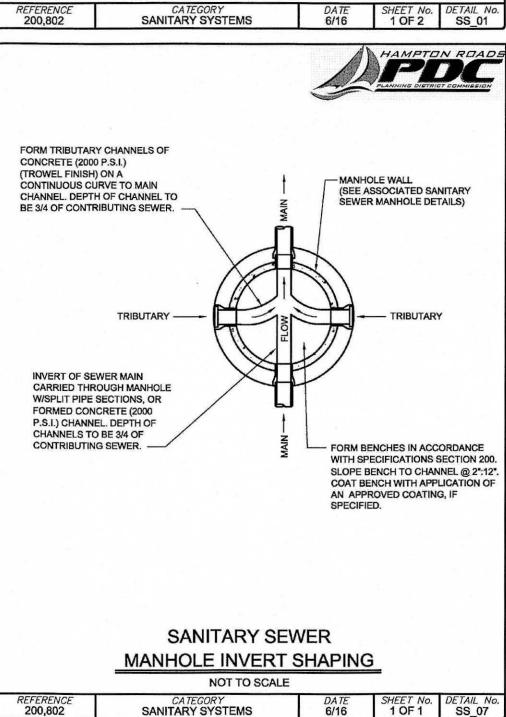


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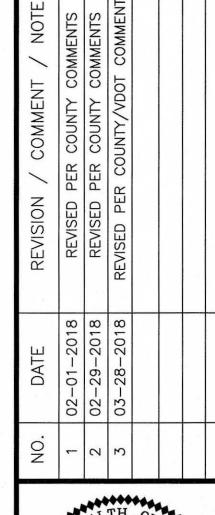
SANITARY SYSTEMS

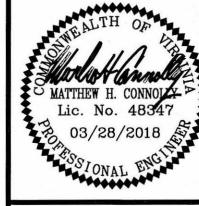














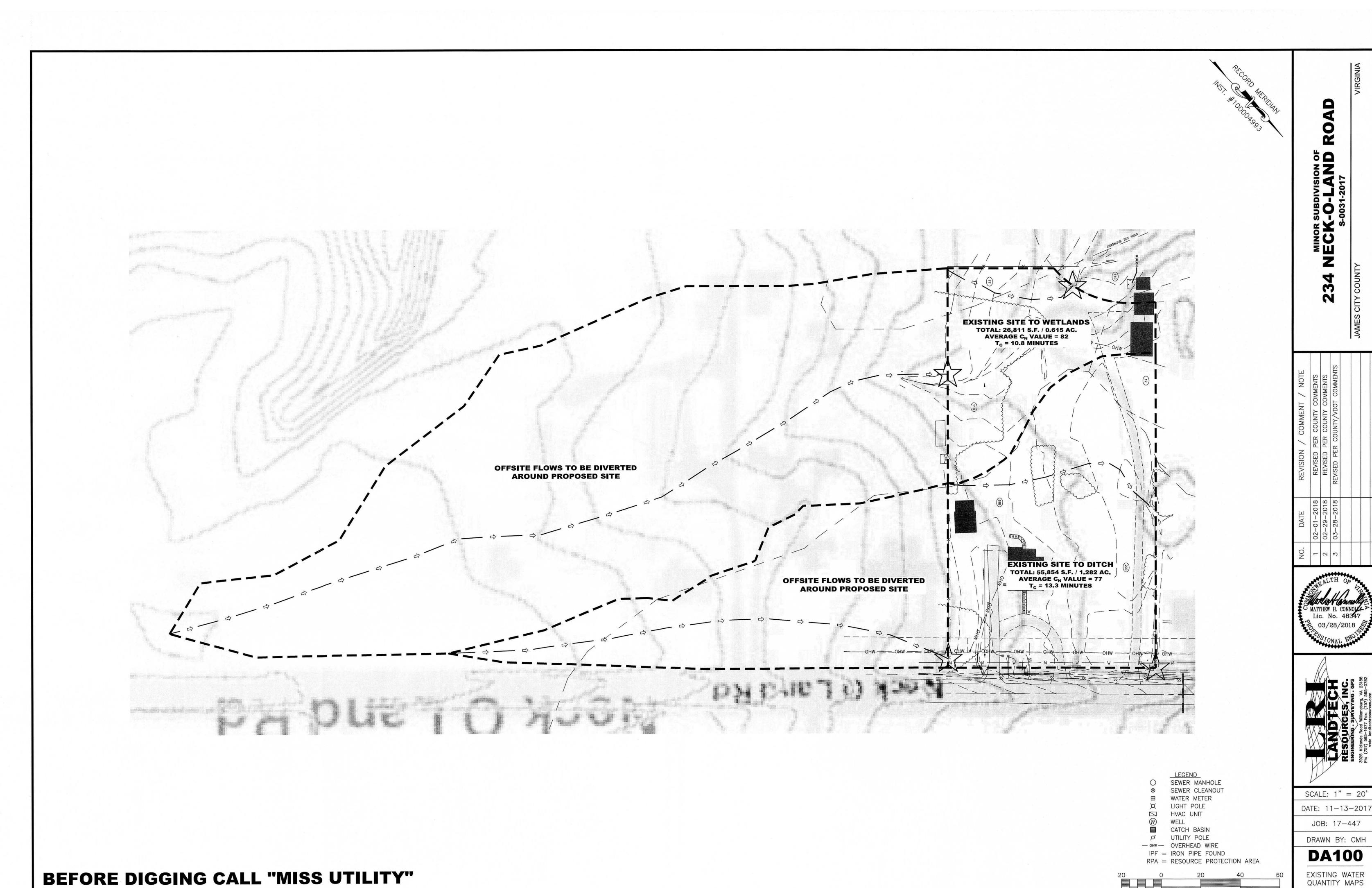
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DRAWN BY: CMH

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10 of 12

DETAILS

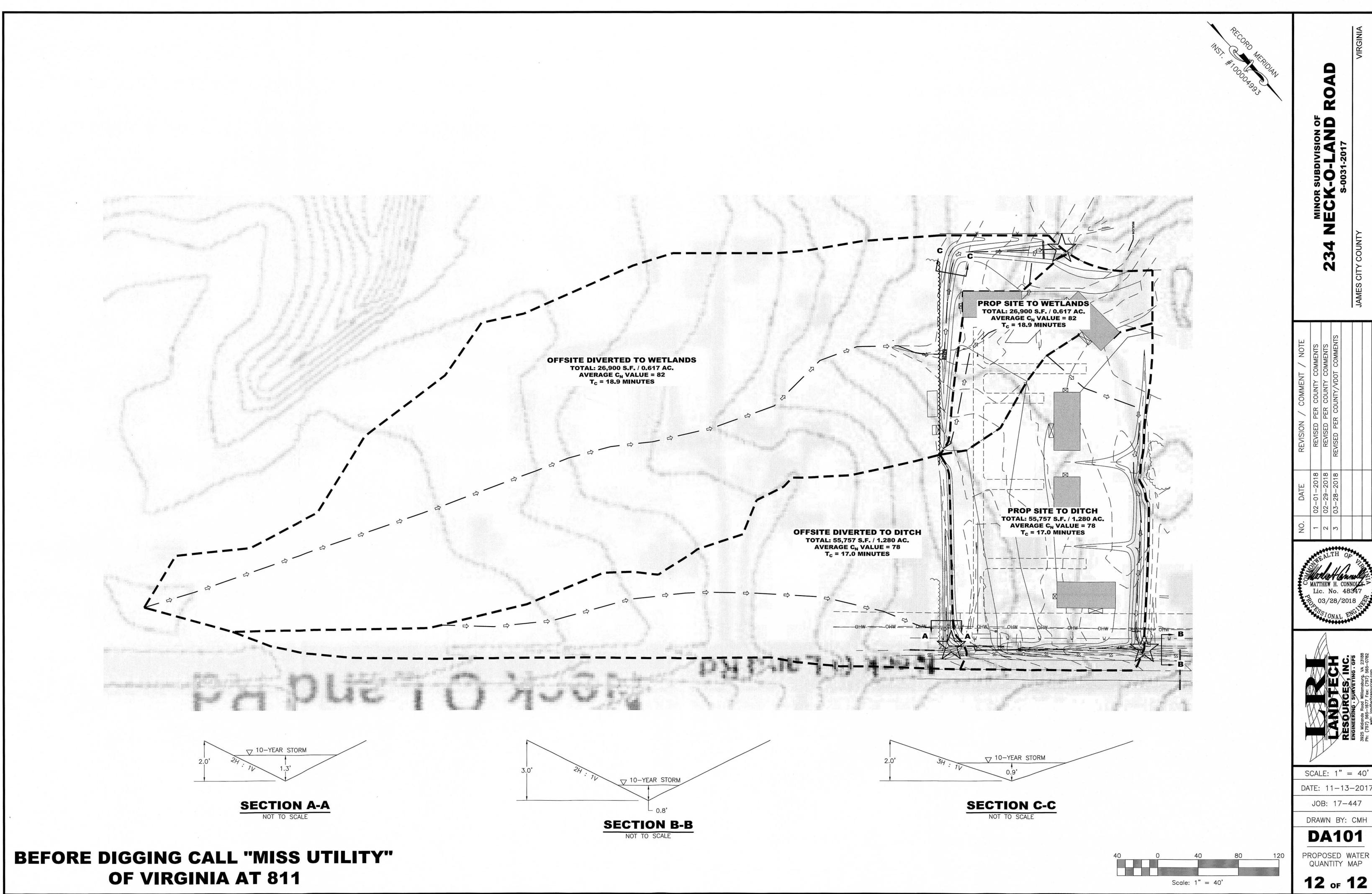


OF VIRGINIA AT 811

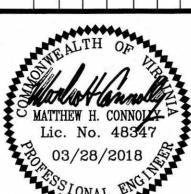
(47-4)(01-1) S-0031-2017DWGC 234 Neck-O-Land Road

Scale: 1" = 20'

11 of 12



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SCALE: 1" = 40'DATE: 11-13-2017

