

JOB ORDER NO. 231-201-0077-7225
CONTRACT NO. 15269 SX0

SCANNED



PLAN SHEET KEY

SCALE: 1" = 300'

DESIGN PROFESSIONAL: HYDROSTRUCTURES
ADDRESS: 5289 CLEVELAND ST. SUITE 208, VIRGINIA BEACH, VA 23462
PHONE: (757) 630-7989
EMAIL: David.Lambert@hydrostructures.com

OWNER/DEVELOPER: BCDPW
ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204
PHONE: (410) 887-3300

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
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.						NNE & NSE	20NE17-18, 20NE17-19, 20NE17-20, 20NE17-21, 20NE17-22, 20NE17-23, 20NE17-24	1"=300'	APPROVED BY: DIRECTOR
LICENSE NO. 36860								HOR: N/A VER: N/A	DATE: See DWG No. 2015-2516
EXPIRATION DATE								PROFILE SCALE	DATE: SEE DWG
ENGINEER: David P. Johnston								FIELD ENGINEER	DATE: No. 2015-2516
BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER		CHIEF
DGN BY: PAS									
DWN BY: OLA									
CHKD BY: EJA									
DATE REVIEWED:									

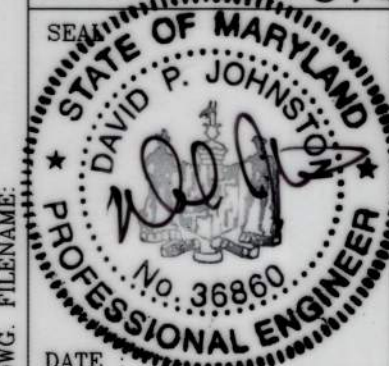
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD SEWER REHABILITATION PLAN SHEET KEY

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

SHEET DESIGNATION	CONTRACT NUMBER
G-2	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 2 OF 31	
DRAWING NUMBER	2015-2517
FILE NO.: 1	



