

SHEET INDEX

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NOTES:

1. TOPOGRAPHY PROVIDED BY C.P. JOHNSON ASSOCIATES UTILITIES BY CDDI DATED: FEB. 11 2015 DATUM: NGVD 88.
2. LIMIT OF DISTURBANCE: 4,732 SF
3. CUT: 84 CY
4. FILL: 6 CY

GENERAL STORM DRAIN AND PAVING NOTES

- 1) INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS, BY HAND OR VACUUM, AT UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF CLEARANCES TO WATER AND SEWER LINES ARE LESS THAN SHOWN ON THIS PLAN, OR LESS THAN TWELVE (12) INCHES, CONTACT THE DEPARTMENT OF PERMITTING INSPECTION AND ENFORCEMENT (DPIE) INSPECTOR BEFORE PROCEEDING WITH CONSTRUCTION.
- 2) ALL STORM DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STORMWATER MANAGEMENT STANDARDS AND SPECIFICATIONS OF PRINCE GEORGE'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
- 3) FOR TYPES OF STORM DRAIN STRUCTURES, REFER TO THE LATEST STANDARD DETAILS OF PRINCE GEORGE'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION, UNLESS OTHERWISE NOTED.
- 4) ALL ROADWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING: THE DPW&T SPECIFICATIONS AND STANDARDS FOR ROADWAYS AND BRIDGES; THE PRINCE GEORGE'S COUNTY CODE, SUBTITLE 23, ROAD ORDINANCE; AND THE PRINCE GEORGE'S COUNTY POLICY AND SPECIFICATION FOR UTILITY INSTALLATION AND MAINTENANCE.
- 5) PRIOR TO DIGGING WITHIN THE PUBLIC RIGHT-OF-WAY, CALL "MISS UTILITY" TOLL FREE AT (800) 257-7777 FOR UTILITY LOCATION AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.
- 6) PRIOR TO PERMIT ISSUANCE AND STARTING ANY WORK SHOWN ON THIS PLAN, THE PERMITTEE SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE DPIE INSPECTOR BY CALLING (301) 983-5730. AN INITIAL INSPECTION IS REQUIRED PRIOR TO FULL MASS GRADING OF THE SITE.
- 7) IN ACCORDANCE WITH SECTION 23-120, THE COUNTY'S ROAD ORDINANCE, A PROJECT SIGN SHALL BE POSTED PROMINENTLY DESCRIBING THE FOLLOWING:
 - SUBDIVISION NAME (AS SHOWN ON PERMIT APPLICATION)
 - OWNER/PERMITTEE NAME
 - OWNER/PERMITTEE ADDRESS AND PHONE
 - DPW&T PERMIT NUMBER
- 8) ALL ELEVATIONS SHOWN ON THIS PLAN ARE IN ACCORDANCE WITH THE FOLLOWING: HORIZONTAL—MARYLAND COORDINATE SYSTEM (STATE PLANE GRID) BASED ON NORTH AMERICAN DATUM OF 1983 (NAD 83); NATIONAL GEODOTIC VERTICAL DATUM OF 1929 (NG VD 29).
- 9) TEMPORARY TRAFFIC CONTROL AND PERMANENT TRAFFIC SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 10) IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE TO ARRANGE FOR THE ADJUSTMENT OR RELOCATION OF ALL UTILITIES.
- 11) ALL UNSUITABLE MATERIAL MUST BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO A DEPTH AS DIRECTED BY THE GEOTECHNICAL ENGINEER, THE DPW&T INSPECTOR, AND/OR THE DEPARTMENT'S ENGINEER.
- 12) EXCAVATION AND PLACEMENT OF FILL MATERIAL SHALL BE PERFORMED UNDER THE SUPERVISION OF A MARYLAND-LICENSED ENGINEER.
- 13) THE PERMITTEE WILL BE REQUIRED TO FURNISH COMPACTION REPORTS CERTIFIED BY A MARYLAND-LICENSED ENGINEER ON EACH LAYER OF FILL MATERIAL PRIOR TO PLACING SUBSEQUENT LAYERS.
- 14) DURING THE PLACEMENT OF A STANDARD PAVEMENT SECTION, NO PAVEMENT COURSE OR STONE LIFT SHALL BE PLACED UNTIL THE UNDERLYING COURSE OR SUBGRADE IS APPROVED BY THE DPW&T INSPECTOR. THE APPROVAL SHALL EXPIRE IF TRAFFIC OR INCLEMENT WEATHER AFFECTS THE SITE PRIOR TO PAVING.
- 15) AS SOON AS THE ASPHALT BASE COURSE IS APPROVED, THE INTERMEDIATE ASPHALT COURSE SHALL BE PLACED IMMEDIATELY OVER IT TO FORM A PROTECTIVE SEAL.
- 16) TEMPORARY STREET NAME SIGN INSTALLATION AND MAINTENANCE IS THE OBLIGATION OF THE PERMITTEE ONCE BASE PAVING IS COMPLETED.
- 17) WHERE ROADWAY CONSTRUCTION IS ON OR IN THE VICINITY OF AN EXISTING ROAD, IN-KIND PAVEMENT MARKING AND STRIPING REPLACEMENT (E.G., THERMOPLASTIC, PAINTED, ETC.) ARE REQUIRED. ALSO, APPROPRIATE PAVEMENT MARKING AND STRIPING SHALL BE PROVIDED IN THE AREA OF PAVEMENT WIDENING AND/OR RECONSTRUCTION AND/OR OVERLAY OF AN EXISTING ROAD.
- 18) SAW CUT AND MILL A 2-INCH DEEP, 10-FOOT-WIDE NOTCH AT EXISTING EDGE OF PAVEMENT WHERE IT IS NECESSARY TO CONNECT TO OR TO EXTEND AN EXISTING ROAD. OVERLAY AT POINT OF TIE-IN TO ENSURE A SMOOTH TRANSITION AND POSITIVE DRAINAGE.
- 19) WHERE IT IS NECESSARY TO WIDEN AN EXISTING ROAD, AND MILLING AND OVERLAY REQUIREMENTS HAVE BEEN WAIVED OR REDUCED, THE WIDENING AND THE EDGE TREATMENT OF EXISTING ROAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARD NO. 300.20 UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- 20) ALL RESIDENTIAL ROADWAY FILLET RADII SHALL BE AT LEAST 37 FEET, UNLESS OTHERWISE NOTED. ROADWAYS WITH HIGHER CLASSIFICATION REQUIRE 45 FEET AND/OR 50 FEET RADII.
- 21) AN UNDERDRAIN SYSTEM IS REQUIRED FOR THE FULL LENGTH OF ALL PROPOSED AND MODIFIED ROADWAYS, ON BOTH SIDES, AND TO THE LIMITS OF THE PERMIT SHOWN ON THIS PLAN.
- 22) ALL CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARDS NO. 300.01 THROUGH 300.04 UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- 23) BRICK CHANNELIZATION IS REQUIRED IN ALL PUBLIC DPW&T STORM DRAIN STRUCTURES. CONCRETE CHANNELIZATION IS NOT ALLOWED.
- 24) POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE AREA COVERED BY THIS PERMIT AND THROUGH ADJACENT PROPERTY FRONTAGES.
- 25) ALL UNPAVED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SODDED.
- 26) ALL SIDEWALK RAMPS SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARDS 300.05 THROUGH 300.10 AND SHALL COMPLY WITH THE LATEST REVISION TO THE FEDERAL ACCESSIBILITY GUIDELINES OF THE AMERICANS WITH DISABILITIES ACT.
- 27) ALL SIDEWALKS SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DPW&T STANDARDS AND SHALL COMPLY WITH THE LATEST REVISION TO THE FEDERAL ACCESSIBILITY GUIDELINES OF AMERICANS WITH DISABILITIES ACT.