JOB: 17-447

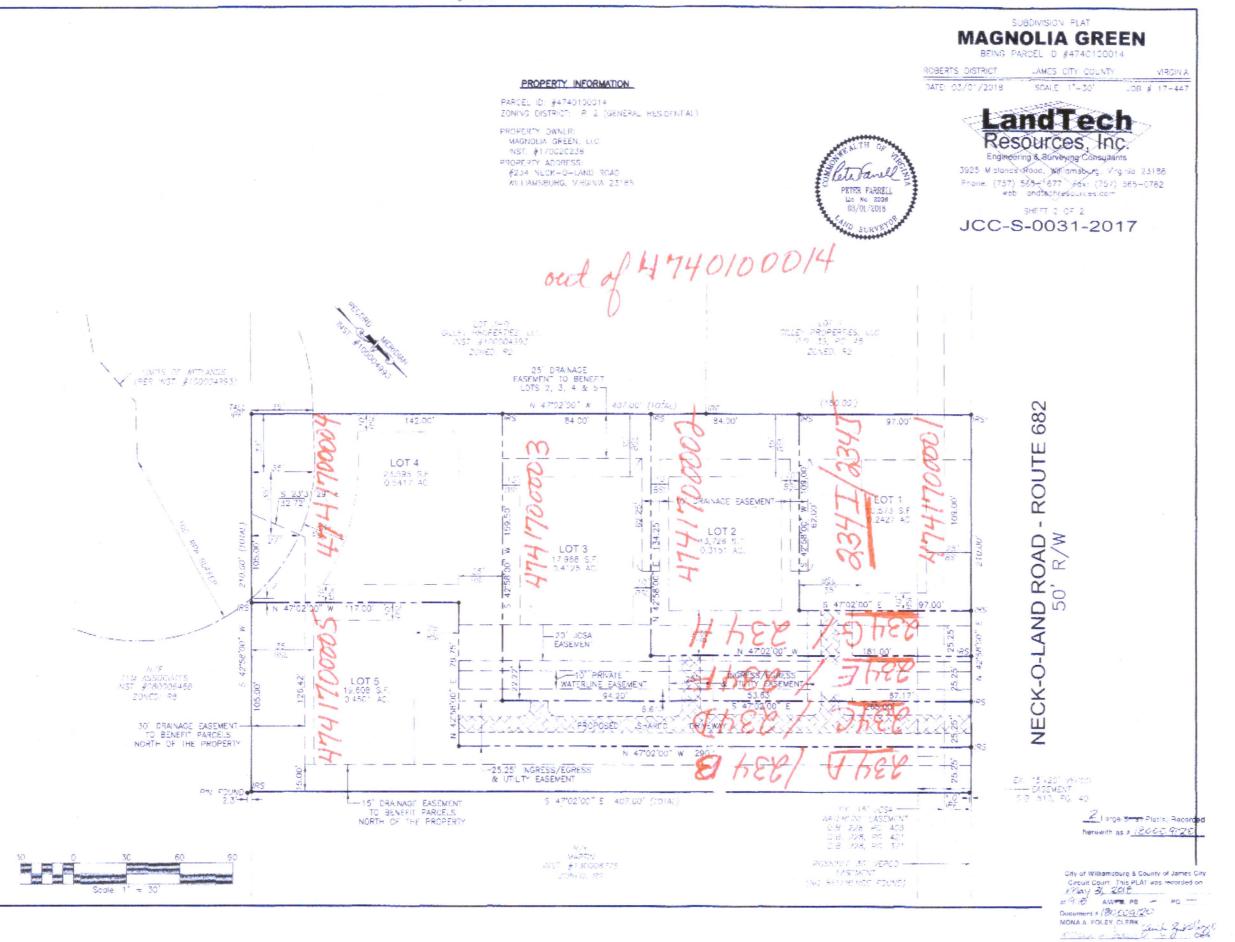
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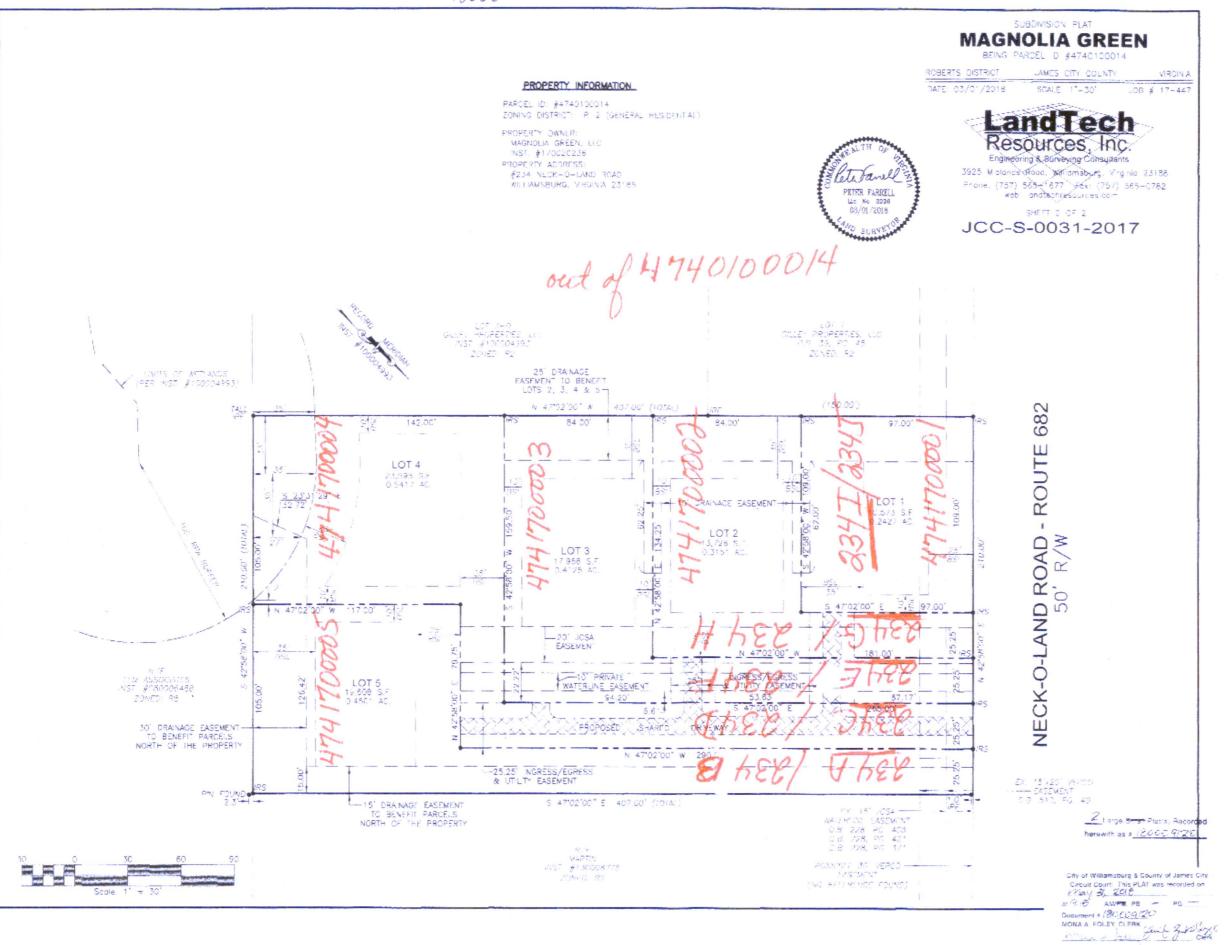
DA101

