

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 GENERAL SERVICES DEPARTMENT- STORMW ATER DIVISION; WERE SCANNED IN THE REGULAR COURSE OF BUSINESS PURSUANT TO GUIDELINES ESTABLISHED BY THE LIBRARY OF VIRGINIA AND ARCHIVES; AND HAVE BEEN VERIFIED IN THE CUSTODY OF THE INDIVIDUAL LISTED BELOW.

BMP NUMBER: 88003

DATE VERIFIED: December 9, 2021

QUALITY ASSURANCE TECHNICIAN:

Charles E. Lovett II

Charles E. Sovett II

LOCATION: WILLIAMSBURG, VIRGINIA

NOTES: CERTIFY & UPLOAD

Maintenance Agreement

2. Deeds/Easements/ Agreements/Property Records

Construction Certificate

James City County Virguinia Jamestown 1607 Logr
Project Name: <u>Clara Byrd Barber Elementary School</u> , Parking Lot Improvemento County Plan No.: <u>SP-019-2015</u> Stormwater Management Facility: <u>Stormwater System</u> BMP Phase #: <u>IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</u>
 Construction certification Date/By: <u>B/A//F Paul E. Tsch Oercy</u> RD/CC standard forms (Required for all BMPs after Feb 1st 2001Only) Insp/maint. agreement # / Date: <u>P/A - SchoolS</u> BMP Maintenance Plan Location: <u>P/A</u> Other: V(deo
 Standard County SWPPP Notes on approved plan requiring RD/CC and/or County comment at plan review Yes Do Location: <u>C-06 Approved Plan</u> Assign County BMP ID Code #: Code: <u>N/A</u> Preliminary input/log into Division's "As-Built Tracking Log"
 Add Location to County GIS Map. Obtain basic site information (GPIN, Owner, Address, etc.) Preliminary log into MS Access database (BMP ID #, Plan No., GPIN, Project Name, etc.) Active approved plan project file review (correspondence, H&H, design computations, etc.). Initial As-Built file setup (File label, folder, copy plan/details/design information, etc.). Inspector first check/review of RD/CC (confirmation of what was observed during inspection). Pre-inspection drawing review of the Approved Plan (Quick look prior to Field Inspection). Final inspection (FI) performed Date: <u>3/20//7</u>
 Record drawing (RD) review Date: 3/20//7 Construction certification (CC) Review Date: 3/20//7 Actions based on reviews and inspection: No comments. Comments. Letter Forwarded. Date: Record drawing (RD) issues to resolve.
 Construction certification (CC) issues to resolve. Field construction-related (CR) issues to resolve. Site issues (SI) to resolve (stabilization, remove E&S measures, etc.) Other (list): Second submission: P P Re-inspection (if necessary):
 Acceptable for SWPPP/SWM purposes (RD/CC/CR/Other). Ok to proceed with surety release. Complete "Surety Request Form". Check/Clean active file of any remaining material and finish "As-Built" file. Put final inspection report into the as-built file. Obtain representative digital photographs of BMP and save into County BMP Inventory electronic file. Request and obtain mylar/reproducible of as-built from As-Built plan preparer. Request and obtain digital file (CD-ROM, etc.) from As-Built plan preparer.
Last check of BMP Access Database for completeness (County BMP Inventory)Last check of BMP Access Database for completeness (County BMP Inventory)Last check of BMP Access Database for completeness (County BMP Inventory)
Inspector: Date: 7/28/17 Chief Engineer: Date: 8/2/17



Note: In accordance with the Subdivision and Zoning ordinances of the County Code, plans of development have requirements to ensure that at the completion of the project and prior to release of surety, certified record drawings (as-builts) and construction certifications by a registered Professional Engineer, must be provided for constructed stormwater conveyance/drainage system and stormwater management/Best Management Practice (BMP) facilities. In addition, Sections 8-25 and 8-26 of Article II of Chapter 8 of the County Code, require the submission of construction record drawings and construction certifications for permanent stormwater management/BMP facilities and permanent stormwater conveyance systems such as inlets, pipes and channels. In addition, for stormwater management/BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a professional engineer who performed inspections during construction of the facility.

Section 1 - Site Information:

Project Name: Clara Byrd Baker Elementary School Parking Lo	ot Improvements
Structure/BMP Name:	
Project Location: Clara Byrd Baker Elementary School	
BMP Location:	
County Plan No.:	VAHU6 HUC Code:

Project Type:	Residential	Business	Tax Map/Parcel No.: <u>4710100058</u>
	Commercial	Office	County BMP ID Code (if known):
	Institutional	🗖 Industrial	Zoning District: <u>PL</u>
	Public	🗖 Roadway	Land Use: <u>SCHOOL</u>
	Other Schoo	1	Site Area (sf or acres): <u>23 4 Acres</u>

Brief Description of Stormwater Conveyance and/or Stormwater Management/BMP Facility: Storm Conveyance System