- 28) ALL SIDEWALKS (EXCEPT AS NOTED HEREIN) ARE TO BE CONSTRUCTED BY THE SITE DEVELOPER.
- 29) SIDEWALKS ALONG FRONTAGES OF OPEN-SPACE PARCELS AND THOSE NOT COVERED BY A SINGLE-FAMILY BUILDING PERMIT SHALL BE CONSTRUCTED UNDER THIS STREET CONSTRUCTION PERMIT.
- 30) THE WIDTH OF A RESIDENTIAL DRIVEWAY APRON AT THE PROPERTY LINE SHALL NOT BE LESS THAN THE WIDTH OF THE ON-SITE PARKING PAD AT ITS WIDEST POINT. A MAXIMUM WIDTH OF 20 FEET, AND A MINIMUM WIDTH OF 10 FEET. A RESIDENTIAL DRIVEWAY APRON FLARE SHALL NOT BE CONSTRUCTED CLOSER THAN 3.5 FEET TO THE NEAREST ABUTTING PROPERTY LINE.
- 31) ALL DRIVEWAY APRONS ARE TO BE CONSTRUCTED BY THE SITE DEVELOPER.
- 32) ENSURE THAT STREET TREES ARE NO CLOSER THAN 1 FOOT TO THE RIGHT-OF-WAY LINE, IN AN OPEN SPACE SECTION CONFIGURATION, AND NO CLOSER THAN 15 FEET FROM STREET LIGHT OR POLE, AND OF APPROPRIATE HEIGHT SO AS NOT TO INTERFERE WITH EXISTING OR PROPOSED OVERHEAD UTILITY LINES. ALL STREETSCAPE PLANTING SHALL BE IN ACCORDANCE WITH DPW&T STANDARDS 600.01 THROUGH 600.20 UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT.
- 33) PAVEMENT QUALITY CONTROL AND CORING WILL BE REQUIRED OF THE PERMITTEE FOR ALL PAVEMENT COURSES USING THE FOLLOWING PROCESS:
 - a. PRIOR TO PAVING, PERMITEE/PAVING CONTRACTOR SHALL ELECTRONICALLY NOTIFY INSPECTOR OF PAVING DATES (FAX CAN OCCASIONALLY BE ACCEPTED), AND PROVIDE INFORMATION NEEDED FOR CORE TESTING REQUEST (CTR FORM #1). DPW&T INSPECTOR FILLS OUT THE CTR FORM THEN SENDS IT TO THE MATERIALS LAB.
 - b. CONTRACTORS, WHO ARE NEW TO THE MATERIALS LAB, SHALL ELECTRONICALLY SUBMIT QC PLANS TO IT, AND ARRANGE TO BE INITIATED BY IT PRIOR TO PAVING.
 - c. THE PERMITEE/PAVING CONTRACTOR MUST PROVIDE A MD-CERTIFIED FIELD TECHNICIAN FOR DAILY QUALITY CONTROL (QC) TESTING DURING THE ENTIRE PAVING OPERATION (NOT JUST ITS END). FIELD TECHNICIAN SHALL BE ADEQUATELY EQUIPPED WITH A PHONE, CALIBRATED THERMOMETER, AND A CALIBRATED THIN-LIFT DENSITY GAUGE FOR QC AND INSPECTOR-REQUESTED TESTING.
 - d. HMA DENSITY GAUGES SHALL BE VALIDATED AND CALIBRATED DAILY (SHA 504.03.10 A.2), SO THEIR READINGS CAN BE ACCEPTED FOR COURSE PLACED WITH A TOTAL TONNAGE UNDER 200 TONS OR ACCEPTABLE THICKNESS UNDER 12" DUE TO PATCHING, WEDGE & LEVELING, BRIDGE DECKS, ... ETC.
 - e. FIELD TECH. SHALL CALL THE MATERIALS LAB WITH DATE & TIME OF CORE CUTTING SO IT CAN BE WITNESSED. ALL CORES & HMA SAMPLES CAN BE RECEIVED ON SITE BY A LAB INSPECTOR.
 - f. INSPECTOR RANDOMLY SELECTS & MARKS CORE LOCATIONS IN THE FIELD; NOTES THEM DOWN ON THE CTR STATING STREET'S NAME AND ADDRESS, LOT #, STA #, OR DISTANCE FROM NEAREST INTERSECTION; THEN FAXES THE CTR AGAIN TO THE LAB, AND GIVES TO FIELD TECH BOXES FOR ONLY PR. GEORGE'S COUNTY HMA SAMPLES.
 - g. FIELD TECH. SHALL CHECK DELIVERY TICKETS FOR COUNTY-REQUIRED INFO, COLLECT AT LEAST ONE BEHIND-THE-PAVER HMA SAMPLE/MIX/DAY, AND CUT AT LEAST 5 CORES/MIX/DAY BUT NO LESS THAN 2 CORES FROM EACH STREET, UNLESS OTHERWISE INSTRUCTED BY AN INSPECTOR; THEN HAND OVER THE SAMPLES TO DPW&T INSPECTOR NO LATER THAN ONE (1) BUSINESS DAY FROM THE PAVING.
 - h. IF, AT THE LAB'S DISCRETION, THE CORES' CUTTING IS NOT WITNESSED, CORES SHALL BE RECEIVED IN THE LAB, IN ONE BUSINESS DAY FROM PAVING, AS LONG AS THEY ARE NUMBERED AND WELL IDENTIFIED ON FORM #2 BY: PROJECT NAME, STREET NAME, CORE LOCATION, PAVING DATE, CORING DATE, MIX CODE, ... ETC. IF NOT PROPERLY IDENTIFIED, CORES WILL NOT BE ACCEPTED.
 - i. IF, AT THE LAB'S DISCRETION, A BEHIND-THE-PAVER HMA SAMPLE IS NOT RECEIVED ON SITE, IT SHALL BE RECEIVED IN THE LAB ALONG WITH CERTIFIED DELIVERY TICKETS, IN ONE (1) BUSINESS DAY, AND BE IDENTIFIED BY: PROJECT NAME, SAMPLING LOCATION, PAVING DATE, & STATE MIX DESIGNATION. IF NOT PROPERLY LABELED, HMA SAMPLES WILL NOT BE ACCEPTED.
 - j. IF CORES ARE TESTED AT AN INDEPENDENT THIRD PARTY'S TESTING LAB, THAT LAB MUST BE ASHSTO ACCREDITED FOR SPECIFIC TESTS, AND BE INITIATED BY THE MATERIALS LAB, WHICH SHALL BE NOTIFIED (FAX CAN OCCASIONALLY BE ACCEPTED), OF THE TESTING DATE & TIME SO IT MAY WITNESS THE 3RD PARTY TESTING.
 - k. CORE RESULTS SHALL BE REPORTED ON CORE ANALYSIS (FORM #2), E-MAILED TO MATERIALS LAB & INSPECTOR NO LATER THAN ONE BUSINESS DAY FROM TESTING (ONE DAY FROM CUTTING FOR COMPANION CORES), AND MAILED OUT TO PERMITEE.
 - l. FIELD TECHNICIANS AND THIRD PARTY TESTING LABS SHALL MAINTAIN A LOG OF THEIR TEST RESULTS; RECOMMENDATIONS, AND ACTIONS TAKEN TO CORRECT THE PROBLEMS, IF ANY. THE LOG SHALL BE AVAILABLE TO DPW&T FOR REVIEW UPON ANY DPW&T INSPECTOR'S REQUEST.
- 34) PERMITTEE SHALL SUBMIT PROPERTY CORNER CERTIFICATIONS AND UTILIZE METAL PROPERTY MARKERS PER PRINCE GEORGE'S COUNTY CODE, SECTION 24-120, PRIOR TO ACCEPTANCE OF STREETS.
- 35) WASHINGTON SUBURBAN SANITARY COMMISSION 200 FOOT SHEET NO.:
- 36) DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION SITE CONCEPT APPROVAL NUMBER: N/A
- 37) SEDIMENT CONTROL APPROVAL NUMBER: N/A
- 38) PRELIMINARY PLAN APPROVAL NUMBER: N/A
- 39) RECORD PLAT RECORDING NUMBER: N/A
- 40) APPROVED STREET GRADE ESTABLISHMENT INFORMATION: ORIGINAL STREET NAME APPROVAL NUMBER
- 41) AT THE TIME OF PERMIT RELEASE, THE FOLLOWING MINIMUM SUBMITTAL REQUIREMENTS WHERE APPLICABLE SHALL APPLY:
 - WASHINGTON SUBURBAN SANITARY COMMISSION PAVING CLEARANCE CERTIFICATION;
 - BITUMINOUS CONCRETE CORE CERTIFICATIONS, ALL PAVEMENT COURSES;
 - PROPERTY MARKER CERTIFICATION;
 - DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION LETTER APPROVING STORM DRAIN AS-BUILT;
 - TREE APPROVAL AND TREE BOND POSTED, IF NECESSARY;
 - STREET LIGHT PROOF OF PAYMENT (MUST BE ACCOMPANIED BY A MEMORANDUM FROM DPW&T'S TRAFFIC SAFETY DIVISION ACCEPTING THE PROOF OF PAYMENT); AND
 - PROOF/STATEMENT THAT ALL FINANCIAL MATTERS HAVE BEEN SETTLED.

- 42) THE PERMITTEE IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TRAFFIC SIGNS, TRAFFIC SIGNALS, AND ROADWAY MARKINGS FOR ROADWAY IMPROVEMENTS ON SUBDIVISION ACCESS ROADS WHICH INCLUDE ARTERIAL, COLLECTOR, INDUSTRIAL, AND ANY NECESSARY OFFSITE CONDITIONS WHICH REQUIRE ROADWAY IMPROVEMENTS. THE DESIGN AND/OR CONSTRUCTION DRAWINGS SHALL BE INCLUDED ALONG WITH THE PERMIT PLANS, AND SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT'S TRAFFIC SAFETY DIVISION PRIOR TO PERMIT ISSUANCE.
- 43) THE PERMITTEE IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TRAFFIC MARKINGS, TRAFFIC SIGNALS, IF REQUIRED, AND PAYMENT OF FEE FOR STREET NAME SIGNS ON INTERNAL SUBDIVISION STREETS. TRAFFIC SIGNS WILL BE FURNISHED AND INSTALLED BY THE COUNTY.
- 44) ALL CONCRETE PIPE SYSTEMS 48 INCHES OR LESS SHALL BE INSPECTED WITH A VIDEO CAMERA AS PART OF THE FINAL "AS BUILT" CONSTRUCTION REQUIREMENTS.
- 45) STABILIZATION PRACTICES ON ALL PROJECTS MUST BE IN COMPLIANCE WITH THE REQUIREMENTS OF COMAR 26.17.1.08 G REGULATIONS BY JANUARY 9, 2013, REGARDLESS OF WHEN AN EROSION AND SEDIMENT CONTROL PLAN WAS APPROVED. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.