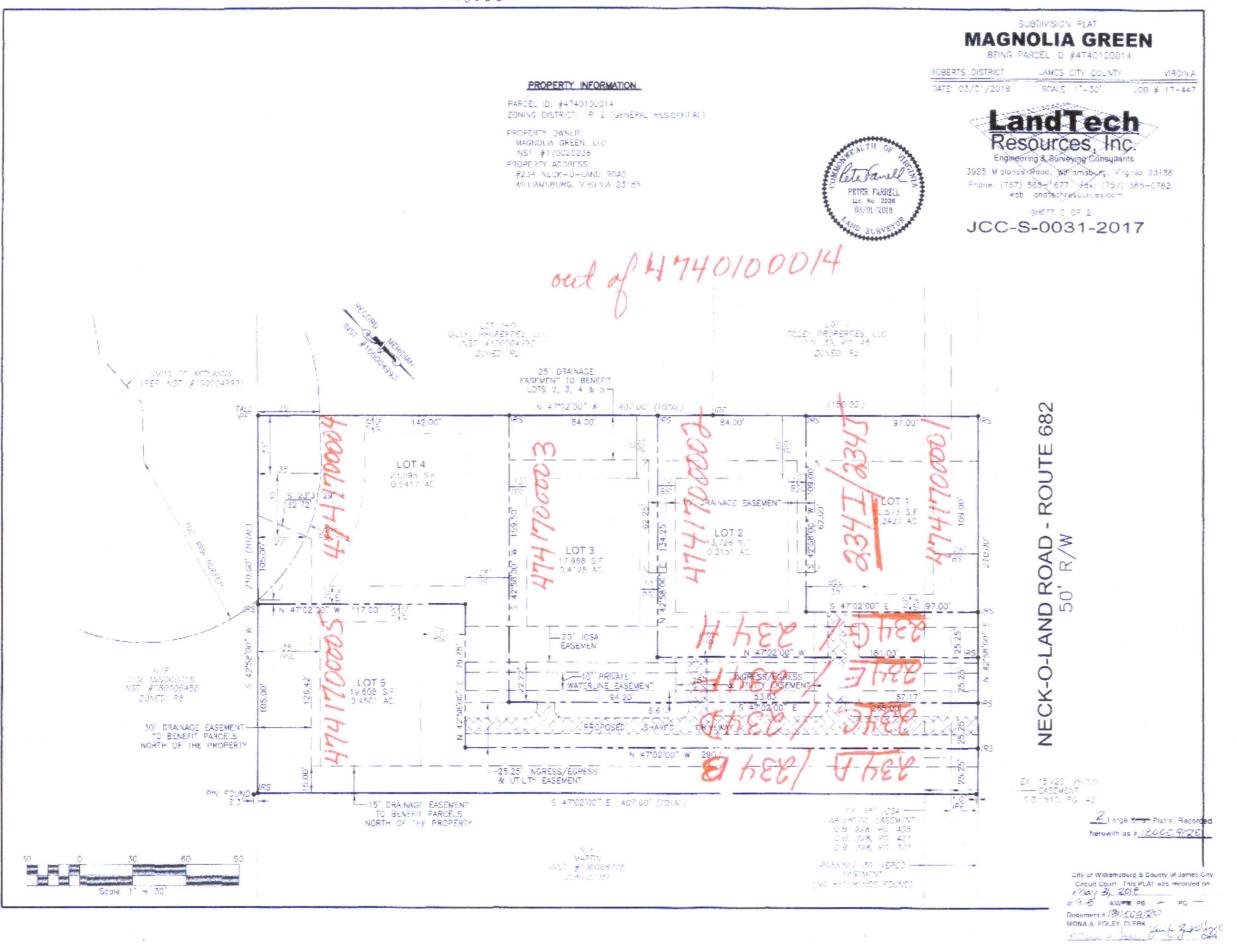
12 of 12

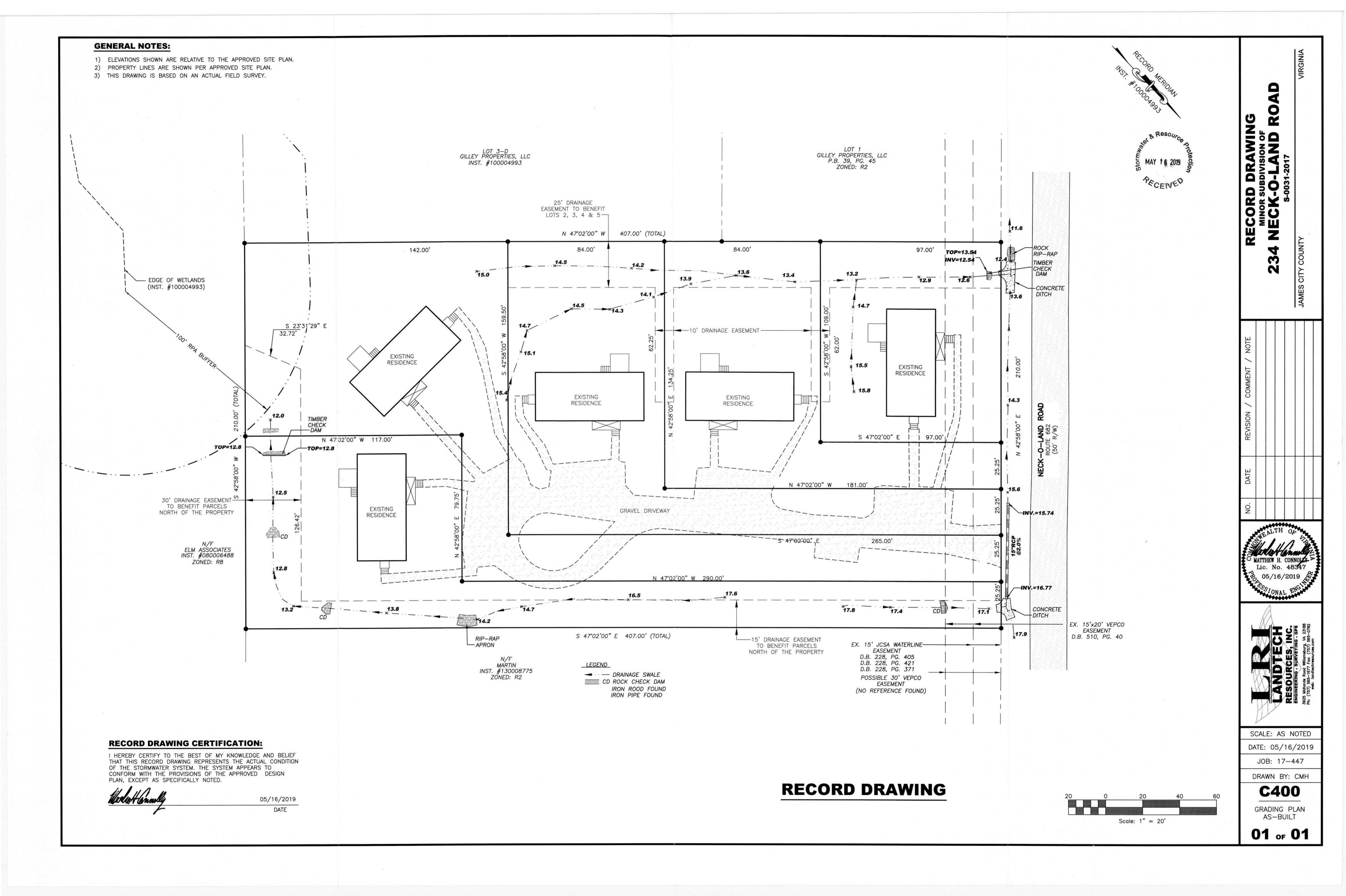
5. ConstructionDrawings

SUBDIVISION PLAT **MAGNOLIA GREEN** BEING PARCEL ID #4740100014 ROBERTS DISTRICT JAMES CITY COUNTY VIRGINIA PROPERTY INFORMATION DATE: 03/01/2018 JOB # 17-447 SCALE: 1"=30' PARCEL ID: #4740100014 ZONING DISTRICT: R-2 (GENERAL RESIDENTIAL) PROPERTY OWNER: Resources, Inc. MAGNOLIA GREEN, LLC INST. #170020236 Engineering & Surveying Consultants PROPERTY ADDRESS: #234 NECK-O-LAND ROAD WILLIAMSBURG, VIRGINIA 23185 3925 Midlands Road, Williamsburg, Virginia 23188 Phone: (757) 565–1677 Fax: (757) 565–0782 web: landtechresources.com PETER FARRELL Lic. No. 2036 03/01/2018 SHEET 2 OF 2 JCC-S-0031-2017 out of 4740100014 LOT 1 GILLEY PROPERTIES, LLC P.B. 39, PG. 45 LOT 3-D GILLEY PROPERTIES, LLC INST. #100004993 ZONED: R2 ZONED: R2 25' DRAINAGE EASEMENT TO BENEFIT LOTS 2, 3, 4 & 5 7 LIMITS OF WETLANDS (PER INST. #100004993) (150.00') N 47°02'00" W 407.00' (TOTAL) 682 84.00' 142.00 - ROUTE LOT 4 23,595 S.F. 0.5417 AC. LOT 1 0,573 S.F. 3'00" E 134.25' LOT 2 13,726 S.F. 0.3151 AC. NECK-O-LAND ROAD 50' R/W LOT 3 17,968 S.F. 0.4125 AC. N 47'02'00" W 117.00' -20' JCSA EASEMENT N/F ELM ASSOCIATES -10 PRIVATE LOT 5 19,608 S.F. 0.4501 AC. WATERLINE EASEMENT INST. #080006488 ZONED: R8 6.61 30' DRAINAGE EASEMENT TO BENEFIT PARCELS NORTH OF THE PROPERTY N 47'02'00" W 25.25' INGRESS/EGRESS & UTILITY EASEMENT EX. 15'x20' VEPCO —— EASEMENT PIN FOUND D.B. 510, PG. 40 S 47°02'00" E 407.00' (TOTAL) -15' DRAINAGE EASEMENT EX. 15' JCSA — WATERLINE EASEMENT TO BENEFIT PARCELS ZLarge/Small Plat(s) Recorded NORTH OF THE PROPERTY D.B. 228, PG. 405 D.B. 228, PG. 421 D.B. 228, PG. 371 herewith as # 18000 9120 N/F MARTIN POSSIBLE 30' VEPCO INST. #130008775 City of Williamsburg & County of James City ZONED: R2 Circuit Court: This PLAT was recorded on May 31, 2018 (NO REFERENCE FOUND) at 9:15 AM/PM, PB - PG -Document # 180 009120 MONA A. FOLEY, CLERK Guil 2 12/2 Clerk









6. Design Calculations



Culvert Pipe Calculations

for

234 Neck-O-Land Road

Fred A. Nice Construction Company, LLC

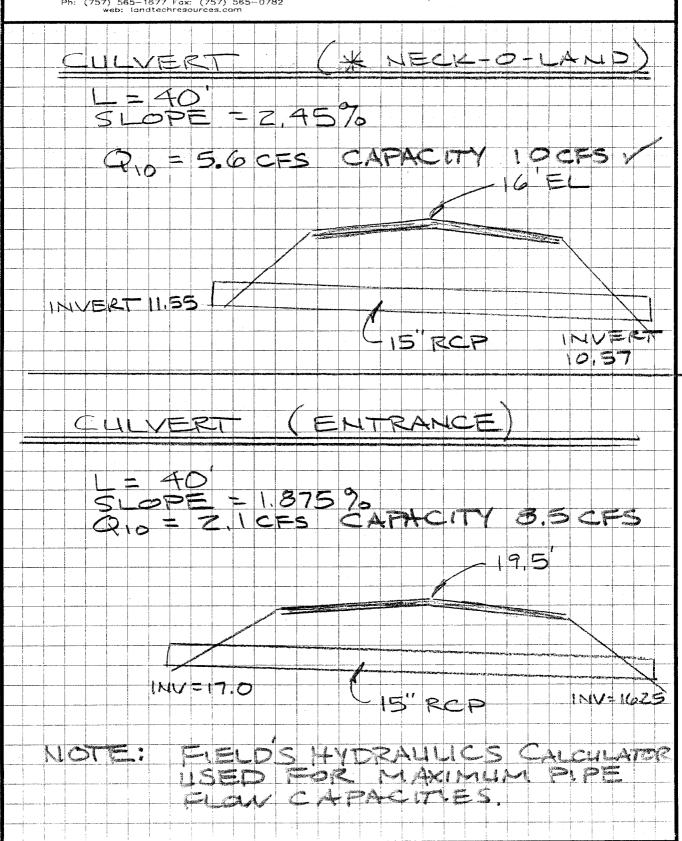
March 1, 2018

Project Number 17-447

LANDTECH RESOURCES, INC. ENGINEERING & SURVEYING

ENGINEERING & SURVEYING
CONSULTANTS
3925 Midlands Road Williamsburg, VA 23188
Ph: (757) 565-1677 Fax: (757) 565-0782
web: landtechresources.com

Project Name_@	234 NECK-O-LAND			
Project No. 17 - 4 - 1				
Sheet No				
Calculated By	MHC			
Scale N				



LRI - Rational Formula Computation Sheet #1

JOB#

17-447

DESCRIPTION: Neck-O-Land Culvert Computations

SHEET NO.

1 OF 3

CALCD BY: MHC

DATE:

3/1/2018

CHECK BY: WSF

STEP 1 - Determine Ccr values for various land uses from Ccr Tables

Land Use / Storm Frequency	2	10	25	50	100
Lawn	0.25	0.25	0.28	0.30	0.31
Impervious	0.9	0.9	0.9	0.9	1
				4	

STEP 2 - Determine total Ccr x A values for various storm frequencies

For Each Storm Frequency - Total of each Sub-Area (Acres) times corresponding Ccr

Land Use / S	Storm Frequency	Area(Acres)	2	10	25	50	100
Lawn		2.75	0.6875	0.6875	0.77	0.825	0.8525
Impervious		0.70	0.63	0.63	0.63	0.63	0.7
0			0	0	0	0	0
0			0	0	0	0	0
0			0	0	0	0	0
0			0	0	0	0	0
	TOTAL CcrA		1.3175	1.3175	1.4	1.455	1.5525

LRI - Rational Method Computation Sheet #2

JOB#

DATE:

17-447

DESCRIPTION: Neck-O-Land Culvert Computations

SHEET NO.

2 OF 3

3/1/2018

CALCD BY: MHC

CHECK BY: WSF

STEP 3 - Determine total Ccr x A values for various storm frequencies

OVERLAND FLOW (OLF) USING SEEYLE EQUATIONS

L	200	(IN FEET)
S	0.01	(FT/FOOT)
С	0.31	
Tc =	16.12	Minutes

SHALLOW CONCENTRATED FLOW (SCF)

L		LENGTH
V		VELOCITY (PLATE 5-23)
Tc =	0.00	Minutes

CHANNEL FLOW (CF) TIME USING KIRPICH EQUATION

Н	2.00	CHANGE IN ELEVATION IN FEET
L	400.00	FEET
Tc =	6.35	Minutes

TOTAL TIME OF CONCENTRATION Tc = OLF + SCF + CF

LRI - Rational Formula Computation Sheet #3

JOB#

17-447

DESCRIPTION: Neck-O-Land Culvert Computations

SHEET NO. DATE:

3 OF 3

3/1/2018

CALCD BY: MHC

CHECK BY: WSF

Step 4 - Determine Intensity (If)

Determine BDE values for:		James City			County	Virginia
Frequency	В	l D	E		Frequency	Intensity
2	70.63	12.75	0.87		2	3.19
10	55.61	10	0.74		10	4.23
25	48.54	8.5	0.67		25	4.87
50	38.78	6	0.59		50	5.38
100	36.77	5.25	0.56		100	5.72

Step 5 - Determine Discharges - CFS (Cubic Feet per Second - Q)

	Ccr A	i	Q
Q 2	1.455	3.19	4.6
Q 10	1.3175	4.23	5.6
Q 25	1.4	4.87	6.8
Q 50	1.455	5.38	7.8
Q 100	1.5525	5.72	8.9

LRI - Rational Formula Computation Sheet #1

JOB#

17-447

DESCRIPTION: Sample Project for this spread sheet ENTRANCE CULVERT

SHEET NO.

1 OF 3

CALCD BY: MHC

DATE:

3/1/2018

CHECK BY: WSF

STEP 1 - Determine Ccr values for various land uses from Ccr Tables

Land Use / Storm Frequency	2	10	25	50	100
Lawn	0.25	0.25	0.28	0.30	0.31
Impervious	0.9	0.9	0.9	0.9	1

STEP 2 - Determine total Ccr x A values for various storm frequencies

For Each Storm Frequency - Total of each Sub-Area (Acres) times corresponding Ccr

Land Use / S	torm Frequency	Area(Acres)	2	10	25	50	100
Lawn		1.08	0.27	0.27	0.3024	0.324	0.3348
Impervious		0.20	0.18	0.18	0.18	0.18	0.2
0		·	0	0	0	0	0
0			0	0	0	0	0
0			0	0	0	0	0
0			0	0	0	0	0
	TOTAL CcrA		0.45	0.45	0.4824	0.504	0.5348

LRI - Rational Method Computation Sheet #2

JOB#

17-447

DESCRIPTION: Entrance Culvert Computations

SHEET NO. DATE:

2 OF 3 3/1/2018

CALCD BY: MHC

CHECK BY: WSF

STEP 3 - Determine total Ccr x A values for various storm frequencies

OVERLAND FLOW (OLF) USING SEEYLE EQUATIONS

Tc =	16.12	Minutes
C	0.31	
S	0.01	(FT/FOOT)
L	200	(IN FEET)

SHALLOW CONCENTRATED FLOW (SCF)

L		LENGTH
٧		VELOCITY (PLATE 5-23)
Tc =	0.00	Minutes

CHANNEL FLOW (CF) TIME USING KIRPICH EQUATION

Н	1.50	CHANGE IN ELEVATION IN FEET
L	175.00	FEET
Tc =	2.78	Minutes

TOTAL TIME OF CONCENTRATION Tc = OLF + SCF + CF

Tc =	18.9	
IC =	18.9	
. •		

LRI - Rational Formula Computation Sheet #3

JOB#

17-447

DESCRIPTION: Entrance Culvert Computations

SHEET NO.

3 OF 3

CALCD BY: MHC

DATE:

3/1/2018

CHECK BY: WSF

Step 4 - Determine Intensity (If)

Determine BDE values for:		James City		County Virginia
Frequency	В	D	E	Frequency Intensity
2	70.63	12.75	0.87	2 3.50
10	55.61	10	0.74	10 4.61
25	48.54	8.5	0.67	25 5.28
50	38.78	6	0.59	50 5.82
100	36.77	5.25	0.56	100 6.18

Step 5 - Determine Discharges - CFS (Cubic Feet per Second - Q)

Q 2
Q _10
Q 25
Q 50
Q 100

Ccr A	I	Q
0.504	3.50	1.8
0.45	4.61	2.1
0.4824	5.28	2.5
0.504	5.82	2.9
0.5348	6.18	3.3

James City County, Virginia

Legend

Parcels
Drainage

Drainage Private

Drainage Public

Contours

CONSERVATIVE ANALYSIS



Title: Date: 3/1/2018

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and James City County is not responsible for its accuracy or how current it may be.



LANDTECH RESOURCES, INC.

February 1, 2018

Roberta Sulouff Planner I James City County

Re: Minor Subdivision of 234 Neck-O-Land Road (Development Plans)

Mrs. Sulouff,

Please see below for our replies to comments on the aforementioned project (comments dated December 27, 2017).