Nearest Visible Landmark to SWM/BMP Facility: <u>School Building & Parking Lot</u>					
Nearest	Vertical Ground Control (if known):				
	☑ JCC Geodetic Ground Control	USGS	Temporary	C Arbitrary	□ Other
	Station Number or Name: <u>320</u> Datum or Reference Elevation: <u>NGVD29</u> Control Description: <u>JCC Geodetic Monument</u> Control Location from Subject Facility:				

101-E Mounts Bay Road, P.O. Box 8784 F: 757-259-4032

Section 2 - Construction Information

Section 2A - Stormwater Conveyance System Construction Information (Pipes, Channels, etc.):

Pre-Construction Meeting Held:	🛛 Yes 🗖 No 🗖 Unknown
Approx. Construction Start Date for System: 7/1/2016	
System Milestone Inspection(s) by County Representative during Construction:	🗹 Yes 🗖 No 🗖 Unknown
Name of Site Work Contractor Who Constructed System: David A. Nice Builders, In	С.
Name of Professional Firm Who Monitored Construction: AES	
Date of Completion of System: <u>9/1/2016</u>	
Date of Record Drawing/Construction Certification Submittal: 10/11/2016	

Section 2B - Stormwater Management / BMP Facility Construction Information:

🗖 No 🗖 Unknown
🕽 No 🗖 Unknown

(Note: Record drawings and construction certifications are required within thirty (30) days of the completion of the stormwater conveyance system and/or stormwater management/ BMP facility construction. Record drawings and construction certifications must be reviewed and approved by the VESCP/VSMP authority prior to final inspection, acceptance, and surety release or reduction.)

Section 3 - Owner/Designer/Contractor Information:

Owner/Developer: (Note: Site owner, operator, applicant or permittee responsible for development of the project.) Name: Williamsburg James City County School Board

Fax: 757-565-1642
Title: Facilities Manager

Design Professional: (Note: Professional Engineer, Certified Land Surveyor or other qualified professional responsible for the design and preparation of plans and specifications for the stormwater conveyance system and/or stormwatermanagement/BMP facility.)

Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Road, Suite 1
Business Phone/Fax: 757-253-0040
Email: <u>paul.tschiderer@aesva.com</u>
Name of Responsible Plan Preparer: Paul E. Tschiderer, PE
Title: Project Manager
Plan Name: Clara Byrd Baker Elementary Parking Lot Improvements
Firm's Project No. W10119-F-52
Plan/Revision Date: 2/5/16
Plan Sheet No.'s Applicable: <u>C-04</u> / <u>C-05</u> / / / / /

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Stormwater Conveyance and Stormwater Management / BMP Facilities Record Drawing and Construction Certification Forms

Site/Utility Contractor: (Note: Contractor directly responsible for construction of the stormwater conveyance system and/or stormwater management/BMP facility.)

Firm Name: David A. Nice Builders, Inc Mailing Address: 4571 Ware Creek Rd. Williamsburg, VA 23188

Business Phone/Fax: 757-566-3032 | 757-566-4686 Email: whunnicutt@davidnicebuilders.com Contact Person: Warren Hunnicutt, Site PM Site Foreman/Supervisor: Williams Apperson

Specialty Subcontractors and Purpose:

Section 4 - Professional Certifications:

Certifying Professionals: (Note: A Registered Professional Engineer or Certified Land Surveyor is responsible for preparation of a record drawing, sometimes referred to as an as-built drawing, for the stormwater conveyance system for the project including any stormwater management/BMP facilities. A Registered Professional Engineer is responsible for the inspection, monitoring, and certification of stormwater conveyance systems and/or stormwater management / BMP facilities during its construction. See next page for the "simple" County provided certification form that can be used by qualified professionals to provide this information.)

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Stormwater Conveyance and Stormwater Management / BMP Facilities Record Drawing and Construction Certification Forms



STANDARD CERTIFICATION FORM

Record Drawing Certification

Firm Name: Landtech Resources, Inc.
Mailing Address: 3925 Midlands Rd.
Williamsburg, VA 23188
Business Phone: 757-566-1677
Fax: 757-565-0782
Name: Peter Farrell L.S.
Title: Senior Land Surveyor
Signature:
Date:

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the,

Stormwater conveyance system

Stormwater management / BMP facility

and the facility appears to conform to the provisions of the approved design plan, specifications, and stormwater management plan, experience if cally noted here.



