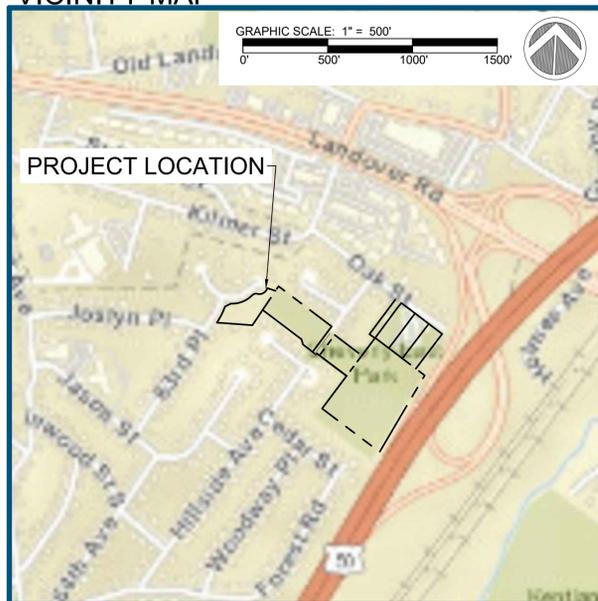
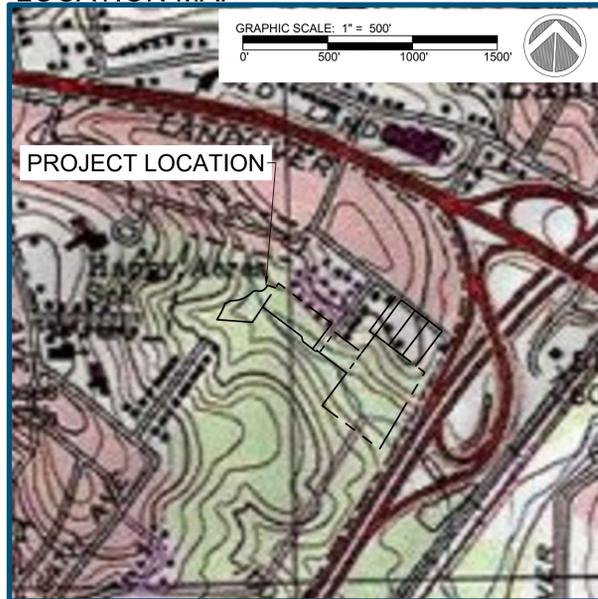


VICINITY MAP



LOCATION MAP



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION

DOE CLEAN WATER PARTNERSHIP

PRINCE GEORGE'S COUNTY, MD

AERIAL PHOTOGRAPH-PROJECT OVERVIEW



CLIENT:
 NAME: CORVIAS PRINCE GEORGE'S COUNTY
 STORMWATER PARTNERS, LLC
 ADDRESS: 1801 MCCORMICK DRIVE,
 SUITE 280
 LARGO, MARYLAND 20774
 CONTACT: DEEPAK SHARMA
 EMAIL: SHARMAD@BV.COM

PROPERTY OWNERS:
 OWNER NAME: MNCPPC
 OWNER ADDRESS: 6600 KENILWORTH AVE
 RIVERDALE, MD 20737

OWNER NAME: CHEVERLY MAYOR & TOWN
 COUNCIL

OWNER ADDRESS: 6401 FOREST RD CHEVERLY,
 MD 20785

PROPERTY ADDRESS:
 CHEVERLY EAST PARK, N33
 6605 OAK STREET
 HYATTSVILLE, MD 20785

APPLICANT:
 NAME: RES
 ADDRESS: 6958 AVIATION DRIVE, SUITE C,
 GLEN BURNIE, MARYLAND 21061
 CONTACT: JOSEPH MONHEIT
 PHONE NUMBER: 410-236-4986
 EMAIL: JMONHEIT@RES.US

GENERAL INFORMATION:

- SITE DATA:
 - TAX ID: 0163519
 ADDRESS: 63RD PL, HYATTSVILLE, MD 20785
 ACREAGE: 0.83 AC +/-
 - TAX ID: 0129551
 ADDRESS: HILLSIDE AVE HYATTSVILLE, MD 20785
 ACREAGE: 1.53 AC +/-
 - TAX ID: 0086843
 ADDRESS: HILLSIDE AVE HYATTSVILLE, MD 20785
 ACREAGE: 0.69 AC +/-
 - TAX ID: 0146084
 ADDRESS: 6607 OAK ST HYATTSVILLE MD, 20785
 ACREAGE: 4.74 AC +/-
 - FLOODPLAIN ACREAGE: 2.93 AC.
 - DISTURBED AREA: 3.39 AC.
 - CUT & FILL: 995.52 CY CUT
 MAX. CUT/FILL DEPTH: 6.28 FT CUT/ 6.87 FT FILL
- EXISTING ZONE: ROS AND RSF-65
- WSSC GRID: 204NE06 AND 204NE05
- TAX MAP: 0059 GRID: 00B1
- PARCELS: A, B, AND 0209
- PG COUNTY STREET MAP PAGE: 0066; GRID 00C1
- NO CEMETERIES EXIST ON OR CONTIGUOUS TO PROPERTY.
- NO HISTORIC SITES ON OR IN THE VICINITY OF THE PROPERTY.
- COUNTY WATERSHED NAME: LOWER BEAVERDAM CREEK
 COUNTY WATERSHED #021402050816
- NRI: 156-2022
- TCPII #: TCP2-112-96 AND E-025-11
- WSSC GRID: 204NE06 AND 204NE05
- TAX MAP: 0059 GRID: 00B1
- PARCELS: A, B, AND 0209
- PG COUNTY STREET MAP PAGE: 0066; GRID 00C1
- NO CEMETERIES EXIST ON OR CONTIGUOUS TO PROPERTY.
- NO HISTORIC SITES ON OR IN THE VICINITY OF THE PROPERTY.
- COUNTY WATERSHED NAME: LOWER BEAVERDAM CREEK
 COUNTY WATERSHED #021402050816
- NRI: 156-2022
- TCPII #: TCP2-112-96 AND E-025-11
- ENVIRONMENTAL INFORMATION:
 - SITE IS NOT WITHIN CHESAPEAKE BAY CRITICAL AREA
 - SITE DOES NOT CONTAIN HIGHLY ERODIBLE SOILS
 - SITE DOES NOT CONTAIN STEEP SLOPES
 - SITE IS WITHIN WATERSHED WITH TMDL FOR SEDIMENT
 - SITE IS NOT WITHIN TIER II WATERSHED WETLANDS ARE PRESENT ON SITE
 - 100-YEAR FLOODPLAIN IS PRESENT ON SITE
- SOURCE OF TOPOGRAPHY: SURVEY WITHIN LIMITS OF SURVEY (LOS) OBTAINED BY A MORTON AND THOMAS AND ASSOCIATES IN JUNE 2022. CONTOURS OUTSIDE THE LOS ARE FROM PRINCE GEORGE'S COUNTY 2021 DATA.

DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND

PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

APPROVAL DATE: _____

PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.

PEER REVIEWER'S SIGNATURE: _____

COMPANY NAME: SOLTESZ, INC.

LICENSE NUMBER: 40806

PERMIT NUMBER: 50260-2022-0

SHEET INDEX:

- COVER SHEET
- NOTES AND NARRATIVE
- DRAINAGE AREA MAP
- HYDRAULIC CROSS SECTION MAP
- KEY SHEET
- EXISTING CONDITIONS
- PROPOSED GRADING, PLAN AND PROFILE
- DETAILS
- CROSS SECTIONS
- EX. UTILITY PROFILES
- PLANTING PLAN
- PLANTING TABLES AND DETAILS

SWM DESCRIPTION

THIS PROJECT IS FOR 1,018 LF OF STREAM RESTORATION AND 33.31 IMPERVIOUS ACRE CREDITS.

SWM CONCEPT CERTIFICATION

THIS PLAN HAS BEEN APPROVED FOR STORMWATER MANAGEMENT CONCEPT SUFFICIENCY.

NAME: _____ DATE: _____

SIGNATURE: _____

RELATED REQUIRED PERMITS					
TYPE OF PERMIT	NOT REQD	REQD	PENDING	APPROVED	NOTES/PERMIT #:
U.S ARMY CORP OF ENGINEERS		X	X		
MARYLAND DEPARTMENT OF THE ENVIRONMENT		X	X		
STATE HIGHWAY ADMINISTRATION (SHA)	X				
SOIL CONSERVATION DISTRICT		X	X		FSC# 7-24
MNCPPC - NRI/FSD		X		X	NRI-156-2022
MNCPPC - TCP 2		X	X		TCP2-036-2023
MARYLAND DNR ROADSIDE TREE CARE PERMIT	X				
COUNTY FLOODPLAIN PERMIT		X	X		
COUNTY GRADING PERMIT		X	X		
WASHINGTON SUBURBAN SANITARY COMMISSION (WSSC)		X	X		

DRAINAGE CERTIFICATION
 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.

UTILITY CERTIFICATION
 I HEREBY CERTIFY, 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 SPLICATED FROM THEM.

Bailey J. Wilfong
 BAILEY J. WILFONG, MD, REG. P.E. NO. 52852 DATE: 11/6/2023

STANDARD STABILIZATION NOTE
 FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

B.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

MISS UTILITY NOTE:
 INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION FOR 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.

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852 DATE: _____

DECLARATION OF COVENANTS:
 FLOODPLAIN EASEMENT TAX #: 0163519 L: _____ F: _____
 FLOODPLAIN EASEMENT TAX #: 0129668 L: _____ F: _____

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. 52852, EXPIRATION DATE: 6/14/2024

*IMPERVIOUS INFORMATION SHOWN BASED ON 2020 LANDCOVER. IMPERVIOUS AREA CREDIT BASED ON 2014 LANDCOVER

FINAL PLAN BMP SUMMARY TABLE																					
PROJECT NAME: CHEVERLY OUTFALL AND STREAM RESTORATION										PERMIT NO.: 29620-2022-0					TOTAL SITE ACREAGE: 7.79						
MDE TRACKING NUMBER	POI	LABEL	NAME	MD NORTH	MD EAST	LAND USE	CONST. PURPOSE	DRAINAGE AREA (AC)	TOTAL IMPERVIOUS AREA (AC)*	NEW IMPERVIOUS AREA (AC)	EXISTING IMPERVIOUS AREA (AC)*	PERCENT IMP.*	Rv	TARGET PE (IN)	TARGET VOL (FT3)	DESIGN VOL (FT3) USING ESD PRACTICES	DESIGN VOLUME (CF) USING STRUCTURAL PRACTICES	MAX ESD VOL (ESD max) (CF)	RCN	ON OFF SITE	IMPERVIOUS AREA CREDIT (AC)
PG21RST175080	1	POI 1	STREAM REST.	38.929783	-76.903296	ROS/RSF	REST.	87.1	34.24	0.00	34.24	39.31	N/A	N/A	N/A	N/A	N/A	N/A	89	OFF	33.31

30% DESIGN REVIEW	<i>Bailey J. Wilfong</i>	1/4/23
PERMIT PLAN DESIGN REVIEW	<i>Bailey J. Wilfong</i>	5/10/23
CONSTRUCTION PLAN REVIEW	<i>Bailey J. Wilfong</i>	8/8/23

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 PRINCE GEORGE'S COUNTY, MD
 ELECTION DISTRICT 2, BLADENSBURG

PROJECT MANAGER:	JM	JOB NUMBER:	106683
DESIGNED:	AM, CP, BW	DESIGN TYPE:	TMDL STREAM
DRAWN:	AM, CP, CD	PLAN DATE:	11/6/2023



HGS, LLC. A RES COMPANY
 5367 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
 P: 703.393.4844 | F: 703.393.2934
 WWW.RES.US



PRINCE GEORGE'S COUNTY | CORVIAS SOLUTIONS

GENERAL STORM DRAIN AND PAVING NOTES:

- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM FIELD DATA, 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. CONTACT WSSC WATER FOR ANY CONCERNS OR IMPACTS REGARDING WSSC ASSETS; CONTACT INFO: JASON FLORY, WSSC CONSTRUCTION MANAGER, ANACOSTIA DEPOT, 3500 KENILWORTH AVENUE, HYATTSVILLE, MARYLAND 20781, (301)-206-4300, CELL (301)-256-6851.
- 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:
- 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:
- ANY REPAIR TO ROADWAYS 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.
- 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.
- PRIOR TO PERMIT ISSUANCE AND STARTING ANY WORK SHOWN ON THIS PLAN, THE PERMITTEE SHALL ARRANGE A PRE-CONSTRUCTION MEETING CONDUCTED ON-SITE WITH MARYLAND ENVIRONMENTAL SERVICE (MES; 410-729-8375) SEDIMENT CONTROL INSPECTOR (48 HOURS NOTICE), THE OWNERS REPRESENTATIVE, MNCPPC PARK PLANNING & DEVELOPMENT ENGINEERING SECTION (301-704-0918), AND THE SITE ENGINEER.
- IN ACCORDANCE WITH SECTION 23-128, THE COUNTY'S ROAD ORDINANCE, A PROJECT SIGN SHALL BE POSTED PROMINENTLY DESCRIBING THE FOLLOWING:
 - SUBDIVISION PROJECT NAME (AS SHOWN ON PERMIT APPLICATION)
 - OWNER/PERMITTEE NAME
 - OWNER/PERMITTEE ADDRESS AND PHONE
 - DPW&T PERMIT NUMBER
- 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 GEOGRAPHIC NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88); NATIONAL GEODETHIC NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) 1929 (NGVD 29).
- 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).
- IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE TO ARRANGE FOR THE ADJUSTMENT OR RELOCATION OF ALL UTILITIES.
- 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.
- EXCAVATION AND PLACEMENT OF FILL MATERIAL SHALL BE PERFORMED UNDER THE SUPERVISION OF A MARYLAND-LICENSED ENGINEER.
- 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.
- 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.
- AS SOON AS THE ASPHALT-BASE COURSE IS APPROVED, THE INTERMEDIATE ASPHALT COURSE SHALL BE PLACED IMMEDIATELY OVER IT TO FORM A PROTECTIVE SEAL.
- TEMPORARY STREET NAME SIGN INSTALLATION AND MAINTENANCE IS THE OBLIGATION OF THE PERMITTEE ONCE BASE PAVING IS COMPLETED.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- BRICK CHANNELIZATION IS REQUIRED IN ALL PUBLIC DPW&T STORM DRAIN STRUCTURES. CONCRETE CHANNELIZATION IS NOT ALLOWED.

- POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE AREA COVERED BY THIS PERMIT AND THROUGH ADJACENT PROPERTY FRONTAGES:
- ALL UNPAVED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SODDED:
- ALL SIDEWALK RAMPERS 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.
- 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.
- ALL SIDEWALKS (EXCEPT AS NOTED HEREIN) ARE TO BE CONSTRUCTED BY THE SITE DEVELOPER.
- 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.
- 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.
- ALL DRIVEWAY APRONS ARE TO BE CONSTRUCTED BY THE SITE DEVELOPER.
- 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.
- PAVEMENT QUALITY CONTROL AND CORING WILL BE REQUIRED OF THE PERMITTEE FOR ALL PAVEMENT COURSES USING THE FOLLOWING PROCESS:
 - PRIOR TO PAVING, PERMITTEE/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.
 - 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.
 - THE PERMITTEE/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.
 - HMA DENSITY GAUGES SHALL BE VALIDATED AND CALIBRATED DAILY (SHA A-2), SO THEIR READINGS CAN BE ACCEPTED FOR COURSE PLACED WITH A TOTAL TONNAGE UNDER 200 TONS OR ACCEPTABLE THICKNESS UNDER 1.2" DUE TO PATCHING, WEDGE & LEVELING, BRIDGE DECKS, ETC.
 - FIELD TECH SHALL CALL THE MATERIALS LAB WITH DATE & TIME OF CORE CUTTING SO IT CAN BE WITNESSED, AND CORES & HMA SAMPLES CAN BE RECEIVED ON SITE BY A LAB INSPECTOR.
 - 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.
 - 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.
 - 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.
 - 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.
 - IF CORES ARE TESTED AT AN INDEPENDENT THIRD PARTY'S TESTING LAB, THAT LAB MUST BE AASHTO 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.
 - 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 PERMITTEE.
 - 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.
- 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:
- WASHINGTON SUBURBAN SANITARY COMMISSION 200 FOOT SHEET NO.: 204NE06 and 204NE05
- DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION SITE CONCEPT APPROVAL NUMBER:
- SEDIMENT CONTROL APPROVAL NUMBER: FSC #7-24
- PRELIMINARY PLAN APPROVAL NUMBER: 50260-2022-0
- RECORD PLAT RECORDING NUMBER: TBD
- APPROVED STREET GRADE ESTABLISHMENT INFORMATION: ORIGINAL STREET NAME APPROVAL NUMBER

- 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;
 - FREE 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.
- 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.
- 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.
- ALL CONCRETE PIPE SYSTEMS 48 INCHES OR LESS SHALL BE INSPECTED WITH A VIDEO CAMERA AS PART OF THE FINAL "AS BUILT" CONSTRUCTION REQUIREMENTS:

- TOPOGRAPHIC SURVEY NOTES:**
- ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FEMA-FIRM) PRINCE GEORGE'S COUNTY COMMUNITY PANEL 24033-C-0142-E, EFFECTIVE 16 SEPTEMBER 2016, THIS PROPERTY LIES WHOLLY WITHIN ZONE X AS THE SAME IS SHOWN AND DEFINED THEREON AS AREA OF MINIMAL FLOOD HAZARD.
 - ACCORDING TO THE MARYLAND DEPARTMENT OF ASSESSMENT AND TAXATION, THESE LANDS ARE ZONED R-O-S AND RSF-65.
 - THE HORIZONTAL DATUM OF THIS SURVEY IS THE MARYLAND STATE PLANE COORDINATE SYSTEM (NAD83-2011) AND THE VERTICAL DATUM IS THE NAVD 88.
 - NO UNDERGROUND UTILITY DESIGNATION PROCEDURES WERE PERFORMED. UTILITIES SHOWN ARE FROM VISIBLE SURFACE EVIDENCE AND AVAILABLE RECORDS.
 - UNITS OF MEASURE: U.S. SURVEY FEET
 - CONTOUR INTERVAL IS ONE FOOT.
 - BASED ON RTK GPS OBSERVATIONS (GEOID 12B)
 - SURVEY PERFORMED JUNE 2022.

- WSSC SPECIAL CONSTRUCTION REQUIREMENTS FOR WORK PERFORMED IN THE VICINITY OF EXISTING WATER AND SEWER MAINS:**
- CONSTRUCTION VEHICLES GENERATING A LOAD GREATER THAN AN AASHTO HS20 AND VIBRATORY COMPACTION EQUIPMENT ARE NOT PERMITTED WITHIN 10 FEET CLEAR OF EXISTING WATER AND SEWER MAINS.
 - STOCKPILING OF SOIL OR OTHER MATERIAL IS NOT PERMITTED WITHIN THE EXISTING WSSC EASEMENTS OR WITHIN 10 FEET CLEAR OF WSSC WATER AND SEWER MAINS.
 - THE CONTRACTOR SHALL LOCATE AND STAKE OUT THE EXISTING MAINS AND MAINTAIN THE MARKERS DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL USE SPECIAL CARE WHILE PERFORMING WORK IN THE VICINITY OF THE WSSC WATER AND SEWER MAINS AS ANY DAMAGE THAT IS REQUIRED AS RESULT OF THEIR WORK OVER THE MAINS SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.

GENERAL NOTES:

- THE PURPOSE OF THIS PROJECT IS TO GENERATE TMDL CREDITS THROUGH STREAM RESTORATION FOR PRINCE GEORGE'S COUNTY MS4 COMPLIANCE.
- THE PROPERTIES DELINEATED HEREON ARE LOCATED ON DEED BOOK/PAGE # 07130/131 AS PARCEL B, 07260/653 AS PARCEL A AND PT A&ND ST, 17247/094, AND 04234/154 AS PARCEL 209.
- THE PROPERTIES SHOWN HEREON ARE RECORDED IN THE NAME OF:

a. PARCEL ID#	OWNER	DB/PG #
PARCEL B	CHEVERLY MAYOR AND TOWN COUNCIL	07130/131
PARCEL 1 & PT A&ND ST	MNCPPC	07268/653
-	MNCPPC	17247/094
209	MNCPPC	04234/154
-	MNCPPC	04609/00436
-	MNCPPC	04500/00219
-	MNCPPC	04239/00597
-	MAYFIELD ANGELA E	18575/00454
- ACCORDING TO PRINCE GEORGE'S COUNTY ASSESSMENTS, THE PROPERTIES ARE 0.831, 1.531, 0.6890, 4.74, 0.836, 0.018, 1.176, AND 0.253 ACRES.
- THE PROPERTIES ARE CURRENTLY ZONED RSF-65 AND ROS.
- PROPERTY LINES ADJACENT TO WORK AREA WERE SURVEY LOCATED BY A MORTON AND THOMAS ASSOCIATES IN JUNE 2022.
- TOPOGRAPHIC INFORMATION AND LINEWORK SHOWN HEREON WITHIN THE SURVEY LIMITS WAS ACQUIRED BY A MORTON AND THOMAS AND ASSOCIATES. CONTOUR INTERVAL IS ONE (1) FOOT.
- CONTOURS AND LINEWORK OUTSIDE THE LIMIT OF SURVEY ARE FROM PRINCE GEORGE'S COUNTY 2021 DATA. CONTOUR INTERVAL TWO (2) FEET.
- ALL ELEVATIONS ARE BASED ON NAD83/NAV08.
- SOILS INFORMATION IS BASED ON THE USDA WEB SOIL SURVEY'S DATABASE CURRENT DATA FOR PRINCE GEORGE'S COUNTY.
- THE PROPERTIES SHOWN HEREON ARE WITHIN FEMA ZONE X.
- THE PROPERTY SHOWN HEREON IS WITHIN A PRINCE GEORGE'S COUNTY 100-YEAR FLOODPLAIN.
- THE PROPERTY SHOWN HEREON DOES NOT HAVE ARCHEOLOGICAL OR HISTORIC FEATURES AS INCLUDED IN THE STATE OR NATIONAL REGISTER OF HISTORIC PLACES.
- SEDIMENT AND EROSION CONTROL WILL BE PROVIDED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- A WETLAND DELINEATION WAS COMPLETED BY COASTAL RESOURCES INC. IN JULY 2022.
- ALL WETLAND DELINEATIONS, PERMITS AND MITIGATION PLANS SHALL BE OBTAINED AND EVIDENCE OF SUCH BE PROVIDED TO THE COUNTY PRIOR TO LAND DISTURBANCE.
- THIS STREAM IS DESIGNATED USE CLASS I. IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.

CONSTRUCTION NOTES:

- ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF THESE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY COMPANIES FOR THE LOCATION OF ALL UTILITIES IF REQUIRED.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS, PARKING LOTS, ASPHALT TRAILS, CULVERTS OR UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION. ANYTHING DAMAGED WILL NEED TO BE REPAIRED OR REPLACED ACCORDING TO THE MDOT SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (SECTION 504).
- STREET SURFACES SHALL BE MAINTAINED IN A CLEANED CONDITION, MUD AND DUST FREE AT ALL TIMES. ADEQUATE MEANS SHALL BE PROVIDED TO CLEAN TRUCKS AND OTHER EQUIPMENT USING THE COMPLETED STREETS.
- LAND CONSERVATION NOTES:
 - MEASURES TO CONTROL EROSION, SILTATION AND STORM WATER SHALL BE PROVIDED PURSUANT TO, AND IN COMPLIANCE WITH, ALL CURRENT STATE AND LOCAL REGULATIONS. HOWEVER, THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER, OR HIS AGENT, OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF MARYLAND OR ANY ORDINANCE ENACTED BY PRINCE GEORGE'S COUNTY. A GRADING PERMIT IS REQUIRED BEFORE ANY LAND DISTURBING ACTIVITIES ON THE PROJECT ARE UNDERTAKEN.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPE STEEPER THAN 3:1 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
 - ADDITIONAL DITCH/SWALE LININGS SHALL BE PROVIDED AT THE DEVELOPER'S EXPENSE IF DETERMINED NECESSARY BY THE ENGINEER OF RECORD OR ASSIGNEE DURING FIELD REVIEW.
- ALL FILL, BASE AND SUBBASE MATERIAL WITHIN THE RESTORATION AREA SHALL BE COMPACTED WITH TRACKED EQUIPMENT.
- DURING ROUGH GRADING OF THE SITE, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE ENGINEER IF GROUND WATER SEEPAGE IS IDENTIFIED. IDENTIFICATION OF SUCH GROUND WATER MAY REQUIRE THAT ADDITIONAL DRAINAGE CONNECTIONS BE MADE.
- CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED SURVEYOR. STAKEOUT SHOULD INCLUDE CENTERLINE ALIGNMENT, POINT OF CURVATURE, POINT OF TANGENCY, MIDPOINT, AND STRUCTURE VERTICES AND/OR TIE-INS AS INDICATED IN THE APPLICABLE DETAILS. EXISTING SANITARY AND WATERLINES TO BE STAKED FOR AVOIDANCE IN THE VICINITY OF GRADING/STRUCTURES.
- CONTRACTOR SHALL CONFIRM IN-FIELD UPSTREAM / DOWNSTREAM TIE-IN ELEVATIONS AND ALIGNMENT WITH THE ENGINEER OF RECORD OR ASSIGNEE TWO (2) WEEKS PRIOR TO CONNECTION/GRADING.
- CONTRACTOR SHALL PERFORM TEST-PIT AND COMMUNICATE FINDINGS WITH THE ENGINEER OF RECORD OR ASSIGNEE AT LEAST TWO (2) WEEKS PRIOR TO GRADING AT THE TEST-PIT LOCATION.
- PRIOR TO TREE CLEARING THE ENGINEER OF RECORD, OR ASSIGNEE, AND SUPERINTENDENT SHALL REVIEW TREES FOR SELECTIVE CLEARING WITHIN THE LIMITS OF DISTURBANCE. IT IS THE DESIGN INTENT TO MINIMIZE CLEARING TO THE GREATEST EXTENT POSSIBLE. IN ANY CASE WHERE A TREE SCHEDULED FOR DEMOLITION CAN BE PROPERLY SAVED WITHOUT IMPACTING THE PROPOSED FUNCTIONALITY OF THE DESIGN, THE CONTRACTOR SHALL LEAVE THE TREE IN PLACE. SPECIMEN TREES NOT BEING CLEARED WILL BE PROTECTED WITH TEMPORARY TREE PROTECTION FENCING AND MULCH/TIMBER MATS WHERE WORK MUST OCCUR WITHIN THE CRZ OF THE TREE. IF THE CRZ EXTENDS INTO THE STREAM CHANNEL/AREAS OF GRADING, ROOT PRUNING WILL BE USED TO MINIMIZE THE IMPACT TO THE SPECIMEN TREES.
- THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE), IN ACCORDANCE WITH THE CLEAN WATER ACT AS AMENDED AND PURSUANT TO THE STATE WATER CONTROL LAW AND REGULATIONS, REQUIRES CONSTRUCTION SITE OPERATORS SECURE, OR WILL SECURE, BY INDICATING PROOF OF APPLICATION, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. CONSTRUCTION ACTIVITIES INCLUDE, CLEARING, GRADING AND EXCAVATING WHICH RESULTS IN LAND DISTURBANCE EQUAL TO OR GREATER THAN ONE (1) ACRE. IN ORDER TO ENSURE COMPLIANCE WITH THE MDE PERMITTING REQUIREMENT, ALL APPLICATIONS FOR GRADING PERMITS WITHIN PRINCE GEORGE'S COUNTY, SUBJECT TO CRITERIA AS PREVIOUSLY DESCRIBED, SHALL BE REQUIRED TO PROVIDE RECEIPT OF PROOF THAT CONSTRUCTION SITE OPERATORS HAVE SECURED OR WILL SECURE A NPDES CONSTRUCTION PERMIT PRIOR TO THE ISSUANCE OF THE GRADING PERMIT.
- CONSTRUCTION TOLERANCE SHALL BE LIMITED TO 0.1' VERTICAL AND 0.2' HORIZONTAL AT THE TIME OF AS-BUILT. THESE TOLERANCES CAN BE ADJUSTED AS NECESSARY TO REFLECT FIELD CONDITIONS WITH THE PRIOR APPROVAL OF THE ENGINEER OF RECORD, OR ASSIGNEE, IF THE ENGINEER DOES NOT BELIEVE THAT THE DESIGN INTEGRITY AND STABILITY OF THE WORK WILL BE AFFECTED.
- WOODY DEBRIS SHALL NOT BE LEFT ONSITE UNLESS SHOWN ON THE PLAN OR APPROVED BY THE ENGINEER OF RECORD.
- THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
- EMERGENCY VEHICLE ACCESS SHALL BE PROVIDED DURING ALL PHASES OF CONSTRUCTION.

NOTICE REQUIRED:
 CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AND/OR BLASTING AT LEAST TWO (2) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. NAMES AND TELEPHONE NUMBERS OF THE OPERATORS OF UNDERGROUND UTILITY LINES APPEAR BELOW. THESE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION.

MISS UTILITY 811 OR 800-552-7001
 WASHINGTON GAS (NON-EMERGENCY): 703-750-5100

EMERGENCY
 POLICE: 911 OR 301-864-1858
 FIRE & RESCUE: 911 OR 301-883-7709
 WASHINGTON GAS (EMERGENCY): 844-927-4427 - OPTION 1
 WASHINGTON SUBURBAN SANITARY COMMISSION (WSSC) (EMERGENCY): 301-206-4002

AS-BUILT CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE) 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 the County's Code, General Specifications and Standards."	
APPROVAL DATE:	_____
PEER REVIEWER'S NAME:	BENJAMIN T. MOSIER, P.E.
PEER REVIEWER'S SIGNATURE:	_____
COMPANY NAME:	SOLTESZ, INC.
LICENSE NUMBER:	40806
PERMIT NUMBER:	50260-2022-0

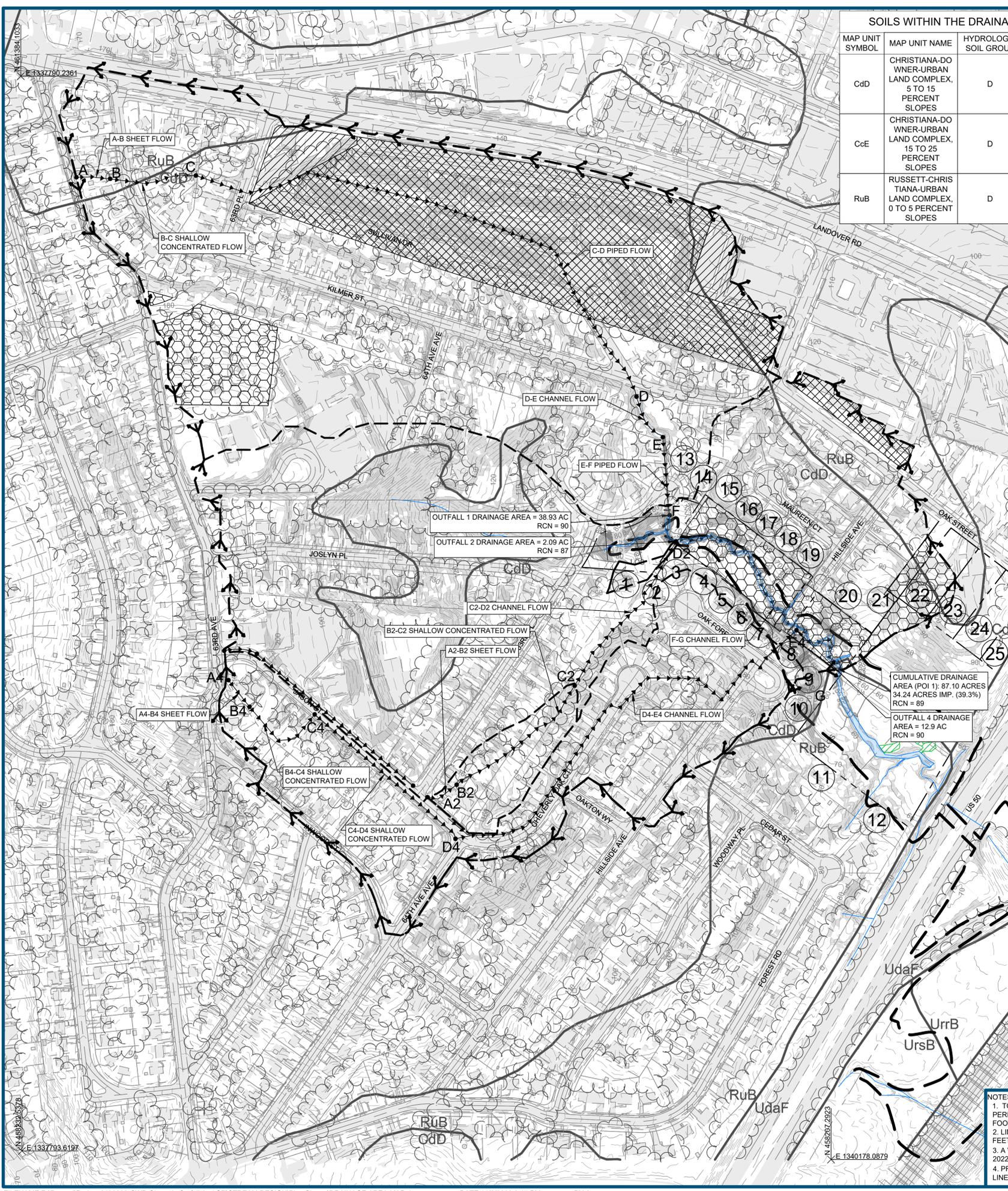


CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
NOTES AND NARRATIVE
PRINCE GEORGE'S COUNTY, MD

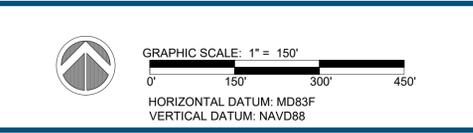
STAMP/SEAL:
 PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	
Signature	<i>Bailey Wilfong</i>
Date	1/4/23
PERMIT PLAN DESIGN REVIEW	
Signature	<i>Bailey Wilfong</i>
Date	5/10/23
CONSTRUCTION PLAN REVIEW	
Signature	<i>Bailey Wilfong</i>
Date	8/8/23

REVISIONS:	
30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23
PROJECT MANAGER: JM	
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	2 OF 37



SOILS WITHIN THE DRAINAGE AREA			
MAP UNIT SYMBOL	MAP UNIT NAME	HYDROLOGIC SOIL GROUP	ERODIBILITY
CdD	CHRISTIANA-DO WNER-URBAN LAND COMPLEX, 5 TO 15 PERCENT SLOPES	D	NO
CcE	CHRISTIANA-DO WNER-URBAN LAND COMPLEX, 15 TO 25 PERCENT SLOPES	D	YES
RuB	RUSSETT-CHRIS TIANA-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES	D	NO



LEGEND:

- EX. PROPERTY LINE
- EX. PROPERTY ADJACENT
- EX. SOILS BOUNDARY
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. EDGE OF PAVEMENT
- EX. BUILDING
- EX. STORM SEWER
- EX. LIMITS OF SURVEY
- EX. COUNTY FLOODPLAIN
- EX. 100 YR WSE
- EX. DRAINAGE DIVIDE
- EX. SUB DRAINAGE DIVIDE
- EX. TIME OF CONCENTRATION
- EX. TREELINE
- EX. STREAM
- EX. IMPERVIOUS SURFACE
- EX. FORESTED WETLAND
- EX. RESIDENTIAL, SINGLE FAMILY (RMF-65)
- EX. RESIDENTIAL, SINGLE FAMILY (RMF-48)
- EX. COMMERCIAL, GENERAL, & OFFICE (CGO)
- EX. RESERVED OPEN SPACE (ROS)
- PR. 100YR WSE

SUB-AREA TIME OF CONCENTRATION (TC) FLOW PATHS

CUMULATIVE DRAINAGE TC				
FLOW SEGMENTS	FLOW PATH SEGMENT	FLOW PATH LENGTH (FT.)	LENGTH (FT.)	TIME (HR.)
SHEET	A-B	100	100	0.185
SHALLOW CONCENTRATED	B-C	257	257	0.019
PIPE	C-D, E-F	1610	230	0.085
CHANNEL	D-E, F-G	149	996	0.131
TOTAL		3193	1847	0.423

OUTFALL 1 TC				
FLOW SEGMENTS	FLOW PATH SEGMENT	FLOW PATH LENGTH (FT.)	LENGTH (FT.)	TIME (HR.)
SHEET	A-B	100	100	0.188
SHALLOW CONCENTRATED	B-C	257	257	0.019
PIPE	C-D, E-F	1610	230	0.085
CHANNEL	D-E, F-G	149	149	0.017
TOTAL		2346	1096	0.309

OUTFALL 2 TC				
FLOW SEGMENTS	FLOW PATH SEGMENT	FLOW PATH LENGTH (FT.)	LENGTH (FT.)	TIME (HR.)
SHEET	A2-B2	100	100	0.138
SHALLOW CONCENTRATED	B2-C2	467	467	0.022
PIPE	C2-D2	529	529	0.024
TOTAL		1096	1096	0.184

OUTFALL 4 TC				
FLOW SEGMENTS	FLOW PATH SEGMENT	FLOW PATH LENGTH (FT.)	LENGTH (FT.)	TIME (HR.)
SHEET	A4-B4	100	100	0.180
SHALLOW CONCENTRATED	B4-C4, C4-D4	273	554	0.056
PIPE	D4-E4	1374	1374	0.064
TOTAL		2301	2301	0.300

ID NUMBER	OWNER	DEED	PLAT	TAX ACCOUNT	LOT	BLOCK	PARCEL	ACREAGE	ZONING	ADDRESS
1	ALEXANDER	24883	112053	018380	6		0000	0.2720	RSF-65	3127 63RD PL
2	DOUGLAS S LAURE	00282	143092	0129650	30	B	0000	0.2150	RSF-65	6501 OAK FOREST CT
3	JONES ANTHONY D & JOYCE L	11071	143092	0129688	31	B	0000	0.2530	RSF-65	HYATTSVILLE, MD 20785
4	MAYFIELD ANGELA E	16575	143092	0129688	31	B	0000	0.2530	RSF-65	6500 OAK FOREST CT
5	PRATT LAVERNE C	45915	143092	0129676	32	B	0000	0.1560	RSF-65	HYATTSVILLE, MD 20785
6	KOCHMANU OKEYI & OGONNAN	11711	143092	0129684	33	B	0000	0.1600	RSF-65	6504 OAK FOREST CT
7	BARRERA CARLOS F & ANAS G LARIOS	27767	143092	0129692	34	B	0000	0.1500	RSF-65	HYATTSVILLE, MD 20785
8	SPANN MELVIN K	00038	177095	3065240	35	C	0000	0.1510	RSF-65	6508 OAK FOREST CT
9	PERKINS RONALD C JR & DEBORAH R	11812	177095	3065232	8	C	0000	0.2330	RSF-65	3111 HILLSIDE AVE
10	MELGAREJO RICHARD W A	27110	177095	3065224	7	C	0000	0.2790	RSF-65	HYATTSVILLE, MD 20785
11	FULLER STEVE ETAL	00282	143092	0129759	6	C	0000	0.2110	RSF-65	3107 HILLSIDE AVE
12	MNCPPC	07327	145064	0129841			0000	0.4320	ROS	6514 CEDAR ST
13	MNCPPC	05073	A-8467	0086538			0000	0.2560	ROS	FOREST RD
14	BERNARD KRIS ETAL	47964	112053	163485	21		0000	0.188	RSF-65	3213 CHEVERLY HILLS CT
15	FRESE BRADFORD C ETAL	00224	112053	163483	22		0000	0.233	RSF-65	3211 CHEVERLY HILLS CT
16	NELSON DAINTY M	23909	A-8980	189037	5	D	0000	0.251	RSF-65	6501 MAUREEN CT
17	WINSLOW LOUIS R SR & JANICE	00145	A-8980	109683	4	D	0000	0.157	RSF-65	HYATTSVILLE, MD 20785
18	MCCUNEY DARLENE P	13406	A-8980	118786	3	D	0000	0.151	RSF-65	6505 MAUREEN CT
19	ALEXANDER MOLLY B	37594	A-8980	141051	2	D	0000	0.151	RSF-65	6507 MAUREEN CT
20	MADISON ROBERT L & DAISY M	00000	A-8980	189062	1	D	0000	0.163	RSF-65	6509 MAUREEN CT
21	REAVES WILLIAM J	14064	A-2728	173930	6	B	0000	0.299	RSF-65	3205 HILLSIDE AVE
22	WILLIAMS MARY E	00189	A-2728	160499	5	B	0000	0.299	RSF-65	3207 HILLSIDE AVE
23	MNCPPC	04500	A-0255	101733			0000	0.018	ROS	OAK ST HYATTSVILLE, MD 20785
24	MNCPPC	00219	A02	0255	86744		0000	0.836	ROS	HYATTSVILLE, MD 20785
25	MNCPPC	04230	A02	0255	146068		0000	1.176	ROS	9607 OAK ST
26	MNCPPC	00595	A02	0255	8609		0000	0.341	RSF-65	HYATTSVILLE, MD 20785

NOTES:

- TOPOGRAPHIC INFORMATION AND LINE WORK SHOWN WITHIN THE SURVEY LIMITS IS BASED ON A SURVEY PERFORMED BY A MORTON AND THOMAS AND ASSOCIATES (AMT) IN JUNE 2022. CONTOUR INTERVAL IS ONE (1) FOOT.
- LINEWORK OUTSIDE THE SURVEY LIMITS IS BASED ON AVAILABLE GIS DATA. CONTOUR INTERVAL IS TWO (2) FEET.
- A WETLAND DELINEATION WAS PERFORMED AND GPS LOCATED BY COASTAL RESOURCES INC. ON JUNE 14, 2022.
- PROPERTY LINES ADJACENT TO WORK AREA WERE SURVEYED IN JUNE 2022 BY AMT. ALL OTHER PROPERTY LINES ARE BASED ON AVAILABLE GIS DATA. SEE SHEET 2 FOR SURVEY NOTES.