4/18/25

SCANNED

GENERAL NOTES

1. A CONSTRUCTION SCHEDULE SHALL BE SUBMITTED TO THE BUREAU OF ENGINEERING AND CONSTRUCTION, CONSTRUCTION CONTRACTS ADMINISTRATION DIVISION AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE.
2. SUBMITTALS ON MATERIALS FOR THIS PROJECT SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
3. THE ONLY APPROVED METHOD OF PIPELINE REHABILITATION FOR THIS PROJECT IS THE "CURED-IN-PLACE" (CIP) LINING SYSTEM. THE WORK SHALL BE COMPLETED AS IDENTIFIED IN THE TECHNICAL SPECIFICATIONS FOR THIS PROJECT.
4. CONTRACTOR SHALL HAVE A SET OF SPECIFICATIONS AND CONTRACT DOCUMENTS AND A COMPLETE SET OF DRAWINGS ON SITE AT ALL TIMES.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE BALTIMORE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, PROJECT SPECIAL PROVISIONS AND AMENDMENTS THERETO.
6. THE LOCATION OF THE UTILITIES SHOWN ON THESE DRAWINGS ARE FROM THE BALTIMORE COUNTY GIS AND/OR THE BEST AVAILABLE INFORMATION OBTAINED AT THE TIME OF DESIGN. THIS INFORMATION IS NOT NECESSARILY COMPLETE, AND LOCATIONS OF THE UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY THIS INFORMATION TO THEIR SATISFACTION PRIOR TO INITIATING THEIR WORK. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING UTILITIES, STRUCTURES OR OTHER FEATURES IN CLOSE VICINITY OF THEIR WORK. ANY DAMAGE DONE AS A RESULT OF CONTRACTOR NEGLIGENCE SHALL BE IMMEDIATELY REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNER.
7. IF EXCAVATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-257-7777) 72 HOURS PRIOR TO START OF CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL TEST PIT IN THE AREA OF KNOWN UTILITIES TO VERIFY SIZE, ELEVATION, LOCATION AND TYPE PRIOR TO PERFORMING ANY WORK THAT MAY IMPACT THESE UTILITIES. ANY UTILITY, WHETHER SHOWN OR NOT, THAT IS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE OWNER IS TO BE NOTIFIED IMMEDIATELY. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT THE AUTHORIZATION OF THE OWNER, THE CONTRACTOR ASSUMES THE RESPONSIBILITY FOR SAID CORRECTIONS OR ADJUSTMENTS.
8. THE CONTRACTOR IS ENCOURAGED TO MAKE AN ON-SITE INSPECTION OF THE AREA REQUIRING REHABILITATION/REPLACEMENT AND RELATED CONDITIONS, INCLUDING ACCESS REQUIREMENTS PRIOR TO BIDDING THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AT 410-887-3781 AT LEAST 24 HOURS PRIOR TO VISITING THE SITE FOR THIS INSPECTION.
9. THE LOCATION OF FEATURES SHOWN ON THESE DRAWINGS ARE PROVIDED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR, AND BALTIMORE COUNTY DOES NOT WARRANT AND/OR GUARANTEE THE ACCURACY OR COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR SHALL FIELD VERIFY, TO THEIR SATISFACTION, ALL LOCATIONS AND DIMENSIONS OF ANY EXISTING UTILITIES, FEATURES AND/OR STRUCTURES RELATED TO PROJECT CONSTRUCTION PRIOR TO ORDERING MATERIALS OR COMMENCING WORK.