Virginia Registered Professional Engineer or Certified Land Surveyor **Construction Certification**

Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Road, Suile 1
Williamsburg, VA 23188
Business Phone: 757-253-0040
Fax:
Name: Paul Tschiderer, PE
Title: Project Manager
Signature:
Date:

I hereby certify to the best of my knowledge and belief that this,

Stormwater conveyance system

C Storniwater management / BMP facility

was monitored and constructed in accordance with the provisions of the approved plan, specifications, and stormwater management plan, except as specifically



Virginia Registered Professional Engineer

Engineering and Resource Protection Division P: 757-253-6670 Resource.Protection@inmescitycountyva.gov

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Record Drawings (As Builts)

DRAINAGE AS-BUILTS +()R**CLARA BYRD BAKER ELEMENTARY PARKING LOT IMPROVEMENTS**

RECORD DRAWING CERTIFICATION:

HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS RECORD DRAWING REPRESENTS THE ACTUAL CONDITION OF THE STORMWATER MANAGEMENT / BMP FACILITY.

lete banell

PETER FARRELLI, LIC NO. 2053

10/11/2016 DATE

GENERAL NOTES:

5)



SCALE: 1"=500'

A TITLE REPORT HAS NOT BEEN FURNISHED TO THIS FIRM.

THIS FIRM MADE NO ATTEMPT TO VERIFY UNDERGROUND UTILITIES EXCEPT THOSE SHOWN. AS BUILT DATA SHOWN IN BOLD FONT IS BASED ON A CURRENT FIELD SURVEY. ELEVATIONS SHOWN ARE RELATIVE TO THE APPROVED SITE PLAN.

PROPERTY LINES ARE SHOWN PER APPROVED SITE PLAN.

DESIGN INFORMATION IS SHOWN PER APPROVED PLANS BY AES, CONSULTING ENGINEERS AND IS USED WITH THEIR PERMISSION.

9-2015 DR PETER FARREL Lic. No. 2036 10/11/2016 m q SCALE: 1'' = 20'DATE: 10/11/2016 **RECORD DRAWING** OB: 16-254 JCC-SP-0119-2015 DRAWN BY: LRI SHEET: 1 OF 9



GENERAL NOTES:

1. CONTOUR INTERVAL IS 1 FOOT. EXISTING GRADE IS FROM SURVEY PROVIDED BY AES DATED JULY 13, 2009.

HORIZONTAL DATUM: JAMES CITY COUNTY GEODETIC CONTROL NETWORK VIRGINIA STATE PLANE COORDINATE SYSTEM - SOUTH ZONE NAD 83 (1994 VA HARN) JAMES CITY COUNTY GEODETIC CONTROL NETWORK NGVD 29

BENCHMARK STATION:

VERTICAL DATUM:

NO. 320, EASTING (X) 11986114.1509, NORTHING (Y) 3618876.5710. ELEVATION = 30.18

- PROJECT LIES WITHIN TIDAL MAINSTREAM OF POWHATAN CREEK WATERSHED.
- EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. ANY UTILITIES TO BE RELOCATED SHALL BE RELOCATED AT THE OWNER/DEVELOPER'S
- EXPENSE, INCLUDING UTILITIES WITHIN THE RIGHT-OF-WAY. 5. SITE IS SERVED BY BOTH PUBLIC SEWER AND WATER THROUGH THE JAMES CITY COUNTY
- SERVICE AUTHORITY (JCSA).
- NO ADDITIONAL WATER OR SEWER CONNECTIONS ARE REQUIRED FOR THIS PROJECT ALL UTILITIES WILL BE PLACED UNDERGROUND.
- THE CONTRACTOR SHALL APPLY AND OBTAIN A VSMP PERMIT (VIRGINIA STORMWATER MANAGEMENT PROGRAM) AND A LAND DISTURBING PERMIT FROM JAMES CITY COUNTY ENGINEERING AND RESOURCE PROTECTION DIVISION PRIOR TO THE START OF AN CONSTRUCTION
- ALL ERRORS OR DISCREPANCIES WITH THE PLANS OR EXISTING SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER OR SURVEYOR OF RECORD BEFORE PROCEEDING WITH THE WORK.
- 10. ANY EXISTING, UNUSED WELLS SHALL BE ABANDONED IN ACCORDANCE WITH THE VIRGINIA PRIVATE WELL REGULATIONS AND JAMES CITY COUNTY CODE 11. SOLID WASTE DISPOSAL SHALL BE PROVIDED BY A PRIVATE HAULER.
- 12. THE CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF THE APPROVED PLANS AT THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MISS UTILITY (1-800-552-7001) FOR EXISTING UTILITY LOCATIONS AT LEAST 3 WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION, AND A PRIVATE UTILITY LOCATOR FOR THE LOCATING OF PRIVATE UTILITIES.
- 14. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL OWNERS AND RESIDENTS OF PROPERTY ADJACENT TO THE PROJECT 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK, UNLESS OTHERWISE DIRECTED BY THE OWNER CONSTRUCTION WITHIN EASEMENTS OR ON PUBLIC RIGHT-OF-WAY NECESSITATES NOTICE WHETHER ADJACENT TO OR LOCATED ON THE ADJOINING PROPERTY. FAILURE TO PROVIDE THE MINIMUM NOTIFICATION TIME WILL RESULT IN SUSPENSION OF WORK
- 15. THE ABSENCE OF THE DEVELOPER OR THE ENGINEER AT THE JOB SITE DOES NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH THE DRAWINGS, CONTRACT DOCUMENTS, ADDENDA, AND WRITTE AUTHORIZED PLAN REVISIONS
- 16. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS. ORDINANCES. RULES REGULATIONS, AND ORDERS OF ANYBODY 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.
- 17. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE CURREN JAMES CITY COUNTY STANDARDS AND SPECIFICATIONS, VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS. VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, AND ANY OTHER APPLICABLE CITY OR STATE ORDINANCES, CODES, AND LAWS.
- 18. 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.
- 19. DESIGN MATERIAL, EQUIPMENT AND PRODUCTS OTHER THAN THOSE INDICATED IN THE DRAWINGS SHALL NOT BE CONSIDERED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE OWNER'S REPRESENTATIVE. DESIGN ENGINEER AND THE APPLICABLE LOCAL GOVERNING CODE AUTHORITY
- 20. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. PRIOR TO COMMENCEMENT OF WORK, FOR THE WORK INDICATED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF CONSTRUCT EFFORTS WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT), LOCAL EMERGENCY SERVICES, AND ALL NECESSARY UTILITY COMPANIES INCLUDING, BUT NOT LIMITED TO, ELECTRICITY, NATURAL GAS, TELECOMMUNICATIONS, CABLE TELEVISION, WATER, SEWER, PETROLEUM TRANSMISSION, AND OTHERS THAT MAY BE REQUIRED. COORDINATION INCLUDES BEING THE PARTY RESPONSIBLE TO COORDINATE WITH THE DEVELOPER/OWNER TO INSURE THAT OTHER UTILITIES (PUBLIC OR PRIVATE) DO NOT VIOLATE JCSA POLICY OF EXCLUSIVE OCCUPATION OF JCSA EASEMENTS OTHER THAN PERPENDICULAR CROSSINGS.
- 22. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO ALL SITE CONDITIONS PRIOR TO CONSTRUCTION.
- 23. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL SITE IMPROVEMENTS, INCLUDING LANDSCAPING, AS SHOWN ON THE APPROVED PLAN. 24. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, INCLUDING SOIL AND DEBRIS,
- FROM THE SITE AND SHALL DISPOSE OF IN A LEGALLY LICENSED FACILITY. 25. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT (SECTION 56-265.14 ET. SEQ. CODE OF VIRGINIA, 1950, AS AMENDED) AND HEREBY AGREES TO HOLD THE DEVELOPER AND THE ENGINEER HARMLESS AGAINST ANY LOSS, DAMAGE, OR CLAIMS OF ANY NATURE WHATSOEVER ARISING OUT OF
- THE CONTRACTOR'S FAILURE TO COMPLY WITH THE REQUIREMENTS OF SAID ACT. 26. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE "VIRGINIA OVERHEAD HIGH VOLTAGE SAFETY ACT." AT A MINIMUM, THE CONTRACTOR SHALL: (1) CONTACT THE ELECTRIC UTILITY 48 HOURS PRIOR TO COMMENCING WORK, IF THE CONTRACTORS TOOLS OR MATERIAL WILL INTRUDE WITHIN TEN (10) FEET OF AN OVERHEAD POWER LINE; (2) CONTACT THE ELECTRIC UTILITY 48 HOURS PRIOR TO COMMENCING WORK IF COVERED EQUIPMENT SUCH AS CRANES, BACKHOES OR DERRICKS WILL INTRUDE WITH TEN (10) FEET OF AN OVERHEAD POWER LINE; AND (3) POST AND MAINTAIN WARNING SIGNS WITHIN AND ON THE OUTSIDE OF EQUIPMENT OPERATING NEAR AN OVERHEAD HIGH VOLTAGE LINE.
- 27. THE PROFESSIONAL WHOSE SEAL IS AFFIXED HEREON SHALL ACT AS THE "RESPONSIBLE LAND DISTURBER" FOR PURPOSES OF PLAN APPROVAL ONLY. PRIOR TO ISSUANCE OF THE LAND DISTURBING PERMIT, THE CONTRACTOR SHALL PROVIDE THE NAME OF A "RESPONSIBLE LAND DISTURBER" WHO SHALL ASSUME RESPONSIBILITY AS THE "RESPONSIBLE LAND DISTURBER" FOR THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION SHOULD THE "RESPONSIBLE LAND DISTURBER" CHANGE DURING CONSTRUCTION.
- 28. ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND. 29. ALL NEW SIGNS SHALL BE IN ACCORDANCE WITH ARTICLE II, DIVISION 3 OF THE JAMES CITY COUNTY ZONING ORDINANCE.
- 30. TEMPORARY STOCKPILES ON-SITE SHALL NOT EXCEED 2,500 SF OR 8-FEET IN HEIGHT. ANY TEMPORARY STOCKPILES PLACES ON-SITE SHALL BE LOCATED A MINIMUM OF 50-FEET FROM ANY EXTERNAL PROPERTY LINE AND 100-FEET FROM ANY EXISTING OFF-SITE STRUCTURE.
- 31. CONTRACTOR SHALL REMOVE ALL OBJECTIONABLE AND DELETERIOUS MATERIAL FROM THE SITE AND DISPOSE OF IT IN A STATE APPROVED FACILITY THAT MEETS THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
- 32. OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL SITE IMPROVEMENTS, INCLUDING LANDSCAPING, AS SHOWN ON THE APPROVED PLAN. 33. ON-SITE EXTERIOR CONCRETE IS TO BE A MINIMUM OF 3000 PSI @ 28 DAYS WITH 5% TO 7%
- AIR ENTRAINMENT. 34. AN INTERNAL POST CCTV POST INSTALLATION INSPECTION, PERFORMED BY THE OPERATOR, IS REQUIRED FOR ALL STORMWATER CONVEYANCE SYSTEM PIPES, ACCESS OR INLET STRUCTURES AND CULVERT OF 15" NOMINAL DIAMETER SIZE OR GREATER AS PART OF CONSTRUCTION RECORD AND CONSTRUCTION CERTIFICATION PROCESS. CCTV INSPECTIONS SHALL BE SUBMITTED ON CD FOR STAFF REVIEW. REFER TO SECTION 8-27(E) OF THE COUNTY'S CHAPTER 8 ORDINANCE.