Please feel free to contact me at (757) 565-1677 with any questions or concerns. Thank you for your help in getting this plan approved.

William S. Felts, L.S.

Vice President

william@landtechresources.com

PLANNING DIVISION

FEB 02 2018

RECEIVED

Stormwater & Resource Protection Division:

Permitting Information and Regulatory Notices

- Noted
- Noted
- The fence is no longer being removed

Technical Review Comments

Erosion and Sediment Control:

1. A sediment trap has been added to C201

Stormwater:

- 2. Swales have been relocated to run along the property lines. Easements have been added over top of drainage swales.
- 3. The level spreader is not designed in accordance with VA DEQ Stormwater Design Spec #2. The intent is just to spread out concentrated flows.
- 4. This area has been revised.
- 5. An easement have been provided on the diversion swales along the edge of the property to benefit the northern parcels.
- 6. Two (2) sets of calculations have been included with this submission showing compliance.
- 7. Water Quantity Drainage Maps with appropriate calculations have been provided at the end of the plan set.
- 8. Sections of the open channels have been provided on DA101

LRI

LANDTECH RESOURCES, INC.

Drainage Narrative

For

Neck-O-Land Road Minor Subdivision

James City County, Virginia

Preparation Date:

February 01, 2018

Revision Date(s):

N/A

LRI Project No. 17-447



PLANNING DIVISION

FEB 02 2018

RECEIVED

ENGINEERING • SURVEYING • GPS

3925 Midlands Road Williamsburg, VA 23188 Ph.: (757) 565-1677 Fax: (757) 565-0782 Web: landtechresources.com



LANDTECH RESOURCES, INC.

Neck-O-Land Road Minor Subdivision

Table of Contents

Water Quality
Water Quantity

Appendices

Appendix A – Water Quantity Calculations

Appendix A1	Existing Site Drainage Calculations
Appendix A2	Proposed Site Drainage Calculations
Appendix A3	Proposed Ditch Routing Calculations
Appendix A4	Water Quantity Compliance Calculations

Appendix B – Water Quality Calculations

Stormwater Management

Water Quality

Water quality requirements for this site will be meet by the purchase of offsite nutrients credits. The proposed project limits totals 1.97 acres and will require the purchase of a total of 0.47 lbs. of offsite nutrient credits.

Water Quantity

The existing project site is made up of 2 drainage areas. One area drains into the RPA located in the rear of the existing parcel while the majority of the property drains into the Neck-O-Land Road right-of-way. Calculations for the existing and proposed site conditions can be found in appendix A.

The area draining into the existing RPA will meet the 1-year storm requirements per the energy balance equation and reduce the 10-year flows from pre-development conditions by the increase in the time of concentration as a result of the proposed site grading.

The area draining into the Neck-O-Land Road right-of-way will meet the same requirements by the construction of a timber check dam within a proposed drainage ditch.

A large offsite drainage area located to the northeast of the project site will be directed around the site by the construction of an earth ditch along the northeast boundary of the project.

Appendix A1 Existing Site Drainage Calculations



Existing to Ditch



Existing to RPA









17-447 Preliminary Quantity Calcs (On-site)
Prepared by Hewlett-Packard Company
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Area Listing (selected nodes)

Area	CN	Description
(sq-ft)		(subcatchment-numbers)
48,861	74	>75% Grass cover, Good, HSG C (1S, 2S)
23,726	80	>75% Grass cover, Good, HSG D (1S, 2S)
9,775	98	Paved parking, HSG C (1S, 2S)
303	98	Paved parking, HSG D (2S)

Page 3

Summary for Subcatchment 1S: Existing to Ditch

Runoff =

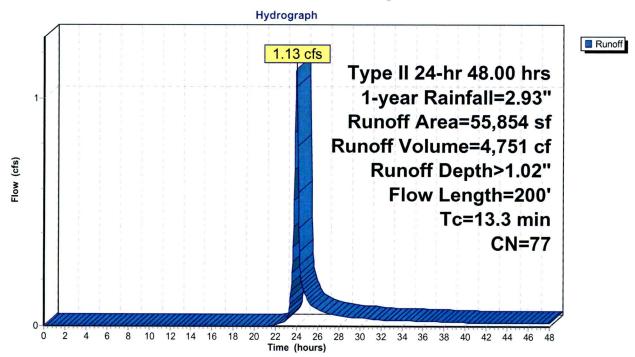
1.13 cfs @ 23.97 hrs, Volume=

4,751 cf, Depth> 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 1-year Rainfall=2.93"

A	rea (sf)	CN [Description				
	7,547	98 F	Paved parking, HSG C				
	0	98 F	Paved park	ing, HSG D)		
	48,044				ood, HSG C		
	263	80 >	75% Gras	s cover, Go	ood, HSG D		
	55,854	77 V	Veighted A	verage			
	48,307	8	6.49% Per	vious Area			
	7,547	1	3.51% Imp	pervious Ar	ea		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
11.5	100	0.0300	0.14		Sheet Flow,		
					Grass: Dense n= 0.240 P2= 3.56"		
8.0	100	0.0200	2.12		Shallow Concentrated Flow,		
					Grassed Waterway Kv= 15.0 fps		
1.0					Direct Entry, Culvert to Ditch		
13.3	200	Total					

Subcatchment 1S: Existing to Ditch



Page 4

Summary for Subcatchment 2S: Existing to RPA

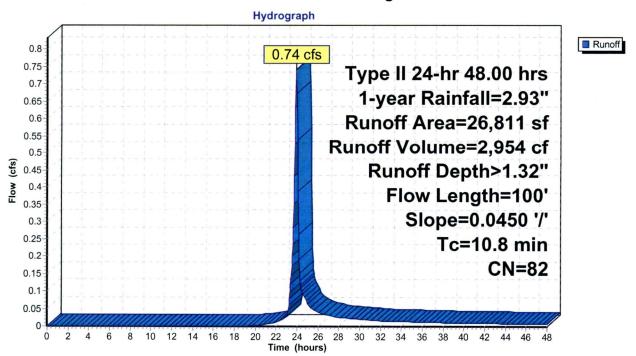
Runoff = 0.74 cfs @ 23.94 hrs, Volume=

2,954 cf, Depth> 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 1-year Rainfall=2.93"

	Α	rea (sf)	CN [Description						
		2,228	98 F	Paved park	ing, HSG C					
		303	98 F	Paved parking, HSG D						
		817	74 >	75% Gras	s cover, Go	ood, HSG C				
		23,463	80 >	75% Gras	s cover, Go	ood, HSG D				
26,811 82 Weighted Average				Veighted A	verage					
24,280 90.56% Pervious Area					vious Area					
		2,531	ç	.44% Impe	ervious Area	a				
	Tc	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	9.8	100	0.0450	0.17		Sheet Flow,				
						Grass: Dense n= 0.240 P2= 3.56"				
	1.0					Direct Entry, Swale to Wetlands				
	10.8	100	Total							

Subcatchment 2S: Existing to RPA



Page 5

Summary for Subcatchment 1S: Existing to Ditch

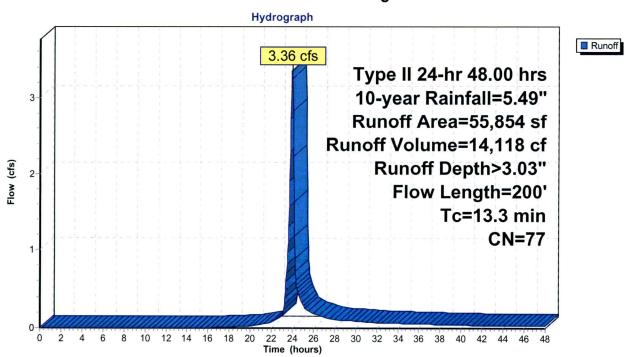
Runoff = 3.36 cfs @ 23.96 hrs, Volume=

14,118 cf, Depth> 3.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 10-year Rainfall=5.49"

A	rea (sf)	CN E	Description						
	7,547	98 F	Paved parking, HSG C						
	0		Paved parking, HSG D						
	48,044				ood, HSG C				
	263	80 >	75% Gras	s cover, Go	ood, HSG D				
	55,854	77 V	Veighted A	verage					
	48,307	8	6.49% Per	vious Area					
	7,547	1	3.51% Imp	ervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
11.5	100	0.0300	0.14		Sheet Flow,				
					Grass: Dense n= 0.240 P2= 3.56"				
0.8	100	0.0200	2.12		Shallow Concentrated Flow,				
					Grassed Waterway Kv= 15.0 fps				
1.0					Direct Entry, Culvert to Ditch				
13.3	200	Total							

Subcatchment 1S: Existing to Ditch



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Summary for Subcatchment 2S: Existing to RPA

Runoff =

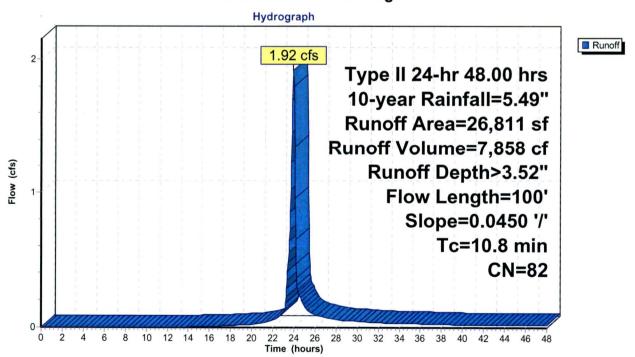
1.92 cfs @ 23.93 hrs, Volume=

7,858 cf, Depth> 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 10-year Rainfall=5.49"

	Α	rea (sf)	CN [Description					
		2,228	98 F	Paved parking, HSG C					
		303	98 F	Paved parking, HSG D					
		817	74	>75% Gras	s cover, Go	ood, HSG C			
		23,463	80 >	>75% Gras	s cover, Go	ood, HSG D			
	26,811 82 Weighted Average				verage				
24,280 90.56% Pervious Area					vious Area				
		2,531	9	9.44% Impe	ervious Area	a			
	Tc	Length	Slope	Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·			
	9.8	100	0.0450	0.17		Sheet Flow,			
						Grass: Dense n= 0.240 P2= 3.56"			
	1.0					Direct Entry, Swale to Wetlands			
-	10.8	100	Total						

Subcatchment 2S: Existing to RPA



Appendix A2 Proposed Site Drainage Calculations



Proposed to Ditch



Proposed to Wetlands









17-447 Preliminary Quantity Calcs (On-site)
Prepared by Hewlett-Packard Company
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Area Listing (selected nodes)

,	Area CN	Description
(s	sq-ft)	(subcatchment-numbers)
48	,395 74	>75% Grass cover, Good, HSG C (3S, 4S)
19	,650 80	>75% Grass cover, Good, HSG D (3S, 4S)
10	,213 98	Paved parking, HSG C (3S, 4S)
4	,399 98	Paved parking, HSG D (3S, 4S)

Page 3

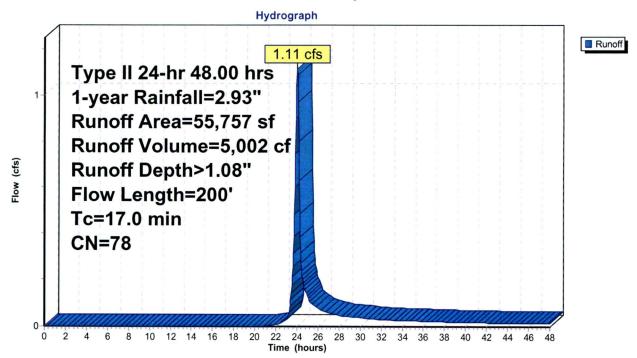
Summary for Subcatchment 3S: Proposed to Ditch

Runoff = 1.11 cfs @ 24.01 hrs, Volume= 5,002 cf, Depth> 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 1-year Rainfall=2.93"

A	rea (sf)	CN [Description				
	9,757	98 F	Paved park	ing, HSG C			
	523	98 F	Paved park	ing, HSG D)		
	45,259	74 >	75% Ġras	s cover, Go	ood, HSG C		
	218	80 >	75% Gras	s cover, Go	ood, HSG D		
	55,757	78 V	Weighted Average				
	45,477	8	31.56% Per	vious Area	î		
	10,280	1	8.44% Imp	pervious Ar	ea		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
15.2	100	0.0150	0.11		Sheet Flow,		
					Grass: Dense n= 0.240 P2= 3.56"		
8.0	100	0.0200	2.12		Shallow Concentrated Flow,		
					Grassed Waterway Kv= 15.0 fps		
1.0					Direct Entry, Channel Flow To Ditch		
17.0	200	Total					