VICINITY MAP
1" = 200'

ENGINEERS & DRAINAGE CERTIFICATIONS

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE REQUIREMENTS OF SUBTITLE 32, DIVISION 2 OF THE CODE OF PRINCE GEORGE'S COUNTY WATER RESOURCES PROTECTION AND GRADING CODE; AND THAT I OR MY STAFF HAVE INSPECTED THIS SITE AND THAT DRAINAGE FLOWS FROM UPHILL PROPERTIES ONTO THIS SITE, AND FROM THIS SITE ONTO DOWNHILL PROPERTIES, HAVE BEEN ADDRESSED IN SUBSTANTIAL ACCORDANCE WITH APPLICABLE CODES.

SIGNATURE: _____
NAME: _____ DATE: _____
MD. REG. NO.: _____

UTILITY CERTIFICATION

I HEREBY CERTIF, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THAT THE EXISTING AND/OR PROPOSED UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN CORRECTLY DUPLICATED FROM UTILITY COMPANY RECORDS. FURTHER, THAT THIS PROJECT HAS BEEN CAREFULLY COORDINATED WITH EACH INVOLVED UTILITY COMPANY AND ALL AVAILABLE UNDERGROUND UTILITY INFORMATION RELATIVE TO THIS PLAN HAS BEEN SOLICITED FROM THEM.

SIGNATURE ENGINEER-IN-CHARGE _____ DATE _____

BMP & ESD AS-BUILT CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD) SHOWN ON THE PLANS ABOVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF PERMITTING, INSPECTION AND ENFORCEMENT.

ENGINEERS NAME HERE _____ DATE: _____
MD. REG. P.E. NO. XXXXX

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____.

Prince George's County Government Department of Permitting, Inspections and Enforcement Site/Road Plan Review Division 9400 Peppercorn Place, Suite 420 Largo, Maryland 20774																			
Final Plan BMP SUMMARY TABLE																			
Revision Date: May 27, 2015																			
Project Name:		Concept No.: 35990-2015			Permit No.:			Total Site Acreage: 1.57											
POI	LABEL	NAME	MD NORTH	MD EAST	LAND USE	CONSTRUCTION PURPOSE	DRAINAGE AREA (AC)	TOTAL IMPERVIOUS AREA (AC)	NEW IMPERVIOUS AREA (AC)	EXISTING IMPERVIOUS AREA (AC)	PERCENT IMPERVIOUS	Rv	TARGET P _i (IN)	TARGET VOL (FT ³)	DESIGN VOL (FT ³) USING ESD PRACTICES	DESIGN VOLUME (CF) USING STRUCTURAL PRACTICES	MAX ESD VOL (ESD max) (CF)	RCN	ON_OFF_SITE
A	1	Step Pool Storm Conveyance	484874	1333428	Medium Density Residential	REST	1.47	1.32	0.00	1.32	90.0%	0.640	0.5	2624	2620	0	2620	92	Off Site
B	2	Swales	484585	1333366	Medium Density Residential	REST	0.04	0.04	0.00	0.04	100%	0.950	1	143	143	0	143	98	Off Site

MISS UTILITY NOTE

INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHOEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.



SCALE:

LOW IMPACT DEVELOPMENT CENTER

5000 Sunnyside Avenue, Suite 100
Beltsville, MD 20705
Tel. (301) 982-5559
Fax. (301) 982-9305
www.lowimpactdevelopment.org

RHODE ISLAND AVENUE STORMWATER RETROFIT

RHODE ISLAND AVENUE
COLLEGE PARK, MD 20740
PRINCE GEORGE'S COUNTY, MARYLAND

ISSUE: _____ DATE: 03/30/16

SCALE: _____ SHEET 1 OF 8

FILE NO: _____

DRAFTED: DM

CHECKED: NW

C-0.00

COVER SHEET

FOR PERMIT ONLY

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL

**DEPARTMENT OF PERMITTING, INSPECTIONS AND ENFORCEMENT
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP**

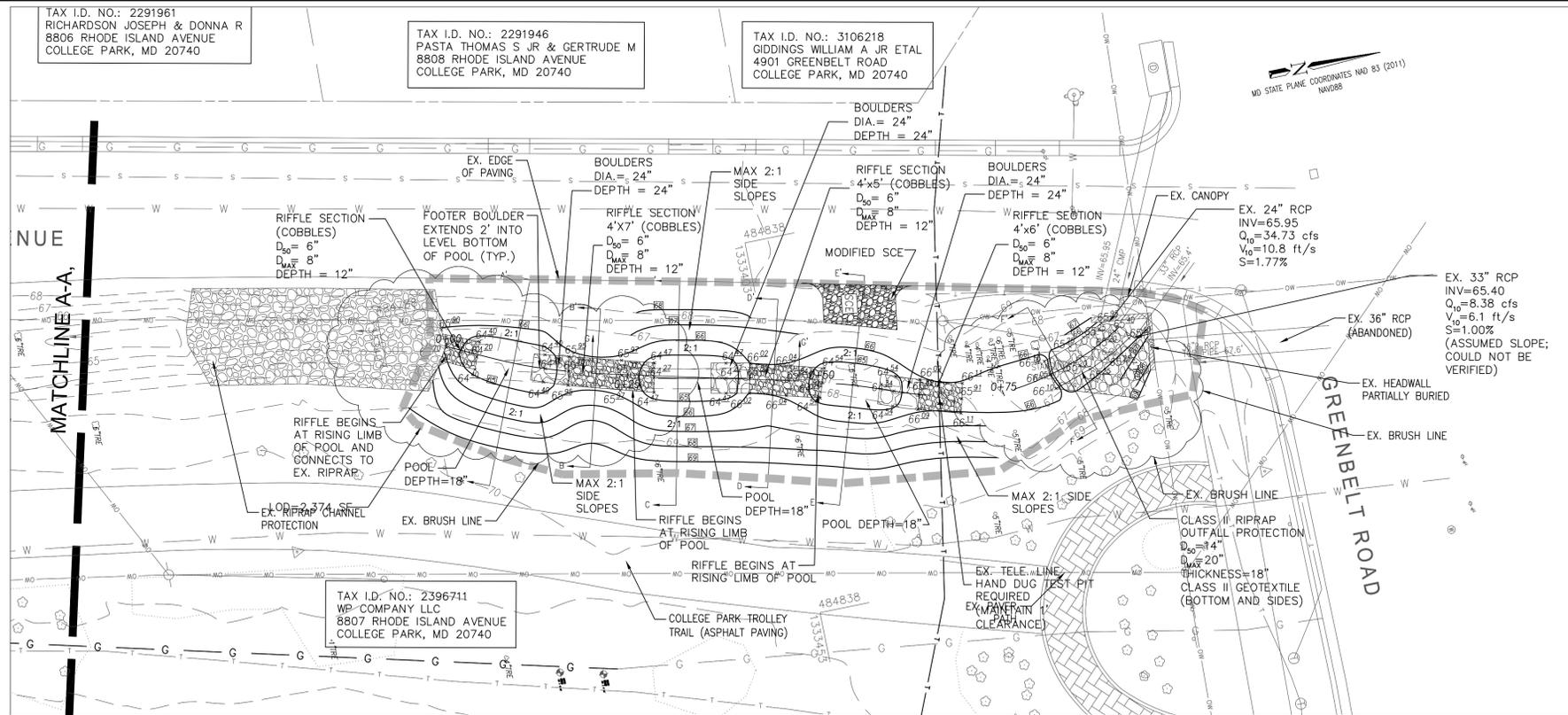
"I hereby certify that I have successfully completed participation in DPIE's Peer Review Program. I have reviewed these plans in detail and they are in conformance with DPIE's General Specifications and Standards."

APPROVAL DATE: _____
PEER REVIEWER: _____
COMPANY NAME: _____
PERMIT NUMBER: _____

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. _____
Expiration Date: _____

APPROVED BY _____ DATE _____
CITY ENGINEER - STEVEN E. HALPERN



BMP & ESD AS-BUILT CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD) SHOWN ON THE PLANS ABOVE HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF PERMITTING, INSPECTION AND ENFORCEMENT.