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BEFORE PROCEEDING.

AMENDED SITE PLAN FOR CLARA BYRD BAKER ELEMENTARY PARKING LOT IMPROVEMENTS

BERKELEY DISTRICT

JAMES CITY COUNTY

VIRGINIA

LEGEND

WATER SANITARY SEWER STORM SEWER FORCE MAIN SANITARY MANHOL STORM MANHOLE CURB DROP INLET YARD DROP INLET FLARED END SECTION VALVE FIRE HYDRANT ASSEMBLY BLOW-OFF VALVE AIR RELEASE ASSEMBLY CLEAN OUT WATER METER STREETLIGH1 CENTERLINE/BASELINE RIGHT OF WAY PROPERTY LINE € DITCH/SWALE CONCRETE LINED DITCH EXISTING TREELINE LIMITS OF CLEARING RIP RAP CURB CURB AND GUTTER REVERSE GUTTER PAN EDGE OF PAVEMENT EXISTING GROUND ELEVATION PROPOSED SPOT GRADE CONTOUR

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JCC CASE NO.: SP-0119-2015 ORIGINAL SUBMITTAL DATE: 12/29/2015 APPROVAL DATE:

Dig With C.A.R.E Keep Virginia Safe! Call Miss Utility at before you dig. Allow required time for marking. Respect the marks. Excavate carefully. Whether your project is big or small, one free nd easy call gets the underground utility lines arked and helps avoid costly damages, fines d even personal injury. So, please call 811 CONTRACTORS SHALL NOTIFY MISS UTILITY @ 811 OR

(800) 552-7001 PRIOR TO STARTING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND DETERMINING SIZES OF ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, CONTACT THE ENGINEER

VSMP PERMIT DATA:

EXISTING PERMIT COVERAGE #: SITE LOCATED IN CHESAPEAKE BAY PRESERVATION AREA: Yes X No LOCATION OF OFF-SITE ACTIVITY:

STATUS OF ACTIVITY: NATURE OF CONSTRUCTION ACTIVITY: NAME OF RECEIVING WATER(S): NAME OF IMPAIRED WATER(S): HYDROLOGIC UNIT CODE (HUC): MUNICIPAL STORM SEWER SYSTEM (MS-4): JAMES CITY COUNTY COMMON PLAN OF DEVELOPMENT:

Latitude: Longitude: □ Federal □ State □ Public □ Private Commercial C Residential Industrial Other POWHATAN CREEK JAMES RIVER JL31 Yes 🗖 No 🖾



10)E-E-noinee-inci(52 - Clara Bwrd Baker Addil PricolEnoinee-inci(Plans)W1

JAMES CITY COUNTY ENGINEERING AND RESOURCE PROTECTION DIVISION STANDARD EROSION AND SEDIMENT CONTROL NOTES **REVISED JULY 1, 2014**

THE FOLLOWING STANDARD COUNTY NOTES SHALL BECOME PART OF ANY APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR PLAN OF DEVELOPMENT PROJECTS IN JAMES CITY COUNTY, VIRGINIA. COMPONENTS OF A SWPPP MAY INCLUDE AS APPLICABLE, A SITE EROSION AND SEDIMENT CONTROL (E&SC) PLAN, A SITE STORMWATER MANAGEMENT (SWM) PLAN, AND A SITE POLLUTION PREVENTION PLAN (PPP). THE COUNTY'S DIVISION OF ENGINEERING AND RESOURCE PROTECTION IS DESIGNATED BY CHAPTER 8 OF THE COUNTY CODE AS THE LOCAL VIRGINIA EROSION AND SEDIMENT CONTROL PROGRAM (VESCP) AUTHORITY AND VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) AUTHORITY.