Subcatchment 3S: Proposed to Ditch



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Summary for Subcatchment 4S: Proposed to Wetlands

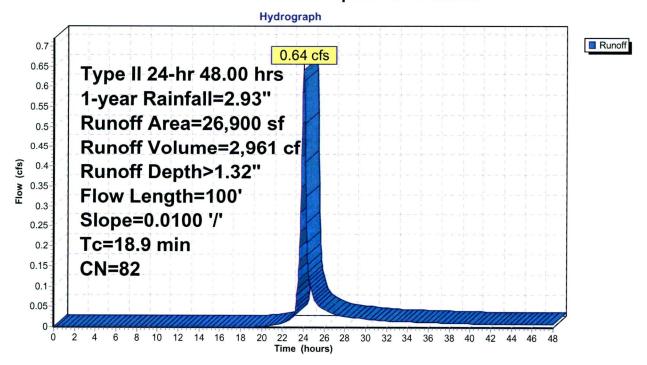
Runoff 0.64 cfs @ 24.03 hrs, Volume=

2,961 cf, Depth> 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 1-year Rainfall=2.93"

	rea (sf)	CN [Description		
	456	98 F	Paved park	ing, HSG C	
	3,876	98 F	Paved park	ing, HSG D)
	3,136	74 >	75% Gras	s cover, Go	ood, HSG C
	19,432	80 >	75% Gras	s cover, Go	ood, HSG D
	26,900	82 V	Veighted A	verage	
	22,568	8	3.90% Pei	vious Area	
	4,332	1	6.10% Imp	pervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
17.9	100	0.0100	0.09		Sheet Flow, Gravel Driveways / Grass Yards Average
					Grass: Dense n= 0.240 P2= 3.56"
1.0					Direct Entry, Channel To RPA Buffer
18.9	100	Total			

Subcatchment 4S: Proposed to Wetlands



Prepared by Hewlett-Packard Company

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Summary for Subcatchment 3S: Proposed to Ditch

Runoff

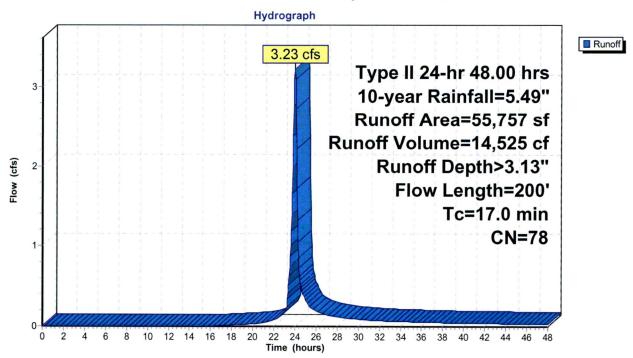
3.23 cfs @ 24.00 hrs, Volume=

14,525 cf, Depth> 3.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 10-year Rainfall=5.49"

A	rea (sf)	CN [Description				
	9,757	98 F	Paved park	ing, HSG C			
	523	98 F	Paved park	ing, HSG D)		
	45,259	74 >	75% Gras	s cover, Go	ood, HSG C		
	218	80 >	75% Gras	s cover, Go	ood, HSG D		
	55,757	78 V	Weighted Average				
	45,477	3	1.56% Per	vious Area			
	10,280	1	8.44% Imp	pervious Ar	ea		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
15.2	100	0.0150	0.11		Sheet Flow,		
					Grass: Dense n= 0.240 P2= 3.56"		
8.0	100	0.0200	2.12		Shallow Concentrated Flow,		
					Grassed Waterway Kv= 15.0 fps		
1.0					Direct Entry, Channel Flow To Ditch		
17.0	200	Total					

Subcatchment 3S: Proposed to Ditch



Page 6

Summary for Subcatchment 4S: Proposed to Wetlands

Runoff

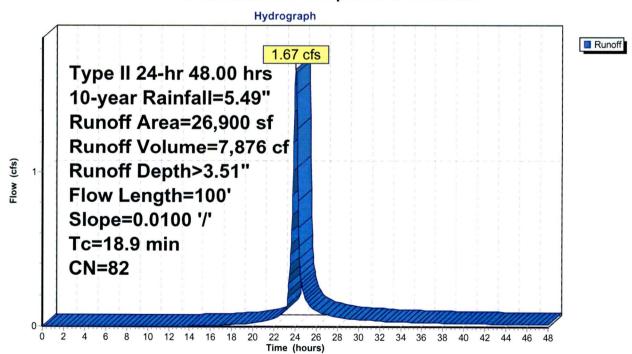
1.67 cfs @ 24.02 hrs, Volume=

7,876 cf, Depth> 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 10-year Rainfall=5.49"

	A	rea (sf)	CN [Description		
		456	98 F	Paved park	ing, HSG C	
		3,876	98 F	Paved park	ing, HSG D	
		3,136	74 >	75% Gras	s cover, Go	ood, HSG C
	13	19,432	80 >	75% Gras	s cover, Go	ood, HSG D
		26,900	82 V	Veighted A	verage	
		22,568	8	3.90% Per	vious Area	
		4,332	1	6.10% Imp	ervious Ar	ea
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	17.9	100	0.0100	0.09		Sheet Flow, Gravel Driveways / Grass Yards Average
						Grass: Dense n= 0.240 P2= 3.56"
_	1.0					Direct Entry, Channel To RPA Buffer
	18.9	100	Total			

Subcatchment 4S: Proposed to Wetlands



Appendix A3 Proposed Ditch Routing Calculations



Proposed to Ditch

Proposed Dry Pond / Ditch









Proposed Dry Pond / Ditch Routing

17-447 Preliminary Quantity Calcs (On-site)
Prepared by Hewlett-Packard Company
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Printed 2/1/2018 Page 2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
45,259	74	>75% Grass cover, Good, HSG C (3S)
218	80	>75% Grass cover, Good, HSG D (3S)
9,757	98	Paved parking, HSG C (3S)
523	98	Paved parking, HSG D (3S)

17-447 Preliminary Quantity Calcs (On-site)Type II 24-hr 48.00 hrs 1-year Rainfall=2.93"

Prepared by Hewlett-Packard Company

Printed 2/1/2018

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Page 3

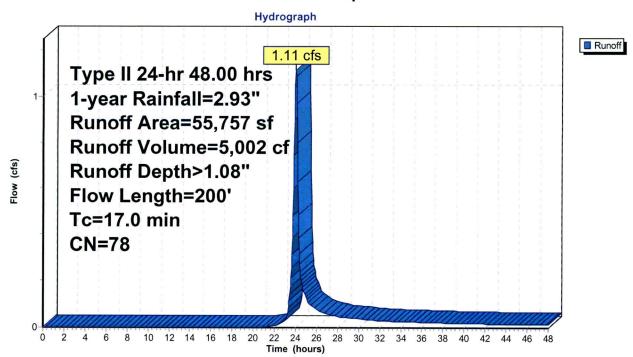
Summary for Subcatchment 3S: Proposed to Ditch

Runoff = 1.11 cfs @ 24.01 hrs, Volume= 5,002 cf, Depth> 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 1-year Rainfall=2.93"

	rea (sf)	CN E	Description		
	9,757	98 F	aved park	ing, HSG C	
	523	98 F	aved park	ing, HSG D	
	45,259	74 >	75% Gras	s cover, Go	ood, HSG C
	218	80 >	75% Gras	s cover, Go	ood, HSG D
N	55,757	78 V	Veighted A	verage	
	45,477	8	1.56% Per	vious Area	
	10,280	1	8.44% Imp	pervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
15.2	100	0.0150	0.11		Sheet Flow,
					Grass: Dense n= 0.240 P2= 3.56"
0.8	100	0.0200	2.12		Shallow Concentrated Flow,
					Grassed Waterway Kv= 15.0 fps
1.0					Direct Entry, Channel Flow To Ditch
17.0	200	Total		·	

Subcatchment 3S: Proposed to Ditch



17-447 Preliminary Quantity Calcs (On-site) Type II 24-hr 48.00 hrs 1-year Rainfall=2.93"

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Page 4

Summary for Pond 7P: Proposed Dry Pond / Ditch

55,757 sf, 18.44% Impervious, Inflow Depth > 1.08" for 1-year event Inflow Area =

5,002 cf Inflow

1.11 cfs @ 24.01 hrs, Volume= 0.75 cfs @ 24.16 hrs, Volume= 4,988 cf, Atten= 33%, Lag= 9.1 min Outflow

0.75 cfs @ 24.16 hrs, Volume= 4.988 cf Primary

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Peak Elev= 13.88' @ 24.16 hrs Surf.Area= 1,165 sf Storage= 587 cf

Plug-Flow detention time= 11.1 min calculated for 4,983 cf (100% of inflow)

Center-of-Mass det. time= 7.7 min (1,710.9 - 1,703.2)

Volume	Inv	ert Avail.Sto	orage Storage [Description		
#1	13.	00' 2,8	35 cf Custom	Stage Data (P	rismatic)Listed below (Recalc)	
Elevatio (fee 13.0 14.0 15.0	et) 00 00	Surf.Area (sq-ft) 170 1,300 2,900	Inc.Store (cubic-feet) 0 735 2,100	Cum.Store (cubic-feet) 0 735 2,835		
Device	Routing	Invert	Outlet Devices			
#1	Primary	13.00'	6.0" Vert. Orifi	ice/Grate C=	0.600	
#2	Primary	13.90'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 1.10 Width (feet) 8.40 15.00			

Primary OutFlow Max=0.75 cfs @ 24.16 hrs HW=13.88' (Free Discharge)

-1=Orifice/Grate (Orifice Controls 0.75 cfs @ 3.81 fps)

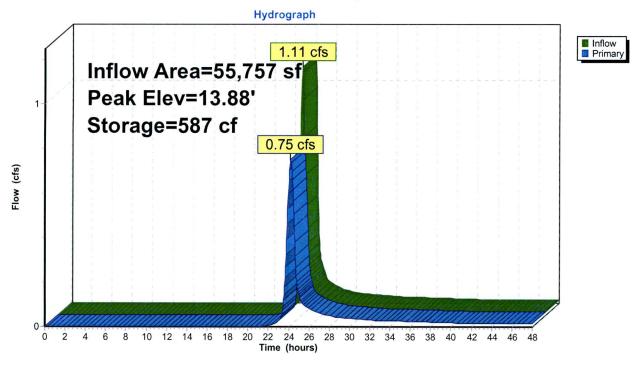
-2=Custom Weir/Orifice (Controls 0.00 cfs)

17-447 Preliminary Quantity Calcs (On-site) Type II 24-hr 48.00 hrs 1-year Rainfall=2.93" Printed 2/1/2018

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Page 5

Pond 7P: Proposed Dry Pond / Ditch



Page 6

Summary for Subcatchment 3S: Proposed to Ditch

Runoff

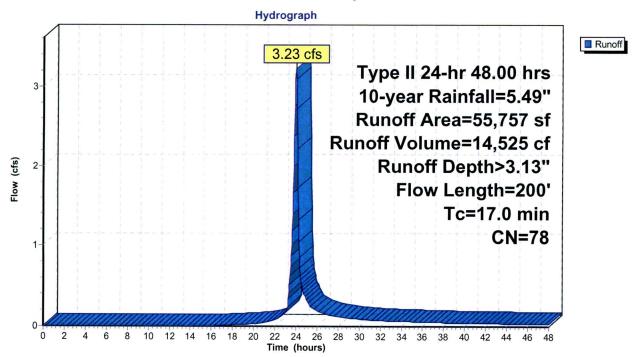
3.23 cfs @ 24.00 hrs, Volume=

14,525 cf, Depth> 3.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 24-hr 48.00 hrs 10-year Rainfall=5.49"

A	rea (sf)	CN E	escription				
	9,757	98 F	aved park	ing, HSG C			
	523	98 F	aved park	ing, HSG D)		
	45,259				ood, HSG C		
	218				ood, HSG D		
	55,757	78 V	Weighted Average				
	45,477	8	1.56% Per	vious Area			
	10,280	1	8.44% Imp	pervious Ar	ea		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	•		
15.2	100	0.0150	0.11		Sheet Flow,		
					Grass: Dense n= 0.240 P2= 3.56"		
8.0	100	0.0200	2.12		Shallow Concentrated Flow,		
					Grassed Waterway Kv= 15.0 fps		
1.0					Direct Entry, Channel Flow To Ditch		
17.0	200	Total					