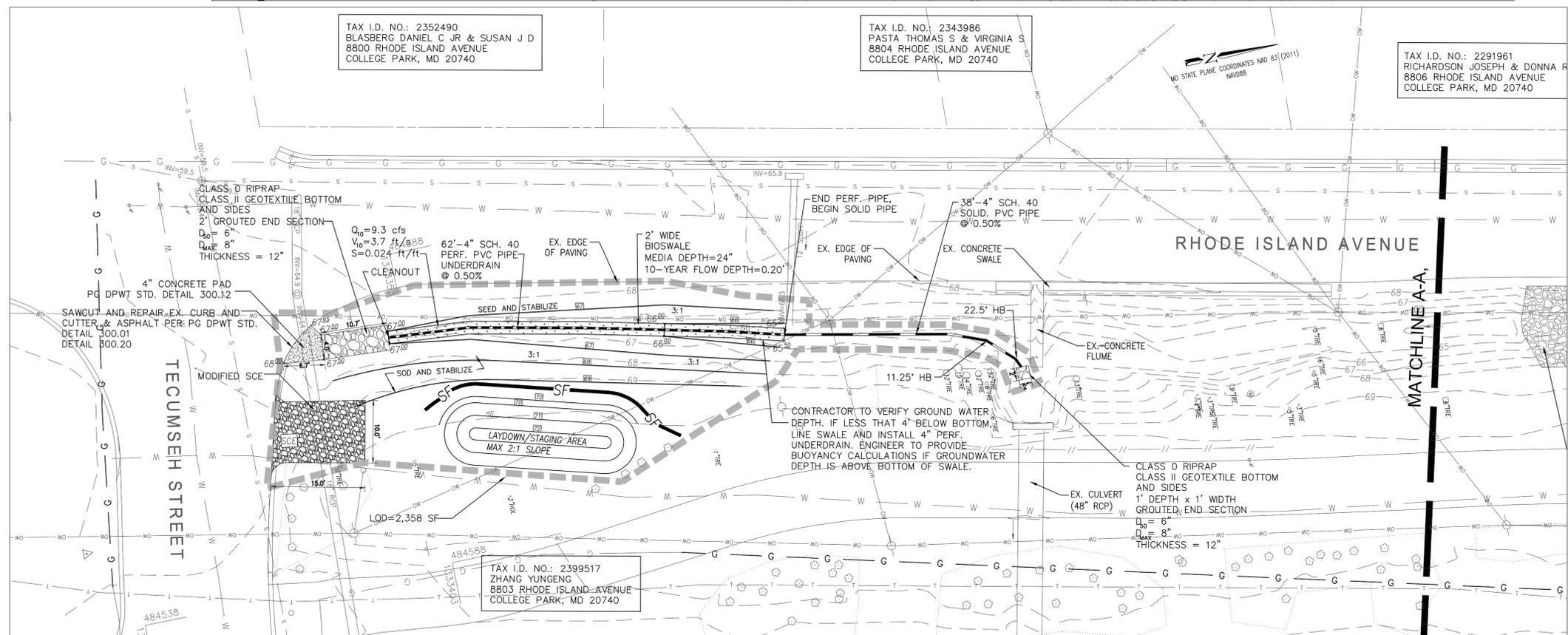
ENGINEERS NAME HERE: MD. REG. P.E. NO. XXXXX DATE: _____

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____

LEGEND:

- 70— EX. CONTOUR
- - - EX. PROPERTY LINE
- × 69.00 EX. SPOT ELEVATION
- EX. CANOPY
- EX. TREE
- EX. VEGETATION
- G - EX. GAS LINE
- W - EX. WATER LINE
- S - EX. SANITARY SEWER LINE
- OW - EX. OVERHEAD WIRE
- EX. POWER POLE
- EX. TELEPHONE POLE
- EX. CURB INLET
- EX. WATER VALVE
- EX. GAS VALVE
- EX. SANITARY SEWER
- EX. FIRE HYDRANT
- EX. HEADWALL
- EX. SIGN
- EX. WOODEN FENCE
- FdB SOILS TYPE
- 66- PROP. CONTOUR
- 65.80 SPOT ELEVATION
- COBBLES
- CLASS 2 RIPRAP
- SANDSTONE BOULDERS
- BIOSWALE
- 0+25 STATION



- NOTES:**
- CONTRACTOR TO INSTALL TREE PROTECTION FENCE AROUND TREES 2" AND LARGER
 - AREAS WITH SWALES OR CHANNELS TO BE STABILIZED WITH 30 MIL HDPE OR EQUAL AND SAND BAGS AT END OF EACH DAY. SEE SHEET C-1.04A FOR DETAIL

GRADING & STORM DRAIN PLAN
SCALE: 1"=10'

SEE SHEET C-1.04 FOR SECTION DETAILS

DEPARTMENT OF PERMITTING, INSPECTIONS AND ENFORCEMENT
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPIE's Peer Review Program. I have reviewed these plans in detail and they are in conformance with DPIE's General Specifications and Standards."

APPROVAL DATE: _____
PEER REVIEWER: _____
COMPANY NAME: _____
PERMIT NUMBER: _____

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. _____
Expiration Date: _____

LOW IMPACT DEVELOPMENT CENTER

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MISS UTILITY NOTE

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REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL

GRADING & STORM DRAIN PLAN

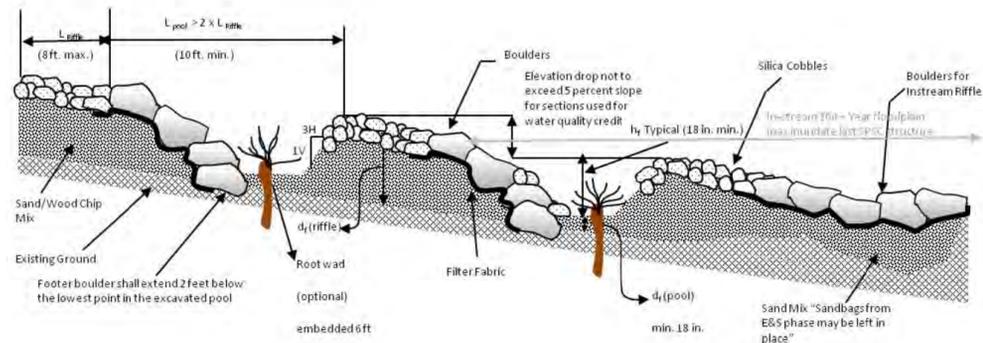
FOR PERMIT ONLY

RHODE ISLAND AVENUE STORMWATER RETROFIT

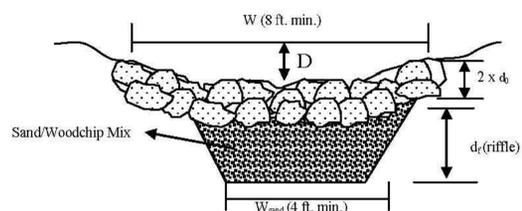
RHODE ISLAND AVENUE
COLLEGE PARK, MD 20740
PRINCE GEORGE'S COUNTY, MARYLAND

ISSUE:	DATE: 03/30/16
SCALE: 1"=20'	SHEET 3 OF 8
FILE NO:	C-1.02
DRAFTED: DM	
CHECKED: NW	

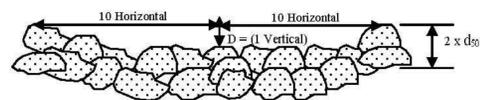
LINER OPTION FOR HIGH WATER TABLE CONDITION:



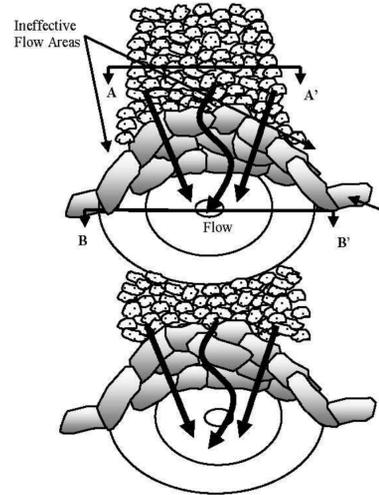
Typical Profile - Alternating Pools and Riffles



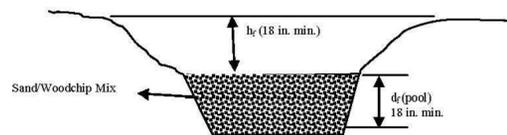
Section A-A'
Riffle Weir Cross Section through Cobble



Riffle Section through Cobble



Riffle - Pool Sequence (Typical)



Section B-B'
Pool Cross Section

DETAILS
NOT TO SCALE

NOTES:

- SAND/WOODCHIP FILTER MEDIUM SHALL MEET THE AASHTO-M-6 OR ASTM-C-33, 0.02 INCHES TO 0.03 INCHES IN SIZE. SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATE OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND. THE WOODCHIPS ARE ADDED TO THE SAND MIX, APPROXIMATELY 20% BY VOLUME, TO INCREASE THE ORGANIC CONTENT AND PROMOTE PLANT GROWTH AND SUSTAINABILITY.
- FILTER FABRIC SHOULD BE PLACED UNDER ALL BOULDERS. REFERS TO DESIGN FIGURES FOR BOULDER PLACEMENT LOCATION. FILTER FABRIC SHALL NOT BE PLACED UNDER NON-BOULDER SECTIONS.

CATEGORY 300 DRAINAGE PVC LINED PONDS

DESCRIPTION. This work shall consist of furnishing, placing and anchoring of a 30 mil PVC liner within designated pond area as shown in the Contract Documents and as directed by the Engineer.

MATERIALS:

Furnished Topsoil	920
Type B Soil Stabilization Matting	920
Staples	920

PVC LINER MATERIAL. The 30 mil PVC Liner shall conform to the following minimum physical properties:

PROPERTY	TEST METHOD	REQUIREMENT
Thickness	D 1593	+/- 5%
Specific Gravity (min.)	D 792	1.20
100% Modulus (psi, min.)	D 882	100
(1 lb. force/in. width, min.)	D 882	30
Tensile (psi, min.)	D 882	2300
(Lb. force/in. width, min.)	D 882	69
Elongation at Break (% min.)	D 882	325
Graves Tear (lb./in., min.)	D 1904	325
(1 lb. force/in. width, min.)	D 1904	8
Resistance to Soil Burial (% change max.)	D 3083 (NSF Modified)	
(a) Breaking Factor		6
(b) Elongation At Break		20
(c) Modulus at 100% Elongation		20
Impact Cold Crack (F)	D 1790	-20
Dimensional Stability (% change/max.)	D 120 (212/15 min.)	6
Water Extraction (% max.)	D 3083	-0.25
Volatile Loss (% max.)	D 1203	0.70
Hydrostatic Resistance (psi, min.)	D 751	82

PVC LINER CERTIFICATION.