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
DRAINAGE AREA MAP
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW
 Signature: *Benjamin T. Mosier* Date: 1/4/23

PERMIT PLAN DESIGN REVIEW
 Signature: *Benjamin T. Mosier* Date: 5/10/23

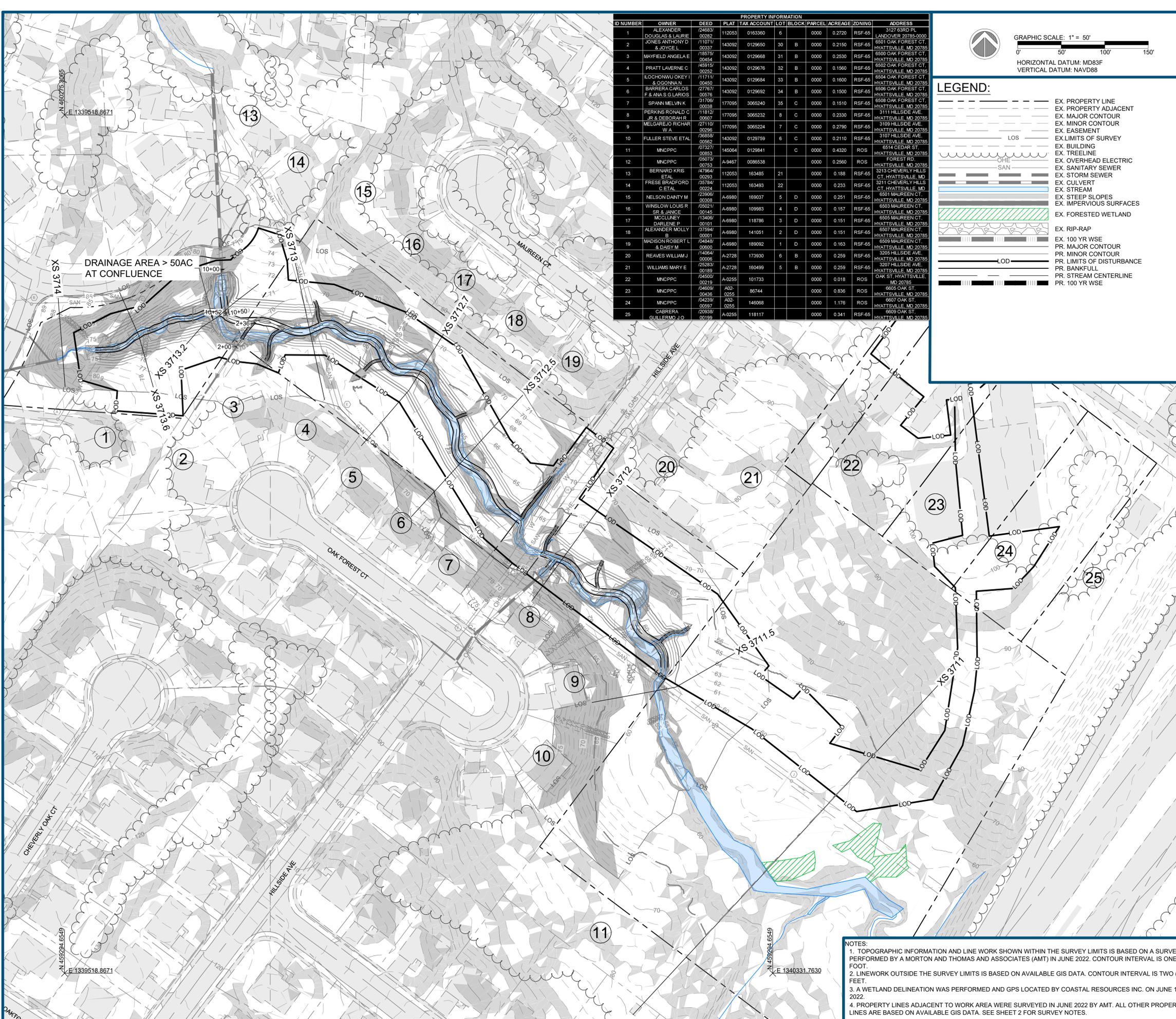
CONSTRUCTION PLAN REVIEW
 Signature: *Benjamin T. Mosier* Date: 8/8/23

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP
 "I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."
 APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**

REVISIONS:
 30%: 1/10/23
 60%: 5/12/23
 90%: 7/17/23
 95%: 8/22/23

PROJECT MANAGER: **JM**
 DESIGNED: **AM, CP, BW**
 DRAWN: **AM, CP, CD**
 JOB NUMBER: **106683**
 DESIGN TYPE: **TMDL STREAM**
 DATE: **11/6/2023**
 SHEET NO: **3 OF 37**



ID NUMBER	OWNER	DEED	PLAT	TAX ACCOUNT	LOT	BLOCK	PARCEL	ACREAGE	ZONING	ADDRESS
1	ALEXANDER	00282	112053	0163360	6		0000	0.2720	RSF-65	3127 GARD PL LANDOVER 20785-0000
2	DOUGLAS & LAURIE	11071/0333	143092	0129650	30	B	0000	0.2150	RSF-65	6501 OAK FOREST CT HYATTSVILLE, MD 20785
3	MAYFIELD ANGELA E	18575/00454	143092	0129688	31	B	0000	0.2530	RSF-65	6500 OAK FOREST CT HYATTSVILLE, MD 20785
4	PRATT LAVERNE C	45915/02925	143092	0129676	32	B	0000	0.1560	RSF-65	6502 OAK FOREST CT HYATTSVILLE, MD 20785
5	LOCHONWU OKEYI & OSONNAN	11171/00450	143092	0129684	33	B	0000	0.1600	RSF-65	6504 OAK FOREST CT HYATTSVILLE, MD 20785
6	BARRERA CARLOS F & ANA S LARIOS	27167/05576	143092	0129692	34	B	0000	0.1500	RSF-65	6505 OAK FOREST CT HYATTSVILLE, MD 20785
7	SPANN MELVIN K	31706/00033	177095	3065240	35	C	0000	0.1510	RSF-65	6508 OAK FOREST CT HYATTSVILLE, MD 20785
8	PERKINS RONALD C JR & DEBORAH R	11182/00007	177095	3065232	8	C	0000	0.2330	RSF-65	3111 HILLSIDE AVE HYATTSVILLE, MD 20785
9	MELGAREJO RICHARD W A	27110/02590	177095	3065224	7	C	0000	0.2790	RSF-65	3109 HILLSIDE AVE HYATTSVILLE, MD 20785
10	FULLER STEVE ETAL	02650/00562	143092	0129759	6	C	0000	0.2110	RSF-65	3107 HILLSIDE AVE HYATTSVILLE, MD 20785
11	MNCPPC	07327/02653	145064	0129841		C	0000	0.4320	ROS	6514 CEDAR ST HYATTSVILLE, MD 20785
12	MNCPPC	06073/00753	A-9467	0086538			0000	0.2960	ROG	FOREST RD HYATTSVILLE, MD 20785
13	BERNARD KRIS ETAL	11864/02923	112053	163485	21		0000	0.188	RSF-65	3213 CHEVERLY HILLS CT HYATTSVILLE, MD
14	FRESE BRADFORD C ETAL	35784/00224	112053	163493	22		0000	0.233	RSF-65	3211 CHEVERLY HILLS CT HYATTSVILLE, MD
15	NELSON DANITY M	22999/00308	A-9980	169037	5	D	0000	0.251	RSF-65	6501 MAUREEN CT HYATTSVILLE, MD 20785
16	WINSLOW LOUIS R SR & JANICE MCCLUNE	05021/01135	A-9980	109983	4	D	0000	0.157	RSF-65	6503 MAUREEN CT HYATTSVILLE, MD 20785
17	ALEXANDER MOLLY B	37594/00231	A-9980	141051	2	D	0000	0.151	RSF-65	6507 MAUREEN CT HYATTSVILLE, MD 20785
18	MADISON ROBERT L & DASY M	04843/00600	A-9980	199092	1	D	0000	0.163	RSF-65	6509 MAUREEN CT HYATTSVILLE, MD 20785
19	REAVES WILLIAM J	14054/00006	A-2728	173930	6	B	0000	0.259	RSF-65	3207 HILLSIDE AVE HYATTSVILLE, MD 20785
20	WILLIAMS MARY E	25283/00189	A-2728	160499	5	B	0000	0.259	RSF-65	3207 HILLSIDE AVE HYATTSVILLE, MD 20785
21	MNCPPC	04500/00219	A-0255	101733			0000	0.018	ROS	OAK ST HYATTSVILLE, MD 20785
22	MNCPPC	04609/00425	A02	86744			0000	0.836	ROS	6605 OAK ST HYATTSVILLE, MD 20785
23	MNCPPC	04423/00597	A02	146088			0000	1.176	ROS	6507 OAK ST HYATTSVILLE, MD 20785
24	CARRERA GULLERMO LO	20939/00199	A-0255	118117			0000	0.341	RSF-65	6609 OAK ST HYATTSVILLE, MD 20785

GRAPHIC SCALE: 1" = 50'

HORIZONTAL DATUM: MD83F
VERTICAL DATUM: NAVD88

LEGEND:

- EX. PROPERTY LINE
- EX. PROPERTY ADJACENT
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. EASEMENT
- EX. LIMITS OF SURVEY
- EX. BUILDING
- EX. TREELINE
- EX. OVERHEAD ELECTRIC
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. CULVERT
- EX. STREAM
- EX. STEEP SLOPES
- EX. IMPERVIOUS SURFACES
- EX. FORESTED WETLAND
- EX. RIP-RAP
- EX. 100 YR WSE
- PR. MAJOR CONTOUR
- PR. MINOR CONTOUR
- PR. LIMITS OF DISTURBANCE
- PR. BANKFULL
- PR. STREAM CENTERLINE
- PR. 100 YR WSE

NOTES:

- TOPOGRAPHIC INFORMATION AND LINE WORK SHOWN WITHIN THE SURVEY LIMITS IS BASED ON A SURVEY PERFORMED BY A MORTON AND THOMAS AND ASSOCIATES (AMT) IN JUNE 2022. CONTOUR INTERVAL IS ONE (1) FOOT.
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CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
HYDRAULIC CROSS SECTION MAP
PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

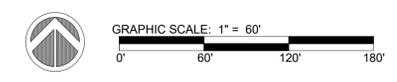
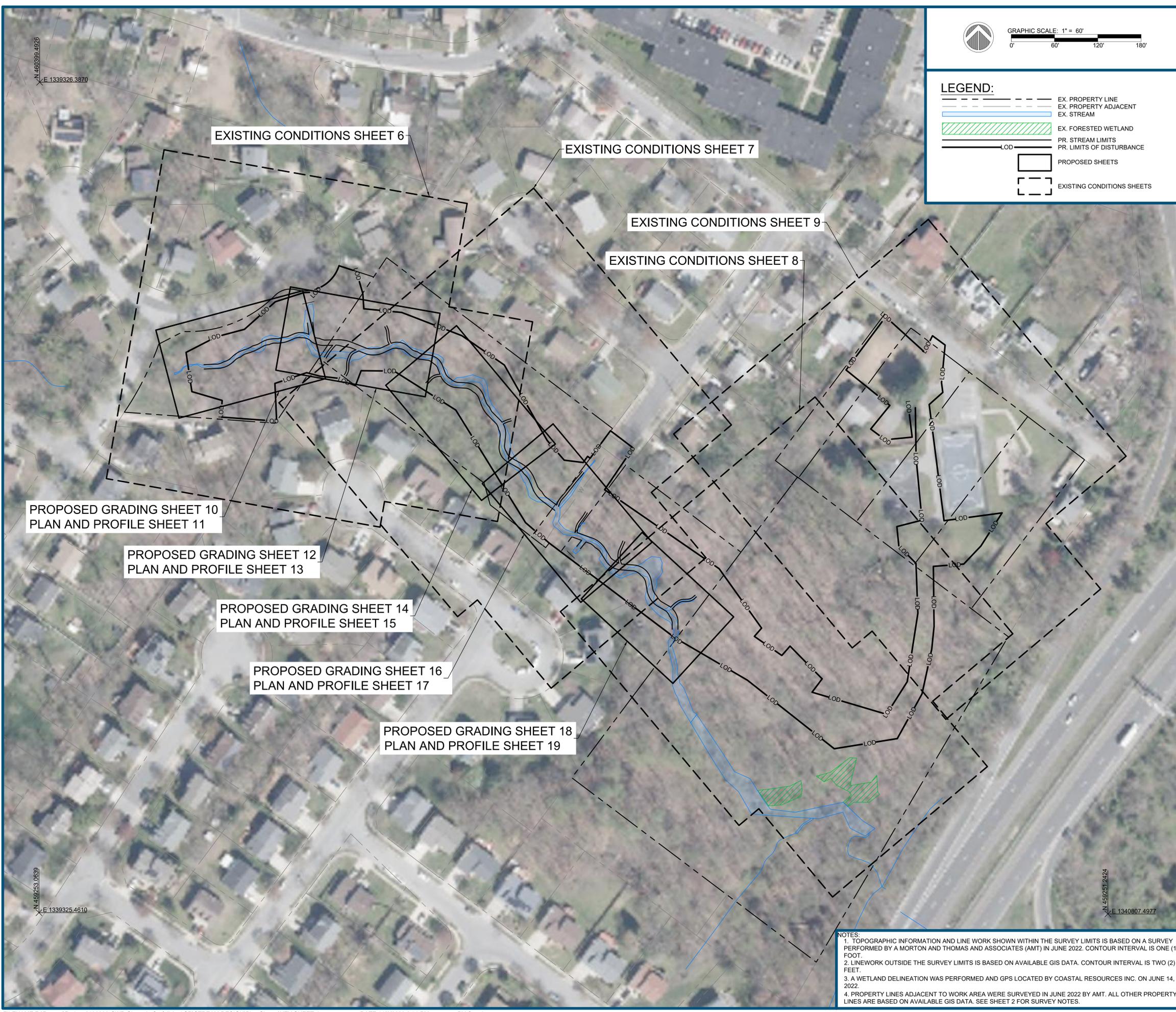
BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

APPROVAL DATE: _____
PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: **SOLTESZ, INC.**
LICENSE NUMBER: **40806**
PERMIT NUMBER: **50260-2022-0**

30%: 1/10/23	60%: 5/12/23	90%: 7/17/23	95%: 8/22/23
REVISIONS:			
PROJECT MANAGER: JM	DESIGNED: AM, CP, BW	DRAWN: AM, CP, CD	JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM	DATE: 11/6/2023	SHEET NO:	



LEGEND:

---	EX. PROPERTY LINE
---	EX. PROPERTY ADJACENT
---	EX. STREAM
▨	EX. FORESTED WETLAND
---	PR. STREAM LIMITS
---	PR. LIMITS OF DISTURBANCE
---	LOD
▭	PROPOSED SHEETS
▭	EXISTING CONDITIONS SHEETS

PROPOSED GRADING SHEET 10
PLAN AND PROFILE SHEET 11

PROPOSED GRADING SHEET 12
PLAN AND PROFILE SHEET 13

PROPOSED GRADING SHEET 14
PLAN AND PROFILE SHEET 15

PROPOSED GRADING SHEET 16
PLAN AND PROFILE SHEET 17

PROPOSED GRADING SHEET 18
PLAN AND PROFILE SHEET 19

EXISTING CONDITIONS SHEET 6

EXISTING CONDITIONS SHEET 7

EXISTING CONDITIONS SHEET 9

EXISTING CONDITIONS SHEET 8

NOTES:
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RESOURCES, LLC, A RES COMPANY
 5387 TELEPHONE ROAD, WASHINGTON, VIRGINIA 20187
 P: 703.395.3400
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
KEY SHEET
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

REVISIONS:

30%	1/10/23
60%	5/12/23
90%	7/17/23
95%	8/22/23

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

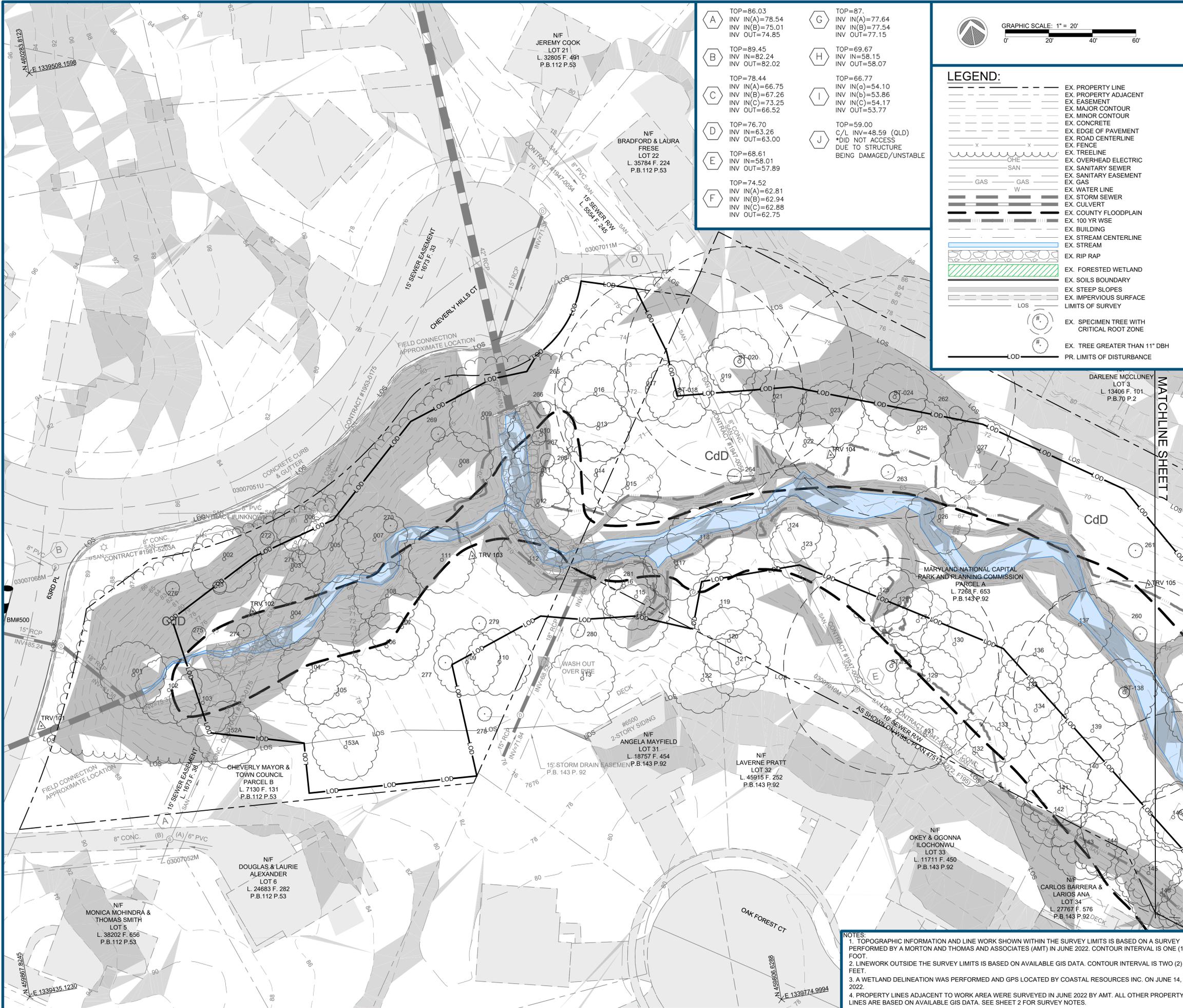
BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
 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 the County's Code, General Specifications and Standards."

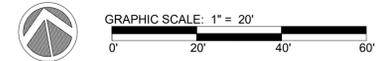
APPROVAL DATE: _____
 PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: SOLTESZ, INC.
 LICENSE NUMBER: 40806
 PERMIT NUMBER: 50260-2022-0

PROJECT MANAGER: JM

DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	5 OF 37



A	TOP=86.03 INV IN(A)=78.54 INV IN(B)=75.01 INV OUT=74.85	G	TOP=87. INV IN(A)=77.64 INV IN(B)=77.54 INV OUT=77.15
B	TOP=89.45 INV IN=82.24 INV OUT=82.02	H	TOP=69.67 INV IN=58.15 INV OUT=58.07
C	TOP=78.44 INV IN(A)=66.75 INV IN(B)=67.26 INV IN(C)=73.25 INV OUT=66.52	I	TOP=66.77 INV IN(A)=54.10 INV IN(B)=53.86 INV IN(C)=54.17 INV OUT=53.77
D	TOP=76.70 INV IN=63.26 INV OUT=63.00	J	TOP=59.00 C/L INV=48.59 (QLD) *DID NOT ACCESS DUE TO STRUCTURE BEING DAMAGED/UNSTABLE
E	TOP=68.61 INV IN=58.01 INV OUT=57.89		
F	TOP=74.52 INV IN(A)=62.81 INV IN(B)=62.94 INV IN(C)=62.88 INV OUT=62.75		



LEGEND:

	EX. PROPERTY LINE
	EX. PROPERTY ADJACENT
	EX. EASEMENT
	EX. MAJOR CONTOUR
	EX. MINOR CONTOUR
	EX. CONCRETE
	EX. EDGE OF PAVEMENT
	EX. ROAD CENTERLINE
	EX. FENCE
	EX. TREELINE
	EX. OVERHEAD ELECTRIC
	EX. SANITARY SEWER
	EX. SANITARY EASEMENT
	EX. GAS
	EX. WATER LINE
	EX. STORM SEWER
	EX. CULVERT
	EX. COUNTY FLOODPLAIN
	EX. 100 YR WSE
	EX. BUILDING
	EX. STREAM CENTERLINE
	EX. STREAM
	EX. RIP RAP
	EX. FORESTED WETLAND
	EX. SOILS BOUNDARY
	EX. STEEP SLOPES
	EX. IMPERVIOUS SURFACE
	LIMITS OF SURVEY
	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
	EX. TREE GREATER THAN 11" DBH
	PR. LIMITS OF DISTURBANCE

res
HGS, LLC, A RES COMPANY
5387 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.393.2854
WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
EXISTING CONDITIONS
PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Darlene McCluney</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>B. Soltész</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>B. Soltész</i>	Date

AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

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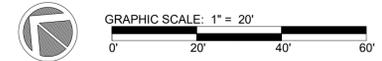
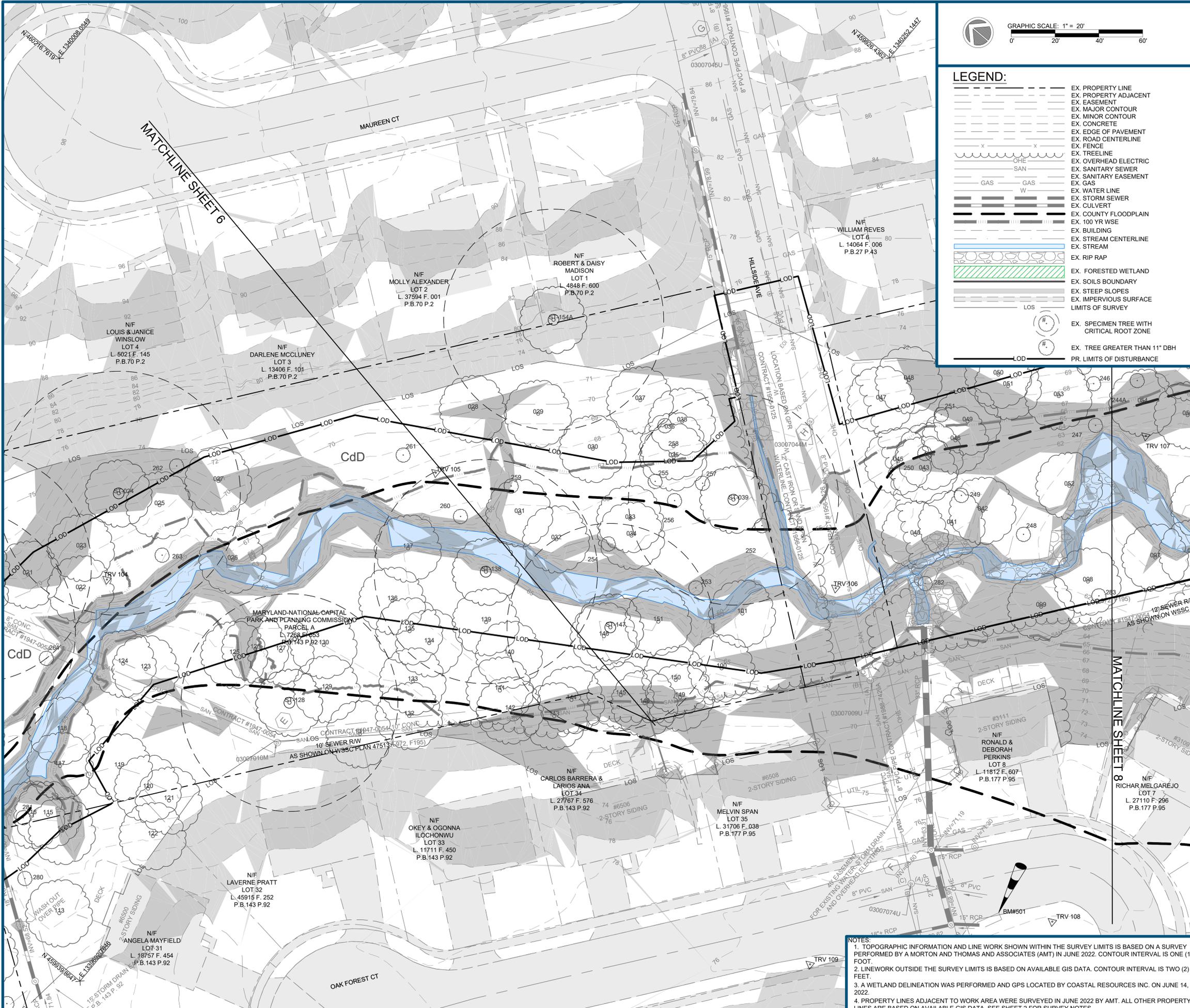
APPROVAL DATE: _____
PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: SOLTESZ, INC.
LICENSE NUMBER: 40806
PERMIT NUMBER: 50260-2022-0

REVISIONS:

30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23

PROJECT MANAGER: JM
DESIGNED: AM, CP, BW
DRAWN: AM, CP, CD
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
DATE: 11/6/2023
SHEET NO: 6 OF 37

NOTES:
1. TOPOGRAPHIC INFORMATION AND LINE WORK SHOWN WITHIN THE SURVEY LIMITS IS BASED ON A SURVEY PERFORMED BY A MORTON AND THOMAS AND ASSOCIATES (AMT) IN JUNE 2022. CONTOUR INTERVAL IS ONE (1) FOOT.
2. LINework OUTSIDE THE SURVEY LIMITS IS BASED ON AVAILABLE GIS DATA. CONTOUR INTERVAL IS TWO (2) FEET.
3. A WETLAND DELINEATION WAS PERFORMED AND GPS LOCATED BY COASTAL RESOURCES INC. ON JUNE 14, 2022.
4. PROPERTY LINES ADJACENT TO WORK AREA WERE SURVEYED IN JUNE 2022 BY AMT. ALL OTHER PROPERTY LINES ARE BASED ON AVAILABLE GIS DATA. SEE SHEET 2 FOR SURVEY NOTES.



LEGEND:

---	EX. PROPERTY LINE
---	EX. PROPERTY ADJACENT
---	EX. EASEMENT
---	EX. MAJOR CONTOUR
---	EX. MINOR CONTOUR
---	EX. CONCRETE
---	EX. EDGE OF PAVEMENT
---	EX. ROAD CENTERLINE
---	EX. FENCE
---	EX. TREELINE
---	EX. OVERHEAD ELECTRIC
---	EX. SANITARY SEWER
---	EX. SANITARY EASEMENT
---	EX. GAS
---	EX. WATER LINE
---	EX. STORM SEWER
---	EX. CULVERT
---	EX. COUNTY FLOODPLAIN
---	EX. 100 YR WSE
---	EX. BUILDING
---	EX. STREAM CENTERLINE
---	EX. STREAM
---	EX. RIP RAP
---	EX. FORESTED WETLAND
---	EX. SOILS BOUNDARY
---	EX. STEEP SLOPES
---	EX. IMPERVIOUS SURFACE
---	LIMITS OF SURVEY
(#)	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
(#)	EX. TREE GREATER THAN 11" DBH
---	PR. LIMITS OF DISTURBANCE

NOTES:

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CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
EXISTING CONDITIONS
PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date
REVISIONS:	
30%: 1/10/23	
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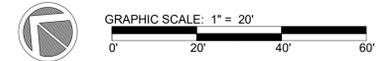
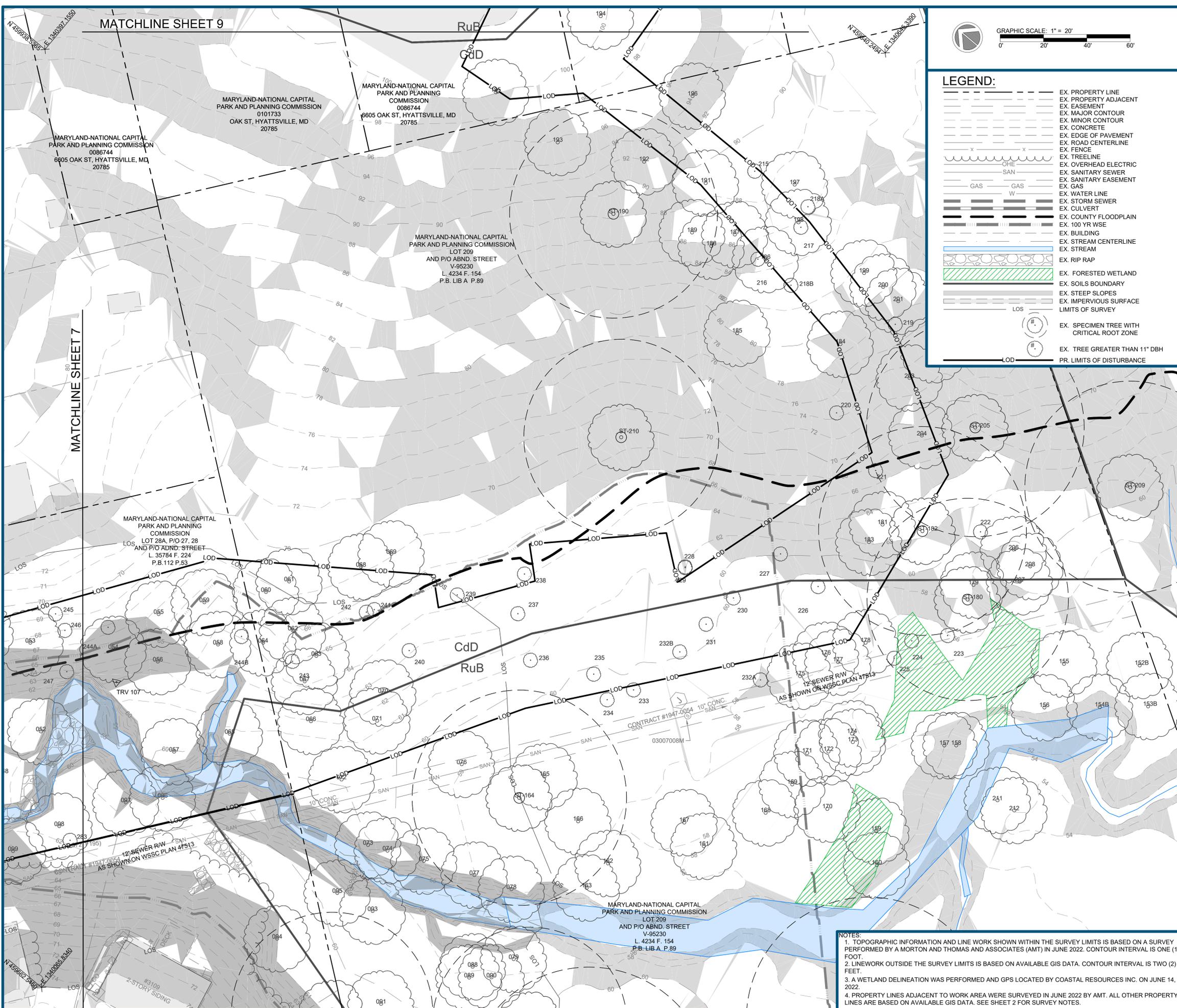
AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**

PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	7 OF 37



LEGEND:

	EX. PROPERTY LINE
	EX. PROPERTY ADJACENT
	EX. EASEMENT
	EX. MAJOR CONTOUR
	EX. MINOR CONTOUR
	EX. CONCRETE
	EX. EDGE OF PAVEMENT
	EX. ROAD CENTERLINE
	EX. FENCE
	EX. TREELINE
	EX. OVERHEAD ELECTRIC
	EX. SANITARY SEWER
	EX. SANITARY EASEMENT
	EX. GAS
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	EX. SOILS BOUNDARY
	EX. STEEP SLOPES
	EX. IMPERVIOUS SURFACE
	LIMITS OF SURVEY
	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
	EX. TREE GREATER THAN 11" DBH
	PR. LIMITS OF DISTURBANCE

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CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
 EXISTING CONDITIONS
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Dariusz Wilfong</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>B. S. T.</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>B. S. T.</i>	Date
REVISIONS:	
30%: 1/10/23	
60%: 5/12/23	
90%: 7/17/23	
95%: 8/22/23	

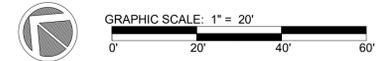
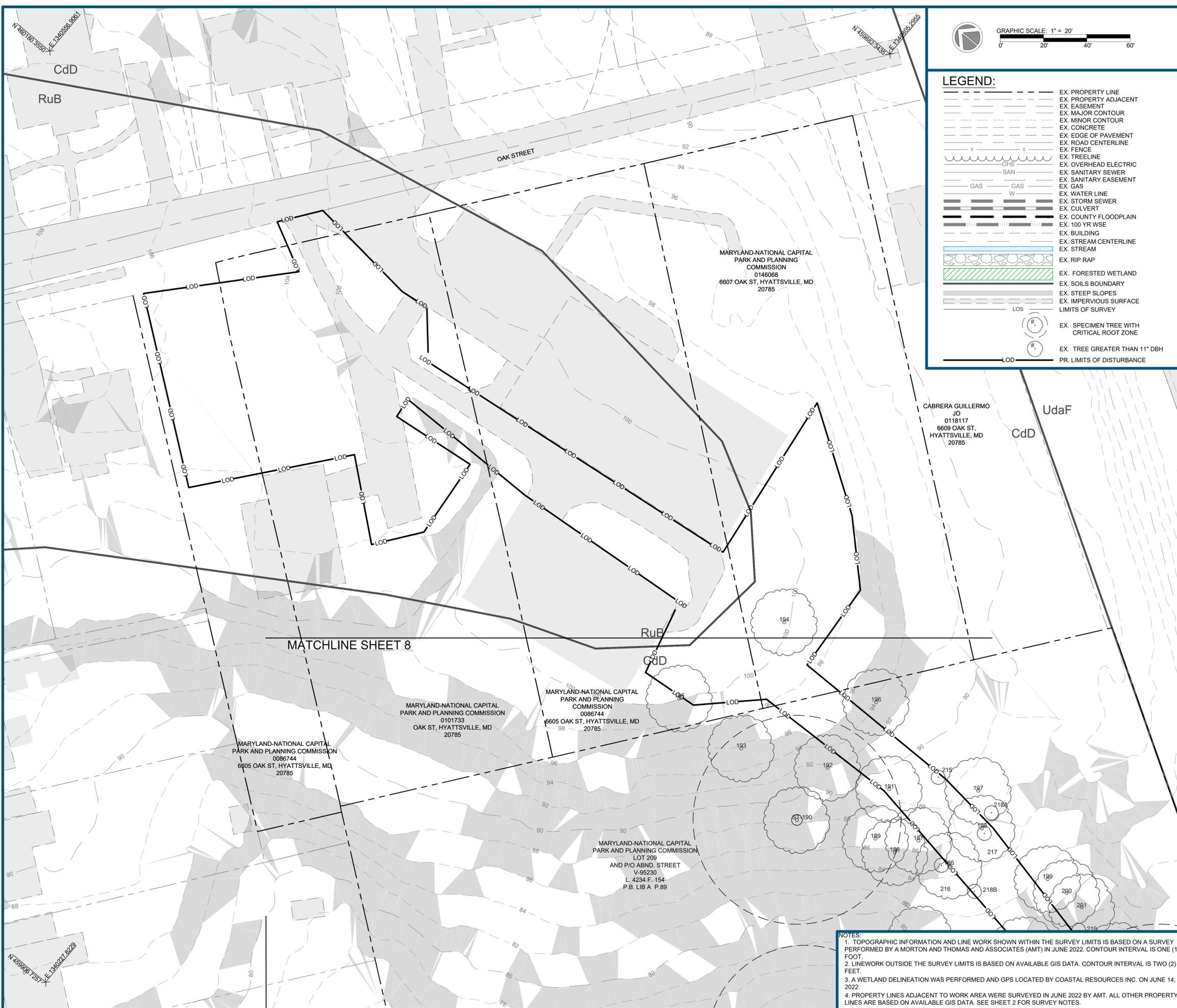
AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

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APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**

PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	8 OF 37



LEGEND:

	EX. PROPERTY LINE
	EX. PROPERTY ADJACENT
	EX. EASEMENT
	EX. MAJOR CONTOUR
	EX. MINOR CONTOUR
	EX. CONCRETE
	EX. EDGE OF PAVEMENT
	EX. ROAD CENTERLINE
	EX. FENCE
	EX. TREELINE
	EX. OVERHEAD ELECTRIC
	EX. SANITARY SEWER
	EX. SANITARY EASEMENT
	EX. GAS
	EX. WATER LINE
	EX. STORM SEWER
	EX. CULVERT
	EX. COUNTY FLOODPLAIN
	EX. 100 YR WSE
	EX. BUILDING
	EX. STREAM CENTERLINE
	EX. STREAM
	EX. RIP RAP
	EX. FORESTED WETLAND
	EX. SOILS BOUNDARY
	EX. STEEP SLOPES
	EX. IMPERVIOUS SURFACE
	LIMITS OF SURVEY
	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
	EX. TREE GREATER THAN 11" DBH
	PR. LIMITS OF DISTURBANCE

MATCHLINE SHEET 8

- NOTES:**
1. TOPOGRAPHIC INFORMATION AND LINE WORK SHOWN WITHIN THE SURVEY LIMITS IS BASED ON A SURVEY PERFORMED BY A MORTON AND THOMAS AND ASSOCIATES (AMT) IN JUNE 2022. CONTOUR INTERVAL IS ONE (1) FOOT.
 2. LINework OUTSIDE THE SURVEY LIMITS IS BASED ON AVAILABLE GIS DATA. CONTOUR INTERVAL IS TWO (2) FEET.
 3. A WETLAND DELINEATION WAS PERFORMED AND GPS LOCATED BY COASTAL RESOURCES INC. ON JUNE 14, 2022.
 4. PROPERTY LINES ADJACENT TO WORK AREA WERE SURVEYED IN JUNE 2022 BY AMT. ALL OTHER PROPERTY LINES ARE BASED ON AVAILABLE GIS DATA. SEE SHEET 2 FOR SURVEY NOTES.



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
EXISTING CONDITIONS
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

REVISIONS:

30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23

PROJECT MANAGER: JM
 DESIGNED: AM, CP, BW
 DRAWN: AM, CP, CD
 JOB NUMBER: 106883
 DESIGN TYPE: TMDL STREAM
 DATE: 11/6/2023
 SHEET NO:

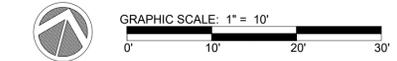
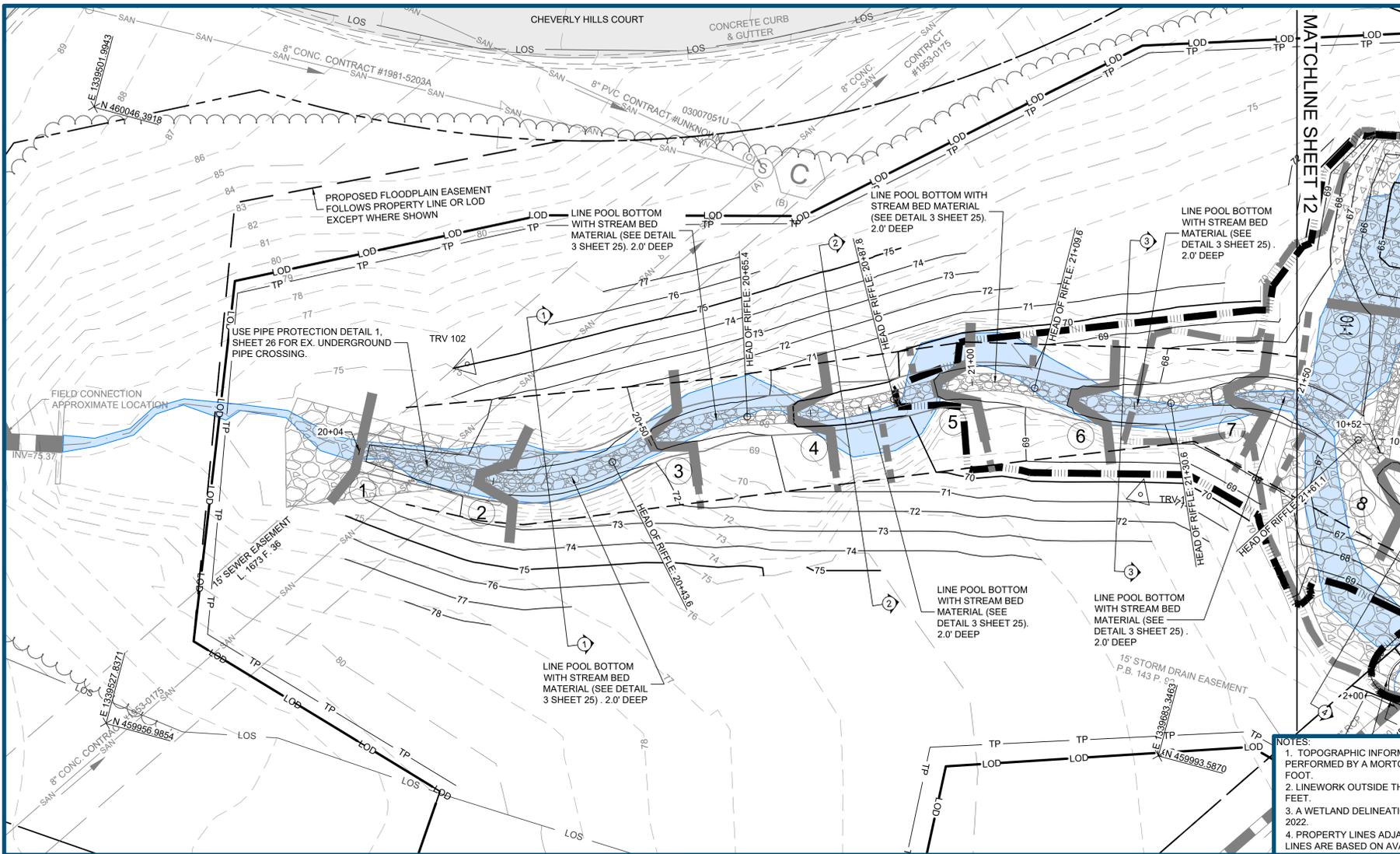
AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**

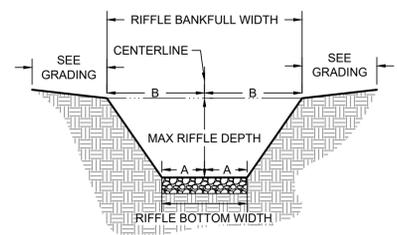


LEGEND:

- EX. PROPERTY LINE
- EX. PROPERTY ADJACENT
- EX. EASEMENT
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. TREELINE
- EX. OVERHEAD ELECTRIC
- EX. SANITARY SEWER
- EX. SANITARY EASEMENT
- EX. GAS
- EX. WATER LINE
- EX. IMPERVIOUS SURFACES
- EX. STREAM CENTERLINE
- EX. STREAM
- EX. STORM SEWER
- EX. CULVERT
- EX. 100YR WSE
- EX. RIP RAP
- EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
- LIMITS OF SURVEY
- PR. BANKFULL
- PR. STREAM CENTERLINE
- PR. BOTTOM OF BANK
- PR. MAJOR CONTOUR
- PR. MINOR CONTOUR
- PR. LIMITS OF DISTURBANCE
- PR. 100YR WSE
- PR. BANKFULL BENCH
- PR. FENCE
- PR. TREE PROTECTION
- PR. FLOODPLAIN EASEMENT
- PR. RIP RAP
- DETAIL CALLOUT
- PR. RIFFLE/STREAM BED MATERIAL
- PR. ROCK TANGENT CROSS VANE
- PR. ROCK OFFSET CROSS VANE
- PR. LOG STRUCTURE
- PR. ANGLED LOG STRUCTURE
- PR. LOG SILL
- PR. FLOODPLAIN LOG
- PR. ANGLED ROCK SILL
- PR. ROCK SILL
- PR. WOOD TOE REVETMENT

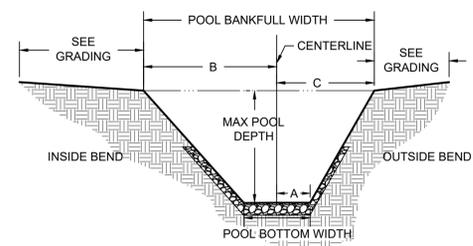
NOTES:

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REACH	STATION	A-CENTERLINE OFFSET TO BOTTOM OF BANK (FT)	RIFFLE BOTTOM WIDTH (FT)	MAX RIFFLE DEPTH* (FT)	B-CENTERLINE OFFSET TO TOP OF BANK (FT)	RIFFLE BANKFULL WIDTH (FT)
T1	20+00-21+65	1.3	2.6	0.6	3.0	6.0