10. THE CONTRACTOR IS TO USE EASEMENTS/RIGHT-OF-WAYS AS SHOWN UNLESS THEY NEGOTIATE OTHERWISE WITH THE PROPERTY OWNERS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ACCESS REQUIREMENTS AND ACCOMMODATING THE REQUIREMENTS OF THE WORK.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING SILT AND DEBRIS OUT OF THE STORM DRAINAGE SYSTEM, STREAMS, RIVERS, ETC. FOR THE DURATION OF THE CONTRACT.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS, DRIVEWAYS, CULVERTS, DRAINAGE DITCHES, DRAIN FIELDS, UTILITIES, PIPING, STRUCTURES AND EQUIPMENT WHICH OCCURS AS A RESULT OF PROJECT CONSTRUCTION, AND SHALL REPAIR TO CURRENT CONDITION OR REPLACE IN KIND ANY DAMAGED ITEMS.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS AND ALLEYS OF DUST AND TO TAKE WHATEVER MEASURES ARE NECESSARY TO ENSURE THAT ALL ROADS ARE MAINTAINED IN A MUD AND DUST-FREE CONDITION AT ALL TIMES. CONSTRUCTION ENTRANCES TO EASEMENTS MAY BE INSTALLED IF APPROVED BY THE ENGINEER AND SHALL BE PROVIDED AT NO ADDITIONAL COST. THE CONTRACTOR IMMEDIATELY SHALL CLEAN UP ALL DIRT AND/OR MUD TRACKED ONTO ROADS.
14. CONTRACTOR SHALL ENSURE SEWER SERVICE TO AFFECTED PARCELS DURING REHABILITATION ACTIVITIES.
15. EXISTING SEWAGE FLOWS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. AT NO TIME WILL IT BE PERMITTED FOR SEWAGE TO BE DISCHARGED ONTO THE GROUND OR INTO ANY STREAMS OR OTHER AREAS. ALL COSTS TO MAINTAIN FLOW SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SAH11W SEWER REHABILITATION. THE CONTRACTOR SHALL FURNISH ALL NECESSARY EQUIPMENT (PLUGGING, PUMPING, CONTAINMENT, ETC.) FOR THIS PURPOSE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL MAINTENANCE OF TRAFFIC (MOT) REQUIREMENTS AND FOR OBTAINING ANY REQUIRED PERMITS NECESSARY TO COMPLETE THEIR WORK.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING THE SPILLAGE OF RAW SEWAGE OR OTHER SUBSTANCES WHICH WOULD BE CONSIDERED DANGEROUS TO THE ENVIRONMENT DURING THEIR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY EQUIPMENT (PLUGGING, PUMPING, CONTAINMENT EQUIPMENT, ETC.) TO PREVENT SAID SPILLAGE.
18. SHOULD ANY LIQUID OR SOLID MATTER FROM THE SEWER COLLECTION SYSTEM BE SPILLED, DISCHARGED, LEAKED OR OTHERWISE DEPOSITED TO THE OPEN ENVIRONMENT AS A RESULT OF THE CONTRACTOR'S FLOW CONTROL OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CLEANUP AND DISINFECTION OF THE AFFECTED AREA AND ALL ASSOCIATED COSTS, INCLUDING ANY FINES OR PENALTIES RESULTING FROM THE DISCHARGE. THE CONTRACTOR ALSO SHALL BE RESPONSIBLE FOR NOTIFYING THE SEWER SYSTEM OPERATING PERSONNEL AND PERFORMING ALL REQUIRED CLEANUP OPERATIONS AT NO ADDITIONAL COST TO THE COUNTY. ANY SEWER SPILLS SHALL BE REPORTED WITHIN 24 HOURS TO THE BALTIMORE COUNTY BUREAU OF UTILITIES AT 410-887-7415 AND TO THE COUNTY INSPECTOR. THE CONTRACTOR MUST SUBMIT A COPY OF THE INCIDENT (SEE SPECIFICATIONS) TO THE PROJECT INSPECTOR WITHIN 24 HOURS OF THE EVENT.