The Contractor shall certify that the PVC liner material conforms to the physical properties. The PVC Liner Certification shall also include:

- Polymer and composition of the PVC Liner, including additive composition of any coating materials
- Manufacturer's Quality Control plan including properties, test methods, frequency of testing, tolerances and method of resolution for out-of-specification materials
- Laboratory test results documenting the physical properties

STORAGE AND HANDLING

The PVC liner shall remain stored in its original container in a dry area and protected from puncture, dirt, grass, water, mud, mechanical abrasions, excessive heat, extreme cold or other damage. On-site handling of the PVC liner is the responsibility of the Contractor.

Any damage of the PVC liner shall be documented. If the damaged PVC liner cannot be repaired to comply with the specification it shall be removed and replaced at no additional cost to the Administration.

CONSTRUCTION.

Construction shall be in conformance with the details shown on the plans or as directed by the Engineer and the following:

Area Subgrade Preparation.

Surfaces to be lined shall be smooth and free of all rocks, stones, sticks, sharp objects, or debris of any kind. The surface shall provide a firm, unyielding foundation for the liner with no sudden sharp, or abrupt changes or break in grade. No standing water, mud, snow, or frozen subgrade that has become softened by water or overly dried until it has been properly reconditioned and recompact. Special care shall be taken to maintain the prepared soil surfaces. The soil surface will be observed daily by the Engineer to evaluate the surface condition. Any damage to the surface caused by weather conditions shall be repaired by the contractor.

Anchor Trench.

The anchor trench shall be excavated to the line, grade, and width shown on the construction drawings, prior to liner placement.

If the anchor trench is located in clay susceptible to desiccation, no more than the amount of trench required for the liner to be anchored in one day shall be excavated to minimize desiccation of the anchor trench soils.

Slightly rounded corners shall be provided in the trench where the liner adjoins the trench so as to avoid sharp bends in the liner. No loose soil or rocks shall be allowed to underlie the liner in the anchor trench. Leading edges of the anchor trench shall be smooth and even.

Placement of Liner.

- The liner shall be placed down gradient (upstream to downstream) to facilitate over lapping and prevent run off from entering under the placed liner.
- The method used to place the liner panels shall minimize wrinkles (especially differential wrinkles between adjacent panels). Minimum wrinkles shall be allowed to insure the liner is installed in a relaxed condition. Excessive wrinkles which overlap themselves shall not be allowed. Stretching of the liner is not allowed.
- All panels may be repositioned after deployment to conform to the overlap requirements, however, deployment and repositioning measures may eliminate dragging or slongating the PVC liner panels.
- The seam overlap shall be a minimum of 3 ft. and a maximum of 4 ft.

BMP & ESD AS-BUILT CERTIFICATION

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ENGINEERS NAME HERE _____ DATE: _____
MD. REG. P. E. NO. XXXXX

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Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. _____
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Measurement and Payment.

Measurement and payment for the PVC ditch liner will be measured and paid for at the contract unit price per square yard accepted in place. The payment will be full compensation for all excavation, PVC liner, furnished topsoil, backfill, and for all overlap shall not be measured and paid for as separate item. All PVC liner overlap shall be incidental to the cost of PVC liner installation.

Excavation will be measured and paid for at the contract unit price per cubic yard for class 2 excavation for incidental construction.

DEPARTMENT OF PERMITTING, INSPECTIONS AND ENFORCEMENT
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COMPANY NAME: _____
PERMIT NUMBER: _____

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NOT TO SCALE

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REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL

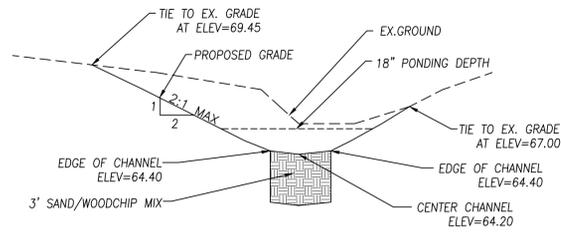
STORM DRAIN DETAILS

FOR PERMIT ONLY

RHODE ISLAND AVENUE
STORMWATER RETROFIT

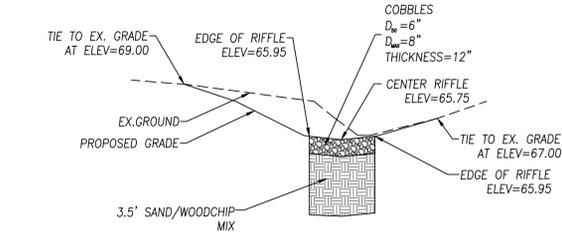
RHODE ISLAND AVENUE
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PRINCE GEORGE'S COUNTY, MARYLAND

ISSUE:	DATE: 03/30/16
SCALE: NOT TO SCALE	SHEET 4 OF 8
FILE NO:	1.03
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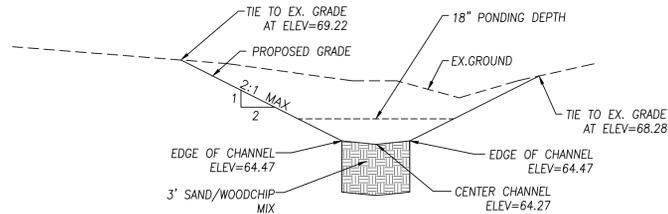
STEP POOL SECTION (A-A)

STA. = 0+09
SCALE: 1"=5'



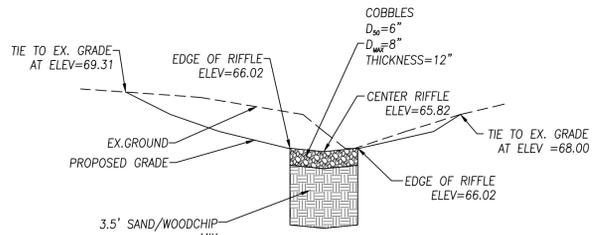
STEP POOL SECTION (B-B)

STA. = 0+21
SCALE: 1"=5'



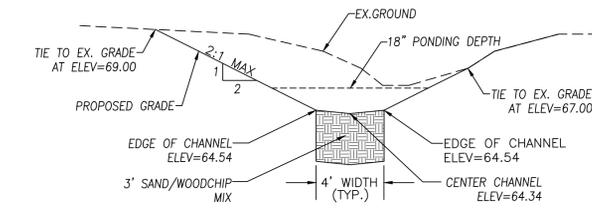
STEP POOL SECTION (C-C)

STA. = 0+32
SCALE: 1"=5'



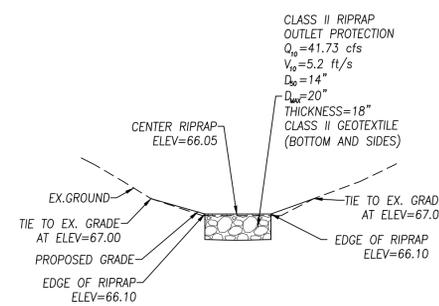
STEP POOL SECTION (D-D)

STA. = 0+44
SCALE: 1"=5'



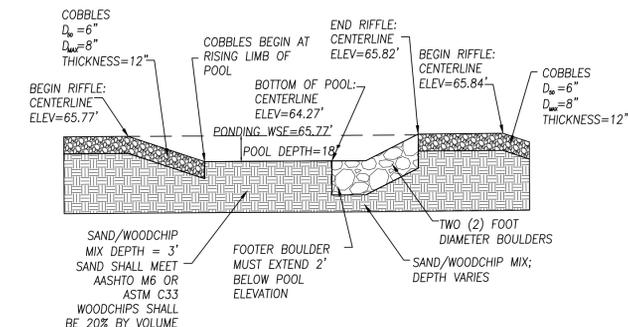
STEP POOL SECTION (E-E)

STA. = 0+55
SCALE: 1"=5'



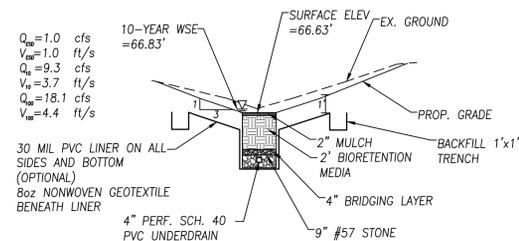
STEP POOL SECTION (F-F)

SCALE: 1"=5'



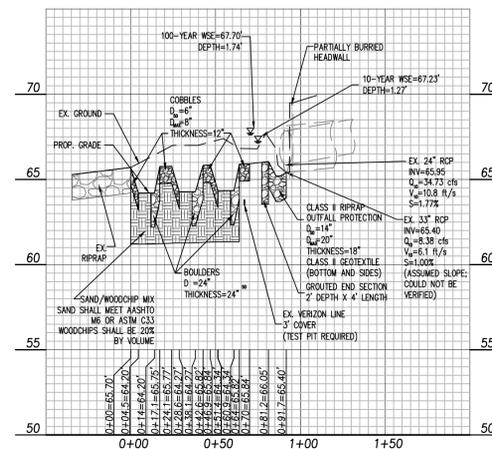
STEP POOL SECTION (G-G)

STA. = 0+20 - 0+47
SCALE: 1"=5'



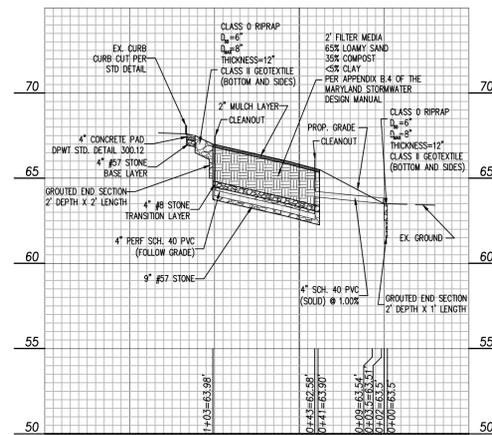
BIOSWALE W/ OPTIONAL LINER (TYP.)