Subcatchment 3S: Proposed to Ditch



17-447 Preliminary Quantity Calcs (On-site) Type II 24-hr 48.00 hrs 10-year Rainfall=5.49"

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Summary for Pond 7P: Proposed Dry Pond / Ditch

Inflow Area = 55,757 sf, 18.44% Impervious, Inflow Depth > 3.13" for 10-year event

Inflow = 3.23 cfs @ 24.00 hrs, Volume= 14,525 cf

Outflow = 3.21 cfs @ 24.02 hrs, Volume= 14,501 cf, Atten= 1%, Lag= 1.2 min

Primary = 3.21 cfs @ 24.02 hrs, Volume= 14,501 cf

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Peak Elev= 14.09' @ 24.02 hrs Surf.Area= 1,439 sf Storage= 854 cf

Plug-Flow detention time= 8.4 min calculated for 14,501 cf (100% of inflow)

Center-of-Mass det. time= 6.3 min (1,648.2 - 1,641.9)

Volume	Inv	ert Avail.St	orage Storage	Description	
#1	13.	00' 2,8	335 cf Custom	Stage Data (P	rismatic)Listed below (Recalc)
Elevation (fee	et) 00	Surf.Area (sq-ft) 170	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
14.0 15.0		1,300 2,900	735 2,100	735 2,835	
Device	Routing	0 0 * 20 20 20	Outlet Devices	,	
#1 #2	Primary Primary		Custom Weir/ Head (feet) 0.		
			Width (feet) 8	.40 15.00	

Primary OutFlow Max=3.18 cfs @ 24.02 hrs HW=14.09' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.86 cfs @ 4.40 fps)

2=Custom Weir/Orifice (Weir Controls 2.31 cfs @ 1.39 fps)

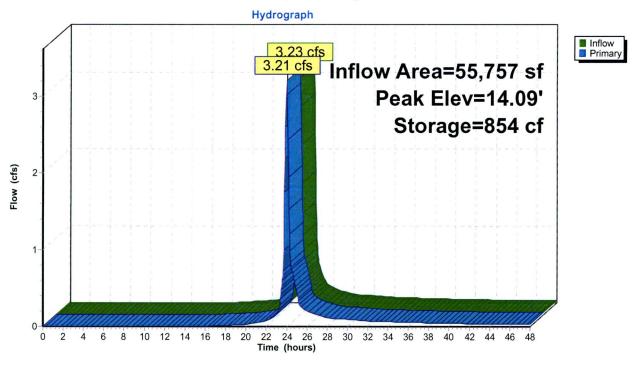
Proposed Dry Pond / Ditch Routing

17-447 Preliminary Quantity Calcs (On-site) Type II 24-hr 48.00 hrs 10-year Rainfall=5.49" Prepared by Hewlett-Packard Company Printed 2/1/2018

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Pond 7P: Proposed Dry Pond / Ditch



Appendix A4 Water Quantity Compliance Calculations

Landtech Resources, Inc.

Project No.: 234 Neck-O-Land Road Subdivision

Date:

Proposed Drainage Area:

Area Draining to Roadside Ditch

Water Quantity Calculations

9VAC25-870-66

Calculated Data
User Enter Data

Channel Protection

(B)(3)(a)

1-Year Rainfall Event

Discharge to natural stormwater conveyance system:

The maximum peak flow rate from the one-year 24-hour storm following the LDA shall be calculated using the energy balance equation (EBE):

$Q_{Developed} \le [I.F. \ X \ (Q_{Pre-Developed} \ X \ R_V_{Pre-Developed})] \ / \ R_V_{Developed}$

Q Developed	Allowable peak flow rate of runoff from the developed site	
R _V Developed	Volume of runoff from the site in the developed condition	
Q Pre-Developed	Peak flow rate of runoff from the site in the pre-developed condition	
R _V Pre-Developed	Volume of runoff from the site in pre-developed condition	
Q Forest	Peak flow rate of runoff from the site in the forested condition	
R _V Forest	R _V Forest Volume of runoff from the site in a forested condition	
I.F.	Improvement factor (I.F. = 0.8 for sites > 1 Acres or 0.9 for sites ≤ 1 Acres)	

Under no condition can the post-development peak flow rates be greater than pre-development peak flow rates

Under no condition can the post-development peak flow rates be required to be less than the peak flow rate of the site in a forested condition $[(Q Forest \ X R_V Forest)] / R_V Developed$

Qdeveloped Using E <i>BE</i>	0.86	cfs
Qdeveloped Using Forested Condition	0.00	cfs
R _V Developed	5002	cf
QPre-Developed	1.13	cfs
R _V Pre-Developed	4751	cf
Q Forest	0.00	cfs
R _V Forest	0.00	cf
I.F.	0.8	0.8 for sites > 1 Ac. Or 0.9 for sites ≤ 1 Ac.
	A STATE OF THE STA	
Allowable Qdeveloped=	0.86	cfs - Lagrand Andrews - the Company of the Company
Provided Qdeveloped=	0.75	cfs

Notes:

1-Year storm event will be released through a 6" orifice in a timber weir installed within a drainage ditch.

Flood Protection

(C)(2)(b)

10-Year Rainfall Event

Concentrated stormwater flow to stormwater conveyance systems that currently experience localized flooding during the 10-year 24-hour storm event should;

Release the post-development peak flow rate for the 10-year 24-hour storm event that is less than the pre-development peak flow rate from the 10-year 24-hour storm event. (Downstream stormwater conveyance systems do not require any additional analysis to show compliance with flood protection criteria if this option is utilized)

Landtech Resources, Inc.

Project No.: 234 Neck-O-Land Road Subdivision

Date:

Proposed Drainage Area:

Area Draining to RPA

Water Quantity Calculations

9VAC25-870-66

Calculated Data User Enter Data

Channel Protection

(B)(3)(a)

1-Year Rainfall Event

Discharge to natural stormwater conveyance system:

The maximum peak flow rate from the one-year 24-hour storm following the LDA shall be calculated using the energy balance equation (EBE):

$Q_{Developed} \le [I.F. X (Q_{Pre-Developed} X R_{V}Pre-Developed)] / R_{V}Developed$

Q Developed	Allowable peak flow rate of runoff from the developed site	
R _V Developed	Volume of runoff from the site in the developed condition	
QPre-Developed	Peak flow rate of runoff from the site in the pre-developed condition	
R _V Pre-Developed	Developed Volume of runoff from the site in pre-developed condition	
Q Forest	Peak flow rate of runoff from the site in the forested condition	
R _V Forest	R _V Forest Volume of runoff from the site in a forested condition	
.F. Improvement factor (I.F. = 0.8 for sites > 1 Acres or 0.9 for sites ≤ 1 Acres)		

Under no condition can the post-development peak flow rates be greater than pre-development peak flow rates

Under no condition can the post-development peak flow rates be required to be less than the peak flow rate of the site in a forested condition $[(Q \text{ Forest } X R_V \text{ Forest})] / R_V \text{ Developed}$

Qdeveloped Using EBE	0.66	cfs
Qdeveloped Using Forested Condition	0.00	cfs
R _V Developed	2961	cf
QPre-Developed	0.74	cfs
R _V Pre-Developed	2954	cf
Q Forest	0.00	cfs
R _V Forest	0.00	cf
I.F.	0.9	0.8 for sites > 1 Ac. Or 0.9 for sites ≤ 1 Ac.
Allowable Qdeveloped=	0.66	cfs the state of t
Provided Qdeveloped=	0.64	cfs

Notes:

1-Year storm will be reduce to the required value by lot grading and increase in total Tc

Flood Protection

(C)(2)(b)

10-Year Rainfall Event

Concentrated stormwater flow to stormwater conveyance systems that currently experience localized flooding during the 10-year 24-hour storm event should;

Release the post-development peak flow rate for the 10-year 24-hour storm event that is less than the pre-development peak flow rate from the 10-year 24-hour storm event. (Downstream stormwater conveyance systems do not require any additional analysis to show compliance with flood protection criteria if this option is utilized)

QPost-Development 1.67 Flood Protection Criteria Meet Criteria Satisfied
QPost-Development 1.67

Appendix B Water Quality Calculations

Sandward was described by the sand of	TP Load Reduction Required (lb/yr)	0.47		
	Che is Present to save feeligness to indicate	The second second		
Nitrogen Loads (Informational Purposes Only)				
Pre-ReDevelopment TN Load (lb/yr)	10.19	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	11.46	

numbers, and intensities for the 2- and 10-year design events and channel design assumptions (slopes, lining, side slopes, etc.).

8. Stormwater Conveyance Channel Details. Provide typical sections with construction data for all proposed onsite stormwater conveyance (open) channels.



12/21/2017

Roberta Sulouff JCC Development Management. 101-A Mounts Bay Road Williamsburg, VA 23187

Re: S-0031-2017, 234 Neck-O-Land Road

Dear Roberta,

We have addressed your comments of 12/06/2017 as follows:

Planning:

1. Please note that it is the applicant's responsibility to obtain all signatures prior to final approval.

Acknowledged

2. Please reference JCC Case No. S-0031-2017 on all future plat submittals.

Acknowledged

3. Shared Driveway: The County attorney has reviewed and approved the wording of the submitted shared driveway covenant. Please ensure that this document is recorded prior to or concordant with the recordation of the proposed subdivision.

Acknowledged

4. Subdivision Agreement/Bonding: please submit all required documents for bonding and Subdivision Agreement per Stormwater and Resource Protection comments issued September 5, 2017.

Owner will be submitting.

5. Please make sure that the owner's signature block is printed and signed as required by Sec. 19-29 of the Subdivision Ordinance.

Done

6. Please include property owner information, including an instrument reference to the deed, on the property information block shown on sheet 2.

Done

7. Please include the seal of the licensed surveyor or engineer who prepared this plat.

Done

JCSA

(Comments from 10/30/2017)

1. On the Development sheet, a 20' wide JCSA is shown. On the other sheet, a 25' wide JCSA is shown. JCSA only requires a 20' wide easement. Please correct callout on the other sheet to be 20' wide JCSA easement.

Distance Corrected

STORMWATER & RESOURCE PROTECTION

(Comments from 11/02/2017)

1. RPA Boundary. Lot 4 is partially located within the RPA buffer. Provide enough measurements in relation to the property line of lot 4 to be able to determine the RPA boundary onsite.

Dimensions have been added.

A construction detail for the Shared Driveway has also been added to Sheet 2. Per VDOT request: the detail for the low volume commercial entrance has been added to Sheet 2

Please let me know if you need anything else.

Sincerely,

Peter Farrell, L.S.

<u>copies and two rolled paper copy</u> of the signed plans. If you have any further questions, please feel free to contact me by email at <u>Roberta.Sulouff@jamescitycountyva.gov</u>, or by telephone at 253-6783.

Sincerely,

Roberta Sulouff, Senior Planner

Totale alf Salarff



November 13, 2017

James City County Tax Map #7470100015

Thomas Shane & Cara A Martin 230 Neck-O-Land Road Williamsburg, VA 23188

Re:

Proposed Minor Subdivision

To whom it may concern:

In accordance with Section 24-146 of the Code of James City County, please allow this letter to serve as notification that development plans have been submitted to the James City County Development Management Department for a site plan proposing changes to the adjacent 234 Neck-O-Land Road.

Plans are on file and available for review at the James City County Planning Division, 101-A Mounts Bay Road, Williamsburg, VA, 757-253-6685. Office hours are Monday through Friday, 8 a.m.-5 p.m.

Respectfully,

LandTech Resources, Inc.

William S. Felts, L.S.

Vice President



November 13, 2017

James City County Tax Map #4740100020

ELM Associates, C/O L.A. McMurran, III 510 Colony Trail Lanexa, VA 23189

Re:

Proposed Minor Subdivision

To whom it may concern:

In accordance with Section 24-146 of the Code of James City County, please allow this letter to serve as notification that development plans have been submitted to the James City County Development Management Department for a site plan proposing changes to the adjacent 234 Neck-O-Land Road.

Plans are on file and available for review at the James City County Planning Division, 101-A Mounts Bay Road, Williamsburg, VA, 757-253-6685. Office hours are Monday through Friday, 8 a.m.-5 p.m.

Respectfully,

LandTech Resources, Inc.