RIFFLE CROSS-SECTION GEOMETRY
NOT TO SCALE



REACH	STATION	A-CENTERLINE OFFSET TO BOTTOM OF OUTER BANK (FT)	POOL BOTTOM WIDTH (FT)	MAX POOL DEPTH (FT)	B-CENTERLINE OFFSET TO TOP OF INNER BANK (FT)	C-CENTERLINE OFFSET TO TOP OF OUTER BANK (FT)	POOL BKF WIDTH (FT)
T1	20+00-21+65	1.3	2.6	0.9	4.2	3.0	7.2

MAX POOL CROSS-SECTION GEOMETRY
NOT TO SCALE

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)		TOTAL SILL LENGTH, A'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'	MIN. LOG DIAMETER (IN)	MAX LOG DIAMETER (IN)
				LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET						
T1	1*	20+04.2	73.0	9.0	9.0	18.0	2.0-2.5	1.5-2.0	2.5-3.0	-	-

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	INVERT WIDTH, A'	VANE ARM LENGTH, B'		VANE ARM TIE-IN ELEV. (FT)		MIN. CUT OFF SILL LENGTH, C'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'
					LEFT	RIGHT	LEFT	RIGHT				
T1	2	20+22.9	72.3	1.5	6.0	6.0	72.8	72.8	6.0	2.0-2.5	1.5-2.0	2.5-3.0
T1	3	20+50.2	71.2	1.5	6.0	6.0	71.7	71.4	6.0	2.0-2.5	1.5-2.0	2.5-3.0
T1	4	20+72.2	70.1	1.5	6.0	6.0	70.3	70.6	6.0	2.0-2.5	1.5-2.0	2.5-3.0
T1	5	20+94.6	69.0	1.5	6.0	6.0	69.5	69.2	6.0	2.0-2.5	1.5-2.0	2.5-3.0
T1	6	21+15.8	67.9	1.5	6.0	6.0	68.1	68.4	6.0	2.0-2.5	1.5-2.0	2.5-3.0
T1	7	21+39.4	66.8	1.5	6.0	6.0	67.4	67.2	6.0	2.0-2.5	1.5-2.0	2.5-3.0

AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP
I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards.
APPROVAL DATE: _____
PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: SOLTESZ, INC.
LICENSE NUMBER: 40806
PERMIT NUMBER: 50260-2022-0

res
HGS, LLC, A RES COMPANY
5387 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.983.2854
WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PROPOSED GRADING
PRINCE GEORGE'S COUNTY, MD

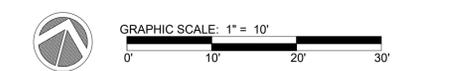
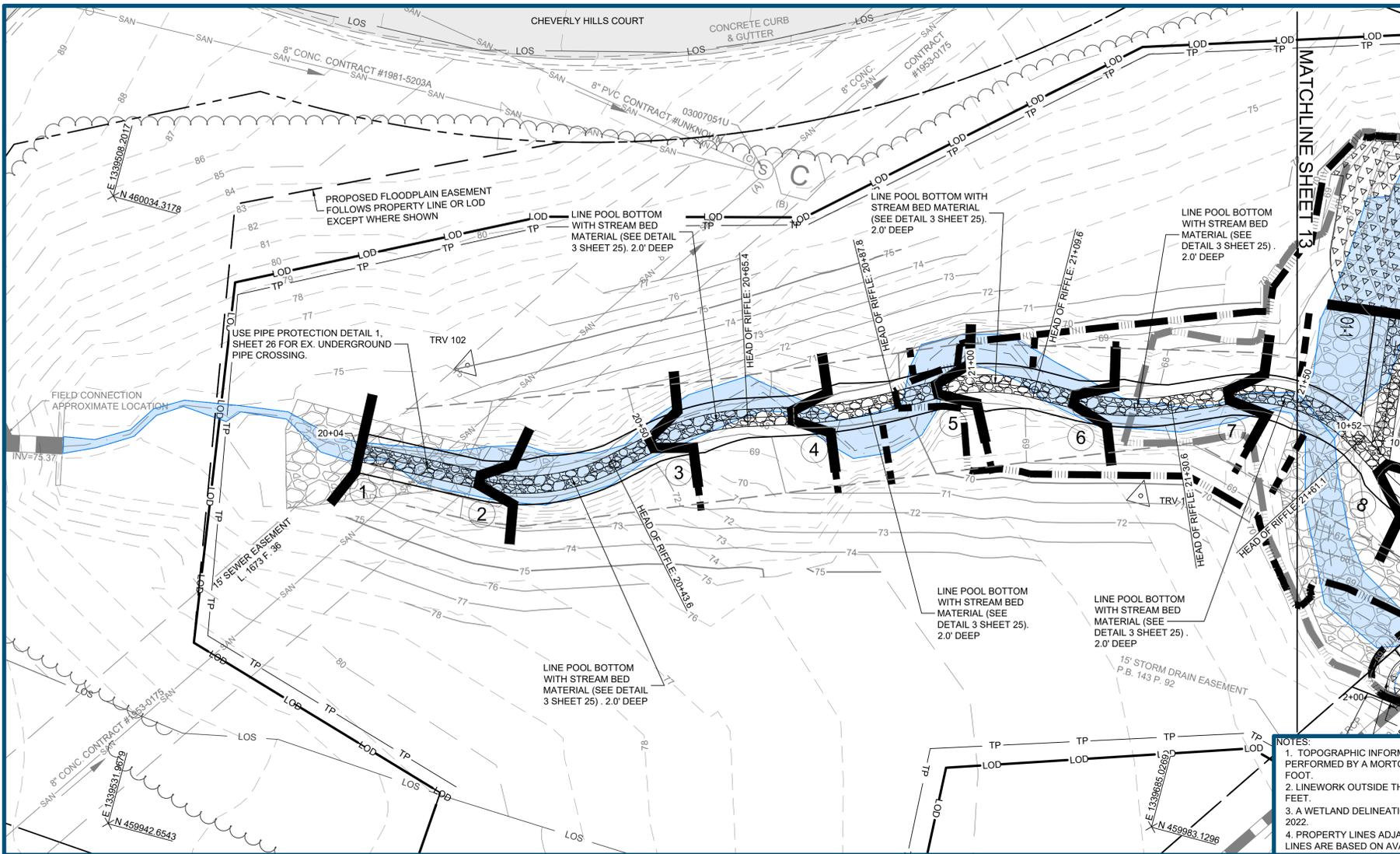
STAMP/SEAL:
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30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

REVISIONS:

30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23

PROJECT MANAGER: JM
DESIGNED: AM, CP, BW
DRAWN: AM, CP, CD
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
DATE: 11/6/2023
SHEET NO: 10 OF 37

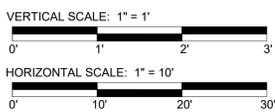
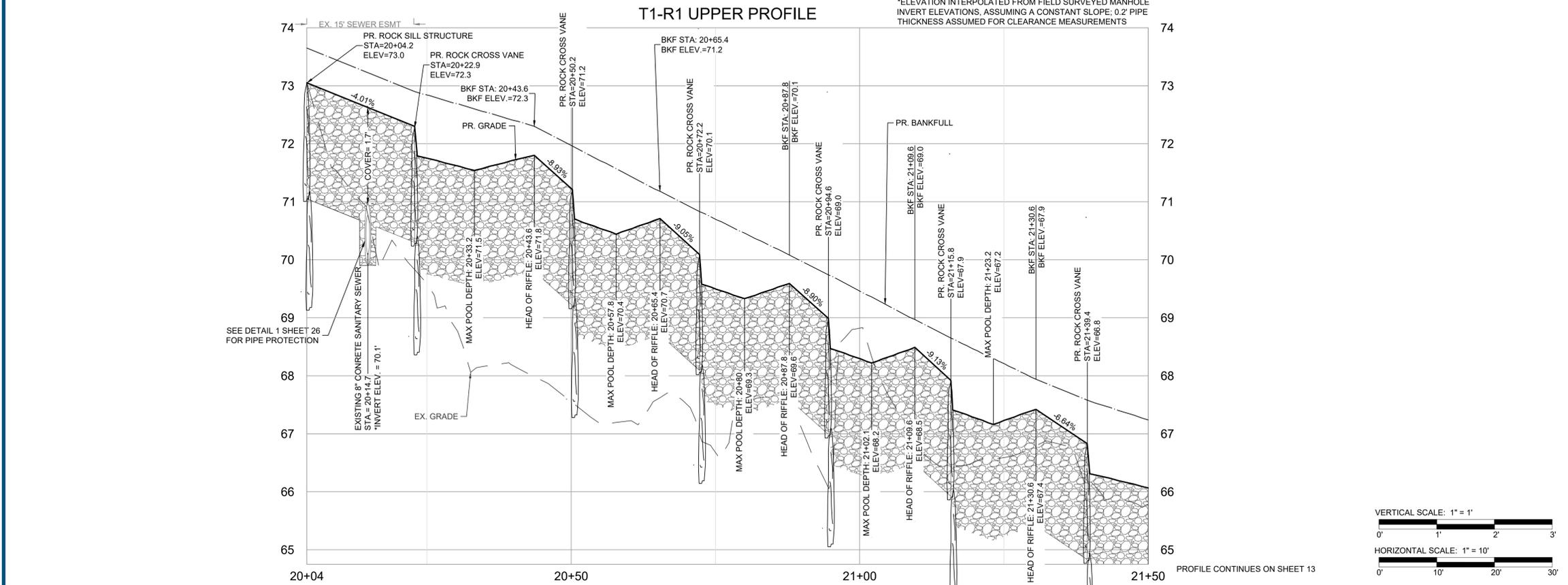


LEGEND:

	EX. PROPERTY LINE
	EX. PROPERTY ADJACENT
	EX. EASEMENT
	EX. MAJOR CONTOUR
	EX. MINOR CONTOUR
	EX. TREELINE
	EX. OVERHEAD ELECTRIC
	EX. SANITARY SEWER
	EX. SANITARY EASEMENT
	EX. GAS
	EX. WATER LINE
	EX. IMPERVIOUS SURFACES
	EX. STREAM CENTERLINE
	EX. STREAM
	EX. STORM SEWER
	EX. CULVERT
	EX. 100YR WSE
	EX. RIP RAP
	LIMITS OF SURVEY
	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
	PR. BANKFULL
	PR. STREAM CENTERLINE
	PR. BOTTOM OF BANK
	PR. MAJOR CONTOUR
	PR. MINOR CONTOUR
	PR. LIMITS OF DISTURBANCE
	PR. FLOODWAY
	PR. 100YR WSE
	PR. FENCE
	PR. TREE PROTECTION
	PR. FLOODPLAIN EASEMENT
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NOTES:

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res
PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PLAN AND PROFILE
 PRINCE GEORGE'S COUNTY, MD

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PERMIT PLAN DESIGN REVIEW	5/10/23
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CONSTRUCTION PLAN REVIEW	8/8/23
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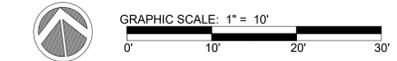
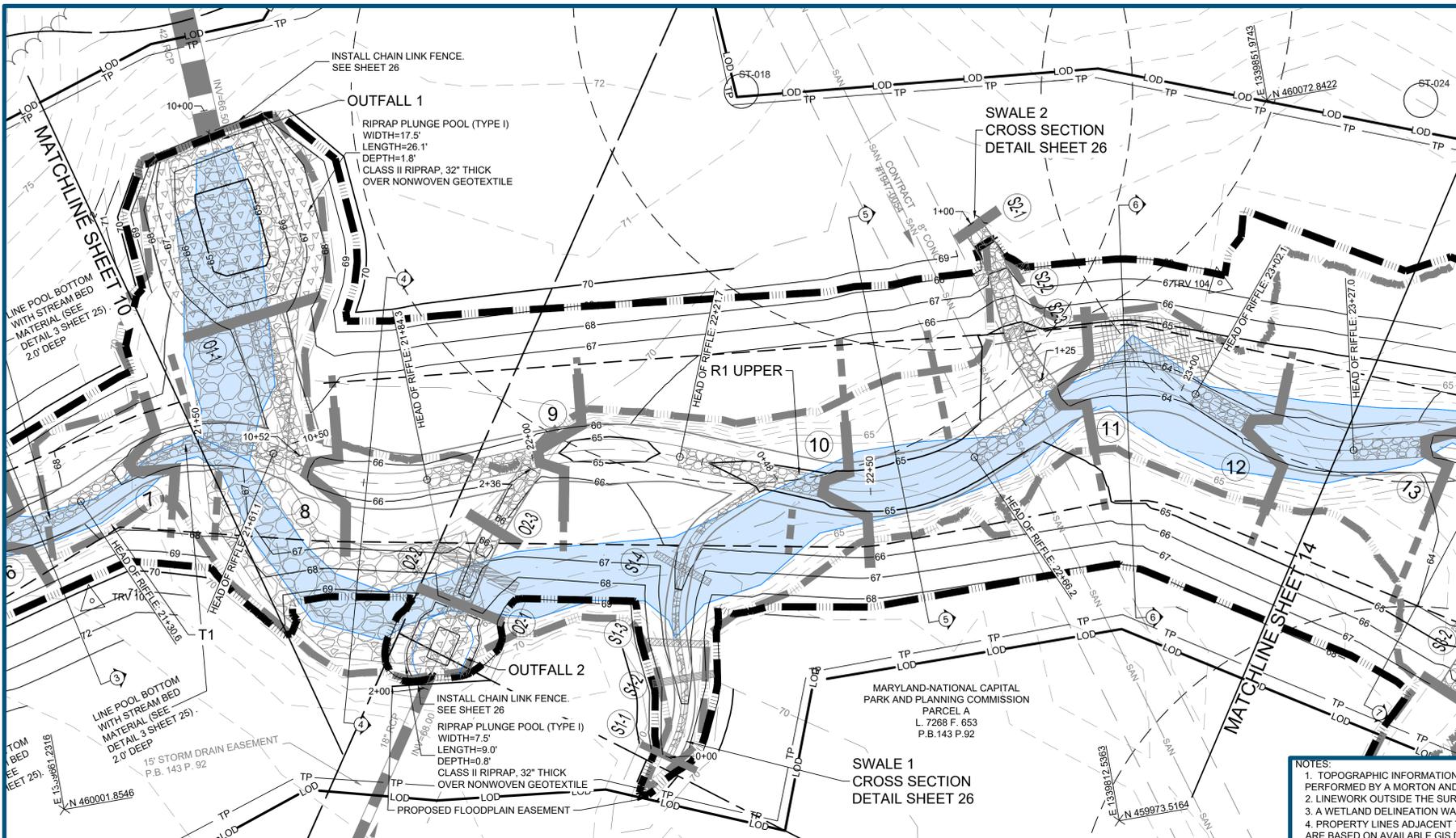
BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

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APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 DESIGNED: AM, CP, BW
 DRAWN: AM, CP, CD
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 DESIGN TYPE: **TMDL STREAM**
 DATE: **11/6/2023**
 PERMIT NUMBER: **50260-2022-0**
 SHEET NO: _____

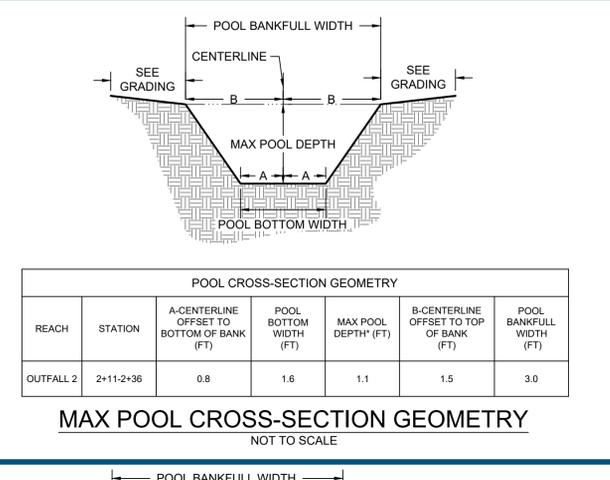
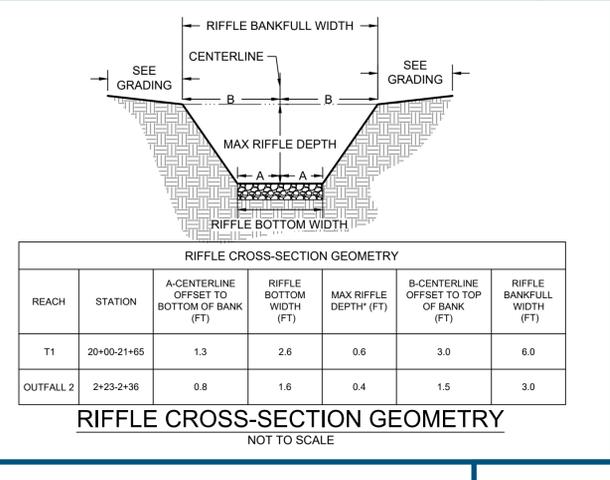
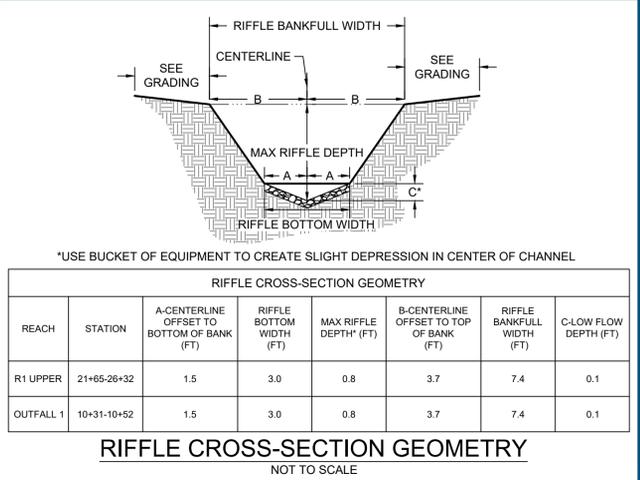
REVISIONS:	
30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23
PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DATE:	11/6/2023
SHEET NO:	11 OF 37



LEGEND:

	EX. PROPERTY LINE
	EX. PROPERTY ADJACENT
	EX. EASEMENT
	EX. MAJOR CONTOUR
	EX. MINOR CONTOUR
	EX. TREELINE
	EX. OVERHEAD ELECTRIC
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ROCK/LOG SILL STRUCTURE TABLE

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)	LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET	TOTAL SILL LENGTH, A'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'	MIN. LOG DIAMETER (IN)	MAX LOG DIAMETER (IN)
OUTFALL 1	O1-1	10+30.8	66.5	9.7	11.1	20.8	11.1	1.5-2.0	2.5-3.0	--	--	--
OUTFALL 2	O2-1	2+13.2	67.7	6.8	6.8	13.5	20-2.5	1.5-2.0	2.5-3.0	--	--	--
OUTFALL 2	O2-3	2+25.2	66.1	4.5	4.5	9.0	2.0-2.5	1.5-2.0	2.5-3.0	--	--	--
SWALE 1	S1-1	0+00.0	67.5	4.5	4.5	9.0	1.0-1.5	1.5-2.0	2.0-2.5	--	--	--
SWALE 1	S1-2	0+11.8	66.8	4.5	4.5	9.0	1.0-1.5	1.5-2.0	2.0-2.5	--	--	--
SWALE 2	S2-1*	1+00.6	66.8	4.5	3.0	7.5	1.5-2.0	2.0-2.5	2.5-3.0	--	--	--

ANGLED LOG SILL STRUCTURE TABLE

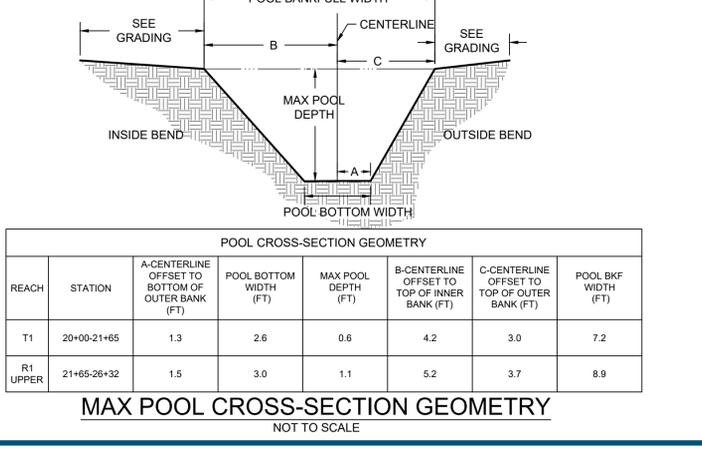
REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)	LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET	TOTAL SILL LENGTH, A'	HORIZONTAL ANGLE, A''	SILL SLOPE, B%	MIN. LOG DIAMETER (IN)	MAX LOG DIAMETER (IN)
SWALE 1	S1-3	0+17.1	66.5	2.5	4.5	7.0	12.0	1.0	12	12	18
SWALE 1	S1-4	0+28.1	66.8	4.5	4.5	9.0	17.0	1.0	12	12	18

OFFSET ROCK CROSS VANE STRUCTURE TABLE

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	INVERT WIDTH, A'	VANE ARM LENGTH, B'	MIN. SILL LENGTH, C'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'
R1 UPPER	8	21+66.7	66.1	1.8	4.0	7.4	66.1	66.5	7.4
R1 UPPER	9	22+01.0	65.4	1.8	3.7	7.4	65.6	66.1	7.4
R1 UPPER	10	22+43.1	64.7	1.8	3.7	7.4	64.9	65.5	7.4
R1 UPPER	11	22+80.9	64.1	1.8	3.7	7.4	64.3	64.8	7.4
R1 UPPER	12	23+11.2	63.7	1.8	3.7	7.4	63.7	64.3	7.4

ANGLED ROCK SILL STRUCTURE TABLE

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)	LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET	TOTAL SILL LENGTH, A'	HORIZONTAL ANGLE, A''	SILL SLOPE, B%	ROCK HEIGHT, A'	ROCK DEPTH, B'	ROCK LENGTH, C'
OUTFALL 2	O2-2	2+19.2	66.9	6.8	6.8	13.5	13.5	1.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
SWALE 2	S2-2	1+08.5	66.9	4.5	3.4	7.9	4.0	1.0	1.0	1.5-2.0	1.5-2.0	2.5-3.0
SWALE 2	S2-3*	1+17.1	64.7	4.5	1.8	6.1	5.0	1.0	1.0	1.5-2.0	1.5-2.0	2.5-3.0



AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

**DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND**

PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

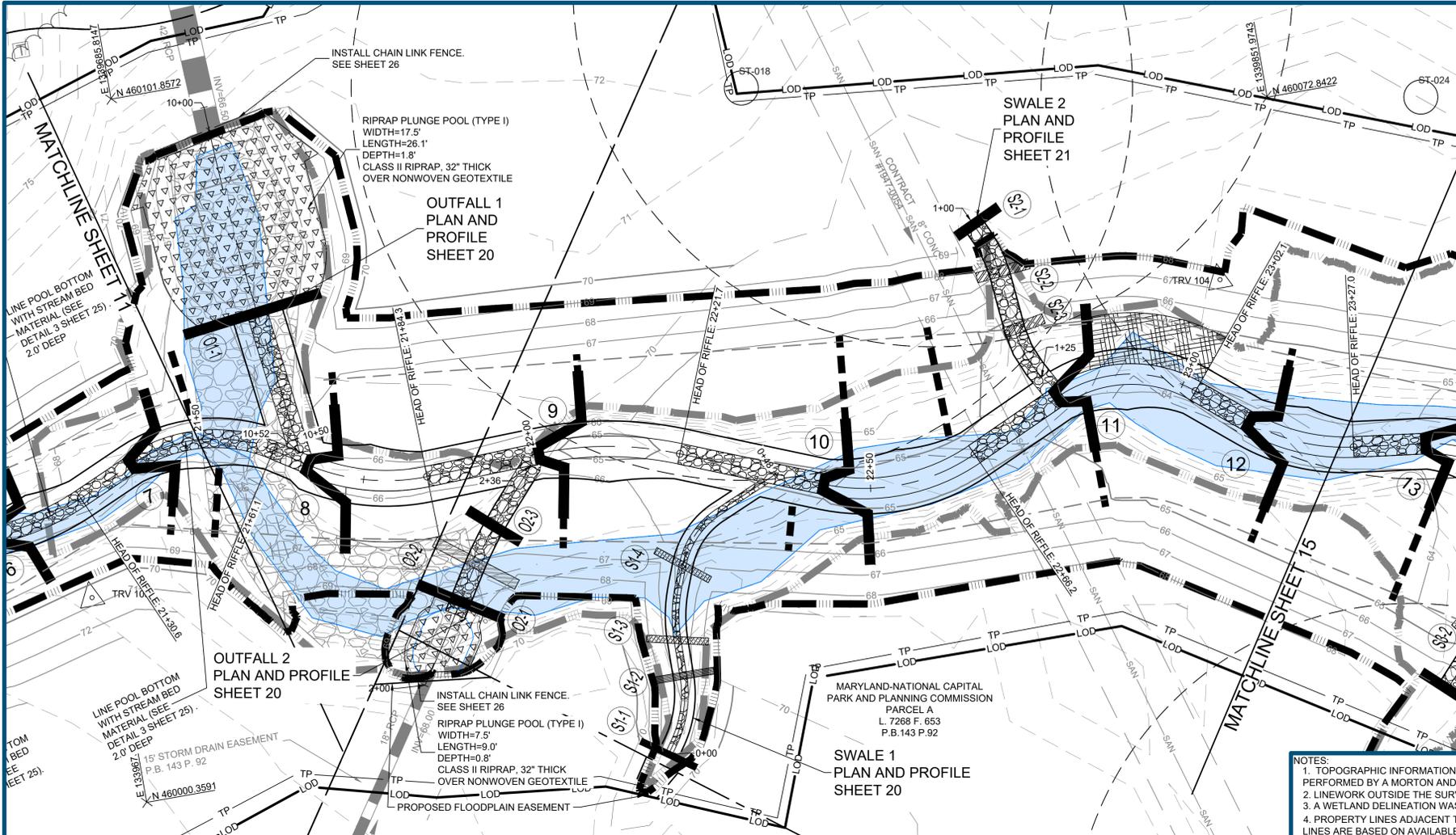
APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PROPOSED GRADING
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date
REVISIONS:	
30%: 1/10/23	
60%: 5/12/23	
90%: 7/17/23	
95%: 8/22/23	
PROJECT MANAGER: JM	
DESIGNED: AM, CP, BW	
DRAWN: AM, CP, CD	
JOB NUMBER: 106683	
DESIGN TYPE: TMDL STREAM	
DATE: 11/6/2023	
SHEET NO: 12 OF 37	



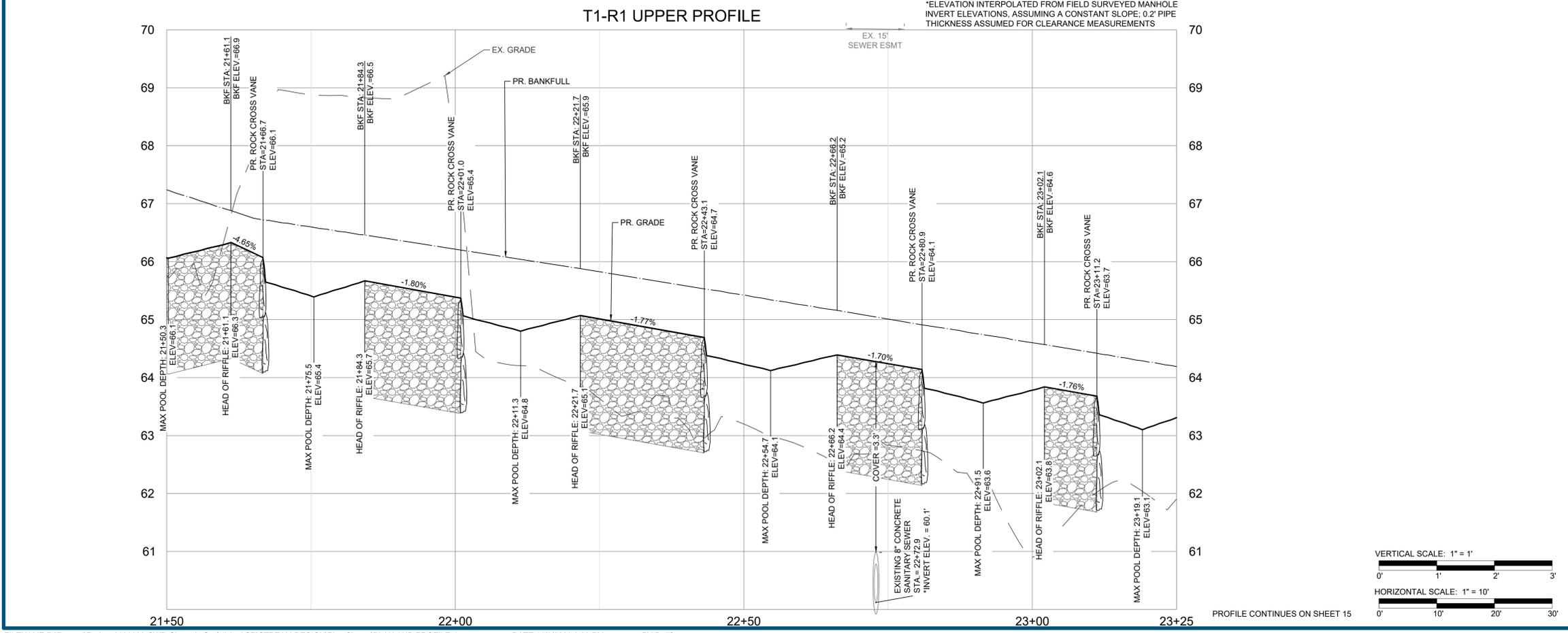
GRAPHIC SCALE: 1" = 10'

LEGEND:

- EX. PROPERTY LINE
- EX. PROPERTY ADJACENT
- EX. EASEMENT
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. TREELINE
- EX. OVERHEAD ELECTRIC
- EX. SANITARY SEWER
- EX. SANITARY EASEMENT
- EX. GAS
- EX. WATER LINE
- EX. IMPERVIOUS SURFACES
- EX. STREAM CENTERLINE
- EX. STREAM
- EX. STORM SEWER
- EX. CULVERT
- EX. 100YR WSE
- EX. RIP RAP
- LIMITS OF SURVEY
- EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
- PR. BANKFULL
- PR. STREAM CENTERLINE
- PR. BOTTOM OF BANK
- PR. MAJOR CONTOUR
- PR. MINOR CONTOUR
- PR. LIMITS OF DISTURBANCE
- PR. FLOODWAY
- PR. 100YR WSE
- PR. FENCE
- PR. TREE PROTECTION
- PR. FLOODPLAIN EASEMENT
- PR. RIP RAP
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- PR. RIFFLE/STREAM BED MATERIAL
- PR. ROCK TANGENT CROSS VANE
- PR. ROCK OFFSET CROSS VANE
- PR. LOG STRUCTURE
- PR. ANGLED LOG STRUCTURE
- PR. LOG SILL
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- PR. ANGLED ROCK SILL
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- PR. WOOD TOE REVETMENT

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CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION

CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC

PLAN AND PROFILE

PRINCE GEORGE'S COUNTY, MD

res

HGS, LLC, A RES COMPANY
5367 TELEPHONE ROAD, WARENTON, VIRGINIA 20187
P: 703.393.9854
WWW.RES.US

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REVISIONS:

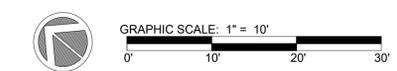
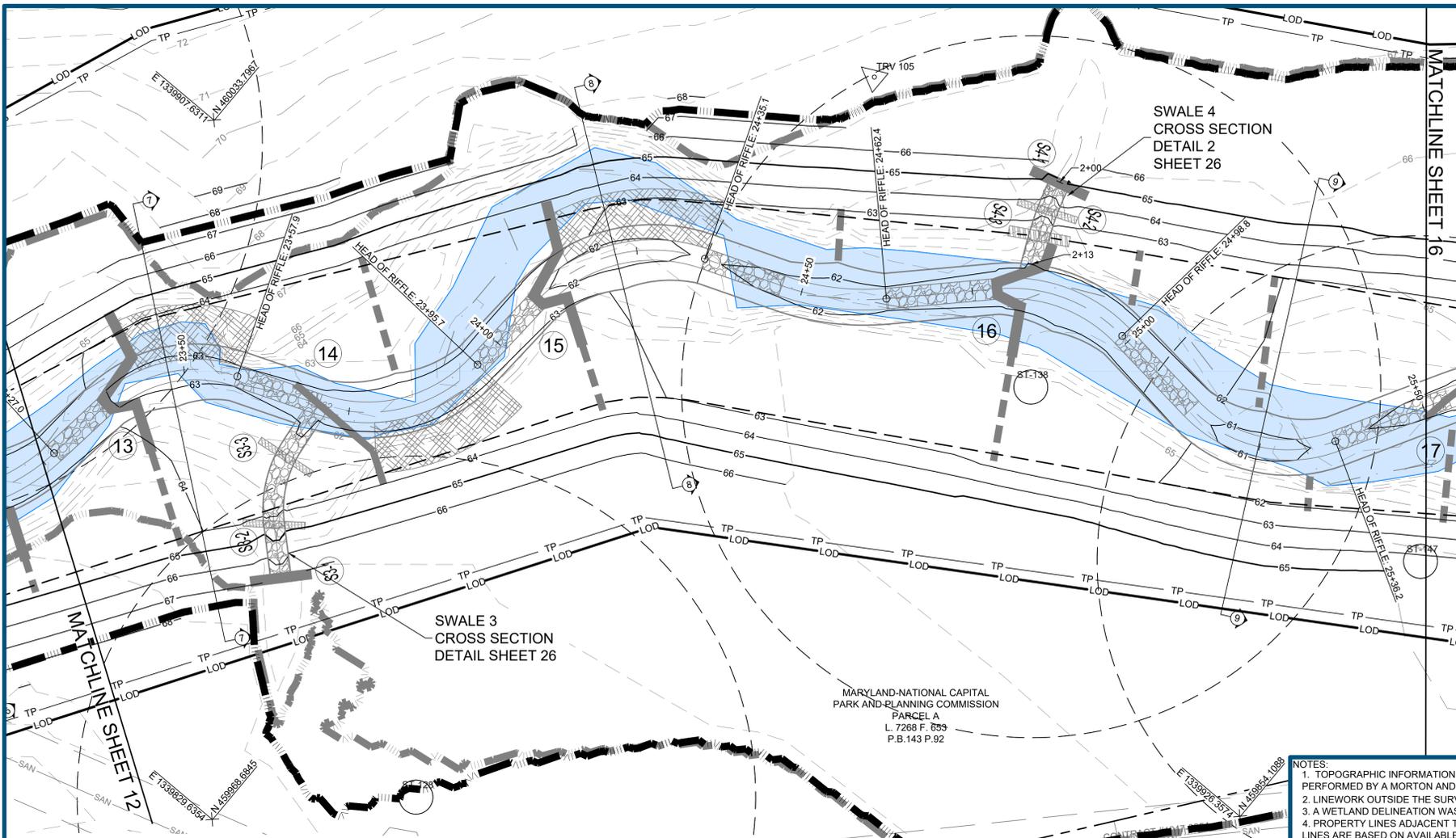
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DEPARTMENT OF THE ENVIRONMENT (DPE)
PRINCE GEORGE'S COUNTY, MARYLAND

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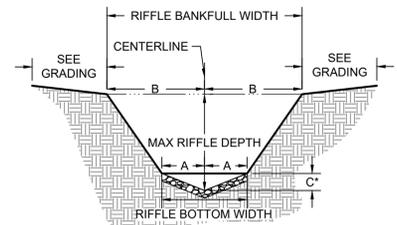
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DESIGNED: AM, CP, BW
DRAWN: AM, CP, CD
COMPANY NAME: **SOLTESZ, INC.**
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
LICENSE NUMBER: 40806
DATE: 11/6/2023
PERMIT NUMBER: 50260-2022-0
SHEET NO: 13 OF 37



LEGEND:

	EX. PROPERTY LINE
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	EX. MINOR CONTOUR
	EX. TREELINE
	EX. OVERHEAD ELECTRIC
	EX. SANITARY SEWER
	EX. SANITARY EASEMENT
	EX. GAS
	EX. WATER LINE
	EX. IMPERVIOUS SURFACES
	EX. STREAM CENTERLINE
	EX. STREAM
	EX. STORM SEWER
	EX. CULVERT
	EX. 100YR WSE
	EX. RIP RAP
	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
	LIMITS OF SURVEY
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	PR. STREAM CENTERLINE
	PR. BOTTOM OF BANK
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	PR. 100YR WSE
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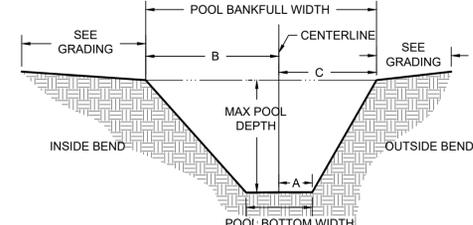
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*USE BUCKET OF EQUIPMENT TO CREATE SLIGHT DEPRESSION IN CENTER OF CHANNEL

REACH	STATION	A-CENTERLINE OFFSET TO BOTTOM OF BANK (FT)	RIFFLE BOTTOM WIDTH (FT)	MAX RIFFLE DEPTH* (FT)	B-CENTERLINE OFFSET TO TOP OF BANK (FT)	RIFFLE BANKFULL WIDTH (FT)	C-LOW FLOW DEPTH (FT)
R1 UPPER	21+65-26+32	1.5	3.0	0.8	3.7	7.4	0.1

RIFFLE CROSS-SECTION GEOMETRY
NOT TO SCALE



REACH	STATION	A-CENTERLINE OFFSET TO BOTTOM OF OUTER BANK (FT)	POOL BOTTOM WIDTH (FT)	MAX POOL DEPTH (FT)	B-CENTERLINE OFFSET TO TOP OF INNER BANK (FT)	C-CENTERLINE OFFSET TO TOP OF OUTER BANK (FT)	POOL BKF WIDTH (FT)
R1 UPPER	21+65-26+32	1.5	3.0	1.1	5.2	3.7	8.9

MAX POOL CROSS-SECTION GEOMETRY
NOT TO SCALE

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)	LEFT BANK CENTERLINE OFFSET (FT)	RIGHT BANK CENTERLINE OFFSET (FT)	TOTAL SILL LENGTH, A' (FT)	MIN. ROCK HEIGHT, A' (FT)	MIN. ROCK DEPTH, B' (FT)	MIN. ROCK LENGTH, C' (FT)	MIN. LOG DIAMETER (IN)	MAX LOG DIAMETER (IN)
SWALE 3	S3-1	0+00.0	66.60	4.5	4.5	9.0	1.5-2.0	1.5-2.0	2.5-3.0	--	--	--
SWALE 4	S4-1	2+00.2	64.70	4.5	4.5	9.0	2.0-2.5	1.5-2.0	2.5-3.0	--	--	--

REACH	STRUCTURE NO.	STATION	INVERT ELEV.	VANE ARM LENGTH, A' (FT)	MIN. BURIED RIFFLE EXTENSION LENGTH (FT)	MIN. VANE ARM LENGTH (FT)	VANE ARM TIE-IN LENGTH (FT)	MIN. CUT OFF SILL LENGTH, C' (FT)	MIN. LOG DIAMETER (IN)	MAX LOG DIAMETER (IN)	CUT OFF SILL ROCK HEIGHT, A' (FT)	CUT OFF SILL ROCK DEPTH, B' (FT)	CUT OFF SILL ROCK LENGTH, C' (FT)
R1 UPPER	14	23+70.5	62.7	7.4	4.5	3.0	14.9	63.0	5.0	12	1.0-1.5	1.5-2.0	2.0-2.5

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)	LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET	TOTAL SILL LENGTH, A' (FT)	HORIZONTAL ANGLE, A°	SILL SLOPE, B%	ROCK HEIGHT, A' (FT)	ROCK DEPTH, B' (FT)	ROCK LENGTH, C' (FT)
SWALE 4	S4-3	2+08.4	62.1	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0	

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)	LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET	TOTAL SILL LENGTH, A' (FT)	HORIZONTAL ANGLE, A°	SILL SLOPE, B%	MIN. LOG DIAMETER (IN)	MAX LOG DIAMETER (IN)
SWALE 3	S3-2	0+07.8	64.3	4.5	4.5	9.0	10.0	1.0	1.0	12	18
SWALE 3	S3-3	0+17.9	63.2	4.5	4.5	9.0	6.0	1.0	1.0	12	18
SWALE 4	S4-2	2+04.6	63.3	4.5	4.5	9.0	5.0	1.0	1.0	12	18

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	INVERT WIDTH, A' (FT)	VANE ARM LENGTH, B' (FT)	LONG SHORT (FT)	VANE ARM TIE-IN ELEV. (FT)	MIN. CUT OFF SILL LENGTH, C' (FT)	MIN. LOG DIAMETER (IN)	MAX LOG DIAMETER (IN)	CUT OFF SILL ROCK HEIGHT, A' (FT)	MIN. ROCK DEPTH, B' (FT)	MIN. ROCK LENGTH, C' (FT)
R1 UPPER	13	23+37.5	63.2	1.8	3.7	7.4	63.9	7.4	1.0-1.5	1.5-2.0	2.0-2.5	2.0-2.5	
R1 UPPER	15	24+08.6	62.2	1.8	3.7	7.4	62.5	63.0	7.4	1.0-1.5	1.5-2.0	2.0-2.5	
R1 UPPER	16	24+78.7	61.6	1.8	3.7	7.4	61.8	62.3	7.4*	1.0-1.5	1.5-2.0	2.0-2.5	

*LEFT CUT OFF SILL LENGTH=3.4'

res
 CLEAN WATER PARTNERSHIP
 HGS, LLC, A RES COMPANY
 5367 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
 P: 703.983.2854
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
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PROPOSED GRADING
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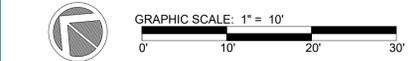
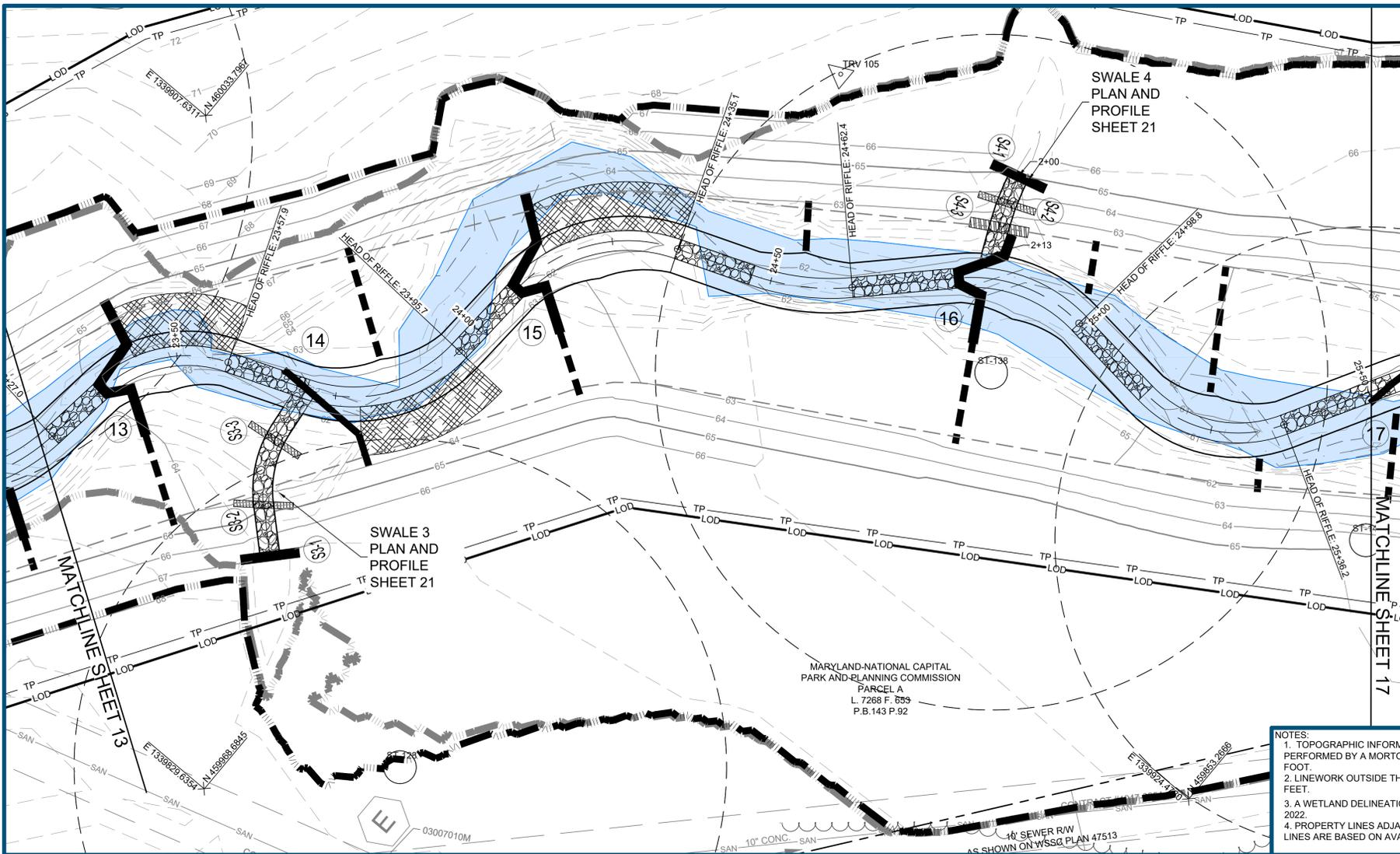
30% DESIGN REVIEW	Signature: <i>Benjamin T. Mosier</i>	Date: 1/4/23
PERMIT PLAN DESIGN REVIEW	Signature: <i>Benjamin T. Mosier</i>	Date: 5/10/23
CONSTRUCTION PLAN REVIEW	Signature: <i>Benjamin T. Mosier</i>	Date: 8/8/23