SCALE: 1"=5'



STEP POOL STORM CONVEYANCE PROFILE

SCALE: 1"=50' H
1"=5' V



BIOSWALE PROFILE

SCALE: 1"=50' H
1"=5' V

SPSC PROFILE TABLE

STATION	ELEVATION	NOTES
0+00	65.70'	END POOL END RIFFLE, TIE TO EX. RIPRAP
0+04.5	64.20'	BEGIN POOL SLOPE UP, BEGIN COBBLE SECTION
0+14	64.20'	END POOL SLOPE DOWN, LOCATION OF FOOTER BOULDER
0+17.1	65.75'	END RIFFLE, BEGIN POOL SLOPE DOWN, BEGIN BOULDER SECTION
0+24.1	65.77'	END POOL SLOPE UP, BEGIN RIFFLE
0+28.6	64.27'	BEGIN POOL SLOPE UP, BEGIN COBBLE SECTION
0+38.1	64.27'	END POOL SLOPE DOWN, LOCATION OF FOOTER BOULDER
0+42.6	65.82'	END RIFFLE, BEGIN POOL SLOPE DOWN, BEGIN BOULDER SECTION
0+46.9	65.84'	END POOL SLOPE UP, BEGIN RIFFLE
0+51.4	64.34'	BEGIN POOL SLOPE UP, BEGIN COBBLE SECTION
0+60.9	64.34'	END POOL SLOPE DOWN, LOCATION OF FOOTER BOULDER
0+64	65.89'	END RIFFLE, BEGIN POOL SLOPE DOWN, BEGIN BOULDER SECTION
0+70	65.91'	END POOL SLOPE UP, BEGIN RIFFLE
0+81.2	66.05'	BEGIN OUTFALL PROTECTION (CLASS 0 RIPRAP)
0+91.7	65.40'	BEGIN OUTFALL PROTECTION (CLASS 0 RIPRAP)

BIOSWALE PROFILE TABLE

STATION	ELEVATION	NOTES
0+00	63.50'	END RIPRAP
0+02	63.50'	OUTFALL 4" PIPE, BEGIN RIPRAP
0+03.5	63.51'	22.5' HORIZONTAL BEND
0+09	63.54'	11.25' HORIZONTAL BEND
0+41	63.69'	BEGIN SOLID PIPE (CLEANOUT)
0+43	63.69'	END UNDERDRAIN (CLEANOUT)
1+03	64.01'	BEGIN UNDERDRAIN (CLEANOUT)

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SCALE: 1"=5'

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STORM DRAIN DETAILS

FOR PERMIT ONLY

RHODE ISLAND AVENUE
STORMWATER RETROFIT

RHODE ISLAND AVENUE
COLLEGE PARK, MD 20740
PRINCE GEORGE'S COUNTY, MARYLAND

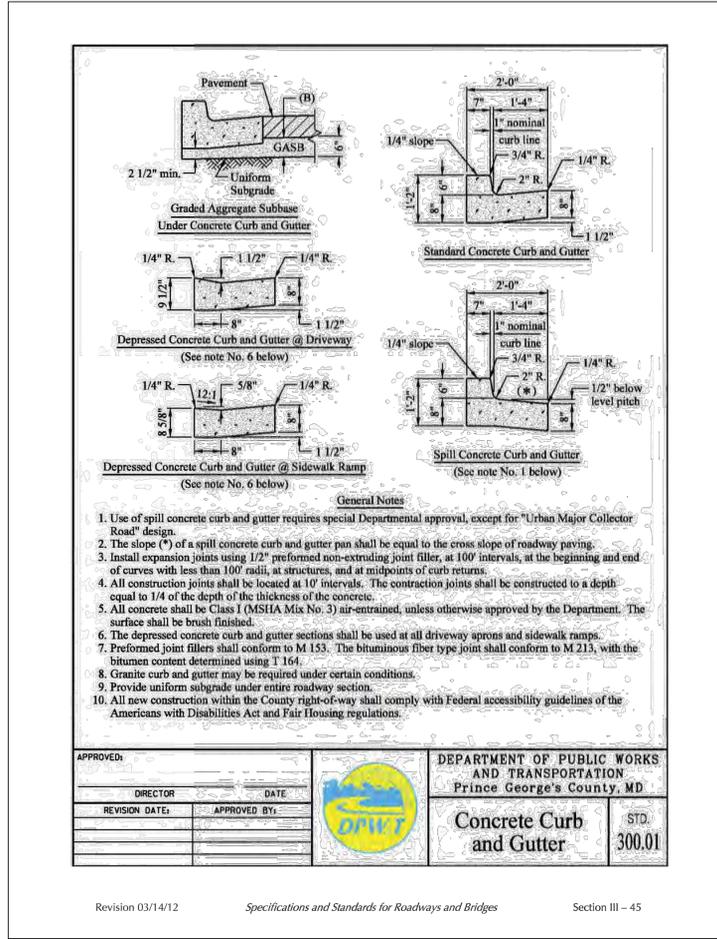
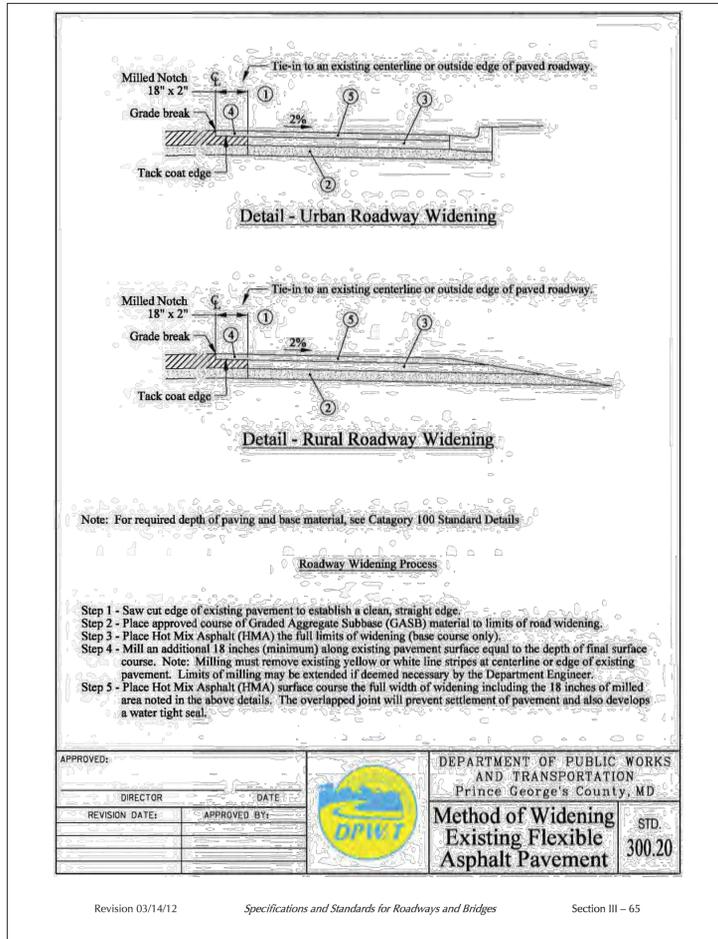
ISSUE: _____ DATE: 03/30/16

SCALE: 1"=5' SHEET 5 OF 8

FILE NO: _____

DRAFTED: DM C-1.04

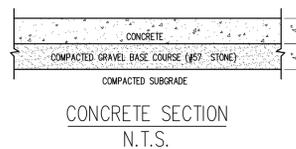
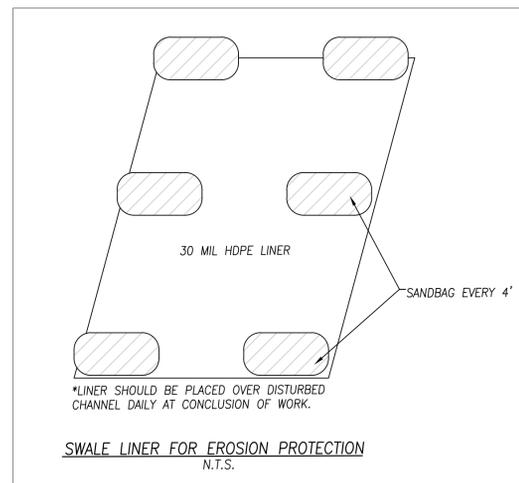
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NOTE: FOR CURB & GUTTER REPLACEMENT/REPAIR, A MINIMUM 2' STRIP OF FULL DEPTH PAVEMENT MUST ALSO BE REPLACED

PAVING SECTION TO BE DETERMINED BY IN FIELD INVESTIGATION, AND APPROVED BY CITY OF COLLEGE PARK

NOTE: IF THE LENGTH BETWEEN THE END OF THE CURB & GUTTER REPLACEMENT AND THE NEAREST JOINT IN THE EXISTING CURB & GUTTER IS LESS THAN 5', REMOVE THE EXISTING CURB AND GUTTER TO THE NEXT JOINT (BEYOND THE NEAREST) AND INSTALL EXPANSION JOINT. IF THE LENGTH BETWEEN THE END OF CURB & GUTTER REPLACEMENT AND THE NEAREST JOINT IN THE EXISTING CURB & GUTTER IS GREATER THAN OR EQUAL TO 5', CUT THE EXISTING CURB AND GUTTER TO A NEAT LINE AND INSTALL EXPANSION JOINT.