William S. Felts, L.S.

Vice President



November 13, 2017

James City County Tax Map #4740100040A & 4741500003D

Gilley Properties, LLC 223 Gate House Boulevard Williamsburg, VA 23185

Re:

Proposed Minor Subdivision

To whom it may concern:

In accordance with Section 24-146 of the Code of James City County, please allow this letter to serve as notification that development plans have been submitted to the James City County Development Management Department for a site plan proposing changes to the adjacent 234 Neck-O-Land Road.

Plans are on file and available for review at the James City County Planning Division, 101-A Mounts Bay Road, Williamsburg, VA, 757-253-6685. Office hours are Monday through Friday, 8 a.m.-5 p.m.

Respectfully,

LandTech Resources, Inc.

William S. Felts, L.S.

Vice President

When the above and any outstanding comments have been incorporated into the plat, please submit 6 paper copies and any requested documents for review along with a letter outlining how the applicant has addressed each of the comments. If you have any further questions, please feel free to contact me by email at Roberta.Sulouff@jamescitycountyva.gov, or by telephone at 253-6783.

Sincerely,

Roberta Sulouff

Planner



DEPARTMENT OF TRANSPORTATION

1700 North Main Street SUFFOLK, VIRGINIA 23434

5 Sep., 2017

James City County Planning 101-A Mounts Bay Road Post Office Box 8784 Williamsburg, Virginia 23187

RE: Neck O'Land Road division

234 Neck O'Land Rd.

James City County plan S-0031-2017

VDOT has completed its review of the plan received by the VDOT Land Development Office on 11 Sep., 2017. Comments on the proposal are listed below.

- 1) A combined entrance will require low volume commercial standards.
- 2) Stopping sight distance needs to be demonstrated to be adequate at the proposed entrance. Please show sight distances and any necessary easements or clearing on the plat or an exhibit.

For resubmittals please provide two paper copies and one electronic PDF file of the plan and supporting documents. Please provide a written response if possible. Where work will be necessary within existing right of way, please provide an engineer's cost estimate with final plans. This will be used to set the surety amount for the Land Use Permit. A Land Use Permit will be required prior to construction within right of way limits or easements (including for temporary or permanent driveways and entrances). Additional information about Land Use Permitting as well as the required forms can be found on the VDOT website at http://www.virginiadot.org/business/bu-landUsePermits.asp. If you have any questions, please contact me.

Sincerely,

Glenn Brooks, P.E. Area Land Use Engineer VDOT, Williamsburg Residency Glenn.Brooks@vdot.virginia.gov

> VirginiaDOT.org WE KEEP VIRGINIA MOVING

Office: 757-253-4015 Mobile: 757-327-9263



Case Transmittal Sheet

Date:

08/28/2017

To:

Stormwater and Resource Protection

Deputy Zoning Administrator

VDOT JCSA

From:

Roberta Sulouff, Planner (6783)

Subject:

S-0031-2017, 234 Neck O'Land Subdivision

Submittal No.: 1

Items Attached: Subdivision Plat

Action: Please review this application by 9/12/2017

Application Subject to the Following		
	Proffers – Case No.	
	SUP – Case No.	
	Agricultural Forestal District	
	Special Flood Hazard Area	
1	Other: C-50-17	

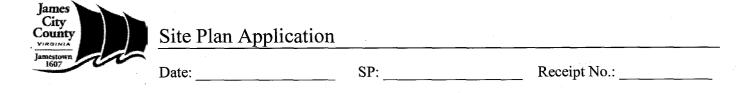
Public Meetings (Tentative Dates)		
Planning Commission	Date:	
Board of Supervisors	Date:	
DRC	Date:	
Dev. Roundtable	Date:	
Other:	Date:	

Other Comments:

Plat for 5 lots on 2 acres in R-2. Existing structure and associated driveway are to stay, longer drive will be used as shared driveway.

SRP: they plan to improve longer, existing driveway as shared. Please comment re: any requirements for showing on plan/bonding etc

No RPA or floodplain



Please complete all sections of the application. Call 757-253-6685 if you have any questions, or go online to jamescitycountyva.gov/planning/procedures.html

1. Project Information					
Project Name: Minor Subdivision of 234 Neck-O-Land Road					
Address: 234 Neck-O-Land Road Zoning: R2					
Number of acres: 1.962 Total building square footage: 7	,500				
Does site receive public water and sewer? Yes X No					
If yes, does site receive public water from the City of Newport News? Yes NoX					
Tax Map and Parcel ID: 4740100014					
If this plan is for townhouses/condominiums, how many lots	/units are proposed? N/A				
Is the property in a FEMA Flood Zone? Yes NoX					
Please provide a brief description of project: This site plan p	roposes the improvements to 234				
Neck-O-Land Drive required to development the site into a mi	nor subdivision of 5 lots				
2. Applicant/Contact Information					
Name: William Felts					
Company: LandTech Resources, Inc.	Phone: 757-565-1677				
Address: 3925 Midlands Road, Williamsburg, VA 23188	Fax: 757-565-0782				
Does applicant want to receive updates via CaseTrak? Yes X No					
If yes, please provide an email address: william@landtechresources.com					
3. Property Owner Information					
Name: Fred Nice					
Company: Magnolia Green, LLC Phone: 757-871-9506					
Address: 3002 Forge Road, Toano, VA 23168 Fax:					
E-mail: fanice@aol.com					
4. Does project require a VDOT 527 Traffic Study? Yes NoX					
Please see: virginiadot.org/projects/chapter527/default.asp for more information, or call:					
757-925-2500, VDOT, Hampton Roads District Office.					
If yes, did you include a separate check for the fee? Yes No					
5. Are there any special use permit or proffer conditions? Y	es No <u>X</u>				
If yes, please list the case number:					

6.	Is this an amendment to a previously approved Site Plan (see Section 24-157 of the Ordinance)?	Zoning
	Yes No _X If yes, please list the case number:	
7.	Does this plan propose any well or pump stations to be dedicated to JCSA? Yes No _X	
8.	Has a conceptual plan, in accordance with Section 24-145 of the Zoning Ordinance, submitted? Yes No _X	been
9.	I do hereby certify that I have read and am familiar with the requirements for submission of site plans as provided for under Article III of the Zoning Ordinance further that this submittal is in compliance with those requirements and applications of the Zoning Ordinance for the zone in which this project is located variances have been properly requested or granted in accordance with Article Variance Ordinance. Signature of Applicant: Date: 11/13/2617	e and cable d, or
10	. Certification of Notice of Adjacent Property Owners	
	In accordance with Section 24-146 of the Code of the County of James City, I hereby of the adjacent property owners have been notified. Listed below are the names and all adjacent property owners.	
	A copy of the letter used for this notification is attached. Signature of Applicant: Date: 11/13/2017	·
Sit	te Plan APP	Rev 04_12

ADJACENT PROPERTY OWNERS:

NAME:	ADDRESS:
1. Gilley Properties, LLC	223 Gate House Blvd.
	Williamsburg, VA 23185
_{2.} ELM Associates	510 COlony Trail
	Lanexa, VA 23089
3. Thomas Shane & Cara A. Martin	230 Neck-O-Land Road
	Williamsburg, VA 23188
4	
5	
6	
	·
7	
8	
9	
10	

(Use another page if necessary to complete list of owners)

PLAN CLOSEOUT

ROUTING CHECKLIST	PLANNER
(Filled out by Planner, completed by front desk)	(Filled out and completed by Planner)
☐ Records (all cases)	☐ Update New Town files
Subdivision Plats	☐ Update Stonehouse files
☐ Real Estate for addressing	☐ Update Colonial Heritage files
	☐ Update AFD files
Site Plans/Subdivision Construction Plans	☐ Verify/update CaseTrak
	☐ Clean out file
☐ Engineering and Resource Protection	
☐ JCSA (3 copies)	CONTENT ID FOR RECORDS
□ VDOT	☐ Text documents
☐ Real Estate Assessment (site plans for multi-	☐ Drawings larger than 11" x 17"
unit building addressing)	☐ Drawings 11" x 17" or smaller
☐ Parks and Recreation (for greenways/trails)	☐ Color renderings
☐ Stormwater Division (only for plans with	☐ Photographs
impervious cover)	☐ Other:
☐ County Engineer	
☐ Other:	FRONT DESK (Filled out by Planner, completed by Front Desk)
	☐ Have Proffer Administrator review file for development and/or proffer/condition tracking
	☐ Hold for signed Resolution
	☐ Hold for recorded proffers
	☐ Set up Master Plan file
	☐ Send AFD to Real Estate Assessment
	☐ Update CaseTrak
	☐ Other instructions:
	•

Date Final Approval Granted:

MEMORANDUM

DATE:

Tuesday, September 11, 2018

TO:

Louise Hibbard, JCSA Customer

Kathryn Murray, Post Office (Monticello Branch)

Planning Dept.

Ryan Ashe, Fire Dept.

Darin Swedenborg, Fire Dept. Lois Delk, School Transportation

Jane Townsend, Satellite Services

Tom Coghill, Bldg Safety & Permits Alan Cole, Sr, Voter Registration Kim Carter, Environmental Health

Jim Hill, Recycling Terri Cook, JCSA

Charlie Hardy, Cox Communications

Yong Lee, Virginia Power

Fred Pleasants,

Susan Daniel, Virginia Natural Gas

FROM:

Janice Schaeffer, Real Estate Information Specialist

SUBJECT:

Final Addresses and Parcel Identification Numbers

MAGNOLIA GREEN ADDRESS UPDATES

(DUPLEXES) (S-0031-2017)

This information is available at Real Estate Assessments Division and the Planning Office.

	Parcel ID #	<u>Address</u>
1	4741700001	2341 NECK-O-LAND ROAD
		234J NECK-O-LAND ROAD

S 0031 2017 1267

Page 1 of 2

2	4741700002	234G NECK-O-LAND ROAD
		234H NECK-O-LAND ROAD
3	4741700003	234E NECK-O-LAND ROAD
		234F NECK-O-LAND ROAD
4	4741700004	234C NECK-O-LAND ROAD
		234D NECK-O-LAND ROAD
5	4741700005	234A NECK-O-LAND ROAD
		234B NECK-O-LAND ROAD
		Williamsburg VA 23185

Deleted Parcel(s): 4740100014

Out of Parcel(s) /Parent Parcel(s):

Notes:

JES/slt

S 0031 2017 1267

7. Reports



STORMWATER & RESOURCE PROTECTION DIVISION REVIEW COMMENTS 234 Neck O'Land Subdivision COUNTY PLAN NO. S-031-17

February 26, 2018

Technical Review Comments

Erosion and Sediment Controls:

- 1. Sediment Trap. The proposed sediment trap needs to be installed at the Phase I as part of the preliminary E&S Control measures. Review.
- 2. Proposed Ditches. The proposed ditches not in connection with the sediment trap should have a riprap and stone barrier similar to the one in the trap spillway to control sediment laden from leaving the site. Consider isolating the ditch that runs toward the RPA entirely, since offsite runoff will be also added to it.

Stormwater:

- 3. Swales. The intersection between the discharge from the 8-inch metal pipe and the proposed ditch may need to be armored to avoid scouring on the ditch.
- 4. Timber Check Dam. Provide details for construction of the proposed timber check dam similar to those encountered on the VA DEQ Design Specification No3, pg. 4 of 21. Those details can just be added into the set of plans. Revise.

PLANNING DIVISION

FEB 26 2018



STORMWATER & RESOURCE PROTECTION DIVISION REVIEW COMMENTS 234 Neck O'Land Subdivision COUNTY PLAN NO. S-031-17 March 20, 2018

Technical Review Comments

Chesapeake Bay Preservation:

1. RPA. Re-stabilize with the appropriate vegetation those sections of the RPA buffer affected by demolition activities.

Erosion and Sediment Controls:

- 2. Sediment Trap. The proposed Demolition Plan and the Phase I Erosion and Sediment Control Plan are shown as a single plan. The Division will allow the start of the demolition process with only silt fence as a perimeter control. In such a case, the Demolition Plan needs to be shown separated from the Phase I Erosion and Sediment Control Plan.
- 3. Sequence of Construction. Provide a sequence of construction outlining installation of erosion and sediment control measures for the project and associated site and utility work. Include perimeter areas required for installation of erosion and sediment control and utility connections
- 4. Sequence of Construction. The sequence of construction needs to step clearly a demolition phase, followed by the installation of the sediment trap, followed by the removal of trees and finish clearing of the site as part of the sequence.
- 5. Proposed Ditches. The temporary check dams shown on sheet C400 should be installed on the Phase I of the Erosion and Sediment Control plan. Ensure this is included on the construction sequence as well. Please review.