- 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 VESCP/VSMP AUTHORITY.
- 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 THE PROJECT.
- 5. THE CONTRACTOR IS RESPONSIBLE TO CONTACT MISS UTILITY (DIAL 811 IN VA OR 1-800-552-7001) PRIOR TO ANY UTILITY OR SITE WORK EXCAVATIONS.
- 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. OFF-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
- 17. NO MORE THAN 300 FEET OF TRENCH MAY BE OPEN AT ONE TIME FOR UNDERGROUND UTILITY LINES, INCLUDING STORM WATER CONVEYANCES, ALL HER PROVISIONS OF MINIMUM STANDARD NO. 16 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS APP
- 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 NECESSARY, 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, AND THE APPLICANT/OPERATOR/PERMITTEE DESIGNATED GEOTECHNICAL ENGINEER FOR THE PROJECT IN ACCORDANCE WITH ESTABLISHED COUNTY STORMWATER FACILITY INSPECTION PROGRAM REQUIREMENTS

1. SET THE STAKES.

-RED TOP GRASS

LBS./ACRE IN MIXES.

ices with the factoring to a clara by a baker moan frequenting fransivi to the foot footes a details owg. 2020 to 300 x

Many localities have restrictions on light distribution and placement of outdoor lighting equipment.

Consult with your local government before selecting outdoor lighting equipment.

and expressway bracket for mounting luminaire

TYPE A ISO FOOTCANDLE DIAGRAM

S	PLAN	T SC	HEDU
ET THE MINIMUM STANDARDS & SPECIFICATIONS DESCRIBED IN THE "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, PUBLISHED	TREES	QTY	BOTANICAL
BE INSTALLED AS SPECIFIED IN THE VNLA STANDARDIZED LANDSCAPE SPECIFICATIONS, LATEST EDITION.	QH	10	QUERCUS I
IPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTING SHOWN ON THE DRAWINGS. WHERE DISCREPANCIES & THE PLANT LIST, THE PLANS SHALL TAKE PRECEDENCE.	UP	8	ULMUS PAF
L BE MULCHED IN CONTINUOUS PLANT BEDS.			
TRUCTION, NOT OTHERWISE WITHIN PLANT BEDS OR COVERED IN SITE CONTRACT, ARE TO BE SODDED OR SEEDED WITH A STATE CERTIFIED TY SELECTED FROM THE FOLLOWING LIST:	SHRUBS	QTY	BOTANICAL
rima blend, LaPrima—XD, Mohawk, Premium Pennington Bermuda, Princess 77, Riviera, Sahara, SR 9554 and Yukon	GA	24	ABELIA X (
ED AS "TURF" REPRESENT MAINTAINED TURF AND MAY INCLUDE ALREADY ESTABLISHED AREAS. THE PROVISION OF TURF AREAS BY SEEDING RMINED AT THE OWNER'S DISCRETION.	BC	10	BERBERIS
OPTIONAL FOR TREES THAT ARE 1" CAL. OR 6' HT. OR LESS. ALL TREE STAKING SHALL BE REMOVED AFTER 1-2 GROWING SEASONS.	IH	22	ILEX CRENA
ITED SO TOP OF ROOT BALL IS 3" ABOVE FINISHED GRADE.			
PLUMB & STRAIGHT.			
NG OR CROSSED BRANCHES, CODOMINANT LEADERS, NARROW CROTCH ANGLES, WATER SPROUTS, BROKEN BRANCHES.	AREAS		
ADER OR BRANCH TIPS.	LANDSCAF	PE YARD	COUNTY
	PARKING	LOT	139 SP/

14. IF PLANT MATERIAL IS CONTAINER-GROWN, REMOVE TOP OF WIRE BASKET, OR REMOVE CONTAINER & CUT CIRCLING ROOT; IF FIELD-GROWN, CUT ROPE SURROUNDING

21. PER VDOT CONDITIONS ALL STREET TREES IN THE RIGHT OF WAY SHALL BE TRIMMED UP TO A MINIMUM 7' ABOVE THE GROUND. ALL SHRUBS IN THE RIGHT OF WAY

TYPICAL DIRECT-BURY TAPERED POLE DETAIL

LIGHTING SCHEDULE

KEY	FIXTURE	MOUNTING	POLE TYPE/ MOUNTING	FIXTURES	TOTAL
	TYPE	HEIGHT	INSTRUCTIONS	PER POLE	FIXTURES
٨	DOMINION VIRGINIA POWER 66399100 ENCLOSED FLAT LENS, 250 WATT HIGH PRESSURE SODIUM, TYPE III DISTRIBUTION, FULL CUTOFF; COLOR: GREY	25'	DOMINION VIRGINIA POWER POLE: 50502000 SMOOTH ROUND TAPERED GREY COMPOSITE POLE, 30' POLE, DIRECT BURY; 6' MAST ARM: 42021269 ALUMINUM UPSWEPT MAST ARM	1	3