19. THE CONTRACTOR SHALL NOT PENETRATE, CONNECT OR DEMOLISH EXISTING SEWERS OR ASSOCIATED STRUCTURES WITHOUT PRIOR APPROVAL FROM THE BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS.
20. THE CONTRACTOR SHALL PERFORM ALL REQUIRED SEWER CLEANING AND CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION OF ALL PIPE SEGMENTS TO BE REHABILITATED AS PART OF THIS PROJECT IN ADVANCE OF INITIATING CONSTRUCTION ACTIVITIES. SEWER CLEANING AND CCTV INSPECTIONS SHALL BE AS DESCRIBED IN THE CONTRACT SPECIFICATIONS TO DETERMINE ACCURATE DIMENSIONS, ALIGNMENT, IDENTIFY CONNECTIONS, SEVERELY DETERIORATED OR DEFORMED SEGMENTS OR ANY OTHER ABNORMALITIES OR CONDITIONS THAT WOULD AFFECT THE PROPOSED REHABILITATION/REPLACEMENT PROCESS.
21. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT AND TO SUPPORT EXISTING UTILITIES AND SHALL MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
22. UNDERGROUND UTILITIES (ELECTRIC, WATER, ETC.) MAY OR MAY NOT EXIST ON THE HOMEOWNER'S PROPERTY. THE LOCATION OF THESE SERVICES ARE UNKNOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGING THESE SERVICES. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
23. LOCATION OF HOUSE CONNECTIONS, SHOWN ON THE DRAWINGS, ARE FOR INFORMATION ONLY. THE EXACT LOCATION AND VERIFICATION IF SERVICES ARE ACTIVE WILL NEED TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR WITH INPUT OF THE PROPERTY OWNER. INACTIVE/ABANDONED HOUSE CONNECTIONS ARE NOT TO BE CUT OUT AND ARE TO BE LINED OVER.
24. THE CCTV INSPECTION VIDEOS THAT WERE REVIEWED IN ORDER TO MAKE THE SEWER REHABILITATION RECOMMENDATIONS ARE DATED JANUARY 2010. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF ANY OF THE SEWER CONDITIONS HAVE CHANGED SINCE THE CCTV INSPECTIONS WERE CONDUCTED.
25. DESIGN AND DRAWINGS ARE BASED UPON MARYLAND COORDINATE SYSTEM HORIZONTAL-NAD 83/91 AND NAVD 88 VERTICAL DATUM. BASE MAPPING FOR THIS PROJECT WAS DEVELOPED USING BALTIMORE COUNTY GIS DATA.
26. THE CONTRACTOR UNDERSTANDS THAT BALTIMORE COUNTY SHALL INCUR SIGNIFICANT AND SUBSTANTIAL STIPULATED PENALTIES PURSUANT TO A CONSENT DECREE ENTERED IN U.S. DISTRICT COURT FOR THE DISTRICT OF MARYLAND AND BY AND AMONG THE UNITED STATES OF AMERICA, THE STATE OF MARYLAND, AND BALTIMORE COUNTY. IN THE EVENT SEWAGE IS DISCHARGED ONTO THE GROUND OR INTO ANY STREAMS IN CONNECTION WITH THIS CONTRACT, ANY PENALTIES INCURRED BY THE COUNTY, ALONG WITH ANY AND ALL DAMAGES, COSTS AND EXPENSES OF THE COUNTY, SHALL BE THE LIABILITY AND OBLIGATION OF THE CONTRACTOR UNDER THIS CONTRACT.
27. THE CONTRACTOR SHALL REPORT TO THE BALTIMORE COUNTY DPW PROJECT MANAGER ALL INCIDENTS/COMPLAINTS FROM RESIDENTS REGARDING PROPERTY DAMAGE RESULTING FROM CONTRACTOR WORK OR ANY BACKUPS OF SEWAGE INTO DWELLINGS/BUSINESSES. ANY DAMAGED INCURRED SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR MUST COMPLETE A BASEMENT BACK-UP INCIDENT REPORT (SEE SPECIFICATIONS) AND PROVIDE TO THE PROJECT INSPECTOR WITHIN 24 HOURS.
28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL MAINTENANCE OF TRAFFIC (MOT) REQUIREMENTS AND FOR OBTAINING ANY REQUIRED PERMITS NECESSARY TO COMPLETE THEIR WORK.
29. A MINIMUM SINGLE LANE OF TRAFFIC IS REQUIRED TO BE MAINTAINED AT ALL TIMES ON ALL ROADWAYS. SINGLE-LANE OPERATIONS WILL ONLY BE ALLOWED BETWEEN THE HOURS OF 9:00 A.M. UNTIL 3:00 P.M. AND 8:00 P.M. TO 6:00 A.M. ON PUTTY HILL AVENUE AND AVONDALE ROAD.
30. AT THE END OF EACH WORKDAY, THE CONTRACTOR IS REQUIRED TO COMPLETE THE FOLLOWING:
A. BACKFILL AND/OR PLATE OVER ALL OPEN EXCAVATIONS SO THAT TWO LANES OF TRAFFIC ARE MAINTAINED.
B. REMOVE ALL EQUIPMENT AND MATERIAL FROM THE TRAVELED PORTION OF THE ROADWAY. ALSO, EQUIPMENT AND MATERIALS SHOULD NOT BE STORED IN SUCH A MANNER AS TO OBSTRUCT SIGHT DISTANCE AT ANY DRIVEWAY OR INTERSECTING ROAD.
C. COVER OR REMOVE ALL SIGNS REFERRING TO A SINGLE-LANE OPERATION. ALSO, IT MAY BE NECESSARY FOR THE CONTRACTOR TO PROVIDE "STEEL PLATES AHEAD" SIGNS ON EACH APPROACH TO THE CONSTRUCTION AREA, IF APPROPRIATE, OR AS DIRECTED BY THE INSPECTOR FOR THE PROJECT.
31. ALL EXISTING DRIVEWAY ACCESS MUST BE MAINTAINED AT ALL TIMES.
32. THE CONTRACTOR SHALL TAKE NOTE OF THE DATES (2006-2012) OF THE CCTV INSPECTION VIDEOS THAT WERE PROVIDED BY BALTIMORE COUNTY DPW AND UTILIZED TO MAKE SEWER REHABILITATION RECOMMENDATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING NEW CCTV INSPECTIONS AND DETERMINING IF ANY OF THE SEWER CONDITIONS HAVE SIGNIFICANTLY CHANGED SINCE THE CCTV INSPECTIONS WERE INITIALLY CONDUCTED THAT WOULD IMPACT THE WORK. ANY DIFFERING CONDITIONS SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE BALTIMORE COUNTY DPW AND ALTERNATIVE REPAIR RECOMMENDATIONS SUBMITTED FOR CONSIDERATION.
33. THE REPLACEMENT OF A CLEAN-OUT WITH A NEW MANHOLE SHALL BE COMPLETED BEFORE LINING OF THE ADJACENT SEWER IS PERFORMED.
34. ALL SHCS ON SEWERS BEING LINED ARE TO BE GROUTED UNLESS SEWER HOUSE CONNECTION LATERAL SEALS (SHCLS) ARE SPECIFIED.
35. DEPTHS OF MANHOLES AND LENGTHS OF SEWERS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY DEPTHS AND LENGTHS TO HIS SATISFACTION.