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

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DRAWN:	AM, CP, CD
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DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO.:	14 OF 37

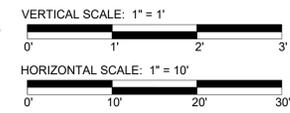
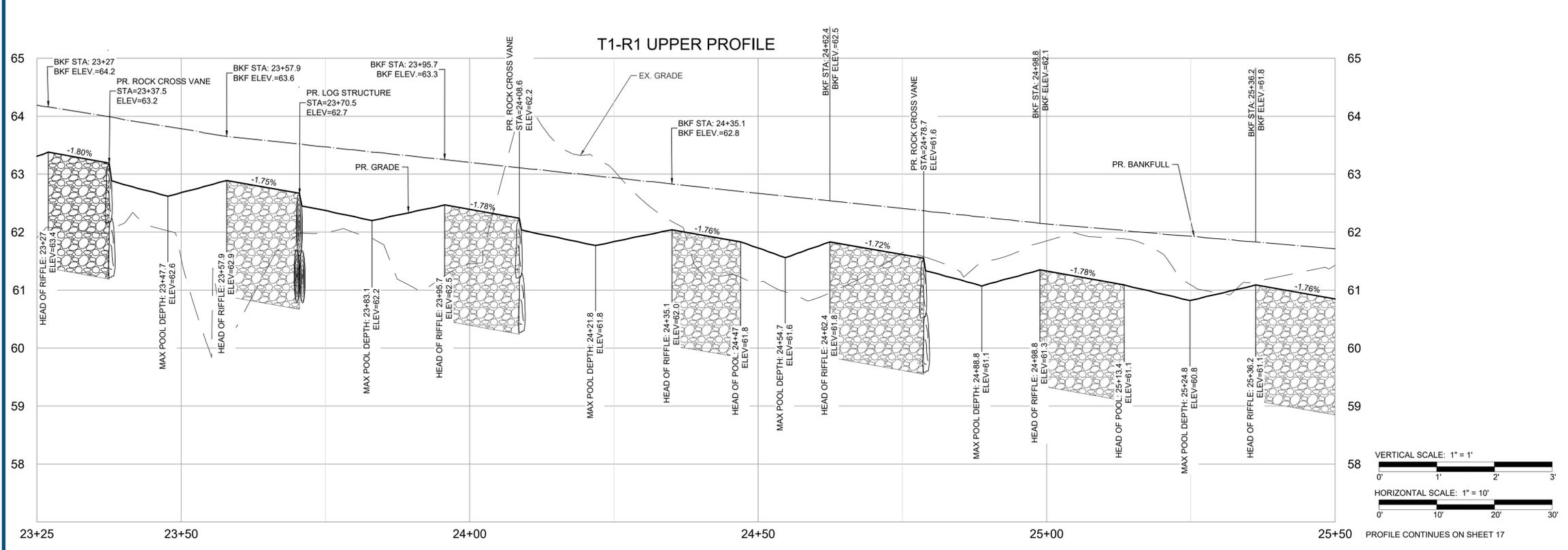


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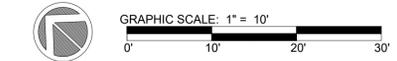
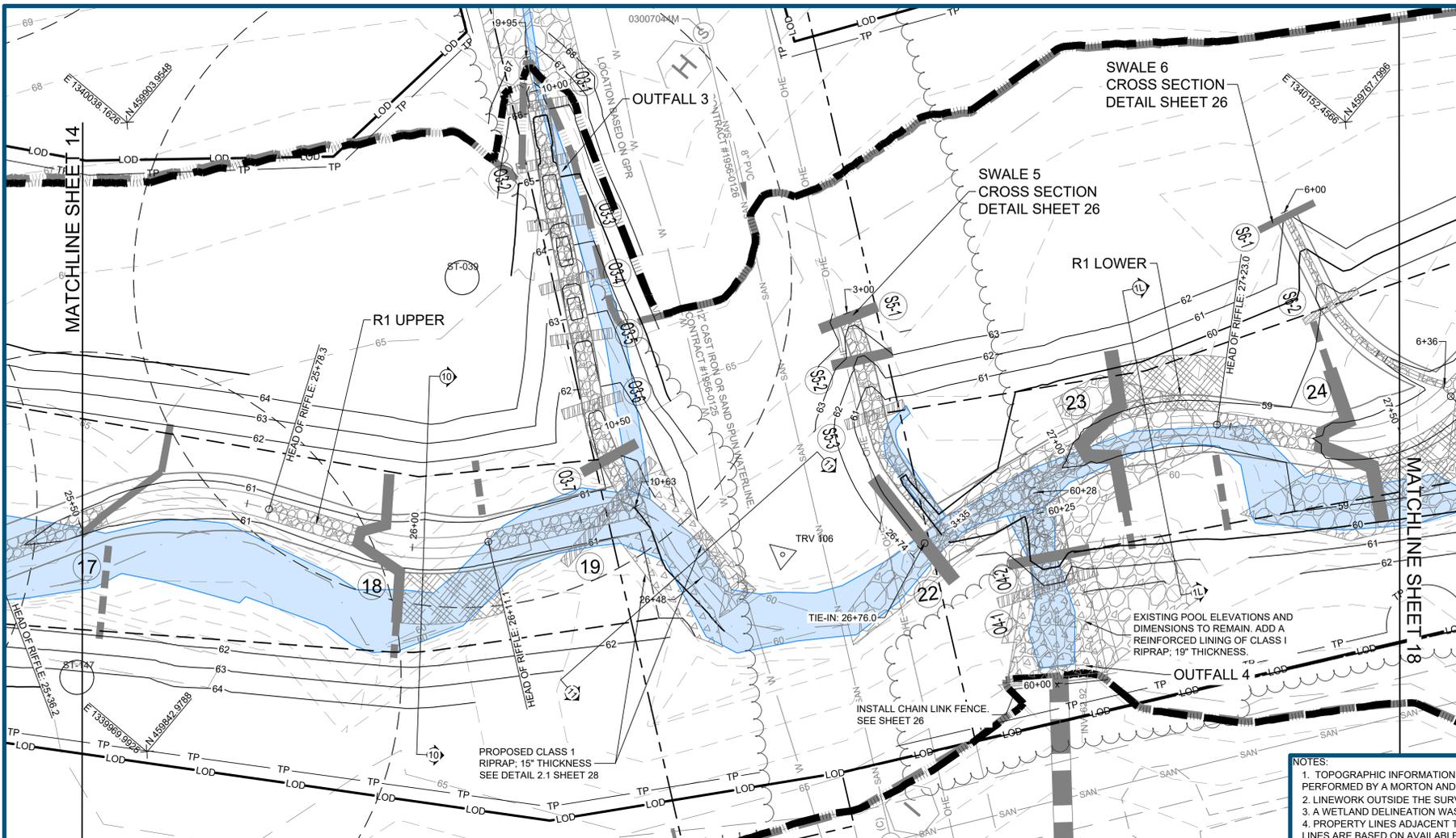
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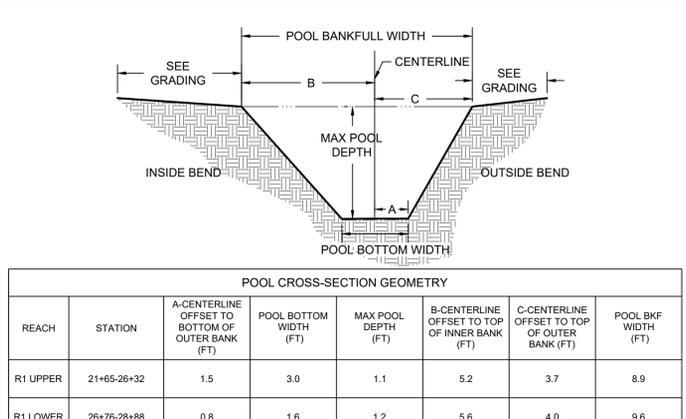
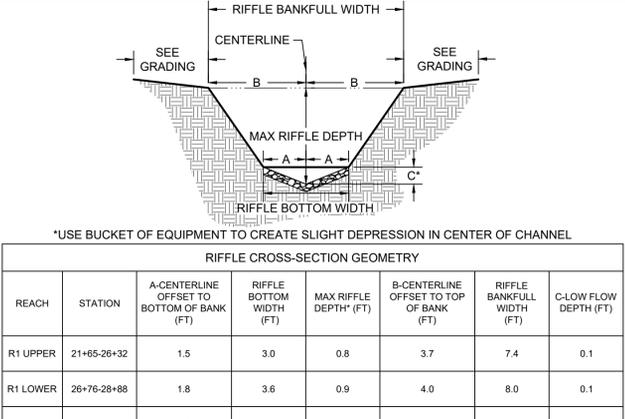
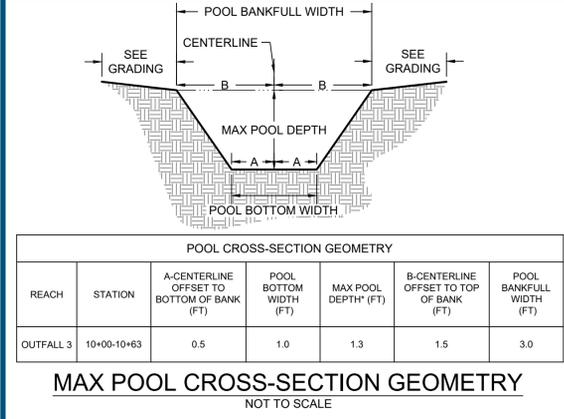


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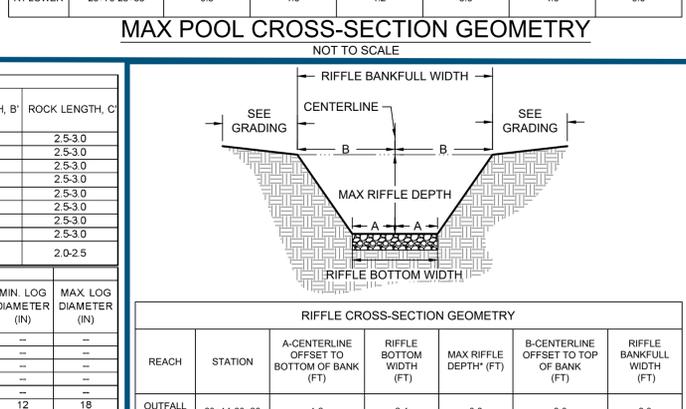


REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)		TOTAL SILL LENGTH, A'	HORIZONTAL ANGLE, A°	SILL SLOPE, B%	MIN. LOG DIAMETER (IN)	MAX. LOG DIAMETER (IN)
				LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET					
SWALE 6	S6-2	6+15.2	58.4	4.5	4.5	9.0	5.0	1.0	12	18

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)		TOTAL SILL LENGTH, A'	HORIZONTAL ANGLE, A°	SILL SLOPE, B%	ROCK HEIGHT, A'	ROCK DEPTH, B'	ROCK LENGTH, C'
				LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET						
OUTFALL 3	O3-1	10+02.1	65.8	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
OUTFALL 3	O3-2	10+10.5	64.9	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
OUTFALL 3	O3-3	10+19.5	64.1	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
OUTFALL 3	O3-4	10+28.2	63.2	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
OUTFALL 3	O3-5	10+36.4	62.3	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
OUTFALL 3	O3-6	10+46.5	61.5	4.5	4.5	9.0	6.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
SWALE 5	S5-1	3+00.7	63.3	4.5	4.5	9.0	6.0	1.0	1.5-2.0	1.5-2.0	2.5-3.0
SWALE 5	S5-2	3+07.0	61.9	4.5	4.5	9.0	7.0	1.0	1.5-2.0	1.5-2.0	2.5-3.0
OUTFALL 4	O4-1	60+14.4	61.4	8.5	6.5	15.0	7.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
REACH 1 UPPER	19	26+28.8	60.1	10.4	9.5	19.9	36	1.0	1.0-1.5	1.5-2.0	2.0-2.5

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	VANE ARM LENGTH, A'	MIN. BURIED RIFFLE BANK EXTENSION LENGTH	MIN. BURIED BANK EXTENSION LENGTH	MIN. LOG LENGTH (FT)	VANE ARM TIE-IN ELEV. (FT)	MIN. CUT OFF SILL LENGTH, C'	MIN. LOG DIAMETER (IN)	MAX. LOG DIAMETER (IN)	CUT OFF SILL ROCK HEIGHT, A'	CUT OFF SILL ROCK DEPTH, B'	CUT OFF SILL LENGTH, C'
R1 UPPER	17	25+53.8	60.8	7.4	4.5	3.0	14.9	61.1	7.0	12	18	1.0-1.5	1.5-2.0	2.0-2.5

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)		TOTAL SILL LENGTH, A'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'	MIN. LOG DIAMETER (IN)	MAX. LOG DIAMETER (IN)
				LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET						
R1 LOWER	22	26+79.6	59.9	12.0	7.0	19.0	1.0	1.5-2.0	2.0-2.5	2.5-3.0	--
OUTFALL 3	O3-7	10+54.6	60.5	4.5	4.5	9.0	2.0-2.5	1.5-2.0	2.5-3.0	--	--
SWALE 5	S5-1	3+00.7	63.3	4.5	4.5	9.0	1.5-2.0	1.5-2.0	2.5-3.0	--	--
SWALE 5	S5-2	3+07.0	61.9	4.5	4.5	9.0	1.5-2.0	1.5-2.0	2.5-3.0	--	--
OUTFALL 4	O4-2	60+18.5	59.5	6.0	6.0	12.0	2.0-2.5	1.5-2.0	2.5-3.0	--	--
SWALE 6	S6-1	6+00.8	61.0	4.5	4.5	9.0	--	--	--	12	18



REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	VANE ARM LENGTH, B'		VANE ARM TIE-IN ELEV. (FT)		MIN. CUT OFF SILL LENGTH, C'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'
				SHORT	LONG	SHORT	LONG				
R1 UPPER	18	25+92.1	60.4	1.8	3.7	7.4	60.8	61.3	7.4	1.0-1.5	1.5-2.0
R1 LOWER	23	27+03.0	58.9	2.0	4.0	8.0	58.9	59.8	8.0	1.5-2.0	2.0-2.5
R1 LOWER	24	27+38.5	58.0	2.0	4.0	8.0	58.0	58.7	8.0	1.5-2.0	2.0-2.5

NOTE: THERE IS NO PROPOSED STRUCTURE #20 AND #21

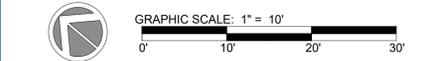
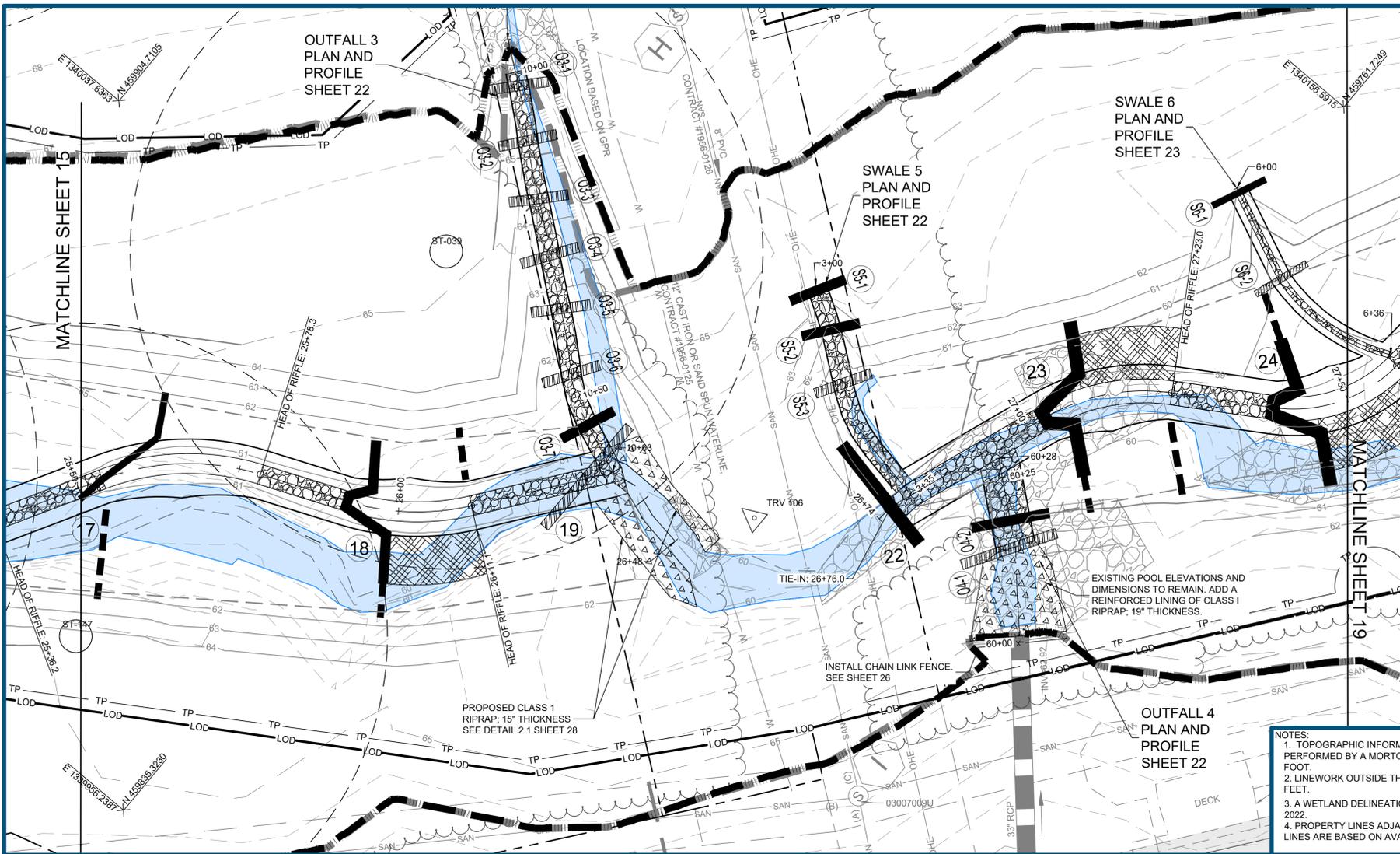
res
 HGS, LLC, A RES COMPANY
 5367 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
 P: 703.983.2854
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PROPOSED GRADING
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

REVISIONS:	30%: 1/10/23	60%: 5/12/23	90%: 7/17/23	95%: 8/22/23
DEPARTMENT OF THE ENVIRONMENT (DoE) PRINCE GEORGE'S COUNTY, MARYLAND	PEER REVIEW APPROVAL STAMP			
"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."				
APPROVAL DATE:	PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.			
PEER REVIEWER'S SIGNATURE:	COMPANY NAME: SOLTESZ, INC.			
LICENSE NUMBER: 40806	PROJECT MANAGER: JM			
PERMIT NUMBER: 50260-2022-0	DESIGNED: AM, CP, BW			
	DRAWN: AM, CP, CD			
	JOB NUMBER: 106883			
	DESIGN TYPE: TMDL STREAM			
	DATE: 11/6/2023			
	SHEET NO: 16 OF 37			



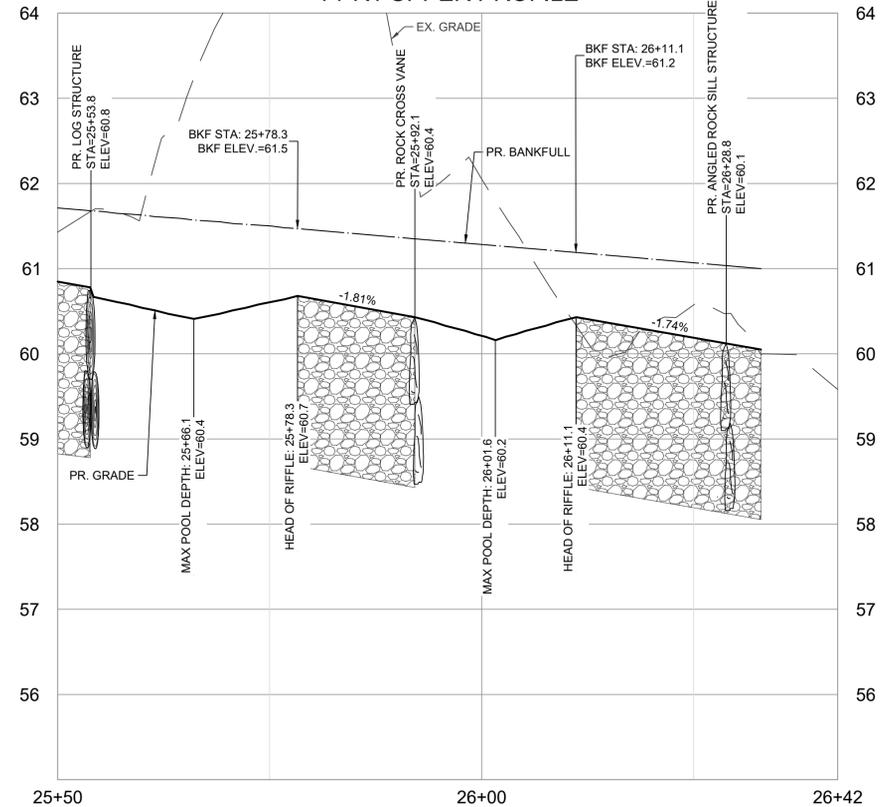
LEGEND:

---	EX. PROPERTY LINE
---	EX. PROPERTY ADJACENT
---	EX. EASEMENT
---	EX. MAJOR CONTOUR
---	EX. MINOR CONTOUR
---	EX. TREELINE
---	EX. OVERHEAD ELECTRIC
---	EX. SANITARY SEWER
---	EX. SANITARY EASEMENT
---	EX. GAS
---	EX. WATER LINE
---	EX. IMPERVIOUS SURFACES
---	EX. STREAM CENTERLINE
---	EX. STREAM
---	EX. STORM SEWER
---	EX. CULVERT
---	EX. 100YR WSE
---	EX. RIP RAP
---	LIMITS OF SURVEY
---	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
---	PR. BANKFULL
---	PR. STREAM CENTERLINE
---	PR. BOTTOM OF BANK
---	PR. MAJOR CONTOUR
---	PR. MINOR CONTOUR
---	PR. LIMITS OF DISTURBANCE
---	PR. FLOODWAY
---	PR. 100YR WSE
---	PR. FENCE
---	PR. TREE PROTECTION
---	PR. FLOODPLAIN EASEMENT
---	PR. RIP RAP
---	DETAIL CALLOUT
---	PR. RIFFLE/STREAM BED MATERIAL
---	PR. ROCK TANGENT CROSS VANE
---	PR. ROCK OFFSET CROSS VANE
---	PR. LOG STRUCTURE
---	PR. ANGLED LOG STRUCTURE
---	PR. LOG SILL
---	PR. FLOODPLAIN LOG
---	PR. ANGLED ROCK SILL
---	PR. ROCK SILL
---	PR. WOOD TOE REVETMENT

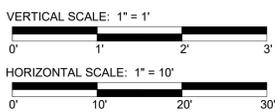
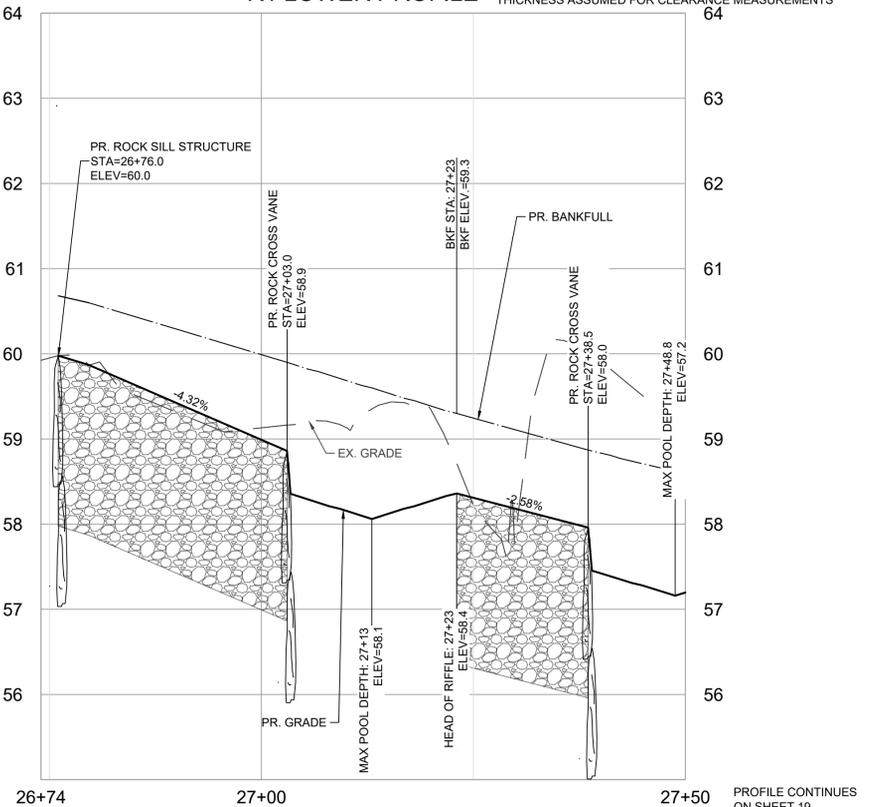
NOTES:

1. TOPOGRAPHIC INFORMATION AND LINE WORK SHOWN WITHIN THE SURVEY LIMITS IS BASED ON A SURVEY PERFORMED BY A MORTON AND THOMAS AND ASSOCIATES (AMT) IN JUNE 2022. CONTOUR INTERVAL IS ONE (1) FOOT.
2. LINework OUTSIDE THE SURVEY LIMITS IS BASED ON AVAILABLE GIS DATA. CONTOUR INTERVAL IS TWO (2) FEET.
3. A WETLAND DELINEATION WAS PERFORMED AND GPS LOCATED BY COASTAL RESOURCES INC. ON JUNE 14, 2022.
4. PROPERTY LINES ADJACENT TO WORK AREA WERE SURVEYED IN JUNE 2022 BY AMT. ALL OTHER PROPERTY LINES ARE BASED ON AVAILABLE GIS DATA. SEE SHEET 2 FOR SURVEY NOTES.

T1-R1 UPPER PROFILE



R1 LOWER PROFILE



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PLAN AND PROFILE
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

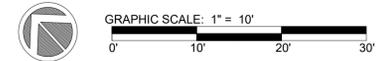
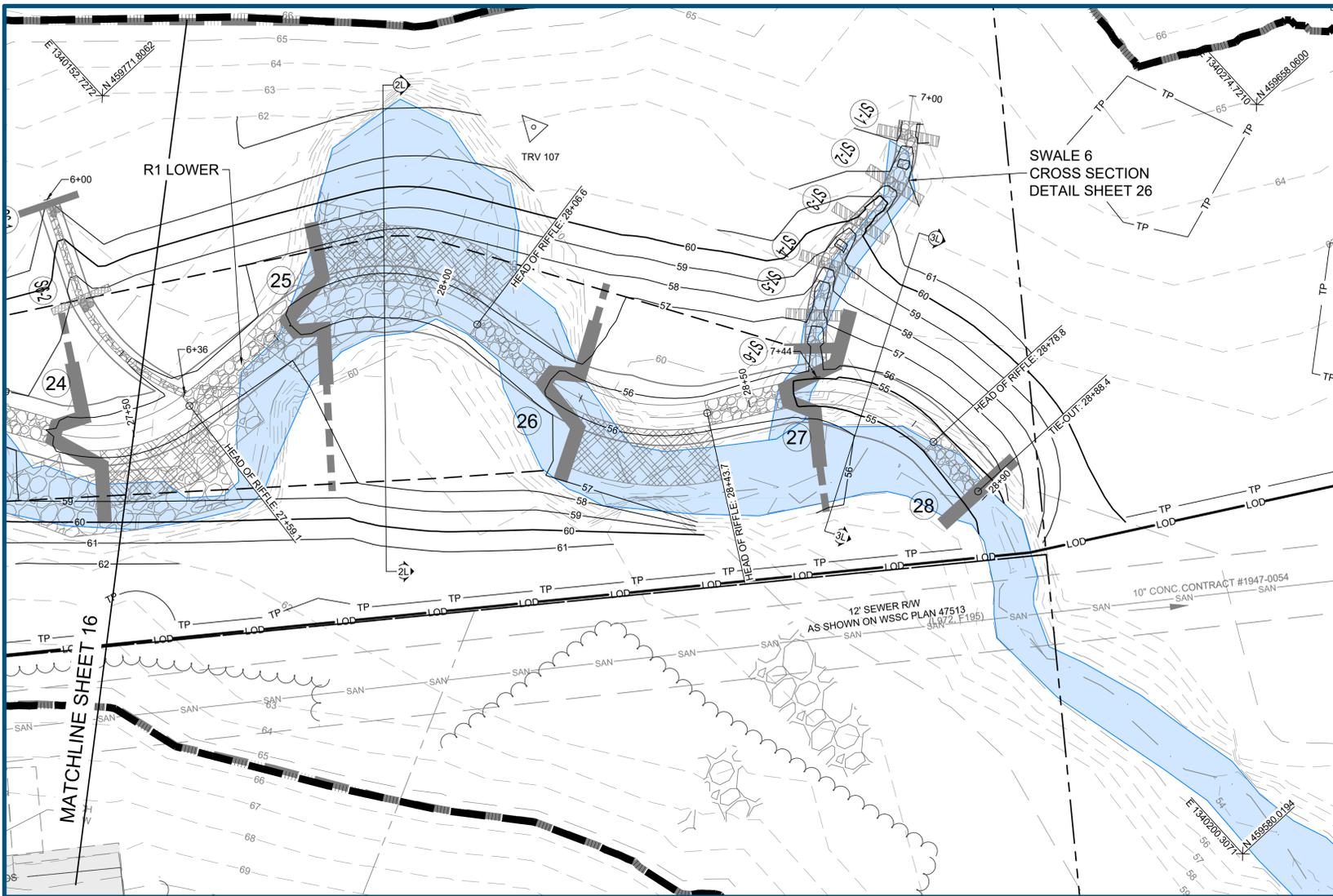
BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DOE)
 PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

APPROVAL DATE: _____
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 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: SOLTESZ, INC.
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 PERMIT NUMBER: 50260-2022-0

30%: 1/10/23	PROJECT MANAGER: JM
60%: 5/12/23	DESIGNED: AM, CP, BW
90%: 7/17/23	DRAWN: AM, CP, CD
95%: 8/22/23	JOB NUMBER: 106883
	DESIGN TYPE: TMDL STREAM
	DATE: 11/6/2023
	SHEET NO: 17 OF 37

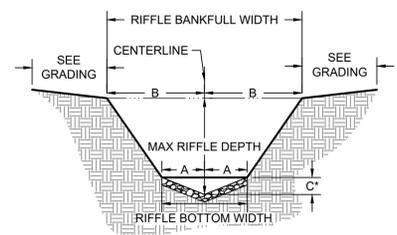


LEGEND:

	EX. PROPERTY LINE
	EX. PROPERTY ADJACENT
	EX. EASEMENT
	EX. MAJOR CONTOUR
	EX. MINOR CONTOUR
	EX. TREELINE
	EX. OVERHEAD ELECTRIC
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	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
	LIMITS OF SURVEY
	PR. BANKFULL
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	PR. MINOR CONTOUR
	PR. LIMITS OF DISTURBANCE
	PR. 100YR WSE
	PR. BANKFULL BENCH
	PR. FENCE
	PR. TREE PROTECTION
	PR. FLOODPLAIN EASEMENT
	PR. RIP RAP
	DETAIL CALLOUT
	PR. RIFFLE/STREAM BED MATERIAL
	PR. ROCK TANGENT CROSS VANE
	PR. ROCK OFFSET CROSS VANE
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	PR. ANGLED ROCK SILL
	PR. ROCK SILL
	PR. WOOD TOE REVETMENT

NOTES:

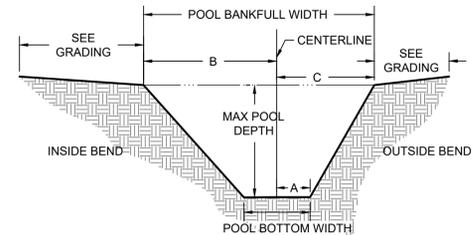
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*USE BUCKET OF EQUIPMENT TO CREATE SLIGHT DEPRESSION IN CENTER OF CHANNEL

RIFFLE CROSS-SECTION GEOMETRY							
REACH	STATION	A-CENTERLINE OFFSET TO BOTTOM OF BANK (FT)	RIFFLE BOTTOM WIDTH (FT)	MAX RIFFLE DEPTH (FT)	B-CENTERLINE OFFSET TO TOP OF BANK (FT)	RIFFLE BANKFULL WIDTH (FT)	C-LOW FLOW DEPTH (FT)
R1 LOWER	26+76-28+88	1.8	3.6	0.9	4.0	8.0	0.1

RIFFLE CROSS-SECTION GEOMETRY
NOT TO SCALE



POOL CROSS-SECTION GEOMETRY							
REACH	STATION	A-CENTERLINE OFFSET TO BOTTOM OF OUTER BANK (FT)	POOL BOTTOM WIDTH (FT)	MAX POOL DEPTH (FT)	B-CENTERLINE OFFSET TO TOP OF INNER BANK (FT)	C-CENTERLINE OFFSET TO TOP OF OUTER BANK (FT)	POOL BKF WIDTH (FT)
R1 LOWER	26+76-28+88	0.8	1.6	1.2	5.6	4.0	9.6

MAX POOL CROSS-SECTION GEOMETRY
NOT TO SCALE

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)		TOTAL SILL LENGTH, A'	HORIZONTAL ANGLE, A°	SILL SLOPE, B%	ROCK HEIGHT, A'	ROCK DEPTH, B'	ROCK LENGTH, C'
				LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET						
SWALE 7	S7-1	7+05.7	62.8	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
SWALE 7	S7-2	7+13.2	61.3	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
SWALE 7	S7-3	7+20.6	59.8	4.5	4.5	9.0	12.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
SWALE 7	S7-4	7+28.0	58.3	4.5	4.5	9.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0
SWALE 7	S7-5	7+35.5	56.8	3.5	4.5	8.0	5.0	1.0	2.0-2.5	1.5-2.0	2.5-3.0

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	INVERT WIDTH, A'	VANE ARM LENGTH, B'		VANE ARM TIE-IN ELEV. (FT)		MIN. CUT OFF SILL LENGTH, C'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'
					SHORT	LONG	SHORT	LONG				
R1 LOWER	25	27+77.8	57.0	2.0	4.0	8.0	57.1	57.8	8.0	1.5-2.0	2.0-2.5	2.5-3.0
R1 LOWER	26	28+19.5	56.2	2.0	4.0	8.0	56.2	56.9	8.0	1.5-2.0	2.0-2.5	2.5-3.0
R1 LOWER	27	28+55.6	55.3	2.0	4.0	8.0	55.4	56.1	8.0	1.5-2.0	2.0-2.5	2.5-3.0

REACH	STRUCTURE NO.	STATION	INVERT ELEV. (FT)	MIN. SILL LENGTH (FT)		TOTAL SILL LENGTH, A'	MIN. ROCK HEIGHT, A'	MIN. ROCK DEPTH, B'	MIN. ROCK LENGTH, C'	MIN. LOG DIAMETER (IN)	MAX LOG LENGTH (IN)
				LEFT BANK CENTERLINE OFFSET	RIGHT BANK CENTERLINE OFFSET						
R1 LOWER	28	28+88.4	54.6	7.0	7.0	14.0	1.5-2.0	2.0-2.5	2.5-3.0	--	--
SWALE 7	S7-6	7+40.4	56.0	2.7	4.5	7.2	2.0-2.5	1.5-2.0	2.5-3.0	--	--



res

HGS, LLC, A RES COMPANY
5367 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.393.2854
WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PROPOSED GRADING
PRINCE GEORGE'S COUNTY, MD

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Signature Date 1/4/23

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Signature Date 5/10/23

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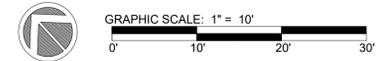
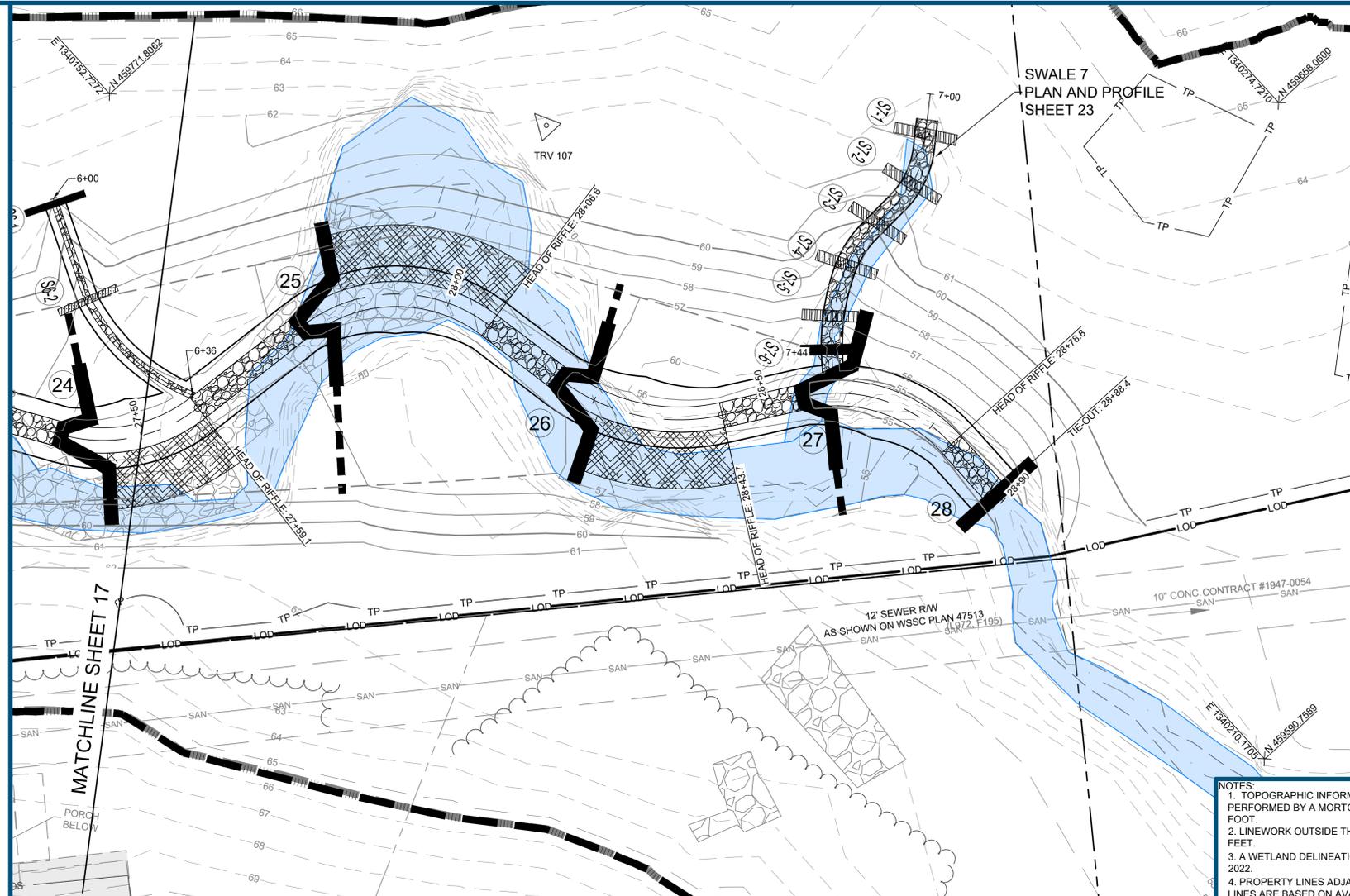
AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP
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PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: **SOLTESZ, INC.**
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PERMIT NUMBER: **50260-2022-0**

REVISIONS:
30%: 1/10/23
60%: 5/12/23
90%: 7/17/23
95%: 8/22/23

PROJECT MANAGER: **JM**
DESIGNED: **AM, CP, BW**
DRAWN: **AM, CP, CD**
JOB NUMBER: **106883**
DESIGN TYPE: **TMDL STREAM**
DATE: **11/6/2023**
SHEET NO: **18 OF 37**