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E				
AME	COMMON NAME	SIZE	ROOT	REMARKS
MISPHAERICA	DARLINGTON OAK	2-1/2" CAL.	В&В	SINGLE STEM
IFOLIA	CHINESE ELM	2-1/2" CAL.	B & B	SINGLE STEM
AME	COMMON NAME	SIZE	ROOT	REMARKS
ANDIFLORA	GLOSSY ABELIA	18"-24" HT./W.	CONT.	DENSE, FULL
UNBERGII 'CRIMSON PYGMY'	CRIMSON PYGMY BARBERRY	22"-30" HT./W.	CONT.	DENSE, FULL
A 'HETZI	HETZII JAPANESE HOLLY	18"-24" HT./W.	CONT.	DENSE,FULL

JAMES CITY COUNTY LANDSCAPE REQUIREMENTS

	TREES AND SHRUBS								
EQ.	PLANTING RATIO	PLANTS REQU	JIRED		EXISTING	PLANTS TO	REMAIN	NEW PLANTS PR	ROVIDED
ES	S 1 TREE AND 2 SHRUBS:	28 TREES 50% 14 LG DECIDUOUS 35% 10 EVERGREEN		6 TREE	6 MATURE (2 CR.) 0 SPECIMEN (3 CR.)	12 TREE	18 TREES	8 LG DECIDUOUS 10 EVERGREEN	
5 PARKING SPACES		56 SHRUBS	35%	20 EVERGREEN			CREDITS	56 SHRUBS	46 EVERGREEN

			PET	Revised By
			REVISED PER COUNT COMMENTS	Description
			2/5/16	Date
11-1			-	kev.

SECTION VIEW

SHRUB PLANTING

SECTION VIEW

DECIDUOUS TREE PLANTING

SET TOP OF ROOTBALL 3" ABOVE FINISH GRADE; COVER EDGES OF ROOTBALL W/ SOIL, TAPERING DOWN TO SURROUNDING SOIL LINE; CUT ROPE

BACKFILL W/ NATIVE TOP SOIL; PARTIALLY BACKFILL,

PLANTING: REMOVE BURLAP FROM TOP 1/3 OF BALL

NOTES: 1. SPACE AS SHOWN ON PLAN OR AS INDICATED ON

WATER TO SETTLE SOIL; FINISH BACKFILLING;

CUT CIRCLING ROOTS; SCARIFY SIDES BEFORE

SCARIFY SUBSOIL TO 4" MIN. DEPTH

SURROUNDING CROWN OF ROOTBALL AFTER

BACKFILLING BUT BEFORE MULCHING.

MULCH

ROOT.

TAMP LIGHTLY

PLANT CHART.

PLAN VIEW FOR STAKING

WIDE WEBBING OR POLYETHYLENE STRAPS TWISTED LOOSELY AT THEIR MIDPOINT AND WRAPPED ONCE AROUND THE TREE TRUNK FLAT. ATTACHED TO THE STAKE WITH STAPLES.

LOOSELY TWIST EACH STRAP TO ALLOW FOR 4-6" OF TRUNK FLEXING (REMOVE ALL STRAPS AND STAKING AFTER 1-2 FULL GROWING SEASONS)

3" HT. SHREDDED HARDWOOD MULCH; KEPT AWAY FROM TRUNK. DO NOT COVER THE ROOT COLLAR WITH TOP SOIL OR MULCH.

- 6-8' WOOD STAKES, 3 PER TREE. STAKES TO BE SAME HEIGHT, DRIVEN IN ON A SLIGHT ANGLE.

TILL 18" WIDTH AT TOP EDGE OF HOLE TO A 8-12" DEPTH BACKFILL W/ NATIVE TOP SOIL; PARTIALLY BACKFILL, WATER TO SETTLE SOIL; FINISH BACKFILLING; TAMP LIGHTLY ROUGHEN HOLE WALLS AND BOTTOM

TRENCH AROUND PERIMETER OF MOUND TO DEPTH SHOWN.

Construction Drawings

6. Design Calculations

STORM DRAIN CALCULATION

FOR

PLANNING DIVISION

CLARA BYRD BAKER ELEMENTARY SCHOOL Parking Lot Improvements DEC 29 2015 RECEIVED

SUBMITTED TO:

James City County Engineering and Resource Protection

Prepared By:

AES Consulting Engineers 5248 Olde Towne Road, Suite 1 Williamsburg, Virginia 23188

Original Date: December 28, 2015 Revised:

AES Project No.: W10119-E-52

S:\JOBS\W10119\E-Engineering\52 - Clara Byrd Baker Addtl Prkg\Admin\Reports\Eng\AES Calculation Cover Sheet.doc

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APPENDIX A Calculations

- Pre-Dev C Calculations
- Post-Dev C Calculations
- Proposed 10-Yr Hydraflow Storm Sewer System Calculations
- VRRM Redevelopment

APPENDIX B DA Maps

- Pre-Development Drainage Area Map
- Post-Development Drainage Area Map

APPENDIX A

CALCULATIONS

• Pre-Dev C Calculations

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- Post-Dev C Calculations
- Proposed 10-Yr Hydraflow Storm Sewer System Calculations
- VRRM Redevelopment

Project:	Clara Byrd Baker	
Project No.:	W10119-E-52	
Subject:	Runoff Coefficients	
Date:	December 28, 2015	
Calculated By:	PET	

Runoff Coefficients used in the following calculations were taken from Table 4-3 of the Virginia Stormwater Management Handbook.