BGE FACILITIES

THIS DOCUMENT INCLUDES INFORMATION AND DEPICTIONS OF BALTIMORE GAS AND ELECTRIC COMPANY'S ("BGE") ELECTRIC AND/OR GAS UTILITIES LOCATED WITHIN THE PROJECT AREA (THE "BGE UTILITY INFORMATION"), LOCATIONS, DIMENSIONS, DEPTHS, AND OTHER DETAILS OF ANY SUCH UTILITIES MAY NOT BE AS-BUILT, AND THE INFORMATION SHALL NOT BE RELED UPON WITHOUT FIELD VERIFICATION. EXCAVATORS MUST EMPLOY SAFE DIGGING BEST PRACTICES WHEN APPROACHING BGE ELECTRIC AND GAS UTILITIES AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, INCLUDING, BUT NOT LIMITED TO, THE "MISS UTILITY LAW". NO REPRESENTATION, GUARANTEES, OR WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY BGE AS TO THE QUALITY, COMPLETENESS, OR ACCURACY OF THE BGE UTILITY INFORMATION, AND IN ACCEPTING THIS DOCUMENT, THE RECIPIENT EXPRESSLY ACKNOWLEDGES AND AGREES THAT IT IS NOT RELYING ON THE ACCURACY OF THE SAME.

The contingent point repairs noted on this plan have a defect whose severity may require the use of a thicker liner or the Contractor may need to complete a dig-up and perform a point repair. Locations noted are approximate. The County must be contacted if a point repair is proposed by the Contractor.

NOTES

1. FLOW DATA IS PROVIDED FROM AVAILABLE INFORMATION OBTAINED FROM PRIOR COUNTY METERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMODATING ALL FLOWS AS REQUIRED TO COMPLETE THEIR WORK.
2. ALL LINING WORK SHOULD BE COMPLETED DURING DRY WEATHER DUE TO HIGH RATES OF INFLOW/INFILTRATION DURING WET WEATHER. NO LINING SHALL BE PERMITTED DURING RAIN EVENTS.

WASTEWATER FLOW DATA		
MANHOLE NUMBER	AVERAGE DAILY FLOW (MGD)	MAXIMUM DAILY FLOW (MGD)
52807	0.498	0.101
23625	2.971	0.761