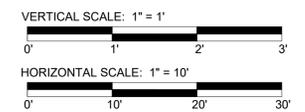
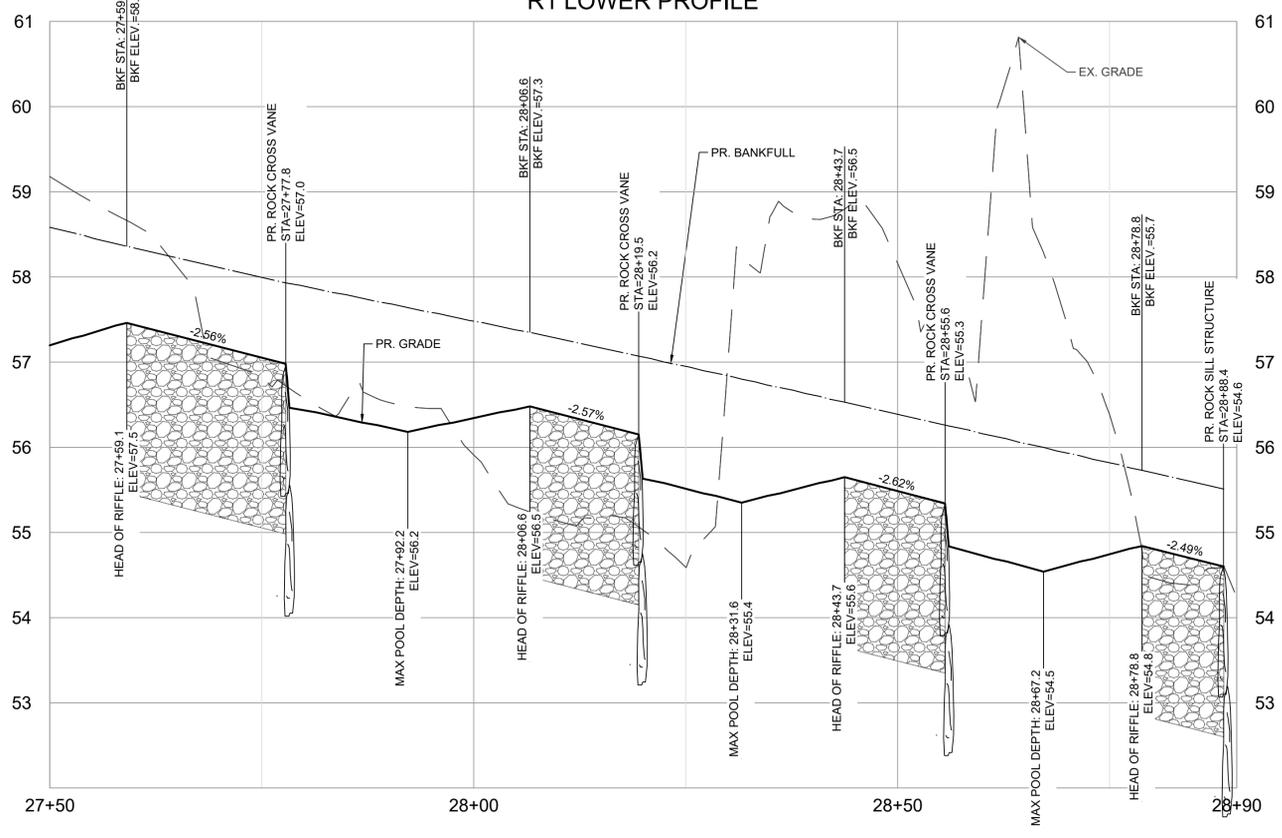
LEGEND:

---	EX. PROPERTY LINE
---	EX. PROPERTY ADJACENT
---	EX. EASEMENT
---	EX. MAJOR CONTOUR
---	EX. MINOR CONTOUR
---	EX. TREELINE
---	EX. OVERHEAD ELECTRIC
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---	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
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---	PR. MINOR CONTOUR
---	PR. LIMITS OF DISTURBANCE
---	PR. FLOODWAY
---	PR. 100YR WSE
---	PR. FENCE
---	PR. TREE PROTECTION
---	PR. FLOODPLAIN EASEMENT
---	PR. RIP RAP
---	DETAIL #
---	SHEET #
---	PR. RIFFLE/STREAM BED MATERIAL
---	PR. ROCK TANGENT CROSS VANE
---	PR. ROCK OFFSET CROSS VANE
---	PR. LOG STRUCTURE
---	PR. ANGLED LOG STRUCTURE
---	PR. LOG SILL
---	PR. FLOODPLAIN LOG
---	PR. ANGLED ROCK SILL
---	PR. ROCK SILL
---	PR. WOOD TOE REVETMENT

NOTES:

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R1 LOWER PROFILE



HGS, LLC, A RES COMPANY
 5367 TELEPHONE ROAD, WARMONTON, VIRGINIA 20187
 P: 703.393.2854
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PLAN AND PROFILE
PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

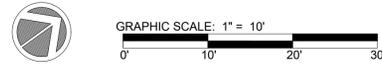
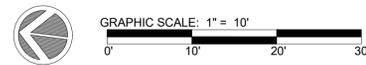
30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

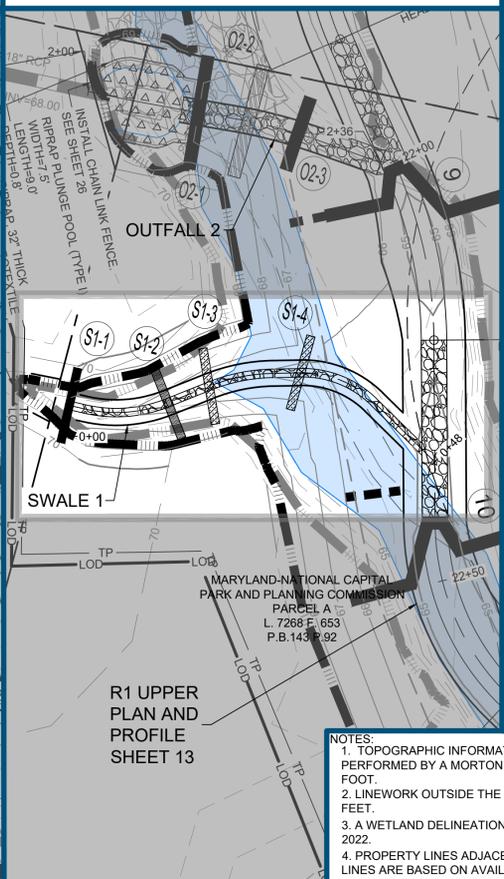
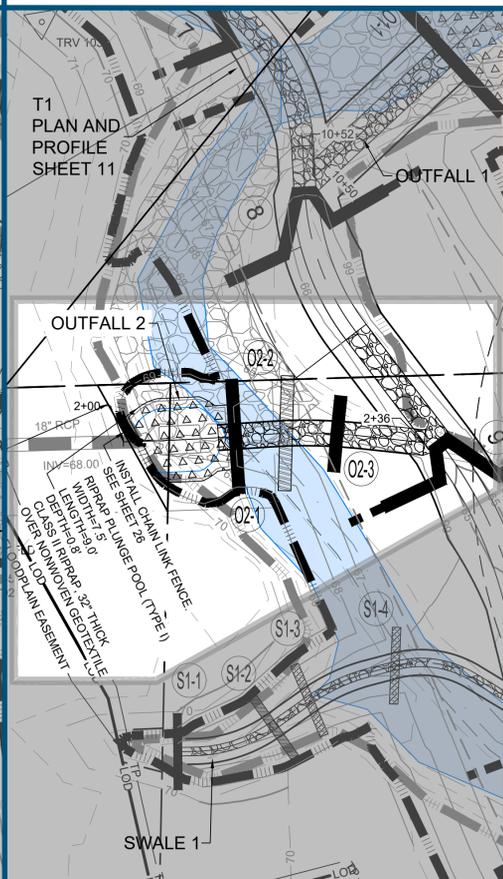
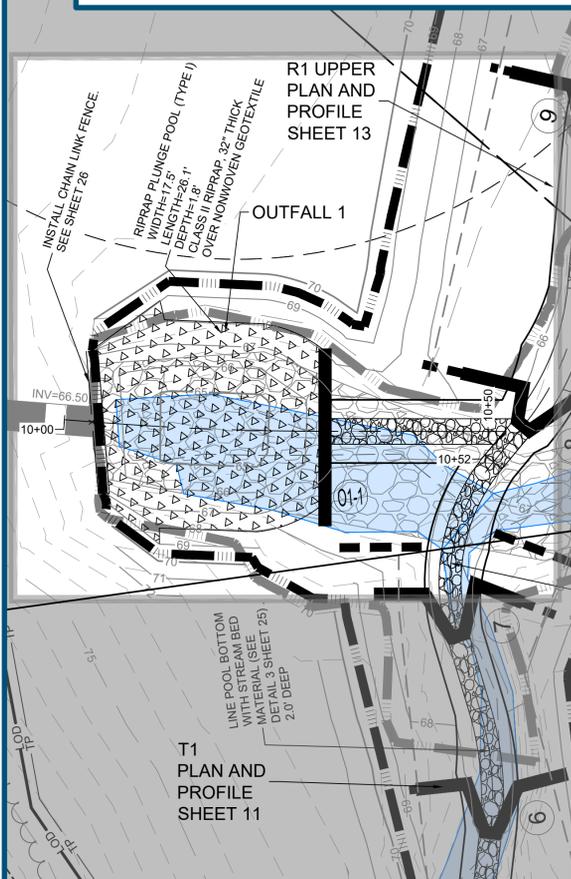
DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP
 I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards.
 APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**

PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	19 OF 37



LEGEND:

- EX. PROPERTY LINE
- EX. PROPERTY ADJACENT
- EX. EASEMENT
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. TREELINE
- EX. OVERHEAD ELECTRIC
- EX. SANITARY SEWER
- EX. SANITARY EASEMENT
- EX. GAS
- EX. WATER LINE
- EX. IMPERVIOUS SURFACES
- EX. STREAM CENTERLINE
- EX. STREAM
- EX. STORM SEWER
- EX. CULVERT
- EX. 100YR WSE
- EX. RIP RAP
- LIMITS OF SURVEY
- EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
- PR. BANKFULL
- PR. STREAM CENTERLINE
- PR. BOTTOM OF BANK
- PR. MAJOR CONTOUR
- PR. MINOR CONTOUR
- PR. LIMITS OF DISTURBANCE
- PR. FLOODWAY
- PR. 100YR WSE
- PR. FENCE
- PR. TREE PROTECTION
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- PR. RIFFLE/STREAM BED MATERIAL
- PR. ROCK TANGENT CROSS VANE
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- PR. LOG STRUCTURE
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 P: 703.319.2954
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PLAN AND PROFILE
PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
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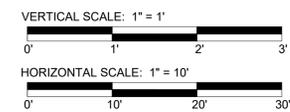
30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
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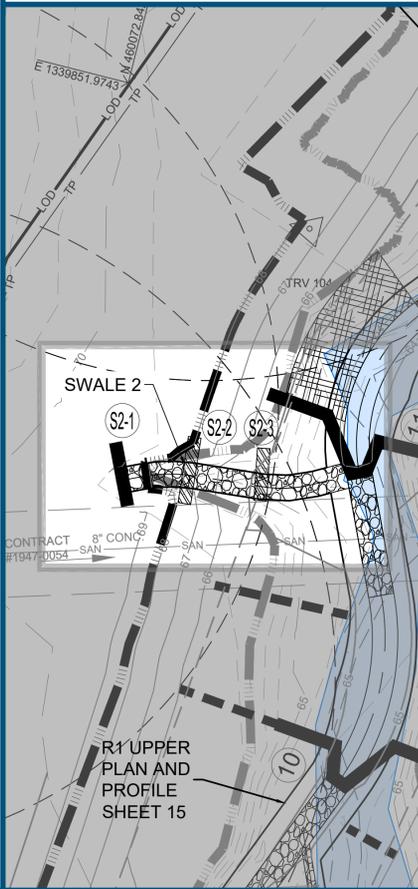
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BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
 PRINCE GEORGE'S COUNTY, MARYLAND
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 PEER REVIEWER'S SIGNATURE: _____
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 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**

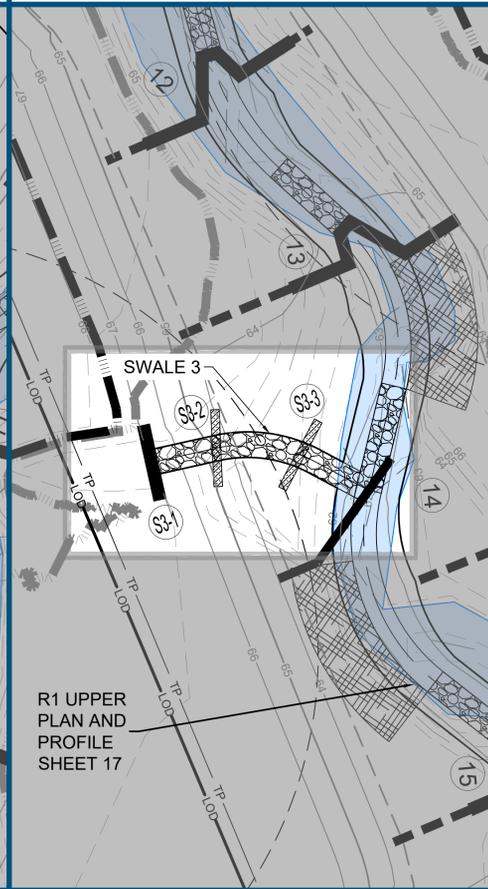
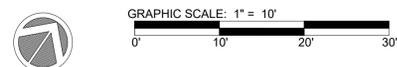
PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	20 OF 37





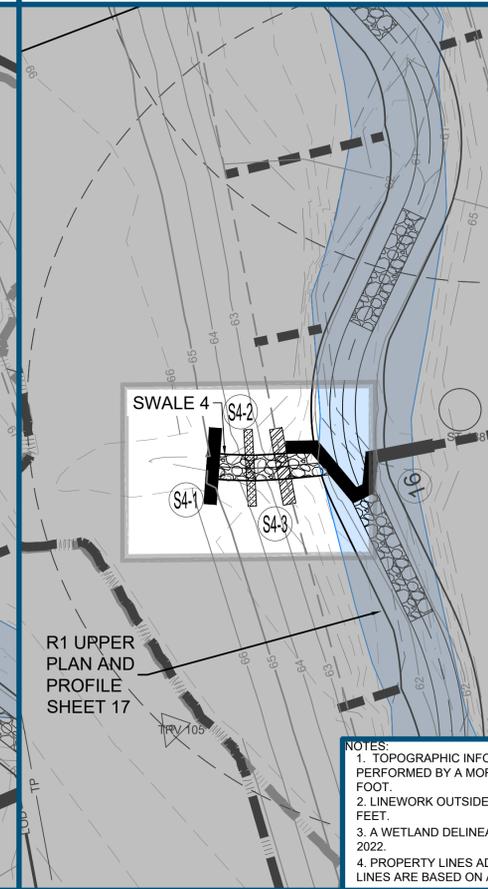
SWALE 2

R1 UPPER PLAN AND PROFILE SHEET 15



SWALE 3

R1 UPPER PLAN AND PROFILE SHEET 17



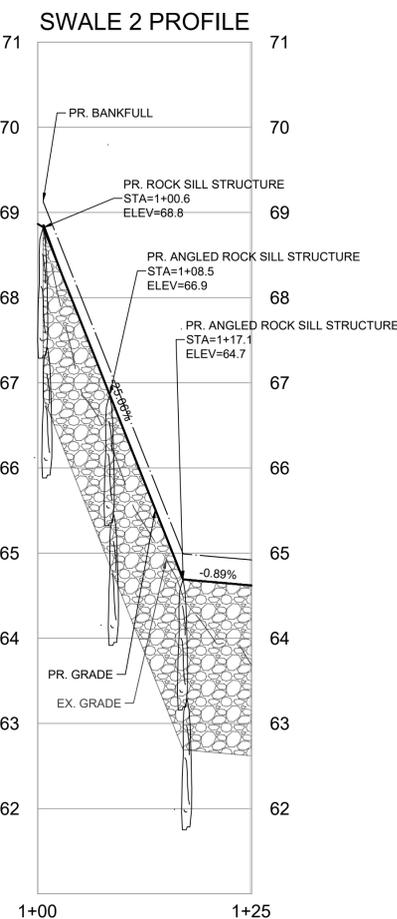
SWALE 4

R1 UPPER PLAN AND PROFILE SHEET 17

LEGEND:

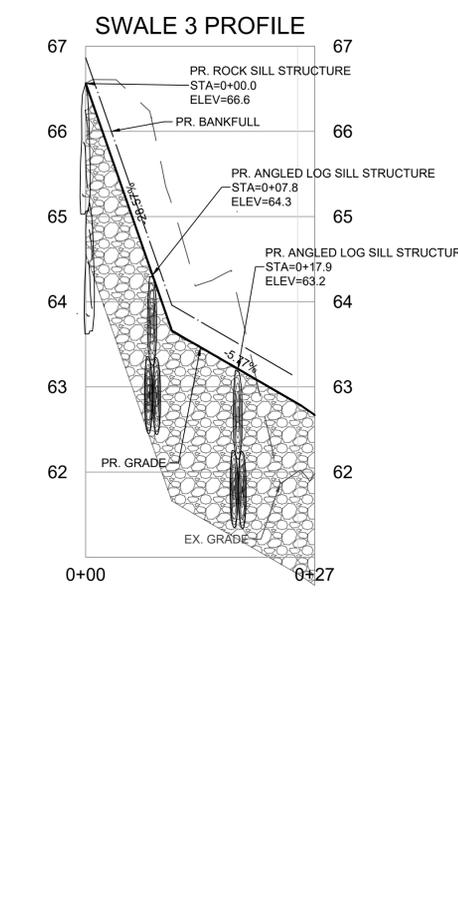
- EX. PROPERTY LINE
- EX. PROPERTY ADJACENT
- EX. EASEMENT
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. TREELINE
- EX. OVERHEAD ELECTRIC
- EX. SANITARY SEWER
- EX. SANITARY EASEMENT
- EX. GAS
- EX. WATER LINE
- EX. IMPERVIOUS SURFACES
- EX. STREAM CENTERLINE
- EX. STREAM
- EX. STORM SEWER
- EX. CULVERT
- EX. 100YR WSE
- EX. RIP RAP
- LIMITS OF SURVEY
- EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
- PR. BANKFULL
- PR. STREAM CENTERLINE
- PR. BOTTOM OF BANK
- PR. MAJOR CONTOUR
- PR. MINOR CONTOUR
- PR. LIMITS OF DISTURBANCE
- PR. FLOODWAY
- PR. 100YR WSE
- PR. FENCE
- PR. TREE PROTECTION
- PR. FLOODPLAIN EASEMENT
- PR. RIP RAP
- DETAIL #
- DETAIL SHEET #
- PR. RIFFLE/STREAM BED MATERIAL
- PR. ROCK TANGENT CROSS VANE
- PR. ROCK OFFSET CROSS VANE
- PR. LOG STRUCTURE
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- PR. LOG SILL
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- PR. ANGLED ROCK SILL
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- PR. WOOD TOE REVETMENT

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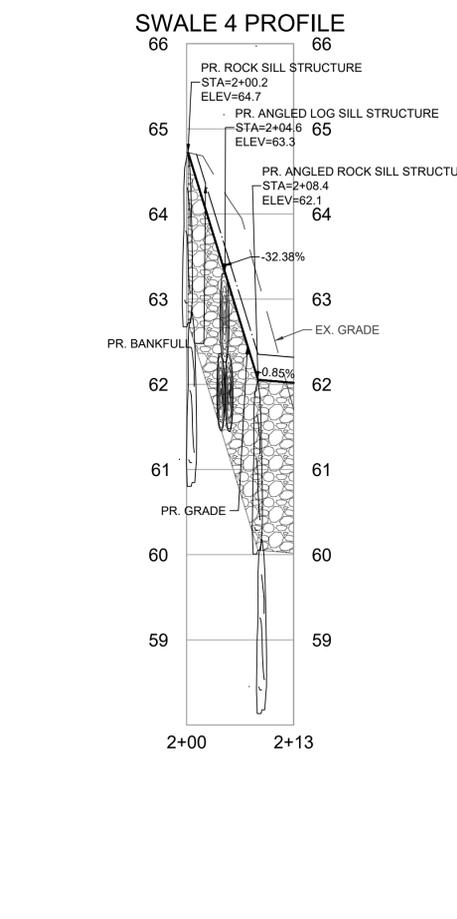
SWALE 2 PROFILE

1+00 1+25



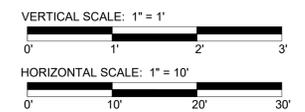
SWALE 3 PROFILE

0+00 0+27



SWALE 4 PROFILE

2+00 2+13



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
 PLAN AND PROFILE
 PRINCE GEORGE'S COUNTY, MD

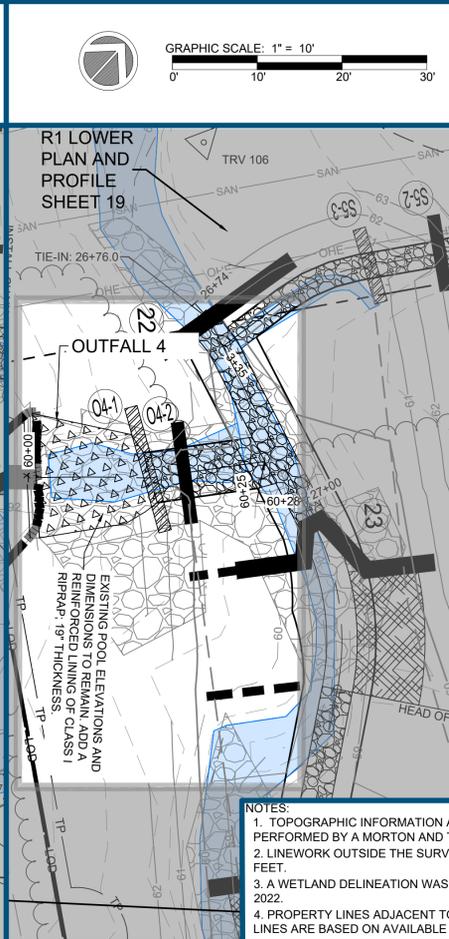
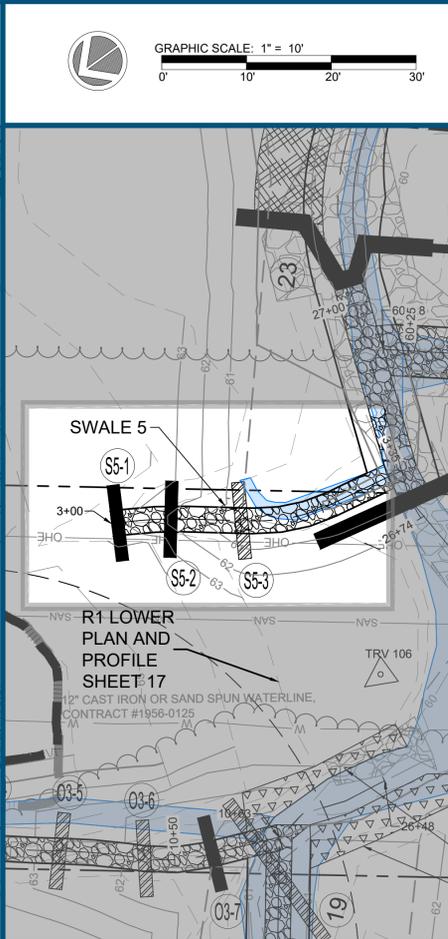
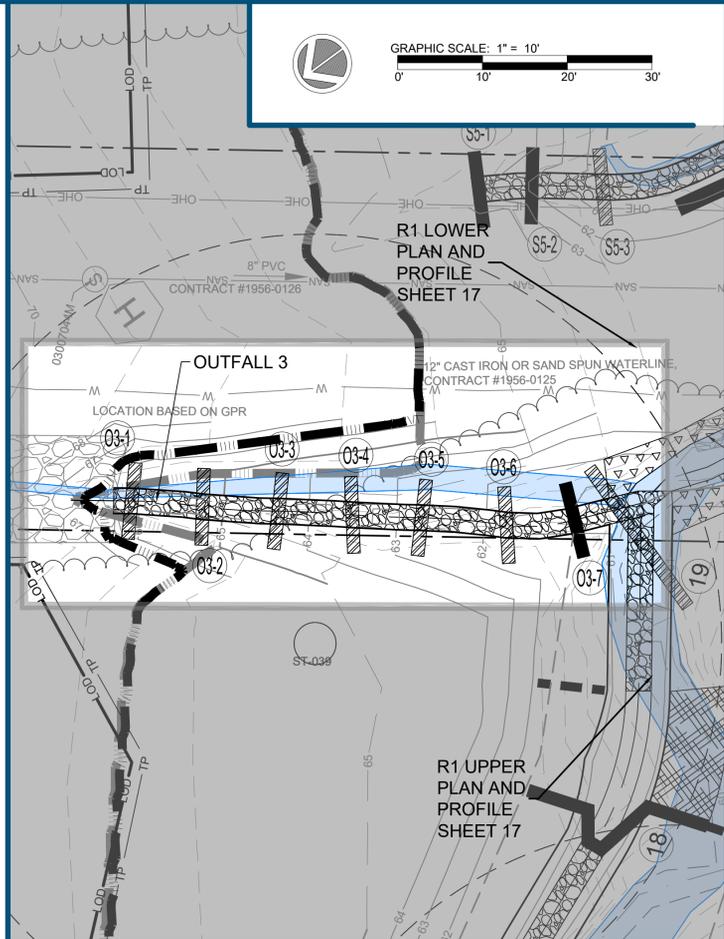
STAMP/SEAL:
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30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

DEPARTMENT OF THE ENVIRONMENT (DOE)
 PRINCE GEORGE'S COUNTY, MARYLAND
 PEER REVIEW APPROVAL STAMP
 "I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."
 APPROVAL DATE: _____
 PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: SOLTESZ, INC.
 LICENSE NUMBER: 40806
 PERMIT NUMBER: 50260-2022-0

REVISIONS:	
30%: 1/10/23	
60%: 5/12/23	
90%: 7/17/23	
95%: 8/22/23	
PROJECT MANAGER: JM	
DESIGNED: AM, CP, BW	
DRAWN: AM, CP, CD	
JOB NUMBER: 106883	
DESIGN TYPE: TMDL STREAM	
DATE: 11/6/2023	
SHEET NO: 21 OF 37	

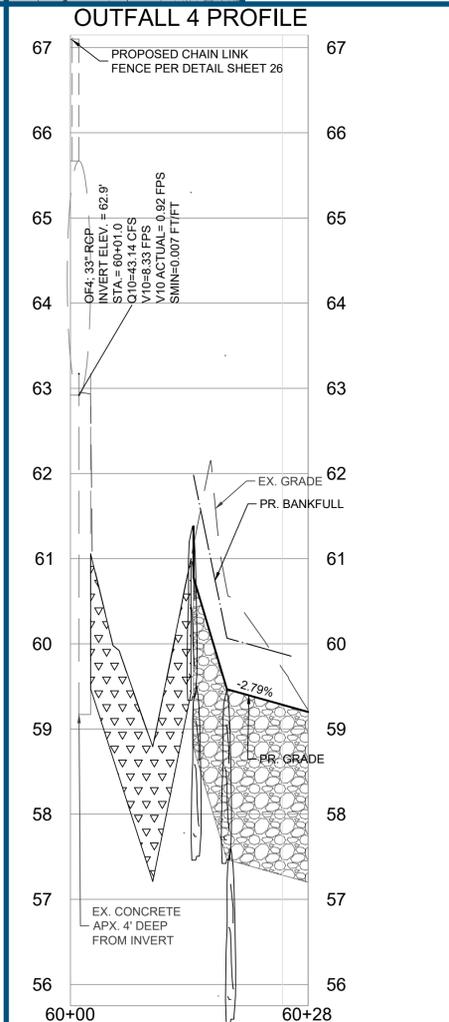
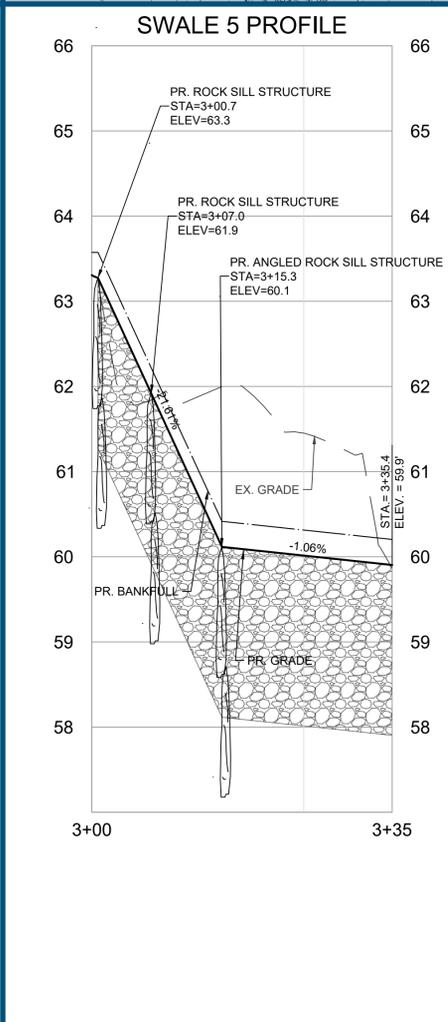
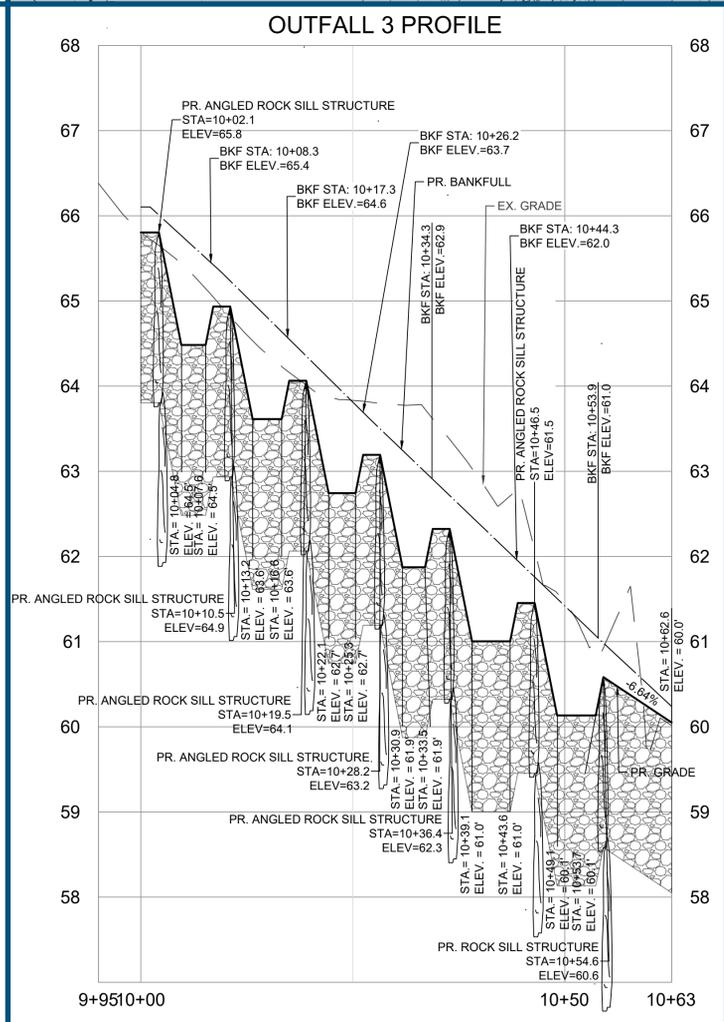


LEGEND:

- EX. PROPERTY LINE
- EX. PROPERTY ADJACENT
- EX. EASEMENT
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. TREELINE
- EX. OVERHEAD ELECTRIC
- EX. SANITARY SEWER
- EX. SANITARY EASEMENT
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- EX. CULVERT
- EX. 100YR WSE
- EX. RIP RAP
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- PR. BANKFULL
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AS-BUILT CERTIFICATION

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APPROVAL DATE: _____

PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.

PEER REVIEWER'S SIGNATURE: _____

COMPANY NAME: SOLTESZ, INC.

LICENSE NUMBER: 40806

PERMIT NUMBER: 50260-2022-0

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPEI's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

VERTICAL SCALE: 1" = 1'
HORIZONTAL SCALE: 1" = 10'

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION

CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC

PLAN AND PROFILE

PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
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30% DESIGN REVIEW
Benjamin T. Mosier
Signature Date 1/4/23

PERMIT PLAN DESIGN REVIEW
Benjamin T. Mosier
Signature Date 5/10/23

CONSTRUCTION PLAN REVIEW
Benjamin T. Mosier
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DESIGNED: AM, CP, BW

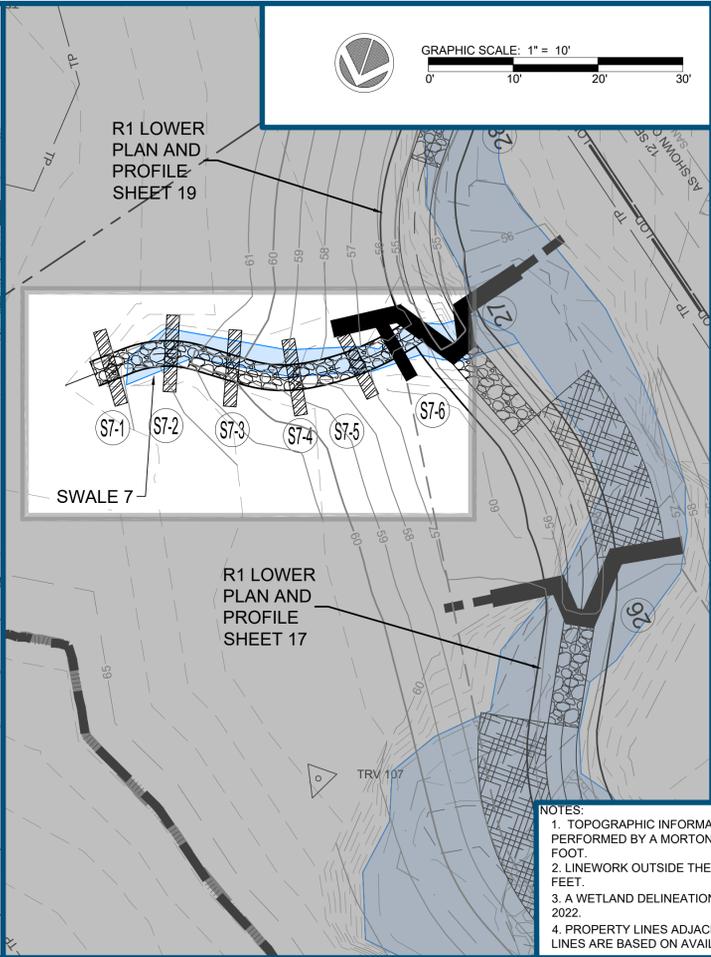
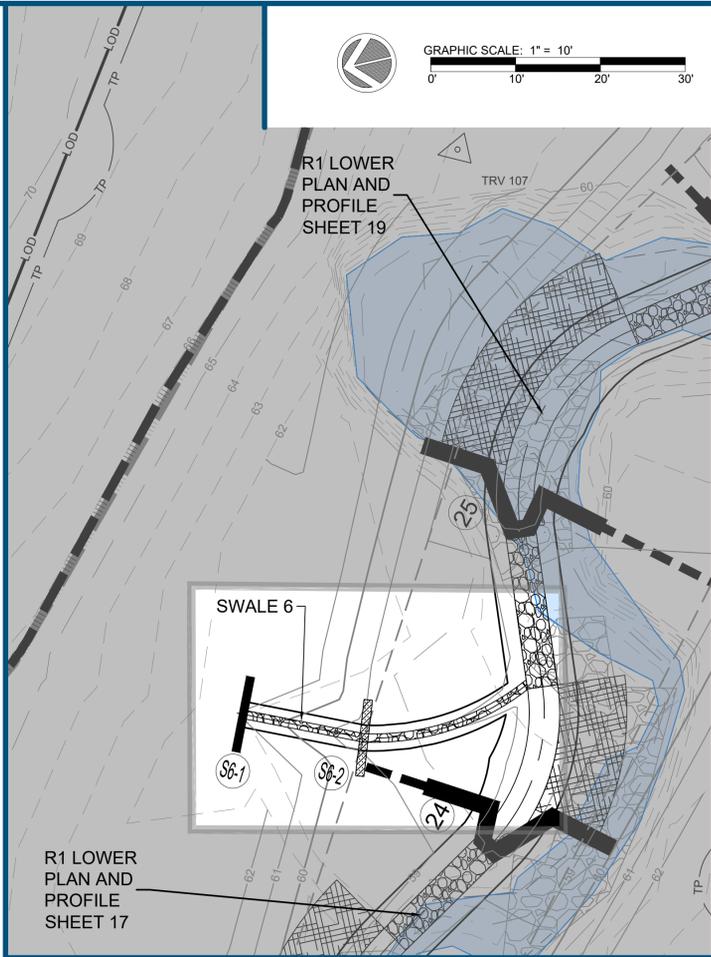
DRAWN: AM, CP, CD

JOB NUMBER: 106883

DESIGN TYPE: TMDL STREAM

DATE: 11/6/2023

SHEET NO: 22 OF 37

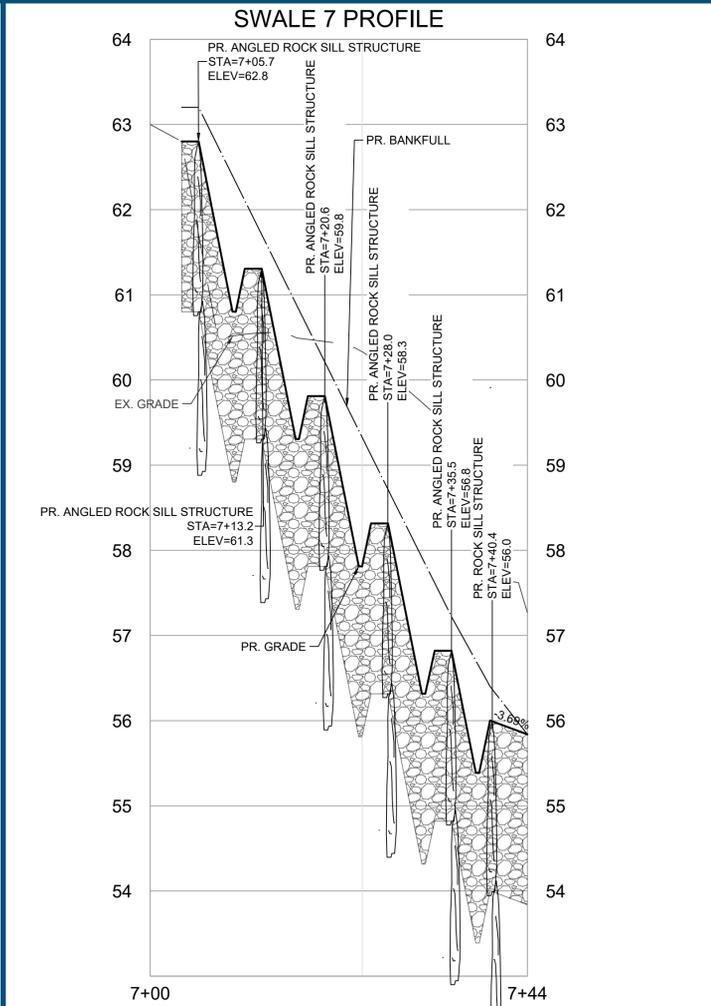
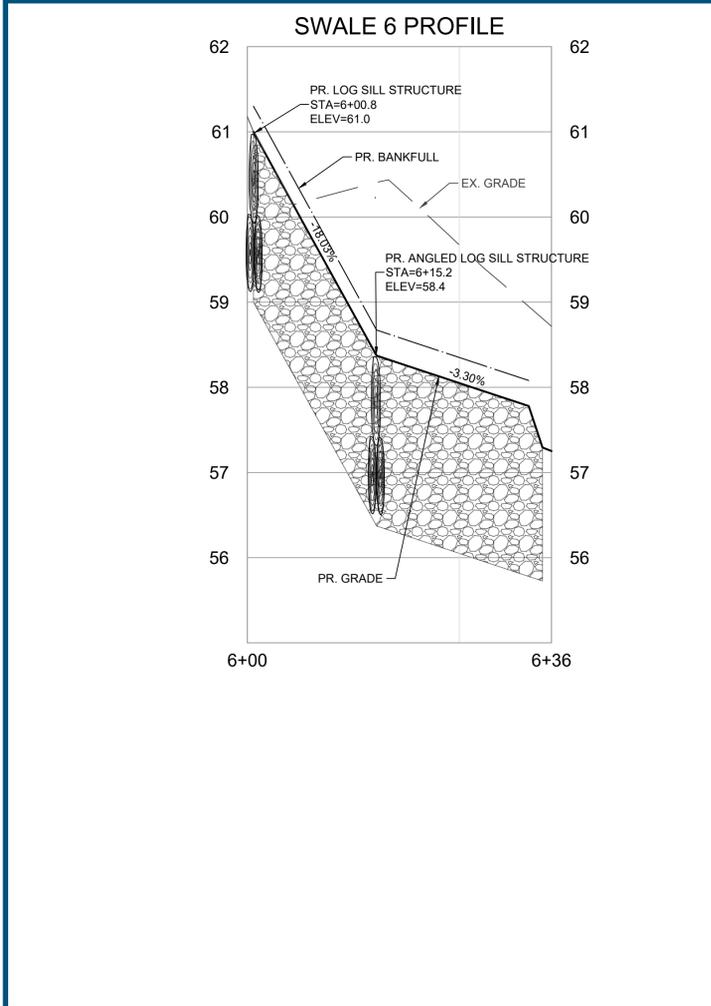


LEGEND:

	EX. PROPERTY LINE
	EX. PROPERTY ADJACENT
	EX. EASEMENT
	EX. MAJOR CONTOUR
	EX. MINOR CONTOUR
	EX. TREELINE
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	LIMITS OF SURVEY
	EX. SPECIMEN TREE WITH CRITICAL ROOT ZONE
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	DETAIL CALLOUT
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LICENSE NUMBER: 40806

PERMIT NUMBER: 50260-2022-0

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND

PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

VERTICAL SCALE: 1" = 1'
HORIZONTAL SCALE: 1" = 10'



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PLAN AND PROFILE
PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	1/4/23
Signature: <u>Daniel Wilfong</u>	Date
PERMIT PLAN DESIGN REVIEW	5/10/23
Signature: <u>B. Soltesz</u>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <u>B. Soltesz</u>	Date

REVISIONS:

30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23

PROJECT MANAGER: JM

DESIGNED: AM, CP, BW

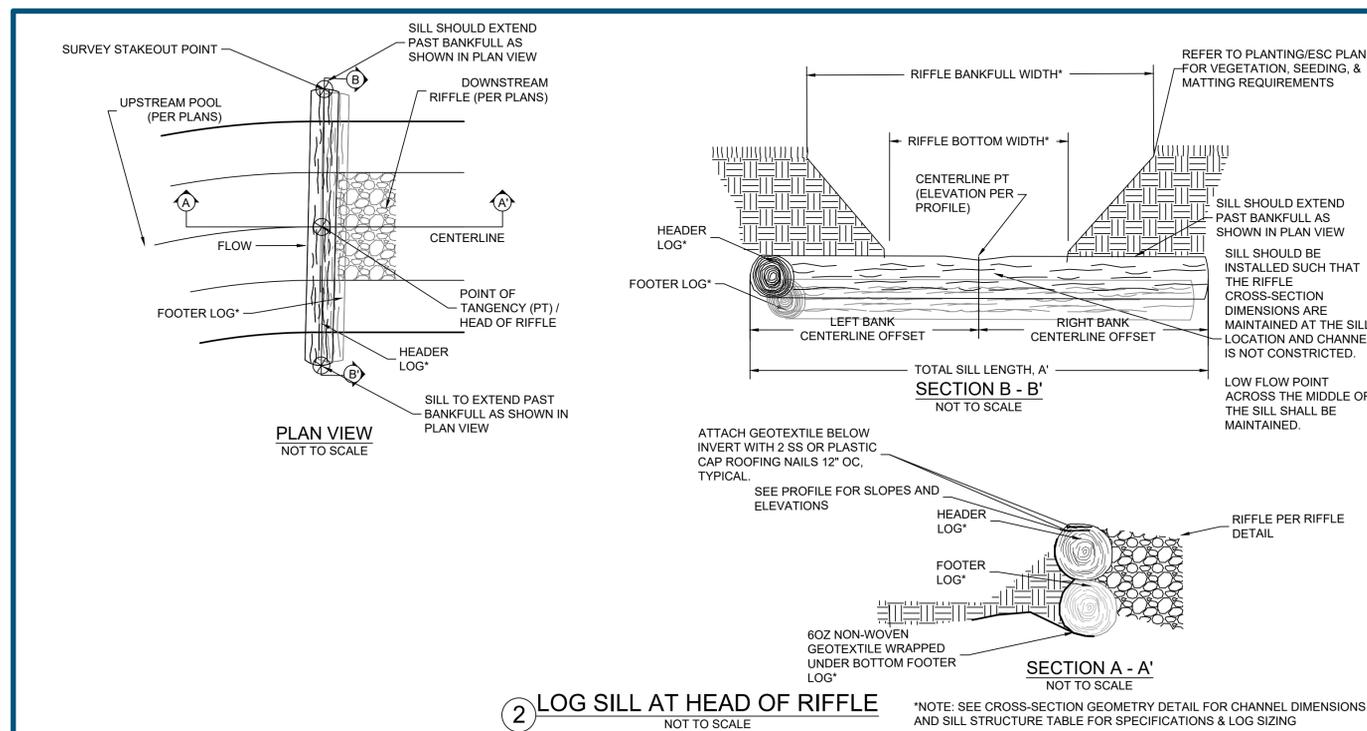
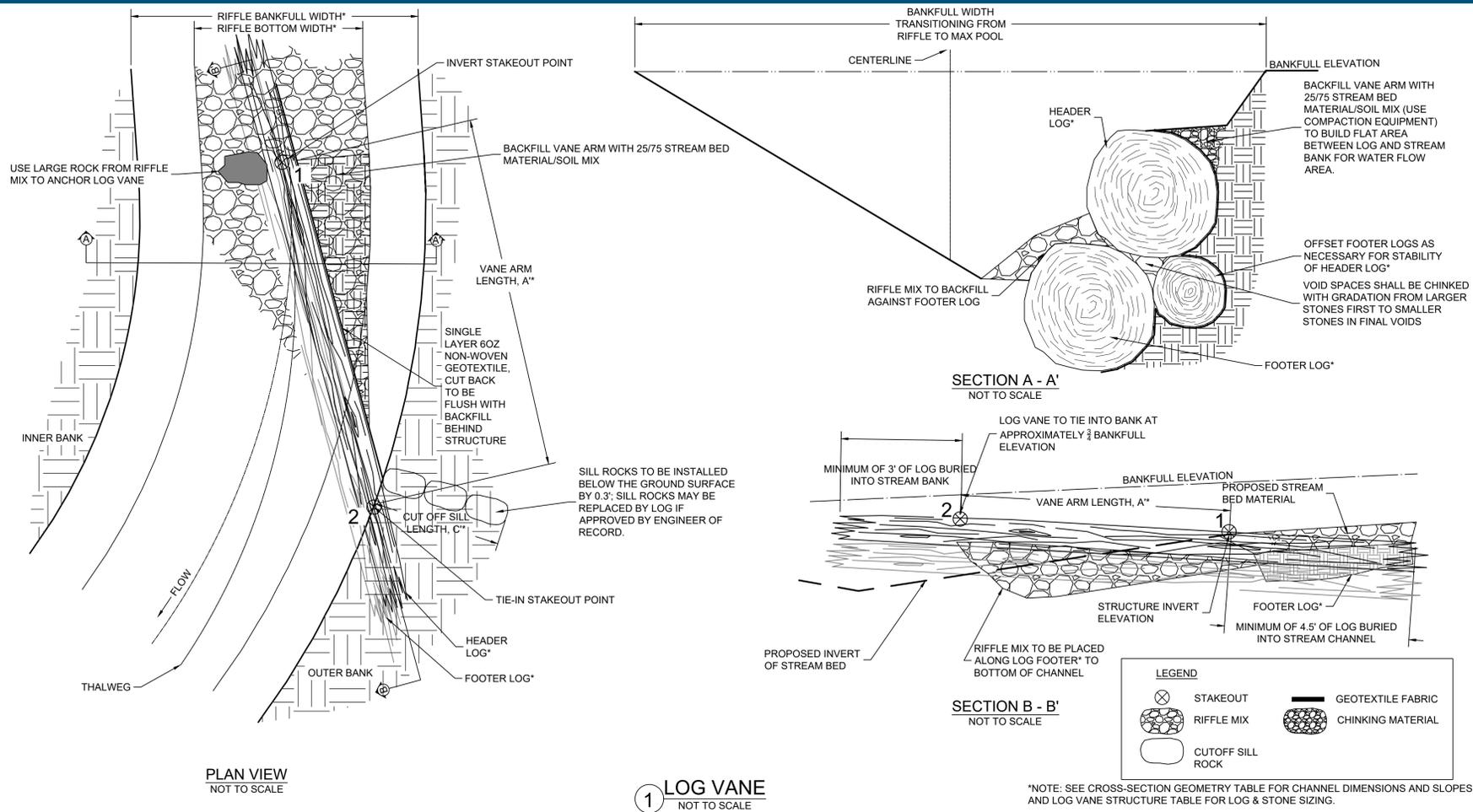
DRAWN: AM, CP, CD

JOB NUMBER: 106883

DESIGN TYPE: TMDL STREAM

DATE: 11/6/2023

SHEET NO: 23 OF 37



HGS, LLC, A RES COMPANY
5367 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.395.2854
WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
DETAILS
PRINCE GEORGE'S COUNTY, MD

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30% DESIGN REVIEW
Benjamin T. Mosier
Signature Date 1/4/23

PERMIT PLAN DESIGN REVIEW
Benjamin T. Mosier
Signature Date 5/10/23

CONSTRUCTION PLAN REVIEW
Benjamin T. Mosier
Signature Date 8/8/23

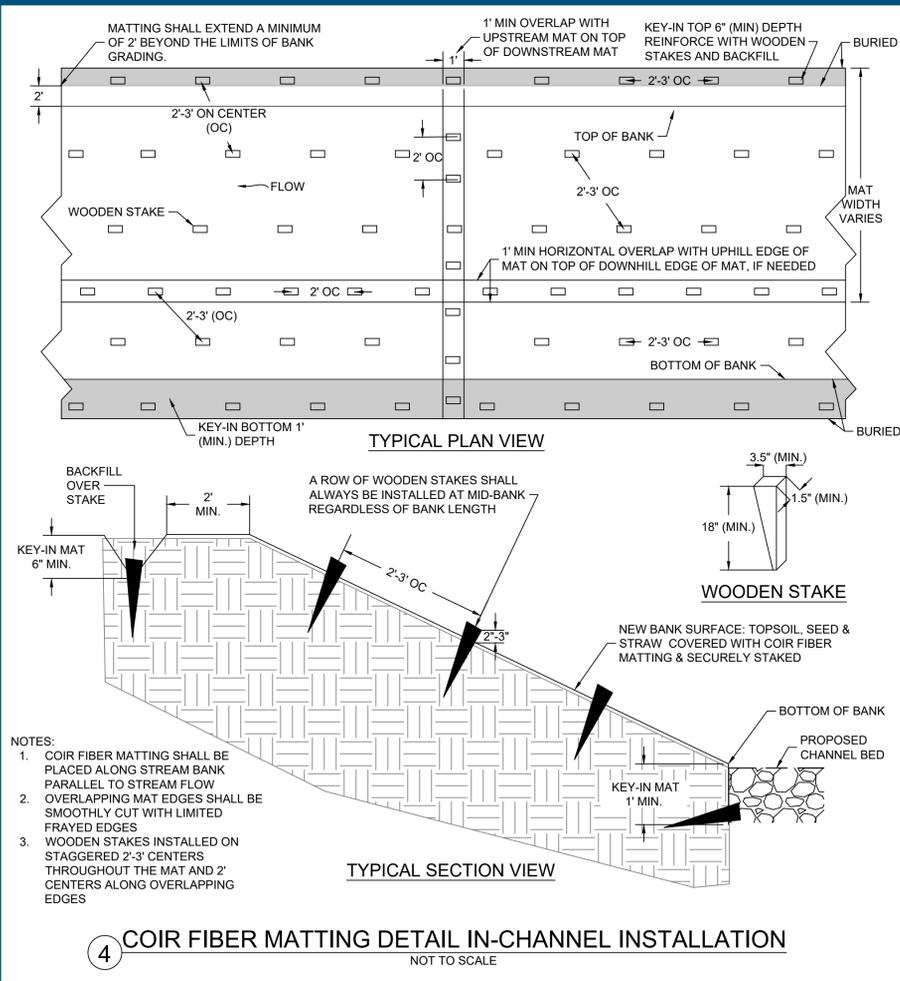
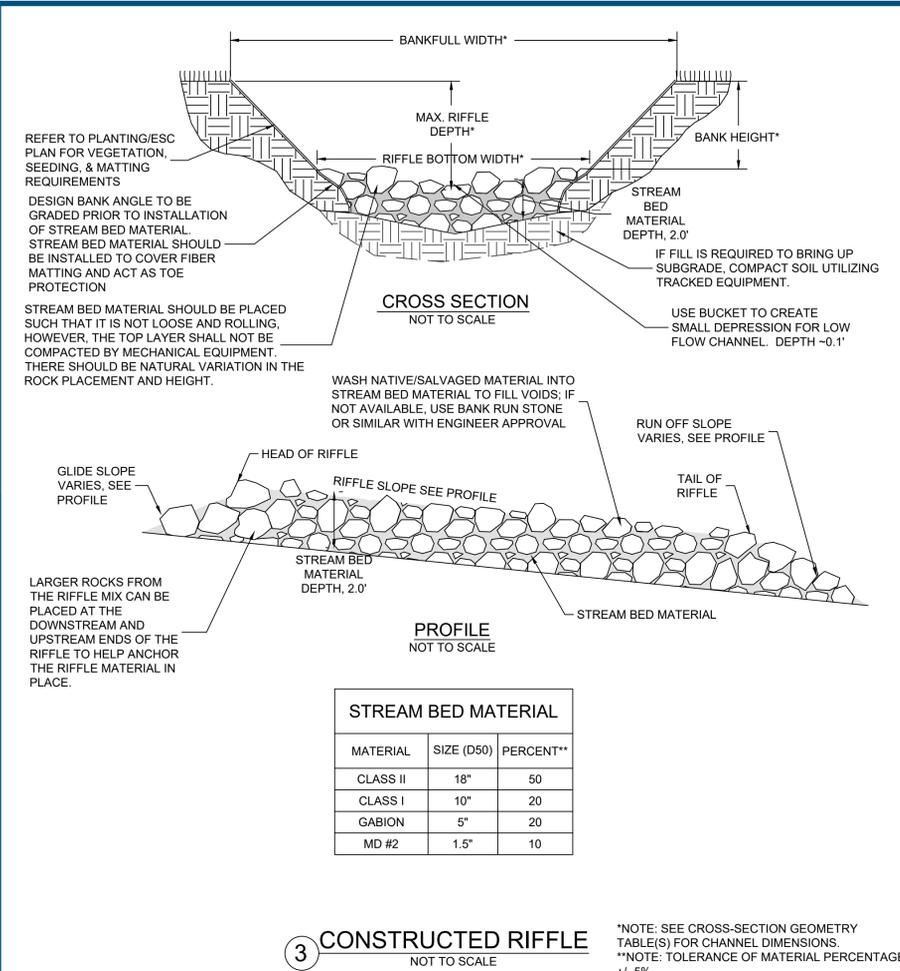
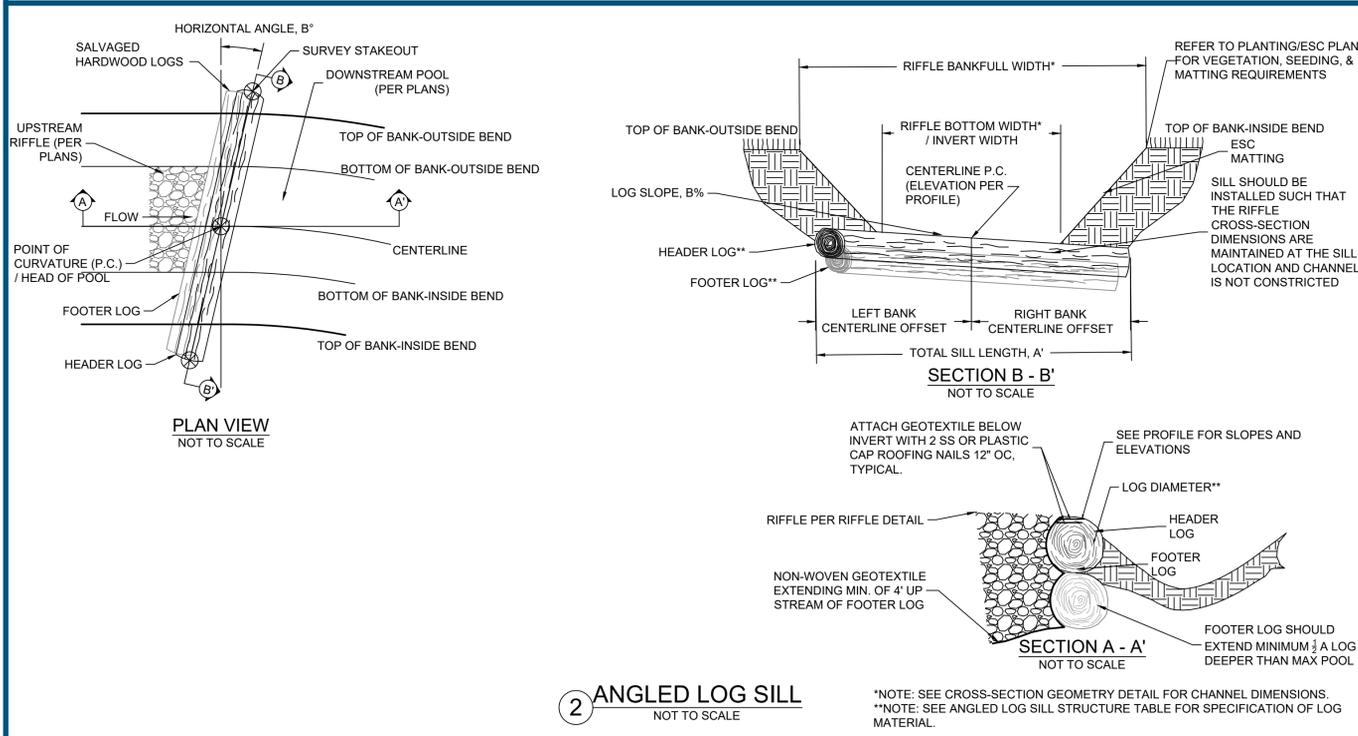
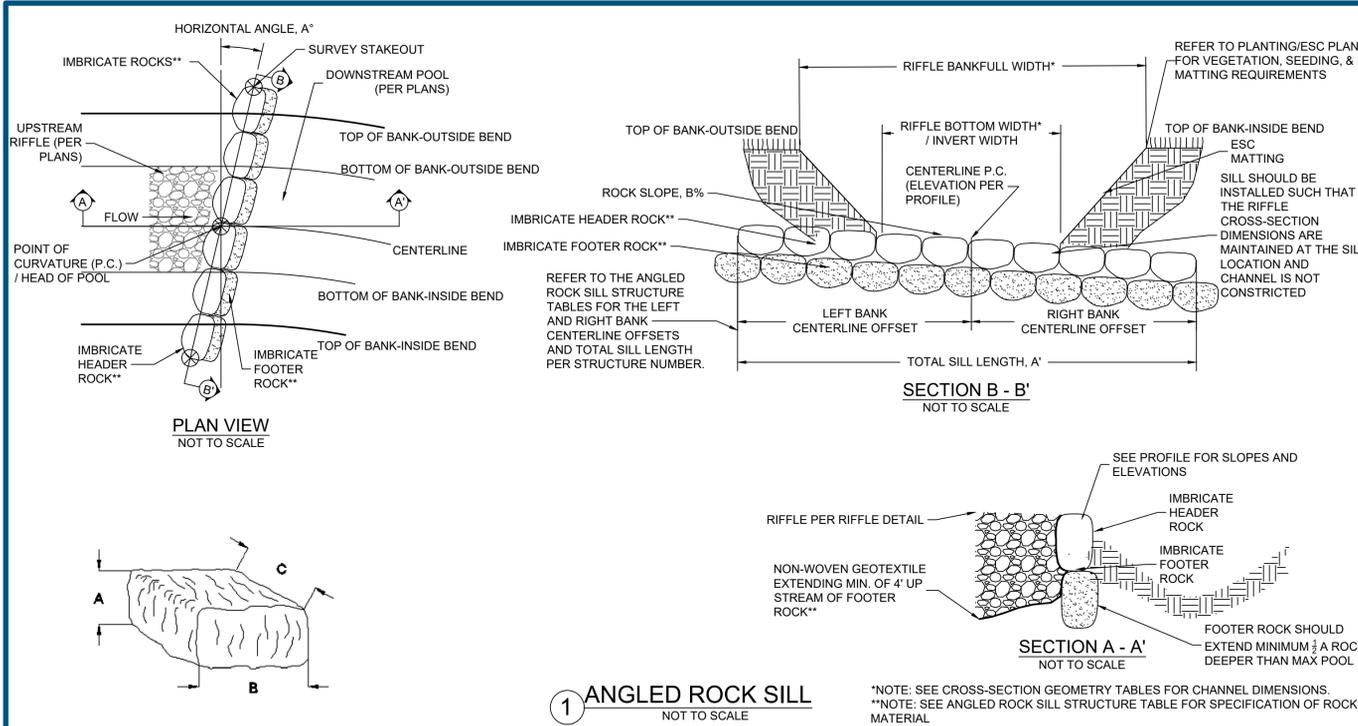
REVISIONS:
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90%: 7/17/23
95%: 8/22/23

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DESIGNED: AM, CP, BW
DRAWN: AM, CP, CD
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
DATE: 11/6/2023
SHEET NO:

AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (D&E)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP
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APPROVAL DATE: _____
PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: SOLTESZ, INC.
LICENSE NUMBER: 40806
PERMIT NUMBER: 50260-2022-0



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DRAWN BY: AM, CP, CD
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
DATE: 11/6/2023
PERMIT NUMBER: 50260-2022-0

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
DETAILS
PRINCE GEORGE'S COUNTY, MD

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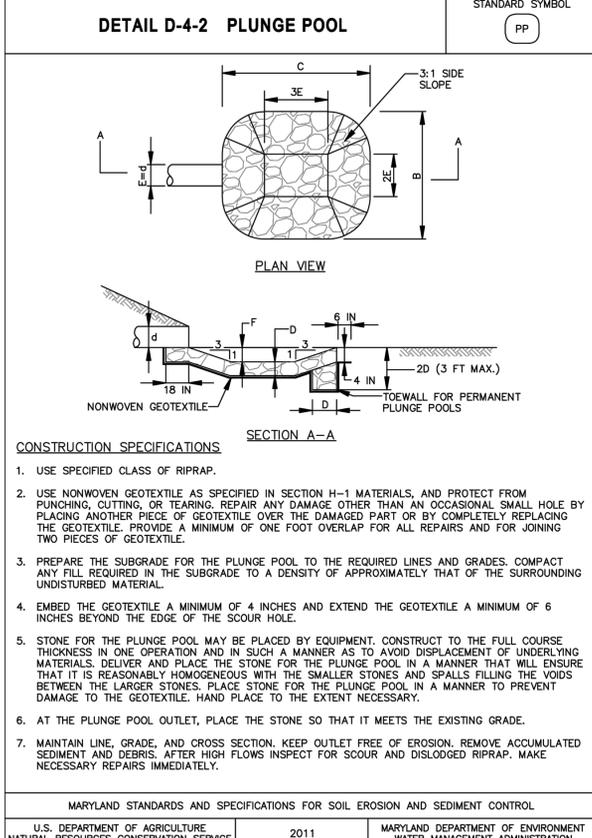
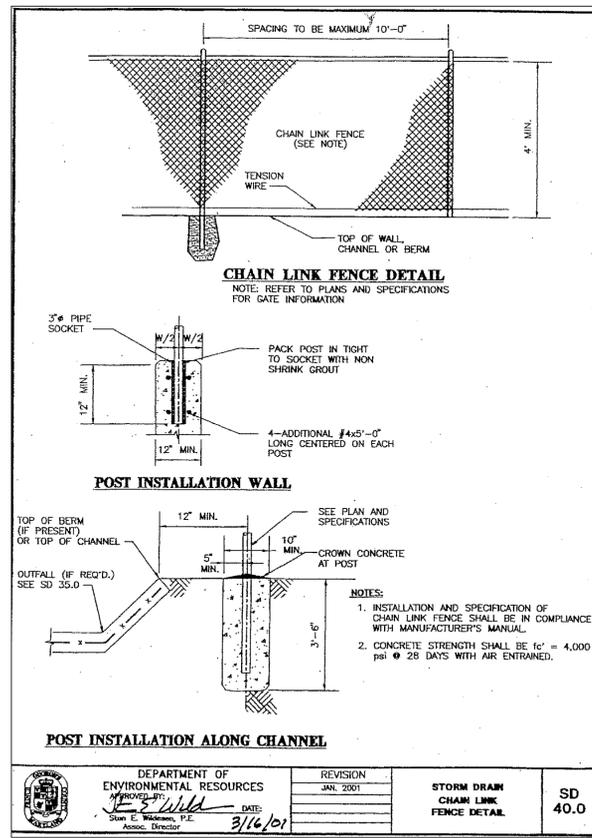
30% DESIGN REVIEW
Signature: *Benjamin T. Mosier* Date: 1/4/23

PERMIT PLAN DESIGN REVIEW
Signature: *Benjamin T. Mosier* Date: 5/10/23

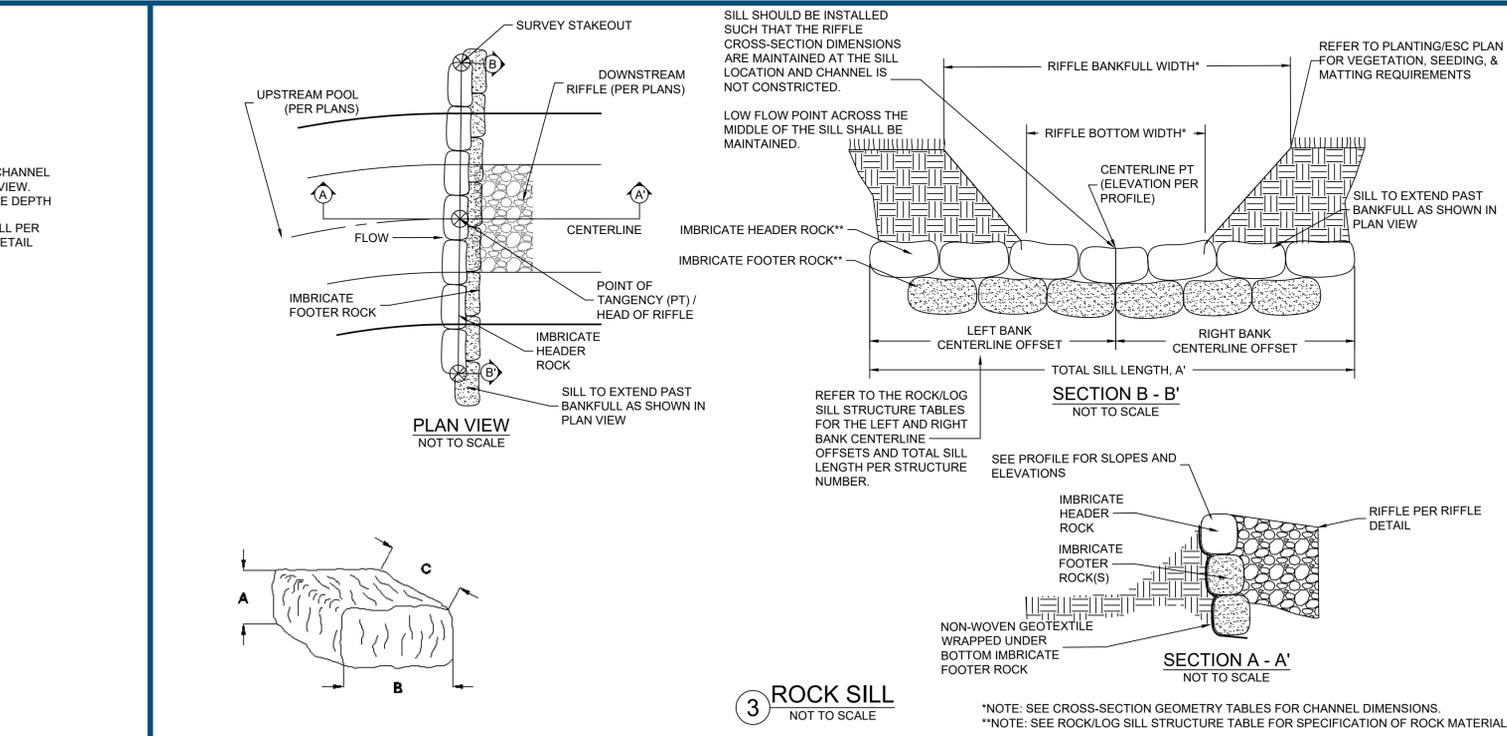
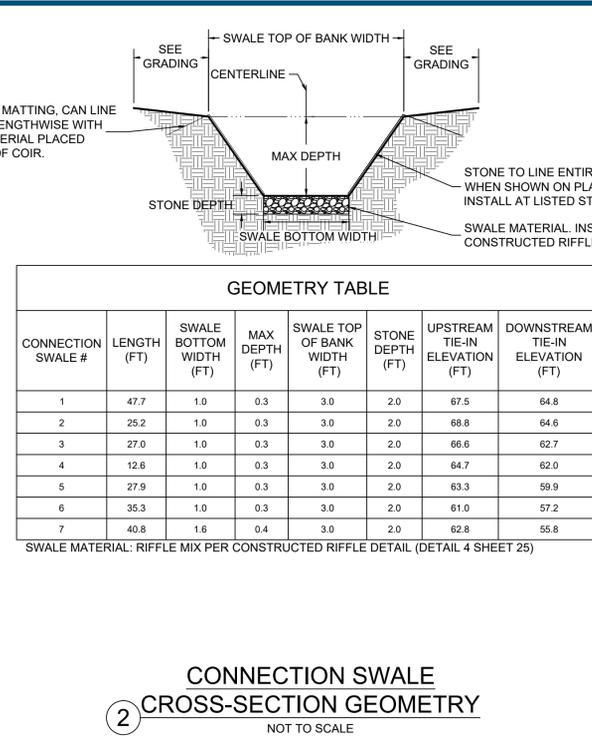
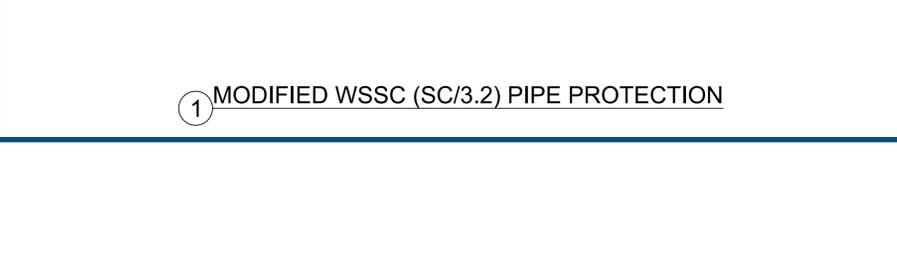
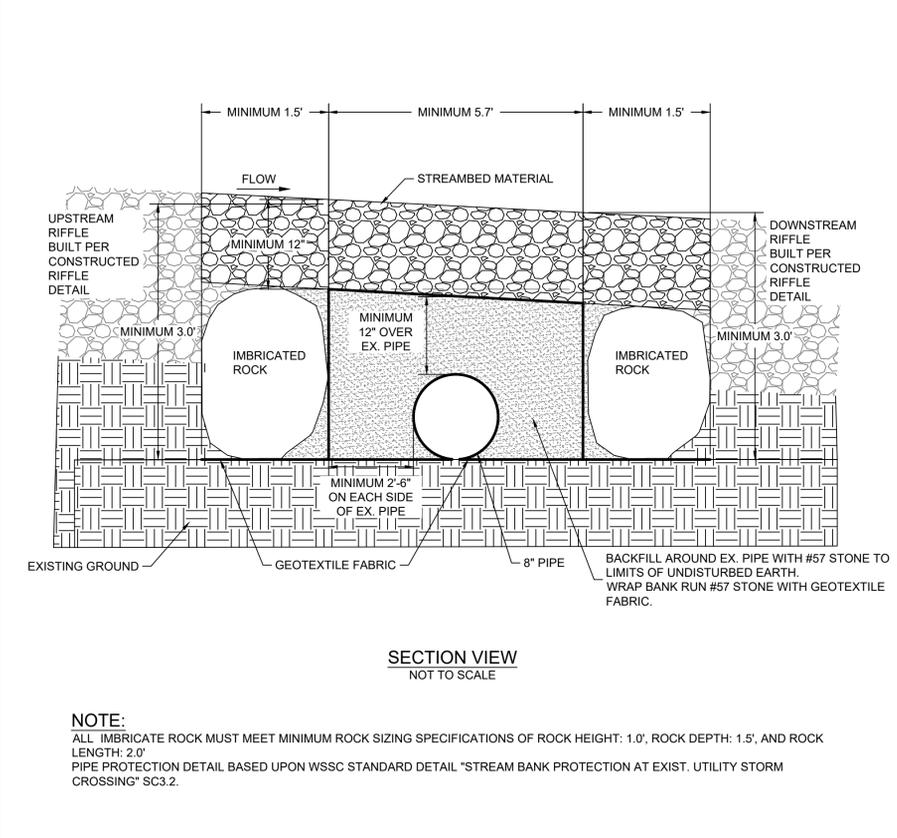
CONSTRUCTION PLAN REVIEW
Signature: *Benjamin T. Mosier* Date: 8/8/23

REVISIONS:
30%: 1/10/23
60%: 5/12/23
90%: 7/17/23
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PROJECT MANAGER: JM
DESIGNED: AM, CP, BW
DRAWN: AM, CP, CD
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
DATE: 11/6/2023
SHEET NO: 25 OF 37



OUTFALL 1			OUTFALL 2		
TYPE I PLUNGE POOL CALCULATIONS			TYPE I PLUNGE POOL CALCULATIONS		
d=	3.5	ft	d=	1.5	ft
Q=	128.5	cfs	Q=	7.9	cfs
Tw=	2.8	ft	Tw=	1.2	ft
F=	1.8	ft	F=	0.8	ft
D=	2.7	ft	D=	2.7	ft
E=	3.5	ft	E=	1.5	ft
3E=	10.5	ft	3E=	4.5	ft
2E=	7.0	ft	2E=	3.0	ft
Min. d50=	0.5	ft	Min. d50=	0.1	ft
C=	26.1	ft	C=	9.0	ft
B=	17.5	ft	B=	7.5	ft
STONE SIZE	CLASS II	RIPRAP	STONE SIZE	CLASS II	RIPRAP



CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
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DETAILS
PRINCE GEORGE'S COUNTY, MD

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Signature: *Benjamin T. Mosier* Date: 5/10/23

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BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND
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COMPANY NAME: SOLTESZ, INC.
LICENSE NUMBER: 40806
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REVISIONS:
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95%: 8/22/23

PROJECT MANAGER: JM
DESIGNED: AM, CP, BW
DRAWN: AM, CP, CD
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
DATE: 11/6/2023
SHEET NO: 26 OF 37

STAMP/SEAL:
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30% DESIGN REVIEW	1/4/23
Signature: <i>Benjamin T. Mosier</i>	Date
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Signature: <i>Benjamin T. Mosier</i>	Date
CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>Benjamin T. Mosier</i>	Date
REVISIONS:	
30%: 1/10/23	
60%: 5/12/23	
90%: 7/17/23	
95%: 8/22/23	

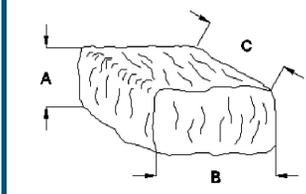
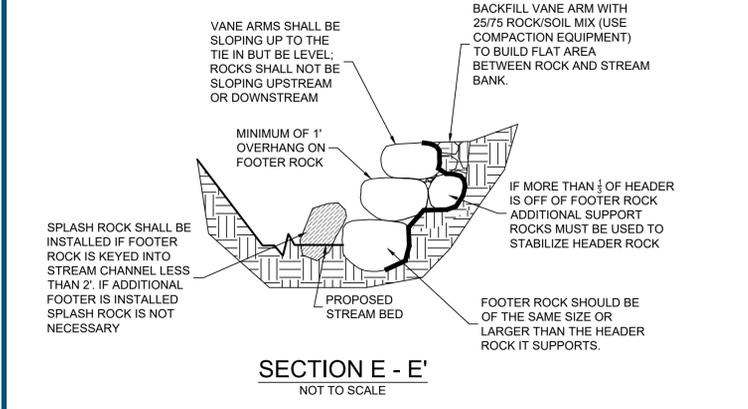
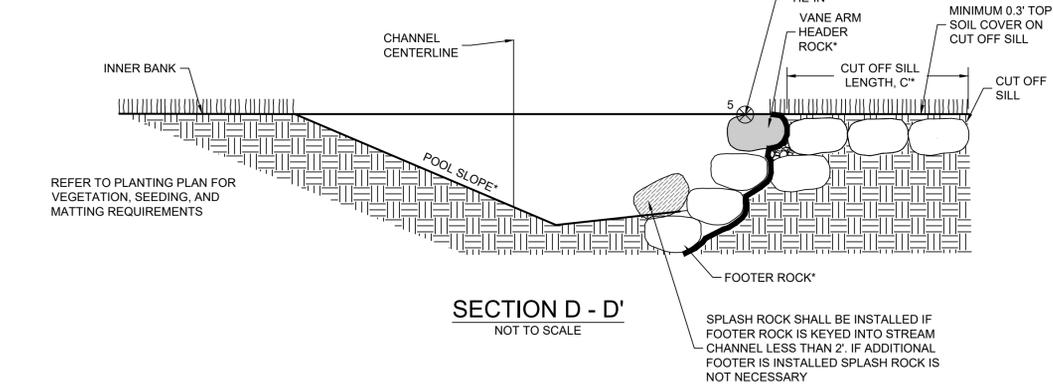
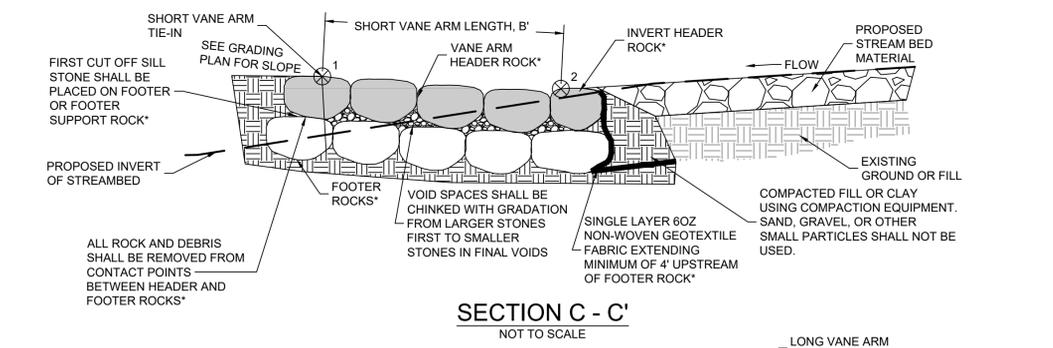
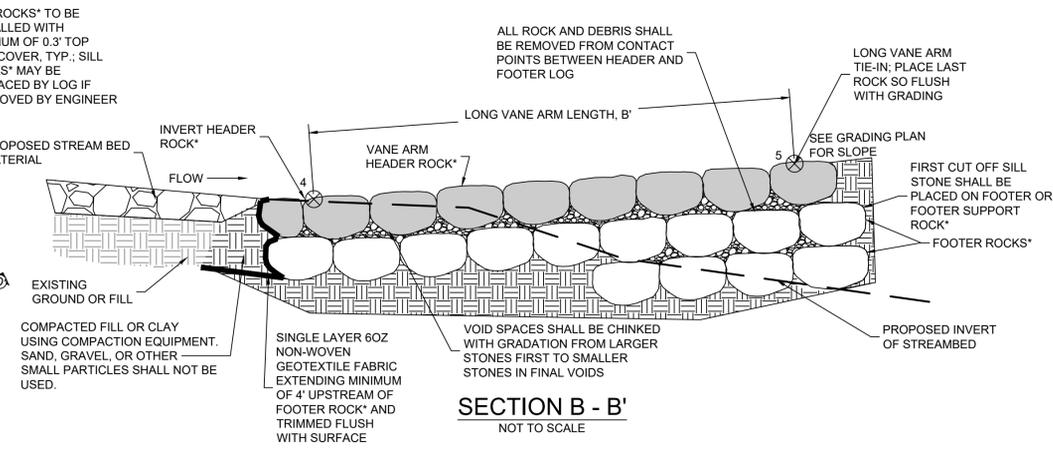
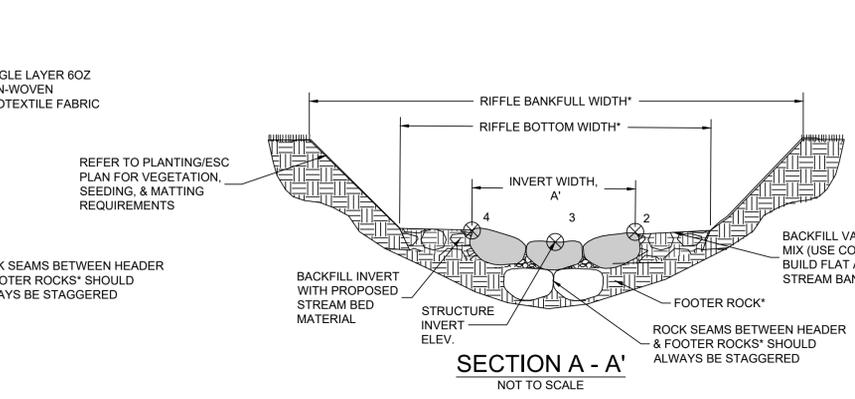
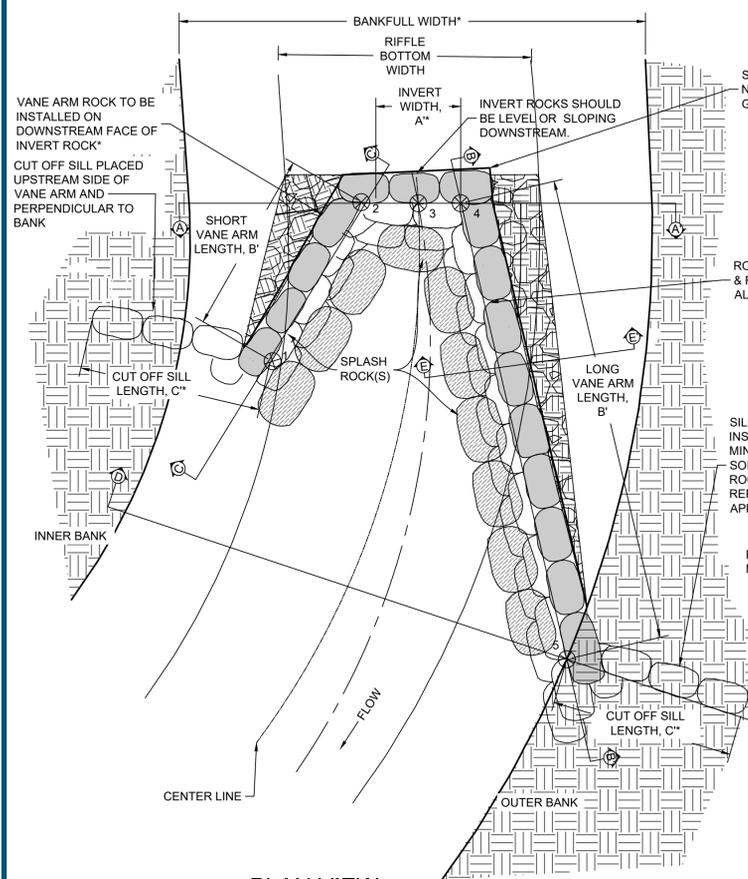
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DRAWN:	AM, CP, CD
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DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	27 OF 37



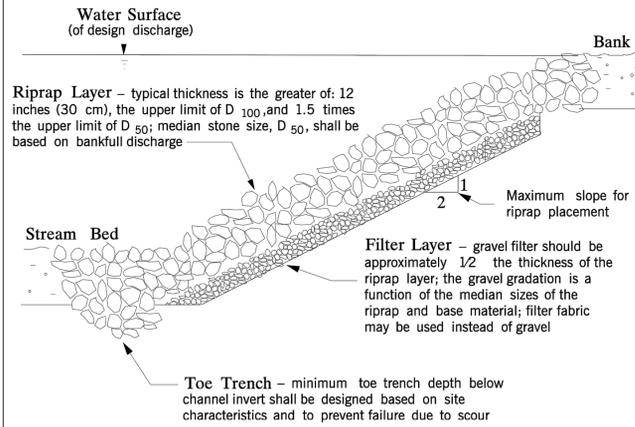
LEGEND

	STAKEOUT		GEOTEXTILE FABRIC
	HEADER ROCK		CHINKING MATERIAL
	FOOTER ROCK		SPLASH ROCK

*NOTE: SEE CROSS-SECTION GEOMETRY DETAIL FOR CHANNEL DIMENSIONS AND OFFSET CROSS VANE STRUCTURE TABLE STRUCTURE & ROCK SIZING.