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SCALE: 1"=5'

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FOR PERMIT ONLY

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RHODE ISLAND AVENUE
 COLLEGE PARK, MD 20740
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ISSUE:	DATE: 03/30/16
SCALE: 1"=5'	SHEET 6 OF 8
FILE NO:	C-1.04A
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DRAINAGE AREA PLAN
SCALE: 1"=100'



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DRAINAGE AREA TABLE

DRAINAGE AREA	TOTAL AREA (acres)	IMP. AREA (acres)	OWNERSHIP	TREATMENT	CN	TOC*
DA #1	6.25	3.54	PUB/PRI	SPSC #1	89	0.1 hr
DA #2	1.35	1.28	PRIVATE	SPSC #1	97	0.1 hr
DA #3	0.36	0.31	PUBLIC	NONE	95	0.1 hr
DA #4	0.11	0.01	PUBLIC	SPSC #1	85	0.1 hr
DA #5	1.82	0.31	PUBLIC	BIOSWALE #1	89	0.1 hr
DA #6	5.90	1.80	PUB/PRI	NONE	88	0.1 hr

*MINIMUM TIME OF CONCENTRATION IS 0.1 HOURS

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MISS UTILITY NOTE

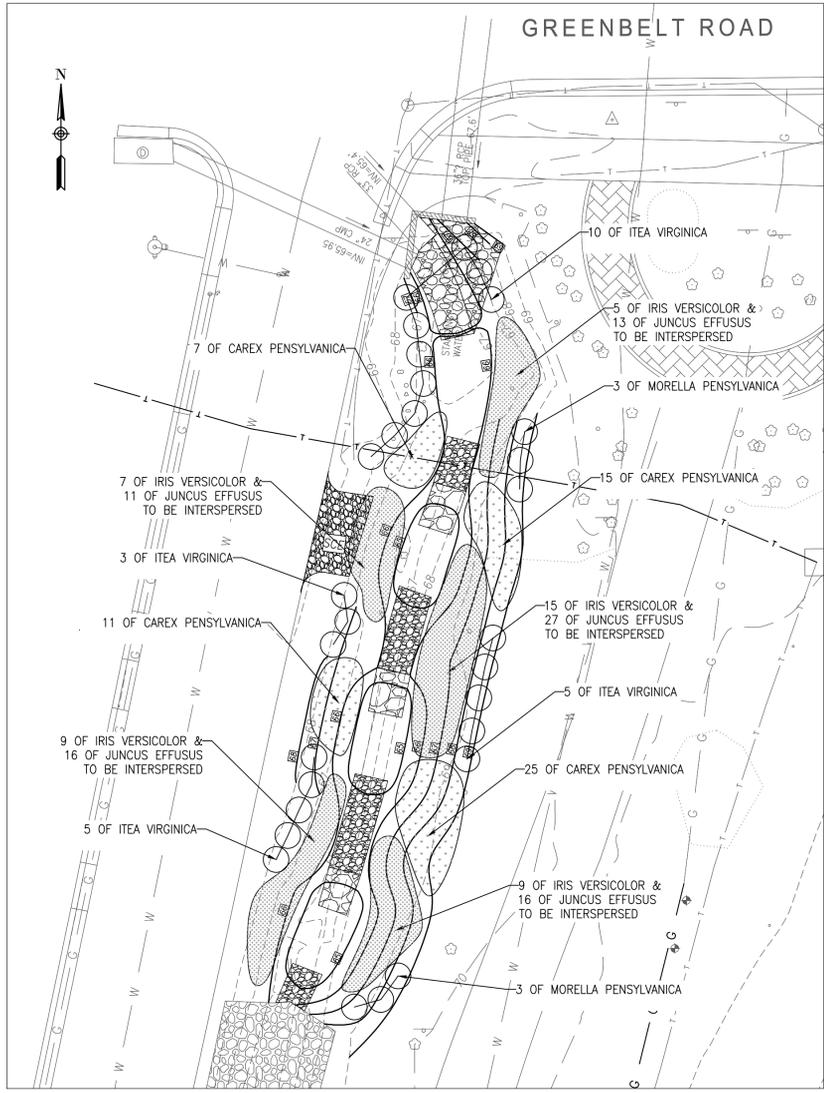
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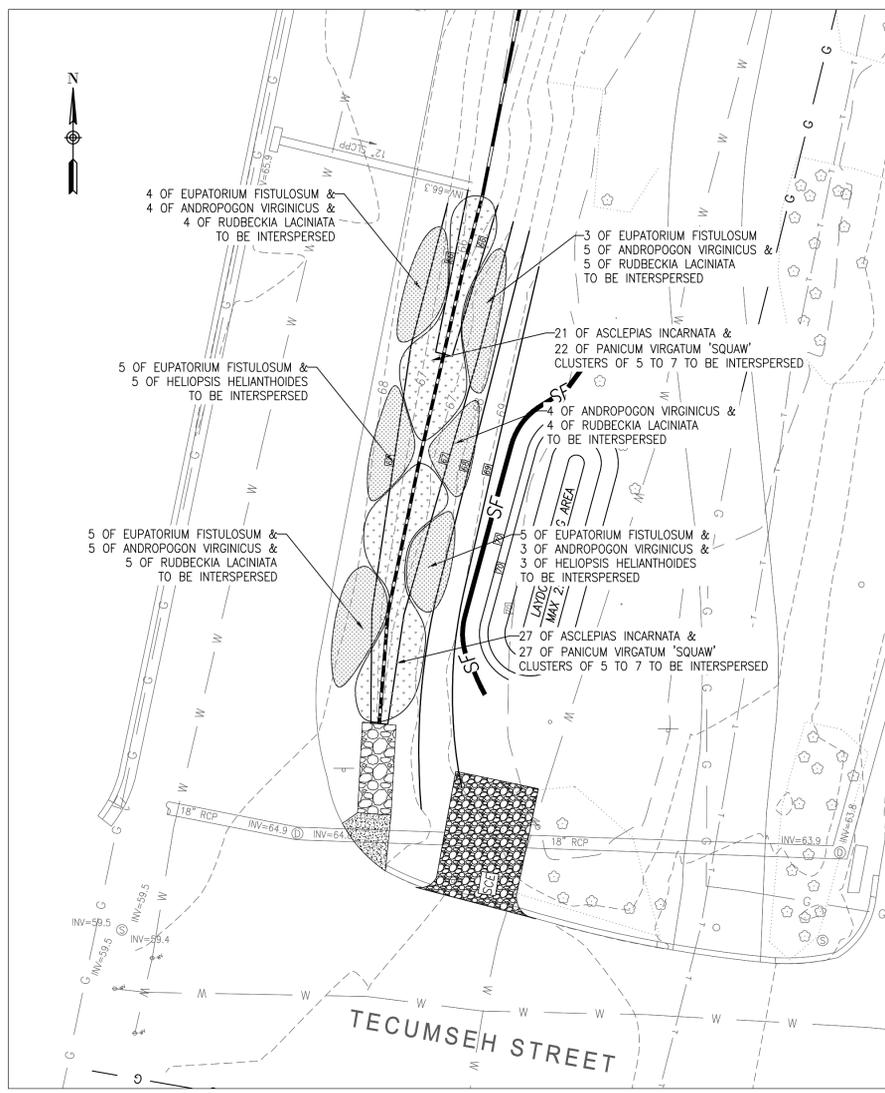
DRAINAGE AREA PLAN
FOR PERMIT ONLY

**RHODE ISLAND AVENUE
STORMWATER RETROFIT**
RHODE ISLAND AVENUE
COLLEGE PARK, MD 20740
PRINCE GEORGE'S COUNTY, MARYLAND

ISSUE:	DATE: 03/30/16
SCALE: 1"=50'	SHEET 7 OF 8
FILE NO:	C-3.00
DRAFTED: DM	
CHECKED: NW	



LANDSCAPE PLAN: STEP POOL
SCALE: 1"=10'



LANDSCAPE PLAN: BIOSWALE
SCALE: 1"=10'

LEGEND:

- 70 — EX. CONTOUR
- - - EX. PROPERTY LINE
- X 49.00 EX. SPOT ELEVATION
- EX. CANOPY
- EX. TREE
- EX. VEGETATION
- C - EX. GAS LINE
- W - EX. WATER LINE
- S - EX. SANITARY SEWER LINE
- OW - EX. OVERHEAD WIRE
- EX. POWER POLE
- EX. TELEPHONE POLE
- EX. CURB INLET
- EX. WATER VALVE
- EX. GAS VALVE
- EX. SANITARY SEWER
- EX. FIRE HYDRANT
- EX. HEADWALL
- EX. SIGN
- EX. WOODEN FENCE
- FbB SOILS TYPE
- - - PROP. CONTOUR
- COBBLES
- CLASS 2 RIPRAP
- SANDSTONE BOULDERS
- SHRUB
- PERENNIAL
- GRASS

LANDSCAPE SPECIFICATIONS

A. PLANT MATERIALS
THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP, AND TRANSPANT ALL OF THE PLANT MATERIALS CALLED FOR ON THE DRAWINGS AND/OR LISTED IN THE PLANT SCHEDULE.