BALTIMORE CO. PUBLIC SCHOOL PROPERTY - NOTES

1. AT LEAST TWO WEEKS BEFORE WORK IS TO BEGIN, THE CONTRACTOR SHALL NOTIFY THE PRINCIPAL OF THE SCHOOL AND THE BCPS OFFICE OF PHYSICAL FACILITIES, 410-887-6301. NOTIFICATION SHALL INCLUDE INTENDED SCHEDULE OF WORK AND ACCESS POINTS FOR PERSONNEL AND EQUIPMENT IF WORK IS TO BE PERFORMED IN MULTIPLE PHASES (FOR EXAMPLE, PIPE LINING, MANHOLE LINING, AND TESTING AND GROUTING OF LATERALS), NOTIFICATION SHALL BE PROVIDED FOR EACH PHASE.
2. ALL WORK SHALL BE COORDINATED WITH SCHOOL DAY ACTIVITIES AND AFTER-SCHOOL AND WEEKEND ACTIVITIES.
3. IF THERE IS A NEED FOR SEWAGE AND/OR WATER SHUTDOWN, THIS WORK SHALL TAKE PLACE AFTER SCHOOL HOURS AND WHEN NO EXTRACURRICULAR ACTIVITIES ARE TAKING PLACE USING THE SCHOOL FACILITIES. CAREFUL COORDINATION WITH PERSONNEL AT THE SCHOOL IS NEEDED. THE CONTRACTOR SHALL NOTIFY THE PRINCIPAL OF THE SCHOOL AND THE BCPS OFFICE OF PHYSICAL FACILITIES IS REQUIRED AT LEAST ONE WEEK BEFORE WORK IS TO BEGIN AND MUST RECEIVE APPROVAL PRIOR TO ANY SHUTDOWN.
4. ALL DISTURBED AREAS (INCLUDING WHEEL RUTS, ETC.) NEED TO BE RESTORED WITH AT LEAST 3 INCHES OF IMPORTED TOPSOIL, SEED, AND MULCH.

BALTIMORE CO. PUBLIC SCHOOL PROPERTY - SPECIAL PROVISIONS

FOR ALL WORK ON THE GROUNDS OF BALTIMORE COUNTY PUBLIC SCHOOLS, THE FOLLOWING CONTRACTOR CRITERIA MUST BE MET.

A. DRUG, TOBACCO, AND ALCOHOL

1. ALL BALTIMORE COUNTY BOARD OF EDUCATION AND BCPS PROPERTIES ARE "DRUG, TOBACCO, AND ALCOHOL FREE ZONES" AS DESIGNATED BY FEDERAL, STATE AND LOCAL LAWS AND BY BOARD OF EDUCATION POLICY. NEITHER THE CONTRACTOR NOR ANY OF THE CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS OR AGENTS WILL BE PERMITTED TO HAVE ANY ILLEGAL DRUGS, TOBACCO PRODUCTS, OR ALCOHOL PRODUCTS WHILE PERFORMING THEIR DUTIES UNDER THIS CONTRACT AND WHILE WORKING ON BOARD OF EDUCATION AND BCPS PROPERTY. USE OR POSSESSION OF ILLEGAL DRUGS, TOBACCO PRODUCTS, OR ALCOHOL PRODUCTS ON SCHOOL PROPERTY WILL RESULT IN IMMEDIATE REMOVAL OF THE OFFENDING INDIVIDUAL(S). BCPS RESERVES THE RIGHT TO ISSUE, AT A MINIMUM, A VERBAL DIRECTIVE TO THE OFFENDING INDIVIDUAL(S) TO COMPLY WITH THIS PROHIBITION AND TO CEASE USE. THE CONTRACTOR WILL BE NOTIFIED IN WRITING OF ANY VIOLATION(S).
2. ANY SUBSEQUENT OFFENSE BY ANY INDIVIDUAL OR INDIVIDUALS MAY RESULT IN A PERMANENT BAN FROM THE PROJECT FOR THE OFFENDER(S), WITH APPROPRIATE FORMAL NOTICE TO THE CONTRACTOR. BCPS RESERVES THE RIGHT TO DOCUMENT ANY OFFENSES IN THE CONTRACTOR'S FILE MAINTAINED BY THE OFFICE OF PURCHASING. BCPS FURTHER RESERVES THE RIGHT TO ADDRESS ANY SUBSTANCE USE INFRACTION BY ANY MEANS IT DEEMS NECESSARY, UP TO AND INCLUDING TERMINATION OF THE CONTRACT. IN THE EVENT THAT A CONTRACT IS TERMINATED AS A RESULT OF A SUBSTANCE ABUSE INFRACTION, BCPS WILL PROVIDE AN "UNSATISFACTORY" REFERENCE WHEN REFERENCES ARE REQUESTED.