Maryland's Guidelines To Waterway Construction
DETAIL 2.1: RIPRAP

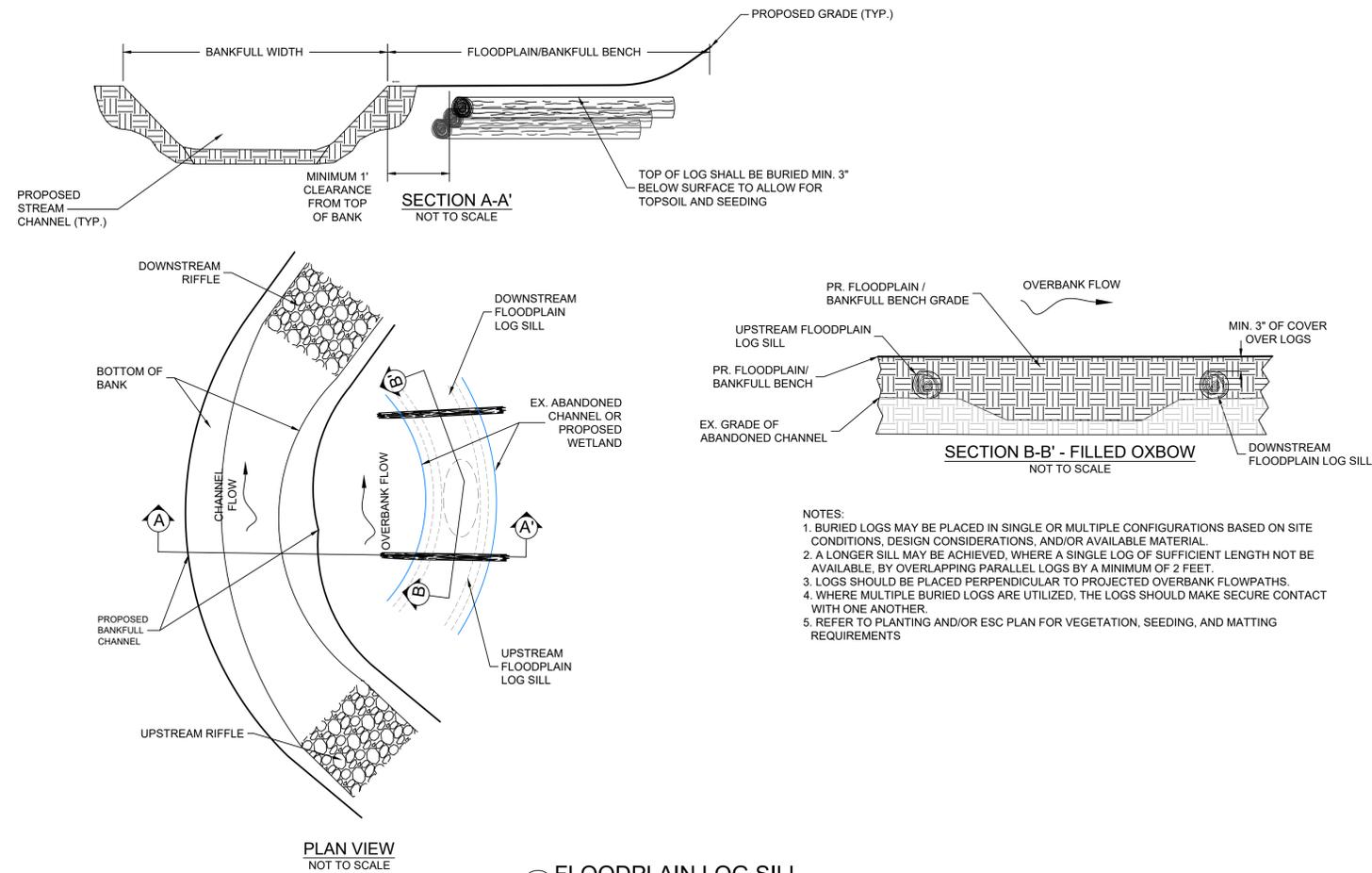
SECTION VIEW



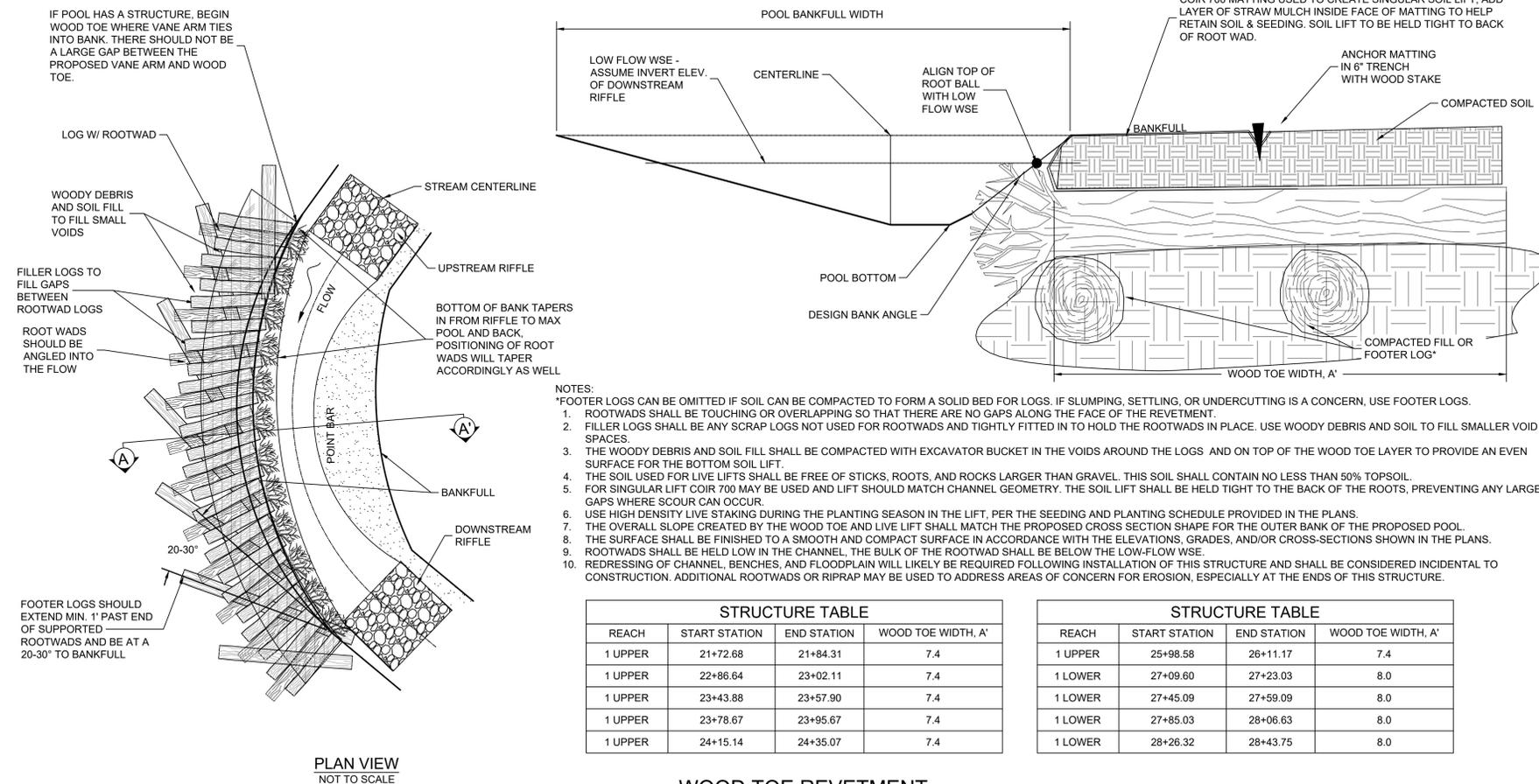
SLOPE PROTECTION AND STABILIZATION TECHNIQUES

REVISED NOVEMBER 2000
PAGE 2.1 - 4

MARYLAND DEPARTMENT OF THE ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION



1 FLOODPLAIN LOG SILL
NOT TO SCALE



PLAN VIEW NOT TO SCALE

2 WOOD TOE REVETMENT
NOT TO SCALE

STRUCTURE TABLE			
REACH	START STATION	END STATION	WOOD TOE WIDTH, A'
1 UPPER	21+72.68	21+84.31	7.4
1 UPPER	22+86.64	23+02.11	7.4
1 UPPER	23+43.88	23+57.90	7.4
1 UPPER	23+78.67	23+95.67	7.4
1 UPPER	24+15.14	24+35.07	7.4

STRUCTURE TABLE			
REACH	START STATION	END STATION	WOOD TOE WIDTH, A'
1 UPPER	25+98.58	26+11.17	7.4
1 LOWER	27+09.60	27+23.03	8.0
1 LOWER	27+45.09	27+59.09	8.0
1 LOWER	27+85.03	28+06.63	8.0
1 LOWER	28+26.32	28+43.75	8.0

*OFFSET FROM THE CENTERLINE APPLIES ONLY AT THE DMAX/MIDPOINT OF THE POOL. WOOD TOE REVETMENT SHOULD TRANSITION TO AND FROM THE RIFFLE CROSS-SECTION FROM THAT POINT.



HQS, LLC, A RES COMPANY
ONE ONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.395.2854
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DETAILS
PRINCE GEORGE'S COUNTY, MD

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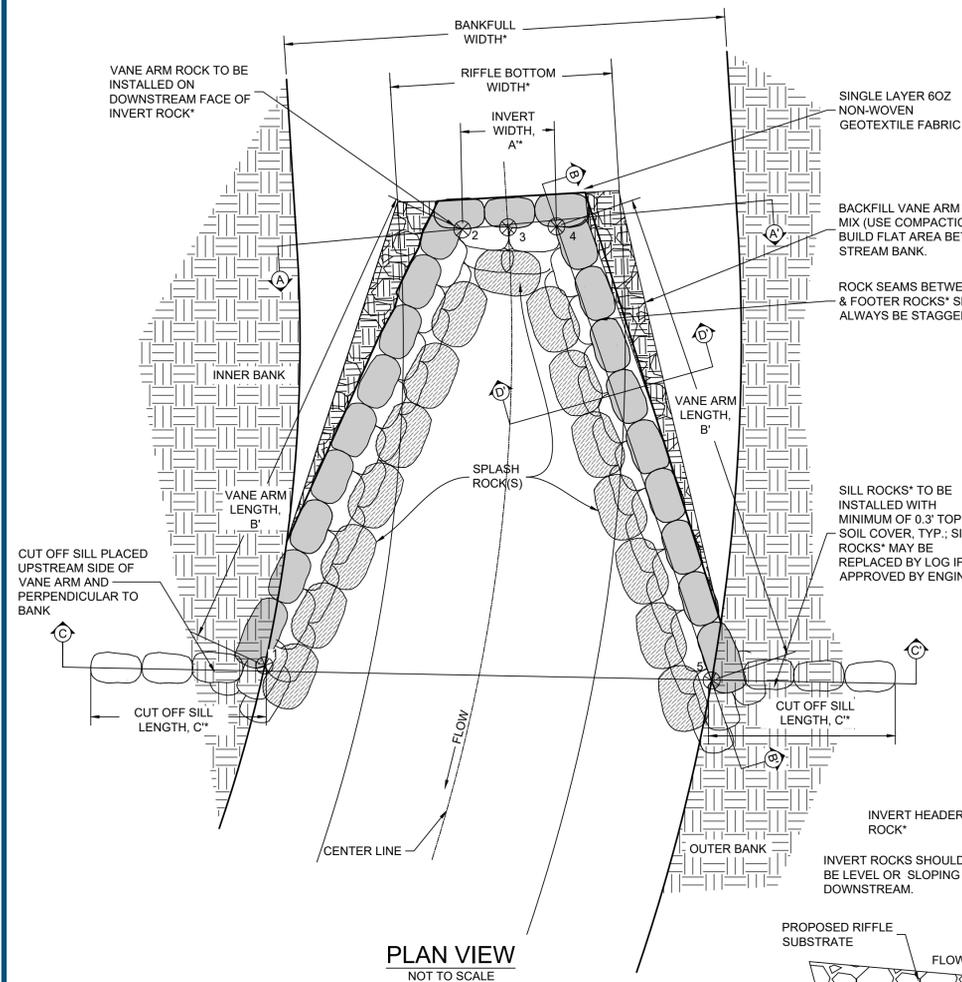
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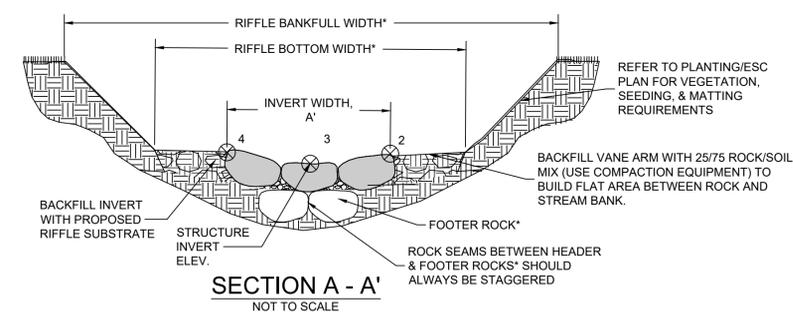
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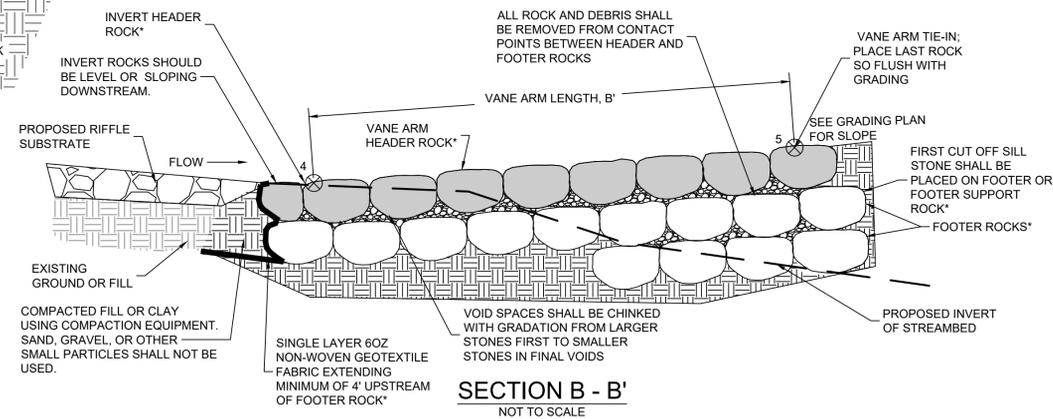
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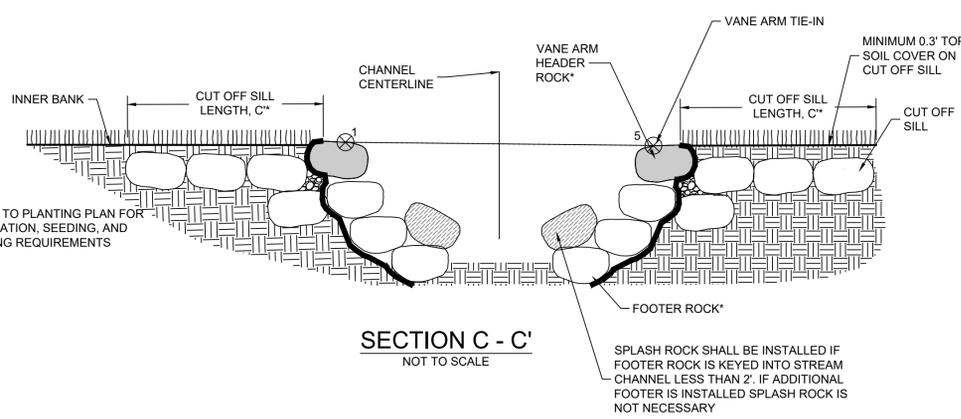
PLAN VIEW
NOT TO SCALE



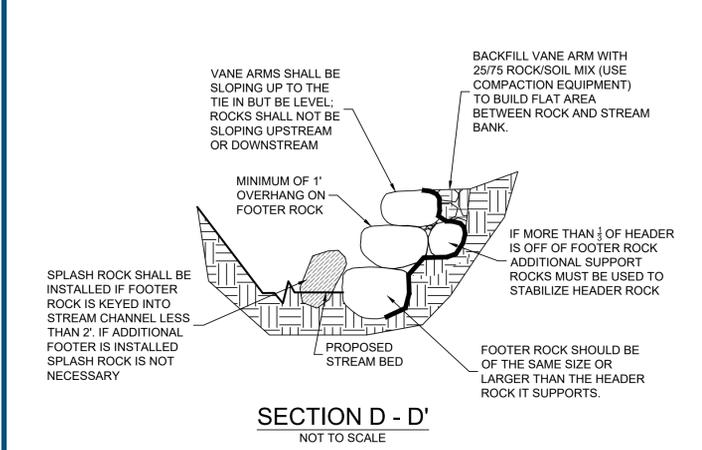
SECTION A - A'
NOT TO SCALE



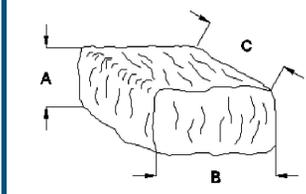
SECTION B - B'
NOT TO SCALE



SECTION C - C'
NOT TO SCALE



SECTION D - D'
NOT TO SCALE



1 TANGENT CROSS VANE
NOT TO SCALE

LEGEND	
	STAKEOUT
	HEADER ROCK
	FOOTER ROCK
	GEOTEXTILE FABRIC
	CHINKING MATERIAL
	SPLASH ROCK

*NOTE: SEE CROSS-SECTION GEOMETRY DETAIL FOR CHANNEL DIMENSIONS AND TANGENT CROSS VANE STRUCTURE TABLE STRUCTURE & ROCK SIZING.



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DETAILS
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DATE:	11/6/2023
SHEET NO:	29 OF 37



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P: 703.339.2954
WWW.RES.US

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CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
CROSS SECTIONS
PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW
Benjamin T. Mosier
Signature Date 1/4/23

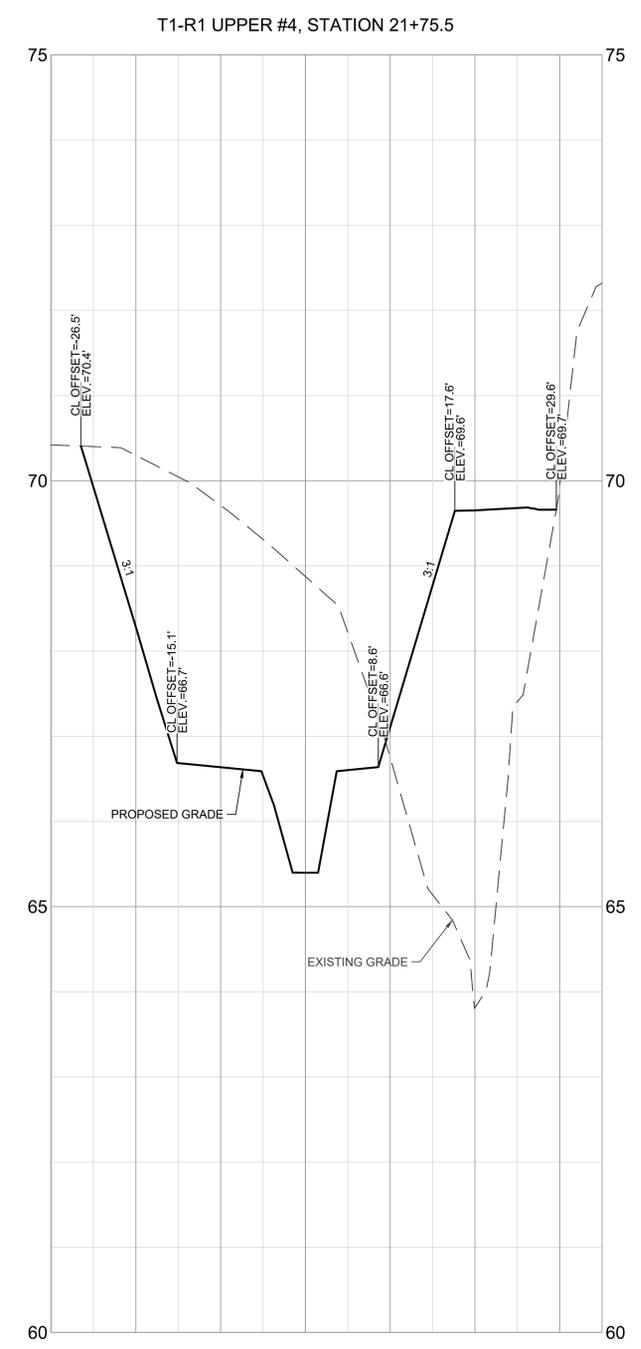
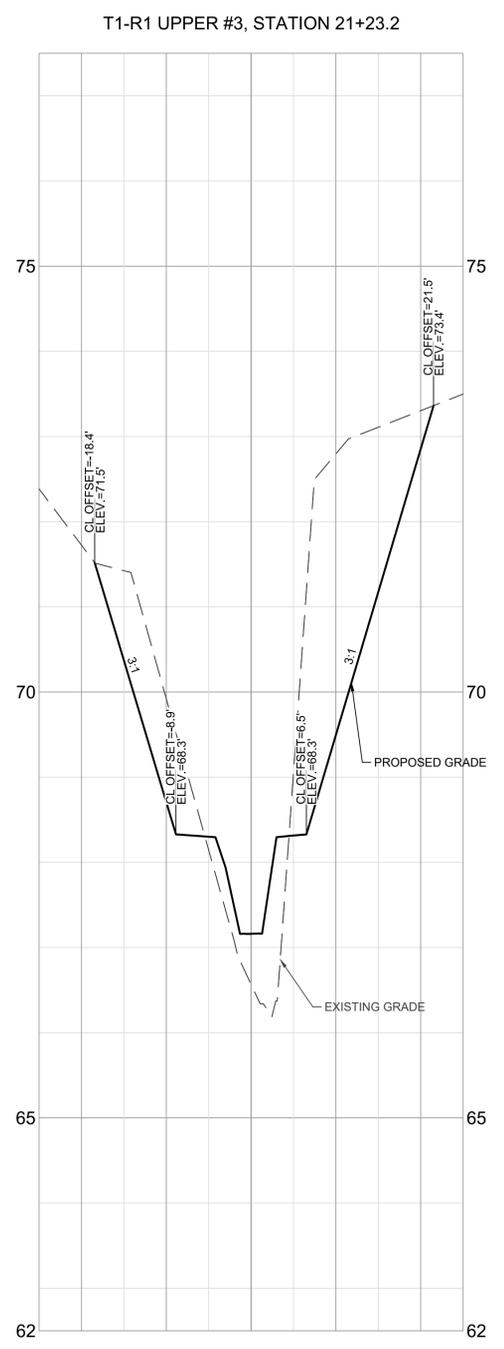
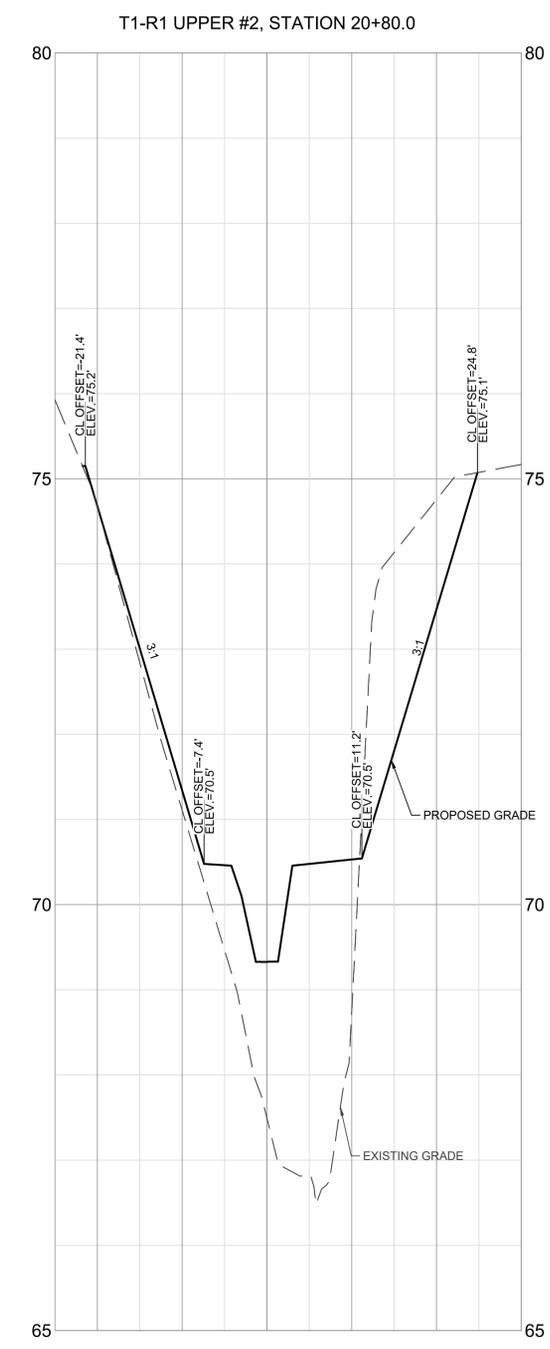
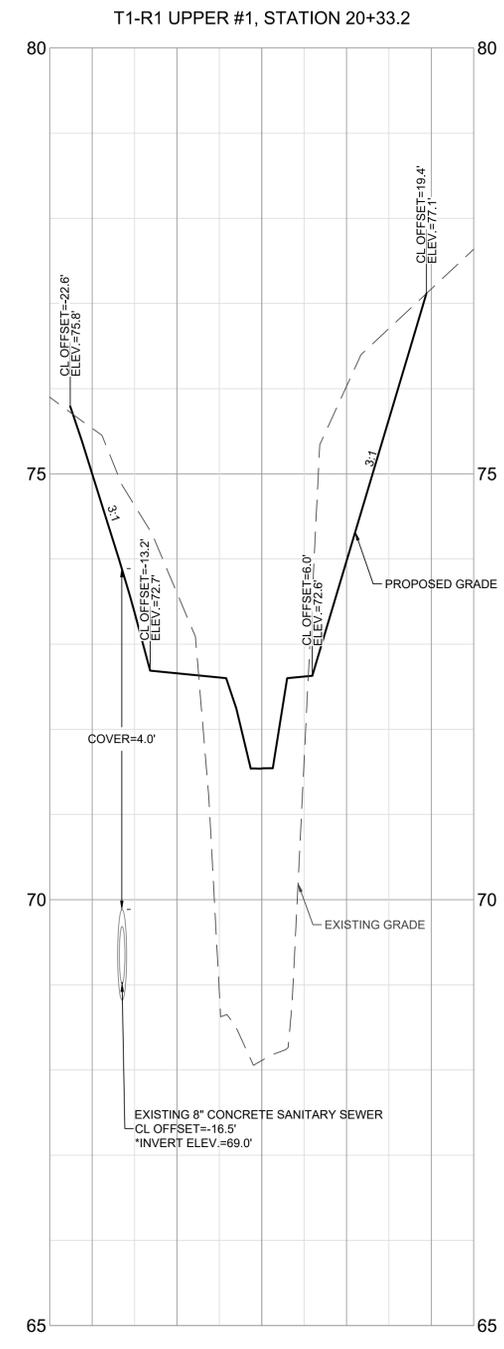
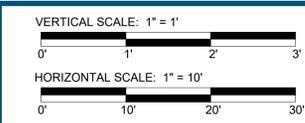
PERMIT PLAN DESIGN REVIEW
Benjamin T. Mosier
Signature Date 5/10/23

CONSTRUCTION PLAN REVIEW
Benjamin T. Mosier
Signature Date 8/8/23

REVISIONS:

30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23

PROJECT MANAGER: JM
DESIGNED: AM, CP, BW
DRAWN: AM, CP, CD
JOB NUMBER: 106883
DESIGN TYPE: TMDL STREAM
DATE: 11/6/2023
SHEET NO:

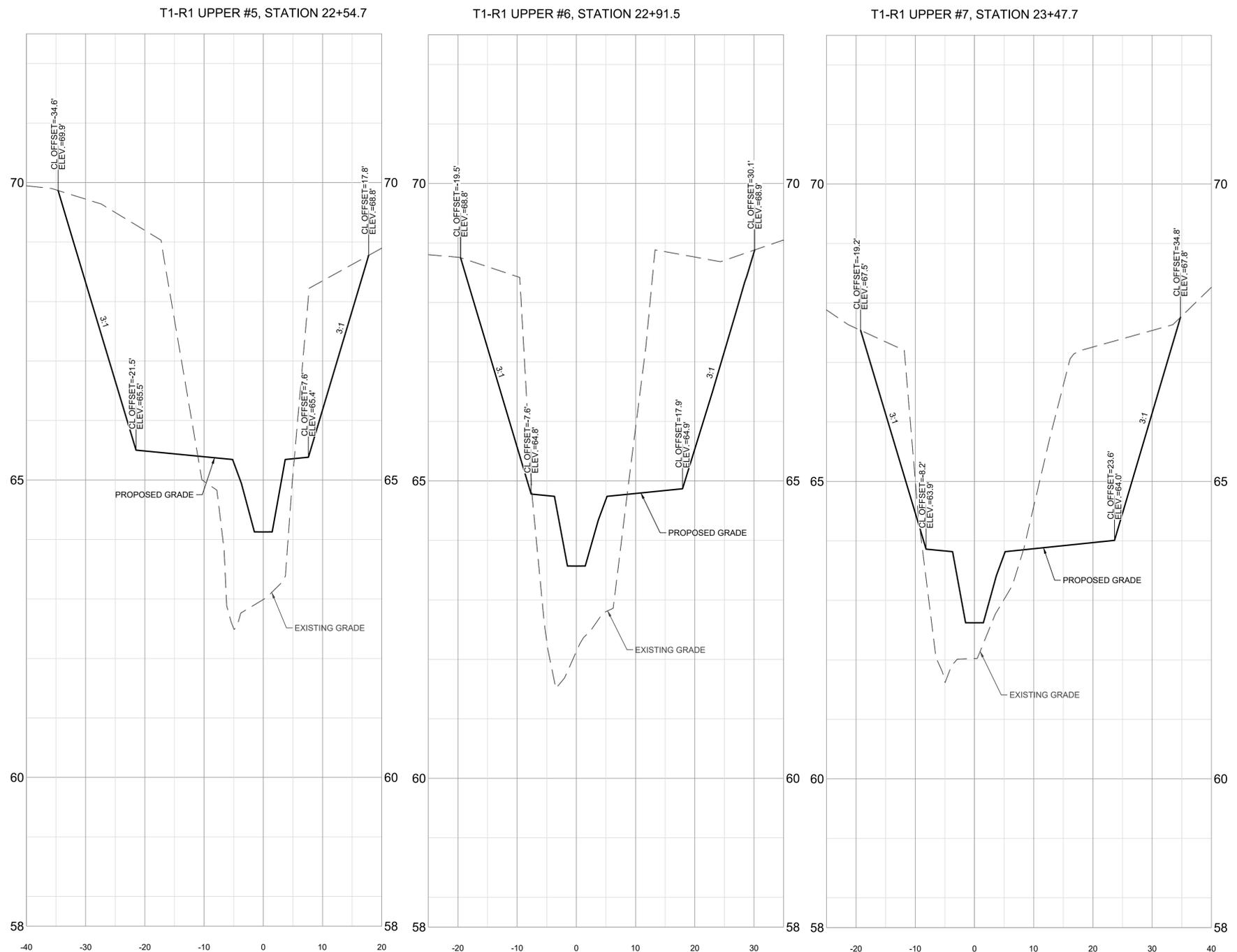
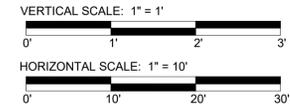


*ELEVATION INTERPOLATED FROM FIELD SURVEYED MANHOLE INVERT ELEVATIONS, ASSUMING A CONSTANT SLOPE; 0.2' PIPE THICKNESS ASSUMED FOR CLEARANCE MEASUREMENTS

AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP
"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."
APPROVAL DATE: _____
PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: SOLTESZ, INC.
LICENSE NUMBER: 40806
PERMIT NUMBER: 50260-2022-0



HGS, LLC, A RES COMPANY
 6387 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
 P: 703.353.2954
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
CROSS SECTIONS
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW	<i>Bailey J. Wilfong</i>	1/4/23
Signature		Date
PERMIT PLAN DESIGN REVIEW	<i>B. Mosier</i>	5/10/23
Signature		Date
CONSTRUCTION PLAN REVIEW	<i>B. Mosier</i>	8/8/23
Signature		Date

REVISIONS:

30%:	1/10/23
60%:	5/12/23
90%:	7/17/23
95%:	8/22/23

PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	

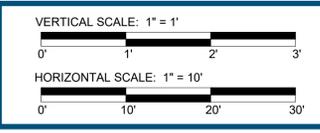
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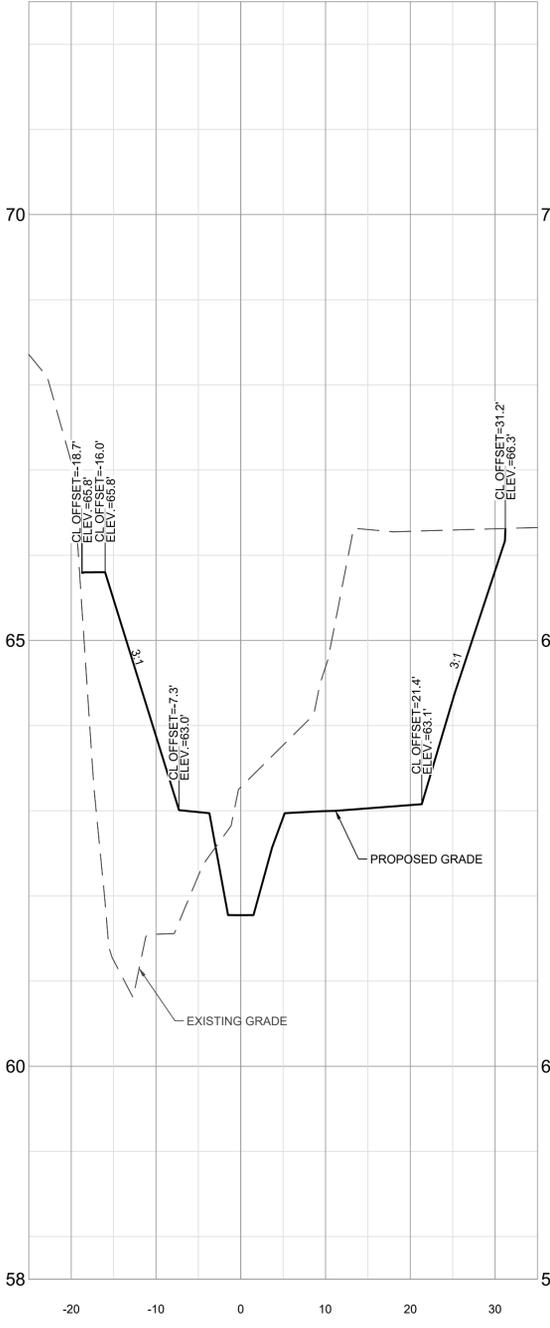
DEPARTMENT OF THE ENVIRONMENT (DoE)
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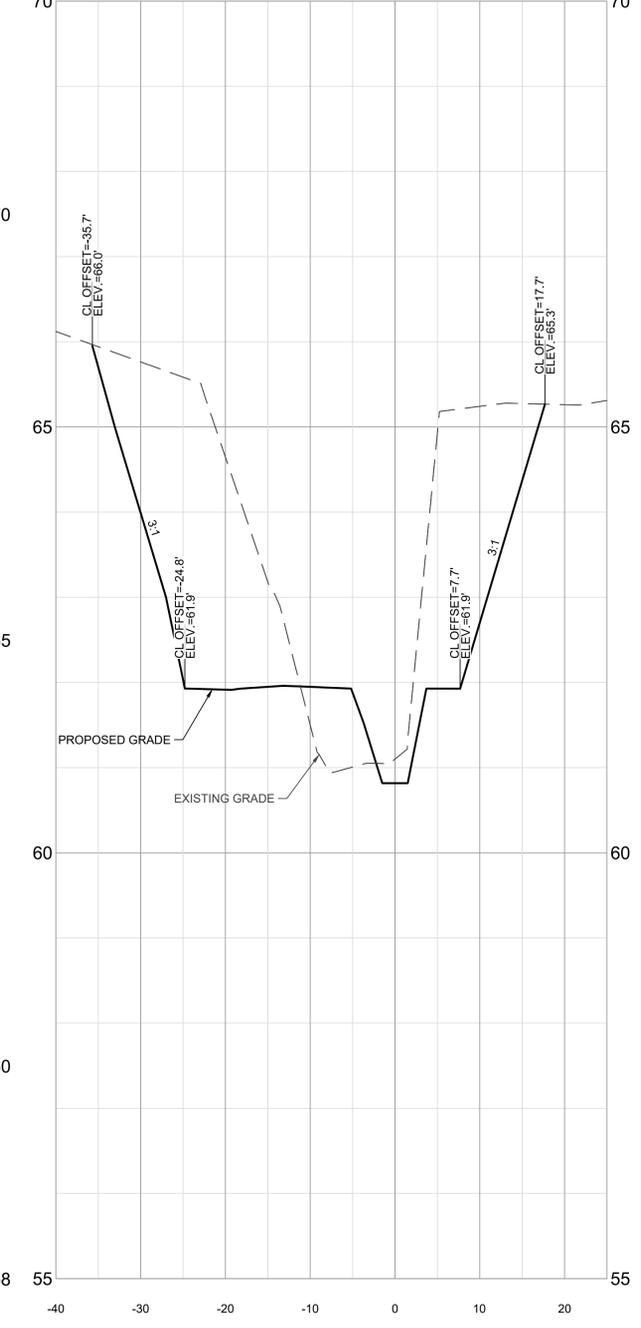
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 PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
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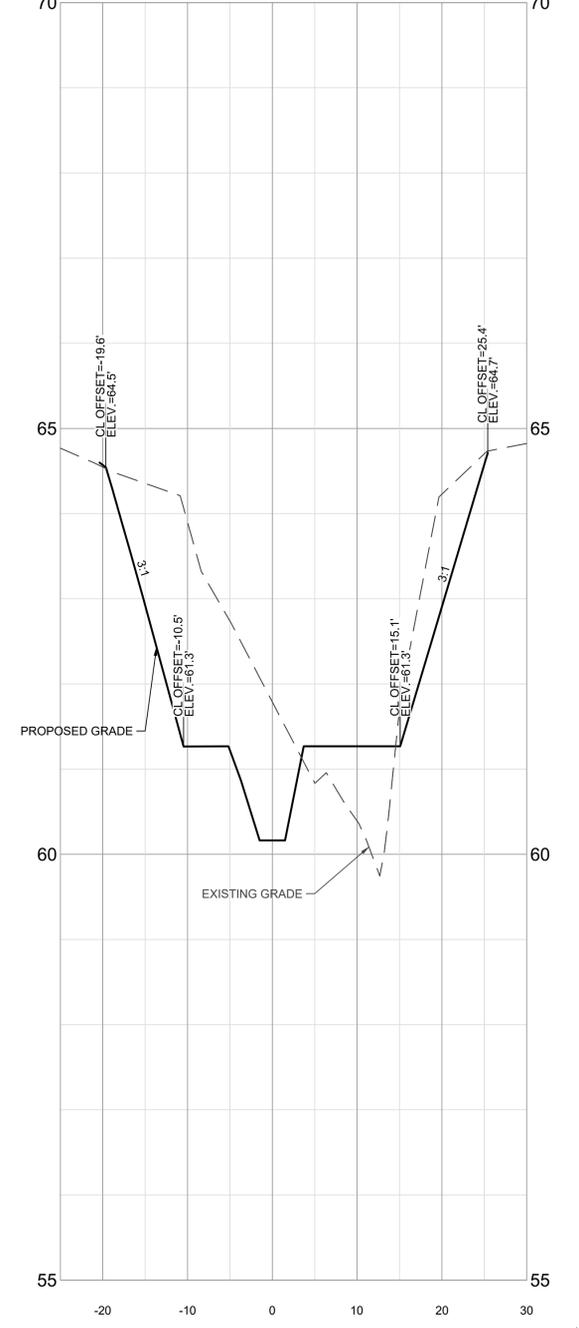
T1-R1 UPPER #8, STATION 24+21.8



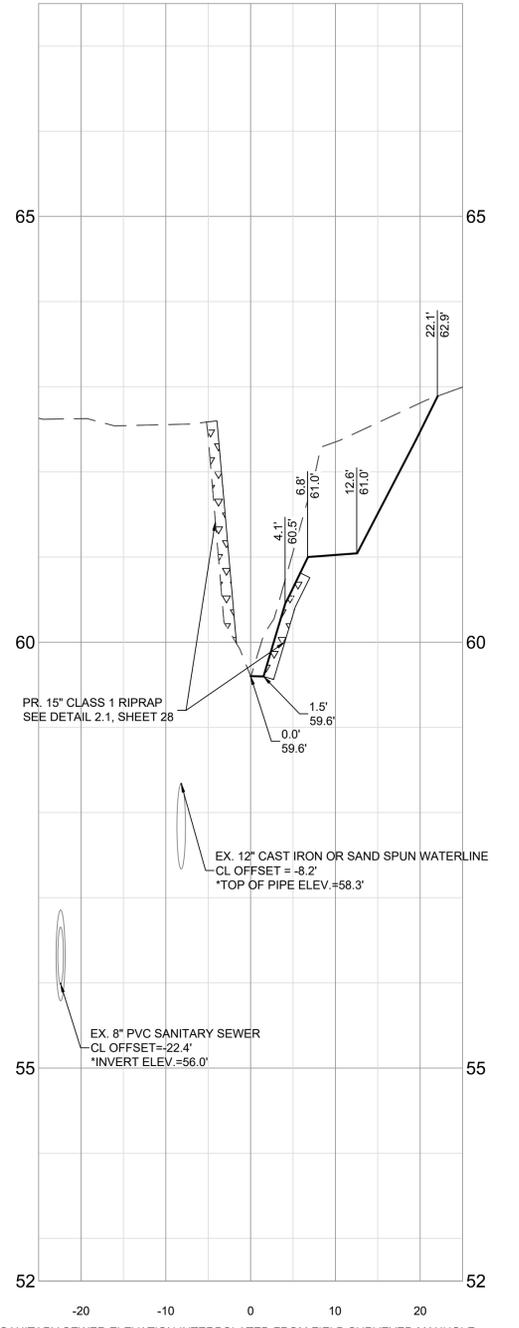
T1-R1 UPPER #9, STATION 25+24.8



T1-R1 UPPER #10, STATION 26+01.6



T1-R1 UPPER #11, STATION 26+45.0



*SANITARY SEWER ELEVATION INTERPOLATED FROM FIELD SURVEYED MANHOLE INVERT ELEVATIONS, ASSUMING A CONSTANT SLOPE; 0.2" PIPE THICKNESS ASSUMED FOR CLEARANCE MEASUREMENTS. TOP OF WATERLINE BASED ON ASSUMED CONSTANT SLOPE BETWEEN DEPTH MEASUREMENTS PROVIDED AT OBSERVATION POINTS BY GPR.