B. PLANT NAMES
PLANT NAMES USED IN THE PLANT SCHEDULE SHALL BE IDENTIFIED IN ACCORDANCE WITH HORTUS THIRD, BY L.H. BAILEY, 1976.

C. PLANT STANDARDS
ALL PLANT MATERIALS SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "AMERICAN STANDARD FURNURSERY STOCK," LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (HEREAFTER REFERRED TO AS AAN STANDARDS). ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, SHALL HAVE A NORMAL HABIT OF GROWTH, AND SHALL BE FIRST QUALITY, SOUND, VIGOROUS, WELL-BRANCHED AND WITH HEALTHY WELL-FURNISHED ROOT SYSTEMS. THEY SHALL BE FREE OF DISEASE, INSECT PESTS AND MECHANICAL INJURIES.

(1) ALL PLANTS SHALL BE NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER THE SAME CLIMATIC CONDITIONS AS THE LOCATION OF THIS PROJECT FOR AT LEAST TWO YEARS BEFORE PLANTING. NEITHER HEEL-ED PLANTS NOR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

(2) COLLECTED PLANTS OR TRANSPLANTED TREES MAY BE CALLED FOR BY THE LANDSCAPE ARCHITECT AND USED, PROVIDED, HOWEVER, THAT LOCATIONS AND SOIL CONDITIONS WILL PERMIT PROPER BALLING.

D. PLANT MEASUREMENTS

(1) MINIMUM SIZE FOR PLANTING SHRUBS SHALL BE, IN GENERAL, EIGHTEEN TO TWENTY-FOUR (18-24) INCHES IN HEIGHT OR SPREAD, AS APPROPRIATE, EXCEPT THAT A LARGER SIZE MAY BE REQUIRED WHEN DEEMED APPROPRIATE BY THE PLANNING DIRECTOR (OR DESIGNEE) IN THE CASE OF PARTICULAR SPECIES OR PLANTING SITUATIONS.

E. PLANTING METHODS

ALL PROPOSED PLANT MATERIAL THAT MEETS THE SPECIFICATIONS IN SECTION B. ABOVE ARE TO BE PLANTED IN ACCORDANCE WITH THE FOLLOWING PLANTING METHODS DURING THE PROPER SEASONS AS DESCRIBED BELOW.

(1) PLANTING SEASONS
A PROFESSIONAL HORTICULTURALIST/NURSERYMAN SHALL BE CONSULTED TO DETERMINE THE PROPER TIME, BASED ON PLANT SPECIES AND WEATHER CONDITIONS, TO MOVE AND INSTALL PARTICULAR PLANT MATERIAL TO MINIMIZE STRESS TO THE PLANT. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING THE WINTER MONTHS PROVIDED THERE IS NO FROST IN THE GROUND AND FROST-FREE TOP SOIL PLANTING MIXTURES ARE USED.

(2) DIGGING
ALL PLANT MATERIAL SHALL BE DUG, BALLED AND BURLAPPED (B+B) OR BARE ROOT IN ACCORDANCE WITH THE "AAN STANDARDS."

(3) EXCAVATION OF PLANT PITS
THE LANDSCAPE CONTRACTOR SHALL EXCAVATE ALL PLANT PITS, VINE PITS, HEDGE TRENCHES AND SHRUB BEDS AS FOLLOWS:
(A) ALL PITS SHALL BE GENERALLY CIRCULAR IN OUTLINE, WITH BOWL SHAPED SIDES. THE TREE PIT SHALL BE DEEP ENOUGH TO ALLOW ONE-EIGHTH (1/8) OF THE BALL TO BE ABOVE THE EXISTING GRADE. PLANTS SHALL REST ON UNDISTURBED EXISTING SOIL OR WELL COMPACTED BACKFILL. THE TREE PIT MUST BE A MINIMUM OF NINE (9) INCHES LARGER ON EVERY SIDE THAN THE BALL OF THE TREE.
(B) IF AREAS ARE DESIGNATED AS SHRUB BEDS OR HEDGE TRENCHES, THEY SHALL BE CULTIVATED TO AT LEAST EIGHTEEN (18) INCHES IN DEPTH MINIMUM. AREAS DESIGNATED FOR GROUND COVERS AND VINES SHALL BE CULTIVATED TO AT LEAST TWELVE (12) INCHES IN DEPTH MINIMUM.
(4) PLANT PRUNING, EDGING, AND MULCHING
(A) EACH TREE, SHRUB OR VINE SHALL BE PRUNED IN AN APPROPRIATE MANNER TO ITS PARTICULAR REQUIREMENTS, IN ACCORDANCE WITH ACCEPTED STANDARD PRACTICES AS STATED IN ANSI STANDARDS A300 FOR PRUNING. BROKEN OR BRUISED BRANCHES SHALL BE REMOVED WITH CLEAN CUTS MADE ON AN ANGLE FROM THE BARK RIDGE TO THE BRANCH COLLAR, NO FLUSH CUTS, TO MINIMIZE THE AREA CUT. ALL CUTS SHALL BE MADE WITH SHARP TOOLS. TRIM ALL EDGES SMOOTH. NO TREE WOUND DRESSINGS SHALL BE APPLIED.
(B) ALL TRENCHES AND SHRUB BEDS SHALL BE EDGED AND CULTIVATED TO THE LINES SHOWN ON THE DRAWING. THE AREAS AROUND ISOLATED PLANTS SHALL BE EDGED AND CULTIVATED TO THE FULL DIAMETER OF THE PIT. SOD WHICH HAS BEEN REMOVED AND STACKED SHALL BE USED TO TRIM THE EDGES OF ALL EXCAVATED AREAS TO THE NEAT LINES OF THE PLANT PIT SAUCERS, THE EDGES OF SHRUB AREAS, HEDGE TRENCHES AND VINE POCKETS.
(C) AFTER CULTIVATION, ALL PLANT MATERIALS SHALL BE MULCHED WITH A TWO TO THREE (2-3) INCH LAYER OF AGED SINGLE OR DOUBLE SHREDDED HARDWOOD MULCH OR CHIPS OVER THE ENTIRE AREA OF THE BED OR SAUCER. REFER TO THE MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL.

F. SEEDING AND SODDING
ALL SEEDING AND SODDING SHALL BE AS PER 1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

G. TOP SOIL
TOP SOIL SHALL BE RETAINED AND/OR PROVIDED ON ALL SITES AND SPREAD OVER ALL UNIMPROVED AREAS.

PLANT LIST				
TYPE	QTY	LATIN NAME	COMMON NAME	SIZE/SPACING
SHRUBS	23	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	3 gal. @ 36" o.c.
	6	MORELLA PENSYLVANICA	NORTHERN BAYBERRY	3 gal. @ 36" o.c.
PERENNIALS	48	ASCLEPIAS INCARNATA	SWAMP MILKWEED	1 gal. @ 18" o.c.
	22	EUPATORIUM FISTULOSUM	JOE PYE WEED	1 gal. @ 18" o.c.
	8	HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER	1 gal. @ 18" o.c.
	45	IRIS VERSICOLOR	VIRGINIA BLUE FLAG	1 gal. @ 18" o.c.
	18	RUDBECKIA LACINIATA	CUTLEAF CONEFLOWER	1 gal. @ 18" o.c.
GRASSES	21	ANDROPOGON VIRGINICUS	BROOMSEDEGE	1 gal. @ 18" o.c.
	58	CAREX PENSYLVANIA	PENNSYLVANIA SEDGE	1 gal. @ 18" o.c.
	83	JUNCUS EFFUSUS	SOFT RUSH	1 gal. @ 18" o.c.
	49	PANICUM VIRGATUM 'SQUAW'	SWITCHGRASS	1 gal. @ 18" o.c.

BMP & ESD AS-BUILT CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD) SHOWN ON THE PLANS ABOVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF PERMITTING, INSPECTION AND ENFORCEMENT.

ENGINEERS NAME HERE _____ DATE: _____
MD. REG. P.E. NO. XXXXX

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____.

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. _____
Expiration Date: _____

DEPARTMENT OF PERMITTING, INSPECTIONS AND ENFORCEMENT
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

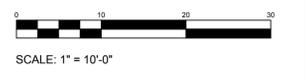
"I hereby certify that I have successfully completed participation in DPIE's Peer Review Program. I have reviewed these plans in detail and they are in conformance with DPIE's General Specifications and Standards."

APPROVAL DATE: _____
PEER REVIEWER: _____
COMPANY NAME: _____
PERMIT NUMBER: _____

LOW IMPACT DEVELOPMENT CENTER

5000 Sunnyside Avenue, Suite 100
Beltsville, MD 20705

Tel. (301) 982-5559
Fax. (301) 982-9305
www.lowimpactdevelopment.org



MISS UTILITY NOTE

INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL

LANDSCAPE PLAN
FOR PERMIT ONLY

RHODE ISLAND AVENUE STORMWATER RETROFIT

RHODE ISLAND AVENUE
COLLEGE PARK, MD 20740
PRINCE GEORGE'S COUNTY, MARYLAND

ISSUE:	DATE: 03/30/16
SCALE: 1"=10'	SHEET 8 OF 8
FILE NO:	L-1.01
DRAFTED: SC, DM	
CHECKED: NW	