PLANNING DIVISION

MAR 2 2 2018

Page 1 of 1

JCC Stormwater & Resource Protection Division S-031-17; 3rd Shared Driveway Design Review

Assigned Planner: Roberta Sulouff

JAN 02 2018



STORMWATER & RESOURCE PROTECTION DIVISION REVIEW COMMENTS 234 Neck O'Land Subdivision COUNTY PLAN NO. S-031-17

December 27, 2017

Permitting Information and Regulatory Notices

- A local Land Disturbing/Stormwater Construction Permit (VESCP/VSMP authority permit) and Siltation Agreement, with surety, are required for this project. Upon plan approval by the Division, information regarding this process will be forwarded to the applicant. Permit applications should not be submitted prior to plan approvals.
- A Subdivision Agreement, with surety, shall be executed with the County prior to recording of lots within this development section.
- Offsite Work. Provide evidence of permission to occupy or disturb the offsite adjacent tract from the parcel owner. Fencing to be removed is located on Elm Associates parcel.

Technical Review Comments

Erosion and Sediment Controls:

1. Sediment Trap. The area of disturbance is 1.88 acres and the length to a silt fence barrier is about 200 feet. This site will require a sediment trap (E&S Control Handbook, 3.05, 3.13)

Stormwater:

- 2. Swales. Rear yard swales that bisect the yards are undesirable as they inhibit yard use for the homeowners. Consider relocating swales to property edges. Private drainage easements are needed.
- 3. Level Spreader. Since the purpose of the two proposed level spreaders is to sheet flow runoff toward the RPA, clarify whether this design is in accordance with the VA DEQ Stormwater Design Specification No2, in which case the portion of the RPA located within the minor subdivision perimeter must be protected with a Conservation easement and must meet County standard easement dimensions.
- 4. Shared driveway. Provide a pipe section under the shared driveway at the entrance of the northeastern lot.
- 5. Drainage Easement. The offsite drainage from the Martin parcel must be contained within an easement.
- 6. Water Quantity. Calculations are needed to show the Energy Balance requirement is being met.
- 7. Stormwater Conveyance Channel Computations. Provide calculations to support the design of all stormwater conveyance channels and swales. Include drainage areas, times of concentration, runoff coefficients or curve

Page 1 of 2

Assigned Planner: Roberta Sulouff

JCC Stormwater & Resource Protection Division S-031-17; 1st Shared Driveway Design Review



STORMWATER & RESOURCE PROTECTION DIVISION REVIEW COMMENTS 234 Neck O'Land Subdivision COUNTY PLAN NO. S-031-17

December 27, 2017

The following review comments pertain to the Subdivision Plat of Magnolia Green and not to the driveway plan of the same plan identification number.

1. Easements.

- a. As per the driveway plan review comment, an easement is needed for offsite drainage from the Martin parcel.
- b. As per the driveway plan review comment, easements are needed for various yard swales.
- c. As per the driveway plan review comment, an easement is needed for the RPA being used as a BMP.

PLANNING DIVISION

JAN 02 2018



STORMWATER & RESOURCE PROTECTION DIVISION REVIEW COMMENTS 234 Neck O'Land Subdivision COUNTY PLAN NO. C-050-17 November 2, 2017

Permitting Information and Regulatory Notices

• Professional seal and signature is required on final and complete approved stormwater management plans, drawings, technical reports, and specifications.

Technical Review Comments

Subdivision Plat:

1. RPA Boundary. Lot 4 is partially located within the RPA buffer. Provide enough measurements in relation to the property line of lot 4 to be able to determine the RPA boundary onsite.

PLANNING DIVISION

NOV 03 2017



STORMWATER & RESOURCE PROTECTION DIVISION REVIEW COMMENTS 234 Neck O'Land Subdivision COUNTY PLAN NO. S-031-17 Plat

September 5, 2017

Permitting Information and Regulatory Notices

• A Subdivision Agreement, with surety, shall be executed with the County prior to recording of lots within this development section.

Technical Review Comments

Subdivision Plat:

- 1. Easements. The share driveways need to be located within a share access and maintenance easement depicted on the subdivision plat.
- 2. Maintenance Documents. The subdivision cannot be recorded until shared care and maintenance documents have been approved by the county attorney. Such documents shall be recorded concurrently with the subdivision plat. (Review Section 19-73, (d) 1 and 2 of the JCC Local Ordinance for the required content on these documents).
- 3. Share Driveway Bond. Share driveways will be bonded under the Subdivision bond.
- 4. Subdivision E&S Bond. The subdivision will require an erosion and sediment control bond.
- 5. Driveway E&S Bond. Since all the share driveways add to an amount greater than 2,500 sq.ft. the share driveways will require an erosion and sediment control bond as well.

PLANNING DIVISION

SEP 05 2017

8. Correspondence



Community Development

101-A Mounts Bay Road
P.O. Box 8784
Williamsburg, VA 23187-8784
P: 757-253-6671
F. 757-253-6822
community.development@jamescitycountyva.gov
jamescitycountyva.gov

Building Safety and Permits 757-253-6620

Engineering and Resource Protection 757-253-6670

Planning 757-253-6685

Zoning Enforcement 757-253-6671

December 4, 2018

Mr. Fred Nice Fred Nice Construction Company 3002 Forge Road Toano, VA 23168

RE: S-0031-2017, 234 Neck O'Land Subdivision

Dear Mr. Nice,

This is to confirm that the above referenced subdivision has received final addressing on September 11, 2018 and a Certificate of Recordation on July 25, 2018. Enclosed is a copy of the final addressed plat for your records.

If you have any questions, please contact our office at (757) 253-6685.

Sincerely,

John Risinger

Community Development Assistant

Enclosure

cc:

Fire

JCSA

Records Management

Stormwater and Resource Protection

Zoning

MEMORANDUM

DATE:

Tuesday, September 11, 2018

TO:

Louise Hibbard, JCSA Customer

Kathryn Murray, Post Office (Monticello Branch)

Planning Dept.

Ryan Ashe, Fire Dept.

Darin Swedenborg, Fire Dept. Lois Delk, School Transportation

Jane Townsend, Satellite Services

Tom Coghill, Bldg Safety & Permits

Alan Cole, Sr, Voter Registration Kim Carter, Environmental Health

Jim Hill, Recycling Terri Cook, JCSA

Charlie Hardy, Cox Communications

Yong Lee, Virginia Power

Fred Pleasants,

FROM:

Janice Schaeffer, Real Estate Information Specialist
Final Addresses and Parcel Identification Numbers

MAGNOLIA GREEN ADDRESS

SUBJECT:

1

MAGNOLIA GREEN ADDRESS UPDATES

(DUPLEXES) (S-0031-2017)

This information is available at Real Estate Assessments Division and the Planning Office.

> Parcel ID # **Address** 4741700001 234I NECK-O-LAND ROAD 234J NECK-O-LAND ROAD

S 0031 2017 1267

Page 1 of 2

2	4741700002	234G NECK-O-LAND ROAD
		234H NECK-O-LAND ROAD
3 4741700	4741700003	234E NECK-O-LAND ROAD
		234F NECK-O-LAND ROAD
4 4741700004	4741700004	234C NECK-O-LAND ROAD
		234D NECK-O-LAND ROAD
5	4741700005	234A NECK-O-LAND ROAD
		234B NECK-O-LAND ROAD
		Williamsburg VA 23185

Deleted Parcel(s): 4740100014

Out of Parcel(s)
/Parent Parcel(s):

Notes:

JES/slt



Community Development
101-A Mounts Bay Road
P.O. Box 8784
Williamsburg, VA 23187-8784
P: 757-253-6671
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community.development@jamescitycountyva.gov

jamescitycountyva.gov

Building Safety & Permits 757-253-6620

Stormwater & Resource Protection 757-253-6670

Neighborhood Development 757-253-6640

Planning 757-253-6685

Zoning Enforcement 757-253-6671

May 30, 2018

Mr. Fred Nice Fred Nice Construction Company 3002 Forge Road Toano, VA 23168

RE: CASE NO. S-0031-2017, 234 NECK O'LAND ROAD

Dear Mr. Nice,

This is to confirm that the above referenced subdivision plat has received final approval effective May 30, 2018. Attached are signed copies of the plat for your records. Please note that the attached plat affidavit may need to be completed and brought to the Courthouse along with the plat in order to record the approved documents.

The Subdivision Ordinance allows you 180 days from the time of approval to record this plat; otherwise, the plat will have to be resubmitted and another application fee paid. Please note that it is the applicant's responsibility to keep track of this date. You will also receive a copy of the final addressed plat in the coming months for inclusion in your files.

If you have any questions, please do not hesitate to contact the Planning Division at (757) 253-6685.

Sincerely,

Ellen Cook

Principal Planner

Eller Look

Attachments:

1. Subdivision plat affidavit



DEPARTMENT OF TRANSPORTATION

1700 North Main Street SUFFOLK, VIRGINIA 23434

14 Mar., 2018

James City County Planning 101-A Mounts Bay Road Post Office Box 8784 Williamsburg, Virginia 23187

RE: Neck O'Land Road subdivision construction plan

234 Neck O'Land Rd.

James City County plan S-0031-2017

VDOT has completed its review of the construction plan received by the VDOT Land Development Office on 7 Mar., 2018. Comments on the proposal are listed below.

1) Please remove the pipes and drop inlets which served the entrances being removed. Please install a standard 15" RCP culvert for the new entrance, and establish an open ditch line along the roadway. Please do not place rip-rap in the right-of-way other than scour protection at the culvert outlet if necessary.

Rev.1: The plan provided by the county does not indicate that the existing pipe system is to be removed. Please indicate this clearly on the plan. The plan also shows rip-rap being installed where the proposed ditches enter the right-of-way. Our maintenance division does not want rip-rap in the right-of-way ditches in cases such as this. Hard ditch transitions should be PG-2A.

For resubmittals please provide one paper copy and one electronic PDF file of the plan and supporting documents. Please provide a written response if possible. Where work will be necessary within existing right of way, please provide an engineer's cost estimate with final plans. This will be used to set the surety amount for the Land Use Permit. A Land Use Permit will be required prior to construction within right of way limits or easements (including for temporary or permanent driveways and entrances). Additional information about Land Use Permitting as well as the required forms can be found on the VDOT website at http://www.virginiadot.org/business/bu-landUsePermits.asp. If you have any questions, please contact me.

Sincerely,

VirginiaDOT.org WE KEEP VIRGINIA MOVING Glenn Brooks, P.E. Area Land Use Engineer VDOT, Williamsburg Residency Glenn.Brooks@vdot.virginia.gov

Office: 757-253-4015 Mobile: 757-327-9263



MEMORANDUM

Date:

March 8, 2018

To:

Roberta Sulouff, Senior Planner

From:

Dion Walsh, JCSA Civil 1

Subject:

S-0031-2017 234 Neck-O-Land Rd Subdivision

James City Service Authority has reviewed these plans for general compliance with the JCSA Standards and Specifications, Water Distribution and Sanitary Sewer Systems and has no additional comments for the above project. Quality control and back checking of the plans and calculations for discrepancies, errors, omissions, and conflicts is the sole responsibility of the professional engineer and/or surveyor who has signed, sealed, and dated the plans and calculations. It is the responsibility of the engineer or surveyor to ensure the plans and calculations comply with all governing regulations, standards, and specifications.

Please provide two (2) copies of the approved plans for our files when you have completed your review.

Note: Provide a completed Certificate to Construct (CTC) form prior to installation of water and sewer services. The Developer's representative shall submit shop drawings for all materials and receive JCSA approval prior to commencement of construction. All materials ordered and installed prior to JCSA's review and acceptance will be at the Contractor's/Developer's risk. The JCSA inspector shall be notified 72 hours prior to the installation of water and sewer connections. The total JCSA inspection fees for this project will be \$763.42 (266 LF of sewer main x \$2.87/LF). Provide with the CTC application the inspection fees and one (1) copy of the James City County approved site plan. Tap fees shall be paid for sewer connection to JCSA.

Please call me at 757-259-5457 if you have any questions or require any additional information.



MAR 6 9 2018

9. Inspection Records

10. Miscellaneous(ex. photos)