HGS, LLC, A RES COMPANY
5387 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.385.2954
WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
CROSS SECTIONS
PRINCE GEORGE'S COUNTY, MD

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30% DESIGN REVIEW	1/4/23
Signature: <i>Bailey Wilfong</i>	Date
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CONSTRUCTION PLAN REVIEW	8/8/23
Signature: <i>B. Mosier</i>	Date

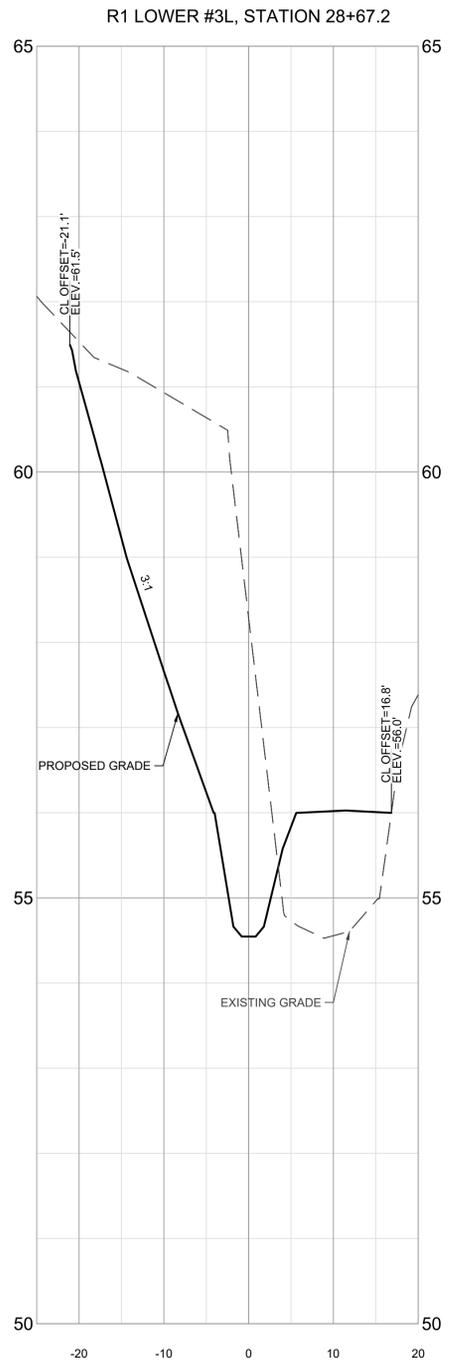
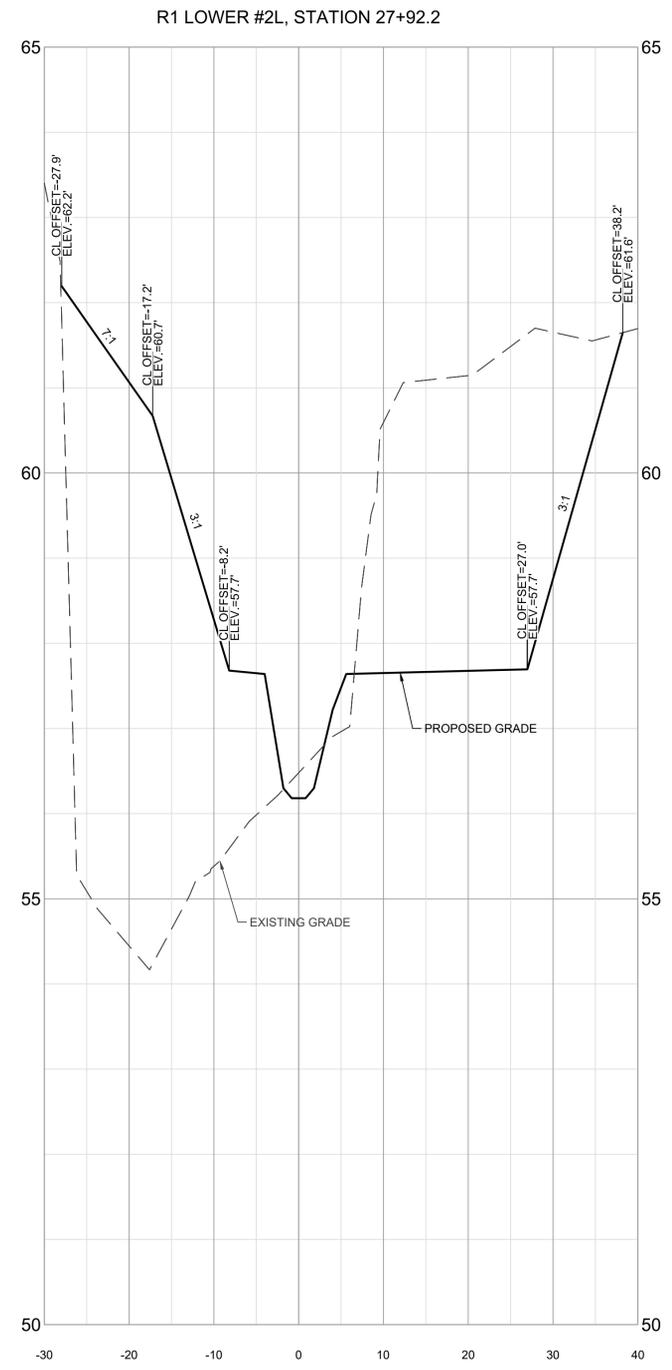
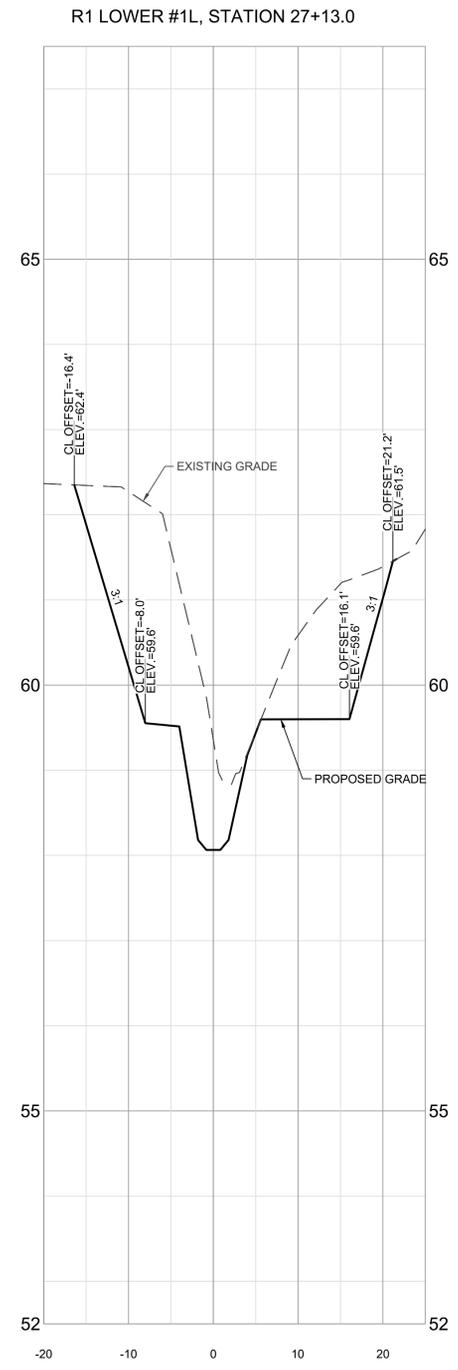
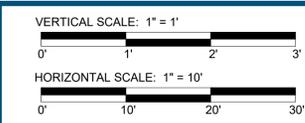
REVISIONS:	
30%: 1/10/23	
60%: 5/12/23	
90%: 7/17/23	
95%: 8/22/23	

PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	

AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DoE)
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 the County's Code, General Specifications and Standards."
APPROVAL DATE: _____
PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: SOLTESZ, INC.
LICENSE NUMBER: 40806
PERMIT NUMBER: 50260-2022-0



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DEPARTMENT OF THE ENVIRONMENT (DoE)
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CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
CROSS SECTIONS
 PRINCE GEORGE'S COUNTY, MD

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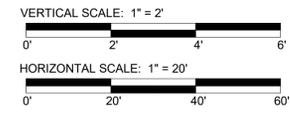
30% DESIGN REVIEW	<i>Bailey Wilfong</i>	1/4/23
Signature		Date
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Signature		Date
CONSTRUCTION PLAN REVIEW	<i>B. Mosier</i>	8/8/23
Signature		Date

REVISIONS:

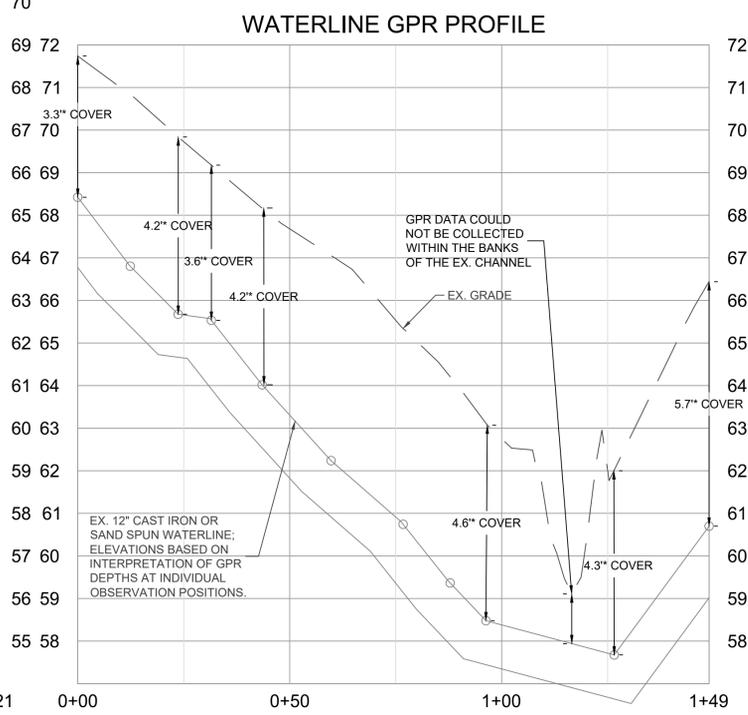
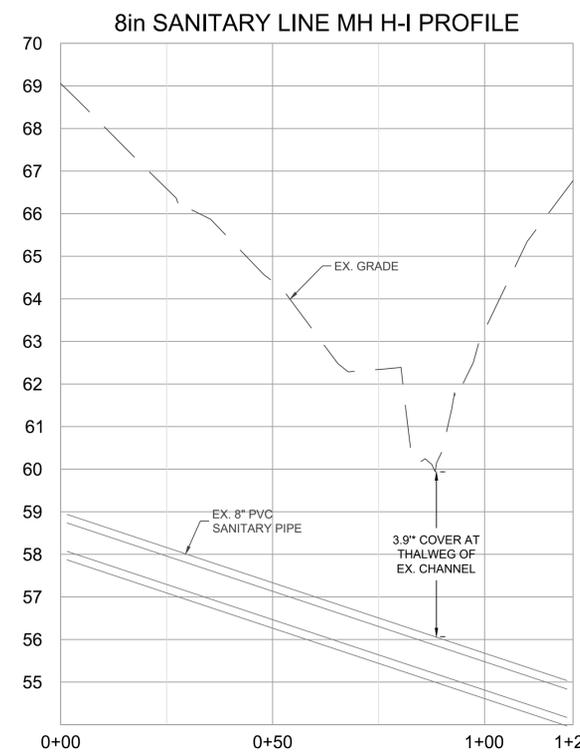
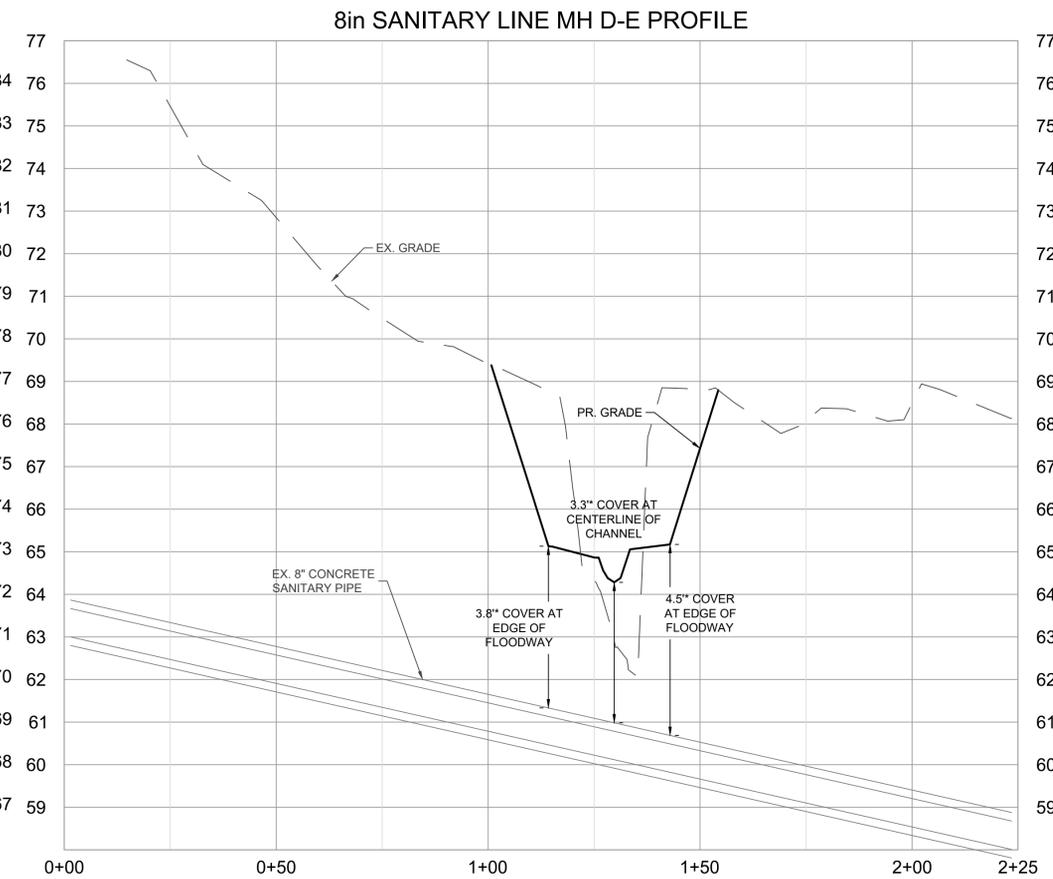
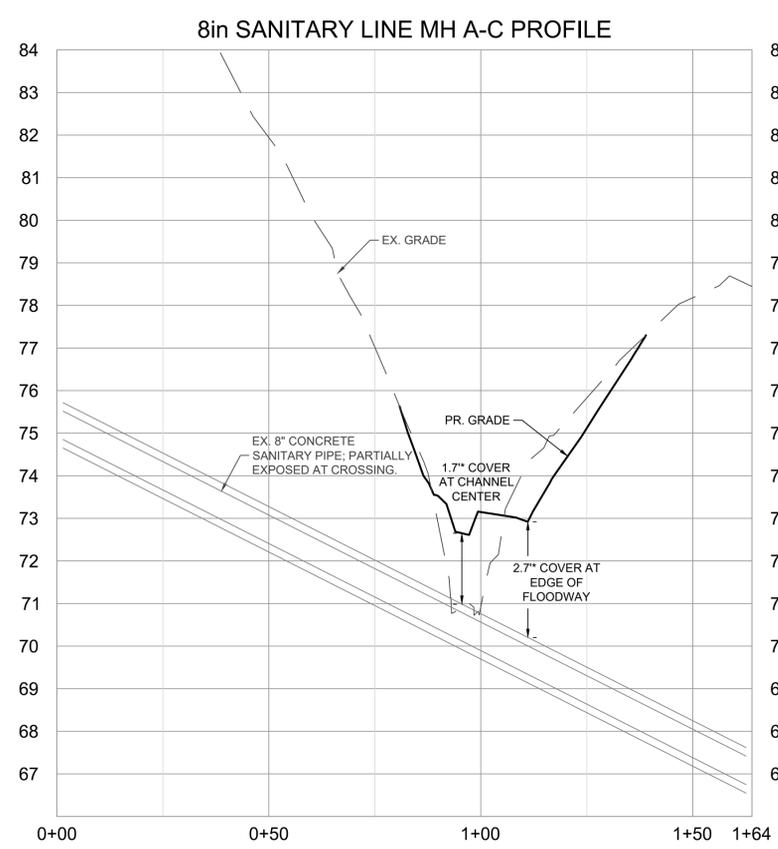
30%:	1/10/23
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90%:	7/17/23
95%:	8/22/23

PROJECT MANAGER:	JM
DESIGNED:	AM, CP, BW
DRAWN:	AM, CP, CD
JOB NUMBER:	106883
DESIGN TYPE:	TMDL STREAM
DATE:	11/6/2023
SHEET NO:	33 OF 37

NOTE: SCALE VARIES FROM OTHER SHEETS



*SANITARY SEWER ELEVATION INTERPOLATED FROM FIELD SURVEYED MANHOLE INVERT ELEVATIONS, ASSUMING A CONSTANT SLOPE. 0.2' PIPE THICKNESS ASSUMED FOR CLEARANCE MEASUREMENTS. TOP OF WATERLINE BASED ON ASSUMED CONSTANT SLOPE BETWEEN DEPTH MEASUREMENTS PROVIDED AT OBSERVATION POINTS BY GPR.



HGS, LLC, A RES COMPANY
 6587 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
 P: 703.353.2954 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
 EX. UTILITY PROFILES
 PRINCE GEORGE'S COUNTY, MD

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30% DESIGN REVIEW	<i>Benjamin T. Mosier</i>	1/4/23
PERMIT PLAN DESIGN REVIEW	<i>Benjamin T. Mosier</i>	5/10/23
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DEPARTMENT OF THE ENVIRONMENT (DoE)
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 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**

REVISIONS:

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60%:	5/12/23
90%:	7/17/23
95%:	8/22/23

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SHEET NO:	34 OF 37



HGS, LLC, A RES COMPANY
 PHONE ROAD, WARRENTON, VIRGINIA 20187
 P: 703.593.9100
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
PLANTING PLAN
 PRINCE GEORGE'S COUNTY, MD

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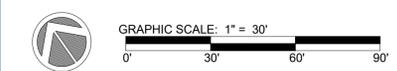
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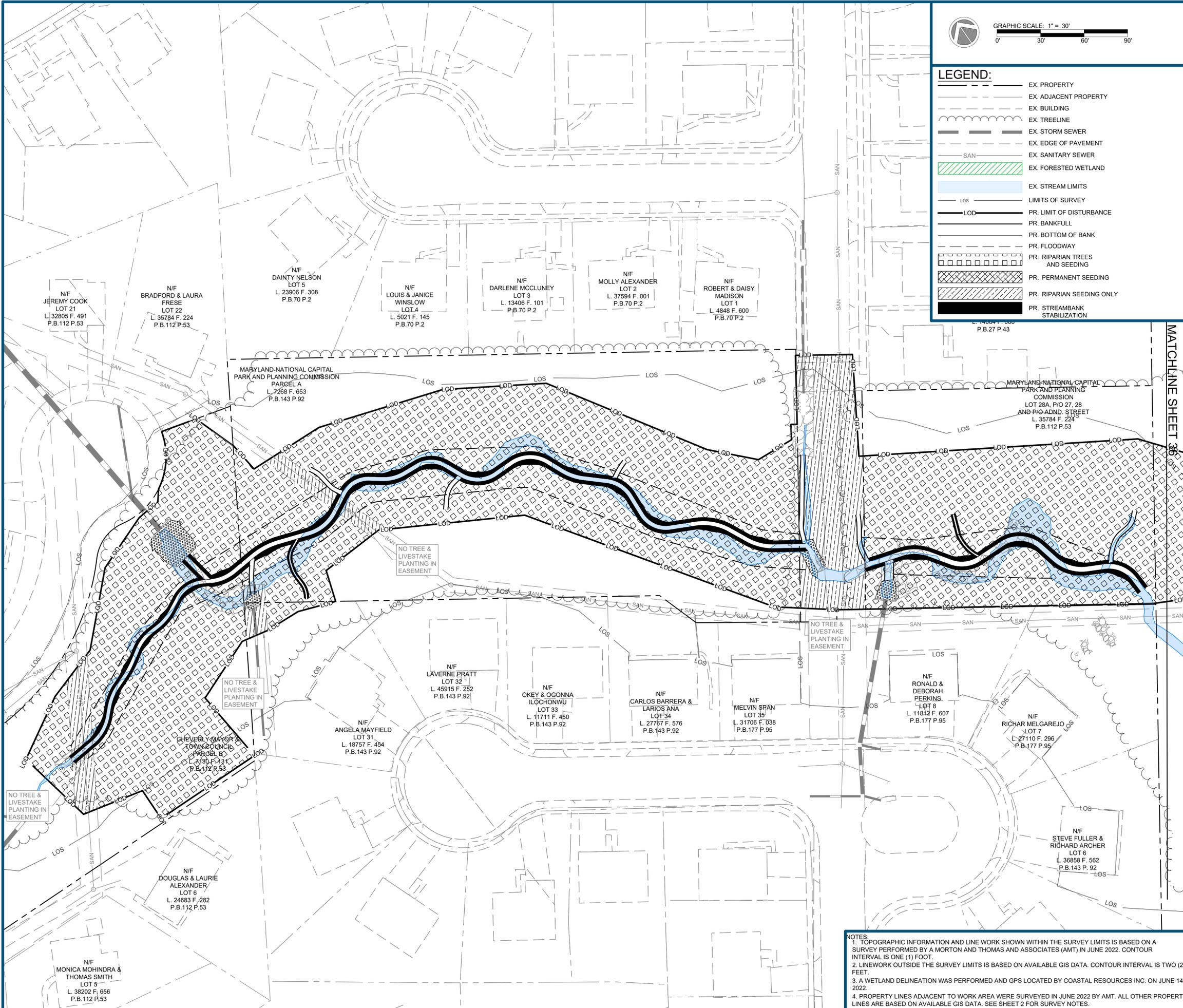
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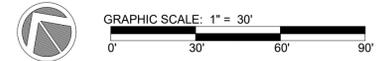
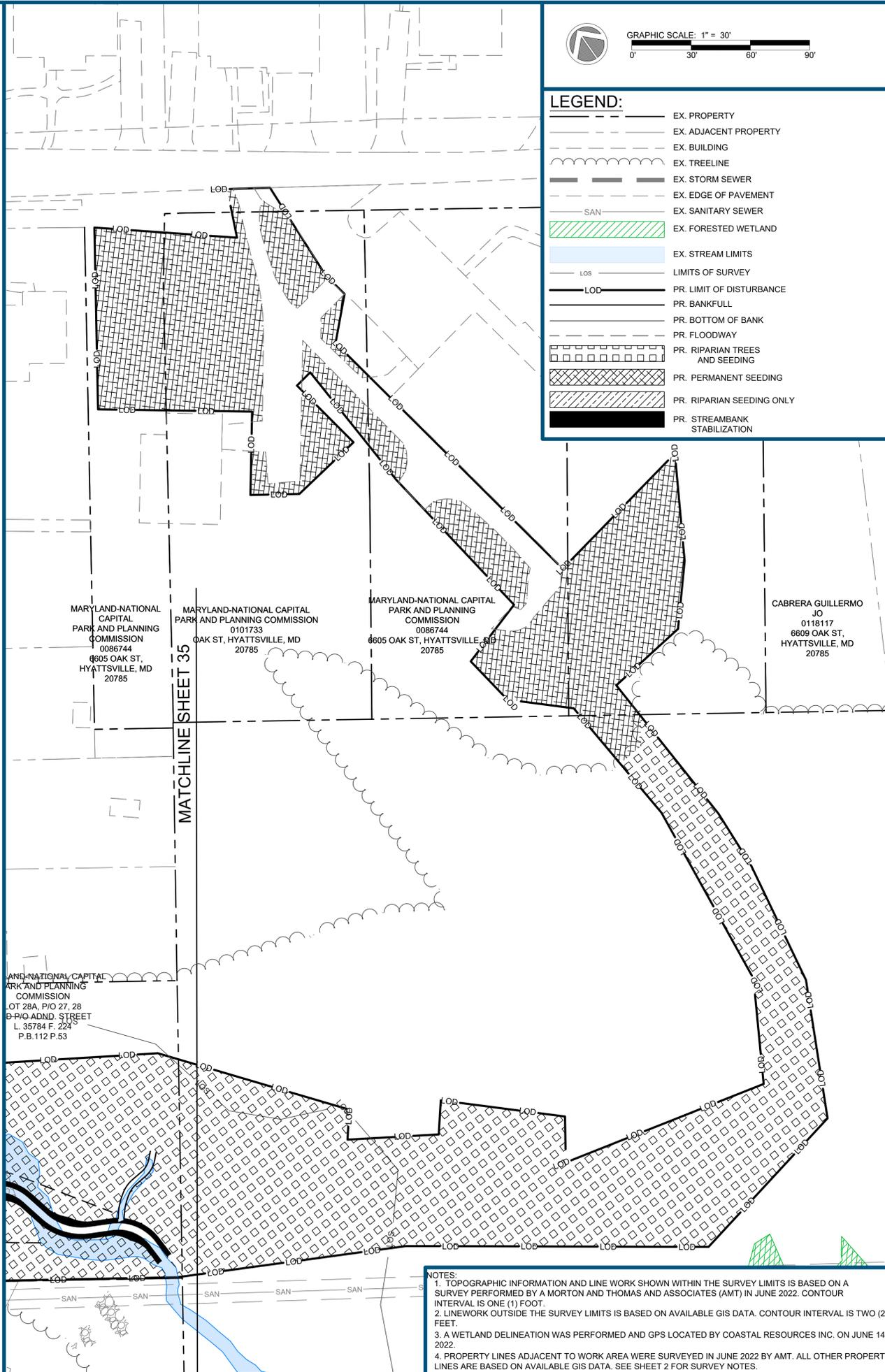


LEGEND:

---	EX. PROPERTY
---	EX. ADJACENT PROPERTY
---	EX. BUILDING
---	EX. TREELINE
---	EX. STORM SEWER
---	EX. EDGE OF PAVEMENT
---	EX. SANITARY SEWER
---	EX. FORESTED WETLAND
---	EX. STREAM LIMITS
---	LIMITS OF SURVEY
---	PR. LIMIT OF DISTURBANCE
---	PR. BANKFULL
---	PR. BOTTOM OF BANK
---	PR. FLOODWAY
---	PR. RIPARIAN TREES AND SEEDING
---	PR. PERMANENT SEEDING
---	PR. RIPARIAN SEEDING ONLY
---	PR. STREAMBANK STABILIZATION



NOTES:
 1. TOPOGRAPHIC INFORMATION AND LINE WORK SHOWN WITHIN THE SURVEY LIMITS IS BASED ON A SURVEY PERFORMED BY A MORTON AND THOMAS AND ASSOCIATES (AMT) IN JUNE 2022. CONTOUR INTERVAL IS ONE (1) FOOT.
 2. LINework OUTSIDE THE SURVEY LIMITS IS BASED ON AVAILABLE GIS DATA. CONTOUR INTERVAL IS TWO (2) FEET.
 3. A WETLAND DELINEATION WAS PERFORMED AND GPS LOCATED BY COASTAL RESOURCES INC. ON JUNE 14, 2022.
 4. PROPERTY LINES ADJACENT TO WORK AREA WERE SURVEYED IN JUNE 2022 BY AMT. ALL OTHER PROPERTY LINES ARE BASED ON AVAILABLE GIS DATA. SEE SHEET 2 FOR SURVEY NOTES.



LEGEND:

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---	EX. ADJACENT PROPERTY
---	EX. BUILDING
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MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
0086744
6605 OAK ST.
HYATTSVILLE, MD
20785

MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
0101733
OAK ST, HYATTSVILLE, MD
20785

MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
0086744
6605 OAK ST, HYATTSVILLE, MD
20785

CABRERA GUILLERMO JO
0118117
6609 OAK ST,
HYATTSVILLE, MD
20785

MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
LOT 28A, P/O 27, 28
D-P/O ADND. STREET
L. 35784 F. 224
P.B.112 P.53

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DATE:	11/6/2023
SHEET NO:	

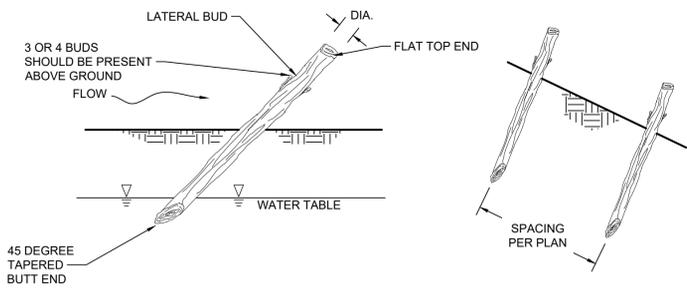
AS-BUILT CERTIFICATION
I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DPE)
PRINCE GEORGE'S COUNTY, MARYLAND
PEER REVIEW APPROVAL STAMP

"I hereby certify that I have successfully completed participation in DPE's Peer Review Program. I have reviewed these plans in Detail and they are in conformance with the County's Code, General Specifications and Standards."

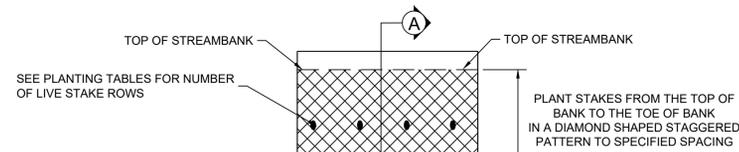
APPROVAL DATE: _____
PEER REVIEWER'S NAME: BENJAMIN T. MOSIER, P.E.
PEER REVIEWER'S SIGNATURE: _____
COMPANY NAME: SOLTESZ, INC.
LICENSE NUMBER: 40806
PERMIT NUMBER: 50260-2022-0



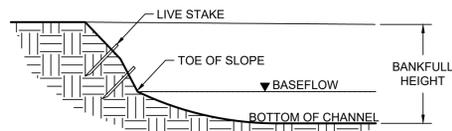
- NOTES:
- DO NOT INSTALL LIVE STAKES THAT HAVE BEEN SPLIT.
 - LIVE STAKES MUST BE INSTALLED WITH BUDS POINTING UPWARDS.
 - LIVE STAKES SHOULD BE 1 TO 2 INCHES IN DIAMETER.
 - LIVE STAKES SHOULD BE LONG ENOUGH TO REACH BELOW THE GROUNDWATER TABLE (2 TO 3 FEET IN LENGTH).
 - LIVE STAKES SHOULD BE INSTALLED LEAVING 4 TO 8 INCHES ABOVE GROUND.
 - LIVE STAKES SHOULD BE INSERTED AT A 45° ANGLE TO THE BANK AND POINTED DOWNSTREAM.

1 LIVE STAKE INSTALLATION

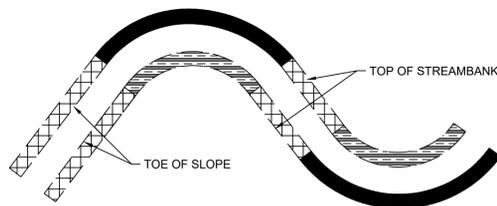
NOT TO SCALE



PLAN VIEW



SECTION A-A'

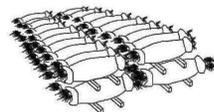


LIVE STAKE SPACING PLAN VIEW

- INNER BEND SPACING PER PLANTING TABLE
- RIFFLE SPACING PER PLANTING TABLE
- OUTER BEND SPACING PER PLANTING TABLE

2 LIVE STAKE LAYOUT

NOT TO SCALE



CARE OF SEEDLINGS UNTIL PLANTED

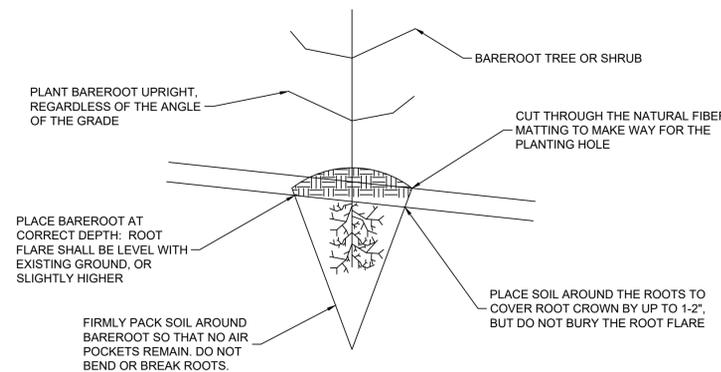
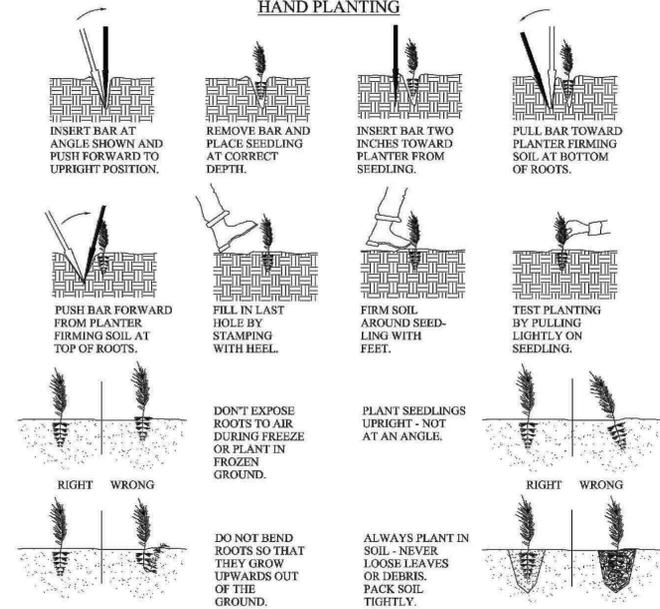
SEEDLINGS SHOULD BE PLANTED IMMEDIATELY. IF IT IS NECESSARY TO STORE MOSS PACKED SEEDLINGS FOR MORE THAN 2 WEEKS, ONE PINT OF WATER PER PKG. SHOULD BE ADDED. IF CLAY-TREATED, DO NOT ADD WATER TO PKG. PACKAGES MUST BE SEPARATED TO PROVIDE VENTILATION TO PREVENT "HEATING". SEPARATE PACKAGES WITH WOOD STRIPS AND STORE OUT OF THE WIND IN A SHADED, COOL (NOT FREEZING) LOCATION.



CARE OF SEEDLINGS DURING PLANTING

WHEN PLANTING, ROOTS MUST BE KEPT MOIST UNTIL TREES ARE IN THE GROUND. DO NOT CARRY SEEDLINGS IN YOUR HAND EXPOSED TO THE AIR AND SUN. KEEP MOSS-PACKED SEEDLINGS IN A CONTAINER PACKED WITH WET MOSS OR FILLED WITH THICK MUDDY WATER. COVER CLAY-TREATED SEEDLINGS WITH WET BURLAP ONLY.

HAND PLANTING



3 BARE-ROOT PLANTING

NOT TO SCALE

PLANTING SPECIFICATIONS

THE PLANTING SHOULD BE COMPLETED ACCORDING TO THE PLANS AND SPECIFICATIONS PROVIDED. PLANTS AND SEEDS SHALL BE OBTAINED FROM A COMMERCIAL SUPPLIER. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH RELIABLE SOURCES TO ENSURE THAT AN ADEQUATE SUPPLY OF THE REQUIRED PLANT AND SEED MATERIAL IS AVAILABLE. IN THE EVENT THAT A PLANT OR SEED SPECIFIED IS NOT COMMERCIALLY AVAILABLE, THE CONTRACTOR MAY REQUEST A SUBSTITUTION IN WRITING. ALL REQUESTS FOR SUBSTITUTIONS MUST BE MADE AT LEAST ONE (1) MONTH PRIOR TO INSTALLATION AND BE APPROVED BY THE ENGINEER OF RECORD, THEIR ASSIGNEE, AND THE OWNER.

QUALITY: PLANTS DELIVERED TO THE SITE SHOULD BE BASED ON THE PLANTING SCHEDULE PROVIDED IN THE PLANS. ALL PLANT MATERIALS RECEIVED FROM COMMERCIAL SUPPLIERS SHALL CONFORM TO THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. ALL PLANT MATERIAL SHALL BE UNIFORMLY SHAPED AND HAVE A VIGOROUS ROOT SYSTEM. THE PLANT MATERIAL SHALL BE HEALTHY, MEANING FREE OF DEFECTS, DECAY, DISEASE, ABRASIONS OF THE BARK, INSECT PEST EGGS AND ALL FORMS OF INFESTATIONS. THE PLANT MATERIALS MUST BE FRESH AND FREE OF TRANSPLANT SHOCK OR VISIBLE WILT. ALL CONTAINER GROWN STOCK SHALL HAVE BEEN PROPAGATED IN A CONTAINER LARGE ENOUGH FOR THE ROOTS TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL WHEN REMOVED FROM THE CONTAINER. CONTAINER STOCK WITH POORLY DEVELOPED ROOTS IS UNACCEPTABLE AND WILL BE REJECTED. PLANTS SHOULD BE OBTAINED FROM HARDINESS ZONES SIMILAR TO THOSE FOUND AT THE PROJECT SITE (ZONE 7).

PRODUCT HANDLING, STORAGE, AND DELIVERY: AT ALL TIMES, HANDLE PLANTS SO THAT THE ROOTS OR BALLS ARE ADEQUATELY PROTECTED FROM BREAKAGE, DIRECT SUN, WARM AIR, AND DRYING WINDS. POTTED PLANTS SHOULD BE WATERED FREQUENTLY TO KEEP SOIL MOIST. PLANTS WITH DRIED OUT TOPS OR ROOTS SHALL BE REJECTED. ALL PLANT MATERIAL SHALL BE TRANSPORTED AND STORED TO PREVENT ANY PHYSICAL DAMAGE, INCLUDING TRANSPORTATION AT THE NECESSARY INTERVALS TO MINIMIZE STORAGE TIME AND TO MAINTAIN PROPER CULTIVATION PRACTICES.

INSTALLATION / PLANTING: SHRUBS & TREES SHOULD BE PLANTED IN THE LOCATIONS SHOWN ON THE PLANTING PLAN. QUANTITY AND TYPES OF PLANTS SHALL BE PLANTED PER THE PLANTING SCHEDULE & PLAN. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PLANT MATERIAL IN THE APPROPRIATE PLANTING SEASON. NO SEEDING OR PLANTING SHALL OCCUR WHEN THE SOIL IS FROZEN, OR THE SITE IS FLOODED.

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PLANT MATERIAL IN THE APPROPRIATE SEASON FOR EACH PLANT TYPE. THE PLANTING SEASON FOR THE TREES AND SHRUBS SHALL BE FROM NOVEMBER 15 THROUGH DECEMBER 31 AND/OR FROM FEBRUARY 1 THROUGH APRIL 15. FOR LIVE STAKES THE INSTALLATION PERIOD SHALL BE FROM NOVEMBER 15 THROUGH DECEMBER 15 AND FEBRUARY 1 THROUGH APRIL 1. THE PLANTING SEASON FOR HERBACEOUS PLANTS SHALL BE APRIL 15 THROUGH JUNE 15 AND/OR SEPTEMBER 1 THROUGH OCTOBER 15.

ALL BAREROOT PLANTS SHALL BE SET STRAIGHT (OR PLUMB) FOR AN UPRIGHT GROWTH PATTERN. LIVESTAKES SHALL BE SET AT A 45 DEGREE ANGLE TO THE BANK, POINTING DOWNSTREAM. THE PLANTING HOLES SHALL BE BACKFILLED WITH THE SAME SOIL THAT WAS EXCAVATED FROM THE HOLE AFTER REMOVING ALL STONES, ROOTS, AND OTHER DEBRIS GREATER THAN 1.5 INCHES IN DIAMETER. AFTER BACKFILLING THE HOLE, ALL PLANTED SPECIES SHOULD BE WATERED TO THE POINT OF SOIL SATURATION IF NOT PLANTED IN AN EXISTING WET CONDITION.

THE CONTRACTOR SHALL GUARANTEE AND MAINTAIN ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE OF FINISHED PLANTING.

RIPARIAN TREES PLANTING LIST

PLANTING DENSITY: 775 STEMS/ACRE (7.5-FT-ON-CENTER) AREA: 2.31 ACRES

BOTANICAL NAME	COMMON NAME	PERCENT OF MIX	# OF STEMS	PLANTING STOCK TYPE & SIZE
<i>Acer negundo</i>	Box elder	10%	190	BAREROOT, 12-24"
<i>Acer rubrum</i>	Red maple	6%	115	BAREROOT, 12-24"
<i>Carpinus caroliniana</i>	Ironwood	6%	115	BAREROOT, 12-24"
<i>Ilex opaca</i>	American holly	6%	115	BAREROOT, 12-24"
<i>Liquidambar styraciflua</i>	Sweet-gum	10%	190	BAREROOT, 12-24"
<i>Liriodendron tulipifera</i>	Tuliptree	4%	75	BAREROOT, 12-24"
<i>Platanus occidentalis</i>	American sycamore	12%	225	BAREROOT, 12-24"
<i>Prunus angustifolia</i>	Chickadee plum	6%	115	BAREROOT, 12-24"
<i>Quercus alba</i>	White oak	6%	115	BAREROOT, 12-24"
<i>Quercus phellos</i>	Willow oak	8%	150	BAREROOT, 12-24"
<i>Quercus rubra</i>	Northern red oak	8%	150	BAREROOT, 12-24"
<i>Rubus pseudoacacia</i>	Black locust	12%	225	BAREROOT, 12-24"
<i>Viburnum dentatum</i>	Southern arrow-wood	6%	115	BAREROOT, 12-24"
TOTALS		100%	1,790	

SUBSTITUTIONS TO THE ABOVE LISTED SPECIES MAY BE MADE DEPENDING ON NURSERY STOCK AVAILABILITY. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE ENGINEER OR ENGINEER'S REPRESENTATIVE.

STREAMBANK STABILIZATION PLANTING LIST

PLANT SPACING: 1- TO 3-FOOT ON CENTER PER STREAM BANK (VARIES PER STREAM CONTOUR); SEE PLANTING DETAIL.

BOTANICAL NAME	COMMON NAME	PERCENT OF MIX	# OF STEMS	PLANTING STOCK TYPE & SIZE	STREAM ID	LINEAR FEET OF STREAM	ROWS OF L.S.	QTY (ft) OF L.S.
<i>CEPHALANTHUS OCCIDENTALIS</i>	BUTTONBUSH	22%	210	LIVESTAKE, 18-24"	REACH 1	945	1	945
<i>CORNUS AMOMIUM</i>	SILKY DOGWOOD	22%	210	LIVESTAKE, 18-24"				
<i>SALIX NIGRA</i>	BLACK WILLOW	50%	470	LIVESTAKE, 18-24"				
<i>SAMBUCUS NIGRA</i>	ELDERBERRY	6%	55	LIVESTAKE, 18-24"				
TOTALS		100%	945					

SUBSTITUTIONS TO THE ABOVE LISTED SPECIES MAY BE MADE DEPENDING ON NURSERY STOCK AVAILABILITY. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE ENGINEER OR ENGINEER'S REPRESENTATIVE.

Permanent Seeding Summary

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)			Lime Rate
					N	P ₂ O ₅	K ₂ O	
11	Creeping Red Fescue	30	Mar 1 to May 15 May 16 to Jun 15	1/4- 1/2 in	45 pounds per acre (1.0 lb/ 1000 sf)	90 lb/ac (2 lb/ 1000 sf)	90 lb/ac (2 lb/ 1000 sf)	2 tons/ac (90 lb/ 1000 sf)
	Chewing Fescue	30	Mar 1 to May 15 May 16 to Jun 15	1/4- 1/2 in				
	Kentucky Bluegrass	20	Mar 1 to May 15 May 16 to Jun 15	1/4- 1/2 in				

RIPARIAN SEED MIX

COMMON NAME	BOTANICAL NAME	WETLAND INDICATOR STATUS	PERCENT (%)	PERCENT (%)	PERCENT (%)
AGROSTIS PERENNANS	ALFALFA BENTGRASS	FACU	0.3%	11.4%	
ANISE HYSSOP	ANISE HYSSOP	UPL	0.5%	3.7%	
BROOMSEDGE	BROOMSEDGE	FAC	2.0%	7.6%	
SMOOTH BLUE ASTER	SMOOTH BLUE ASTER	UPL	0.5%	2.4%	
PARTRIDGE PEA	PARTRIDGE PEA	FACU	25.9%	8.0%	
RIVER OATS	RIVER OATS	FAC	4.9%	1.7%	
PURPLE CONEFLOWER	PURPLE CONEFLOWER	UPL	2.0%	1.1%	
CANADA WILDRYE	CANADA WILDRYE	FAC	10.0%	5.4%	
VIRGINIA WILDRYE	VIRGINIA WILDRYE	FAC	23.0%	8.0%	
WHITE AVENS	WHITE AVENS	FAC	0.5%	1.0%	
WILD BERGAMOT	WILD BERGAMOT	FACU	0.5%	3.0%	
BEAKED PANICGRASS	BEAKED PANICGRASS	FAC	5.0%	8.3%	
DEERTONGUE	DEERTONGUE	FACW	10.0%	16.6%	
BIGLEAF MOUNTAINMINT	BIGLEAF MOUNTAINMINT	FAC	0.1%	1.4%	
ORANGE CONEFLOWER	ORANGE CONEFLOWER	FAC	1.0%	2.4%	
BLACK-HEADED SUSAN	BLACK-HEADED SUSAN	FACU	0.5%	3.7%	
MARYLAND SENNA	MARYLAND SENNA	FAC	10.0%	1.0%	
CANADA GOLDENROD	CANADA GOLDENROD	FACU	0.2%	4.4%	
PURPLETOP	PURPLETOP	FACU	4.0%	8.8%	
TOTALS			100%	100%	

NOTES:
IF SEEDING OCCURS BETWEEN SEPTEMBER AND APRIL, OVER-SEED THE PLANTING AREA WITH 100 LBS/ACRE OF OATS (AVENA SATIVA) FOR TEMPORARY STABILIZATION. IF SEEDING OCCURS BETWEEN MAY AND AUGUST, OVER-SEED THE PLANTING AREA WITH 15 LBS/ACRE OF MILLET (SETARIA ITALICA) FOR TEMPORARY STABILIZATION.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE STREAM RESTORATION SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF THE ENVIRONMENT.

BAILEY J. WILFONG, MD, REG. P.E. NO. 52852

DEPARTMENT OF THE ENVIRONMENT (DOE)

PRINCE GEORGE'S COUNTY, MARYLAND

PEER REVIEW APPROVAL STAMP

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APPROVAL DATE: _____
 PEER REVIEWER'S NAME: **BENJAMIN T. MOSIER, P.E.**
 PEER REVIEWER'S SIGNATURE: _____
 COMPANY NAME: **SOLTESZ, INC.**
 LICENSE NUMBER: **40806**
 PERMIT NUMBER: **50260-2022-0**



HGS, LLC, A RES COMPANY
 ONE ONE ROAD, WARRENTON, VIRGINIA 20187
 P: 703.395.2854
 WWW.RES.US

CHEVERLY EAST PARK OUTFALL AND STREAM RESTORATION
 CLIENT: COVIAS PRINCE GEORGE'S COUNTY STORMWATER PARTNERS, LLC
 PLANTING TABLES AND DETAILS
 PRINCE GEORGE'S COUNTY, MD

STAMP/SEAL:
 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. 52852, EXPIRATION DATE: 6/14/2024

30% DESIGN REVIEW
 Signature: _____ Date: 1/4/23

PERMIT PLAN DESIGN REVIEW
 Signature: _____ Date: 5/10/23

CONSTRUCTION PLAN REVIEW
 Signature: _____ Date: 8/8/23

REVISIONS:
 30%: 1/10/23
 60%: 5/12/23
 90%: 7/17/23
 95%: 8/22/23

PROJECT MANAGER: **JM**
 DESIGNED: **AM, CP, BW**
 DRAWN: **AM, CP, CD**
 JOB NUMBER: **106883**
 DESIGN TYPE: **TMDL STREAM**
 DATE: **11/6/2023**
 SHEET NO: **37 OF 37**