Subject Area: Pre-Development Drainage Areas

Area Description	Open	Imperv.	Total Area	C X A	Weighted C	
Area Description	0.30	0.90	Total Alea	UXA	Weighteu C	
EX.SS#3	0.40	0.02	0.42	0.14	0.32	
EX.SS#2	0.05	0.26	0.32	0.25	0.80	
EX.SS#2A	0.11	0.46	0.56	0.44	0.79	
EX.SS#1	0.14	0.42	0.56	0.42	0.75	
EX.FES	0.40	0.18	0.58	0.28	0.48	

Project:	Clara Byrd Baker	
Project No.:	W10119-E-52	
Subject:	Runoff Coefficients	
Date:	December 28, 2015	
Calculated By:	PET	

Runoff Coefficients used in the following calculations were taken from Table 4-3 of the Virginia Stormwater Management Handbook.

Subject Area: Proposed Drainage Areas

	Open	Imperv.				
Area Description	0.30 0.90		Total Area	СхА	Weighted C	
Stone Trench	0.06	0.12		0.18	0.13	0.69
EX.DI	0.06	0.19		0.25	0.19	0.75
Rip Rap Flume	0.11	0.65		0.75	0.61	0.82
EX. FES	0.27	0.18		0.44	0.24	0.54
SS #2	0.04	0.31		0.35	0.29	0.83
SS #1	0.03	0.10		0.13	0.10	0.76
EX. 4" Trench Drain	0.06	0.06		0.13	0.08	0.61

Hydraflow Storm Sewers Extension for Autodesk® AutoCAD® Civil 3D® Plan

Storm Sewers v10.40

Storm Sewer Tabulation

Statio	n	Len	Drng A	rea	Rnoff	Area x	с	Тс		Rain	Total	Сар	Vel	Pipe		Invert Ele	ev	HGL Elev		Grnd / Rim Elev		Line ID
Line	To	1	Incr	Total	coen	Incr	Total	Inlet	Syst	0	now	Iun		Size	Slope	Dn	Up	Dn	Up	Dn	Up	
	LINC	(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	42.540	0.13	0.48	0.76	0.10	0.39	5.0	5.2	7.4	5.81	15.11	* 8.56	15	5.48	56.75	59.08	57.29	60.06	60.25	63.58	SS#1
2	1	47.590	0.35	0.35	0.83	0.29	0.29	5.0	5.0	7.5	4.36	9.22	4.59	15	2.04	59.08	60.05	60.06	60.89	63.58	65.85	SS#2
											1	1		σ	1	đ				1		
												2										
Proje	ct File:	W10119	-E-52 CI	ara Byrd	Storm D	rain 10-	/r.stm									Number	of lines: 2			Run Date	e: 12/21/20	015
NOT	ES:Inter	nsity = 55	5.61 / (In	et time +	- 10.00) ^	0.74 ;	Return p	period =Y	′rs. 10 ;	c = cir	e = ellip	b = box										

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014

Site Data Summary

Total Rainfall = 43 inches

.

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.18	0.11	0.00	0.29	19.31
Impervious (acres)	0.00	0.89	0.32	0.00	1.21	80.69
					1.50	100.00

Site Rv	0.81
Post Development Treatment Volume (ft ³)	4398
Post Development TP Load (lb/yr)	2.76
Post Development TN Load (lb/yr)	19.77
Total TP Load Reduction Required (lb/yr)	0.99

Total Runoff Volume Reduction (ft ³)	0
Total TP Load Reduction Achieved (lb/yr)	0
Total TN Load Reduction Achieved (lb/yr)	0.00
Adjusted Post Development TP Load (lb/yr)	2.76
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.99

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
						0.00

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00
TN Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00

Channel and Flood Protection

, "B

	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		2.80	3.50	5.80
D.A. A CN	0	#N/A	#N/A	#N/A
D.A. B CN	0	#N/A	#N/A	#N/A
D.A. C CN	0	#N/A	#N/A	#N/A
D.A. D CN	0	#N/A	#N/A	#N/A
D.A. E CN	0	#N/A	#N/A	#N/A

APPENDIX B

DRAINAGE AREA MAPS

• Pre-Development Drainage Area Map

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Post-Development Drainage Area Map

7. Reports

8. Correspondence

9. Inspections

10. Permitting

11. Miscellaneous(ex. photos)

Project Development Documents