B. CRIMINAL BACKGROUND CHECK

AWARD BIDDER SHALL BE RESPONSIBLE FOR ENSURING THAT EMPLOYEES ASSIGNED TO BCPS SITES, EITHER EMPLOYED BY AWARD BIDDER OR THEIR SUB-CONTRACTOR(S), HAVE SUCCESSFULLY PASSED A CRIMINAL BACKGROUND CHECK. THE AWARD BIDDER SHALL ADVISE THE BCPS OF THE INTENTION TO USE ANY EMPLOYEES, INCLUDING SUB-CONTRACTOR EMPLOYEES THAT ARE HIRED OR OBTAINED FROM ANY PENAL PRE-RELEASE OR WORK-RELEASE PROGRAMS. IN THE EVENT SUCH EMPLOYEES ARE USED, NOTIFICATION TO BCPS SHALL INCLUDE NAME AND VIOLATION FOR EACH INDIVIDUAL. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS WHEN SELECTING SUCH INDIVIDUALS AND PROVIDE WHATEVER SAFEGUARDS ARE NECESSARY FOR EFFECTIVE SUPERVISION. SUCH EMPLOYEES ARE NOT PERMITTED INSIDE SCHOOL BUILDINGS WHEN THE NATURE OF THE CONTRACT IS FOR OUTSIDE WORK.

C. EMPLOYMENT OF CHILD SEX OFFENDERS

MARYLAND LAW REQUIRES CERTAIN CHILD SEX OFFENDERS TO REGISTER WITH THE STATE AND WITH THE LOCAL LAW ENFORCEMENT AGENCY IN THE COUNTY IN WHICH THEY WILL RESIDE, WORK AND/OR ATTEND SCHOOL. SECTION 11-722(C) OF THE CRIMINAL PROCEDURE ARTICLE OF THE ANNOTATED CODE OF MARYLAND STATES, "A PERSON WHO ENTERS INTO A CONTRACT WITH A COUNTY BOARD OF EDUCATION OR A NON-PUBLIC SCHOOL MAY NOT KNOWINGLY EMPLOY AN INDIVIDUAL TO WORK AT A SCHOOL IF THE INDIVIDUAL IS A REGISTRANT. A PERSON WHO VIOLATES THIS SECTION IS GUILTY OF A MISDEMEANOR AND ON CONVICTION IS SUBJECT TO IMPRISONMENT NOT EXCEEDING FIVE YEARS OR A FINE NOT EXCEEDING \$5,000 OR BOTH." IF A CHILD SEX OFFENDER, AS DETERMINED BY THE DEFINITIONS CONTAINED IN THE CRIMINAL LAW ARTICLE OF THE ANNOTATED CODE OF MARYLAND, IS EMPLOYED BY THE AWARD BIDDER, THE AWARD BIDDER IS PROHIBITED FROM ASSIGNING THAT EMPLOYEE TO PERFORM MANAGEMENT, DELIVERY, INSTALLATION, REPAIR, CONSTRUCTION OR ANY OTHER TYPE OF SERVICES ON ANY BCPS PROPERTY, INCLUDING THE PROJECT PROPERTY. VIOLATION OF THIS PROVISION MAY RESULT IN TERMINATION FOR CAUSE.

DESIGN PROFESSIONAL: HYDROSTRUCTURES
ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462
PHONE: (757)-630-7989
EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW
ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204
PHONE: (410)-887-3300

STATE OF MARYLAND DAVID P. JOHNSTON Professional Engineer No. 36989 4/18/25	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS	
	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.							NNE & NSE	20NE17-18, 20NE17-19, 27NE17-18, 28NE17, 30NE17-18, 30NE17	PLAN SCALE: N/A HOR. N/A VER. N/A	APPROVED BY: DIRECTOR	
	EXPIRATION DATE									PROFILE SCALE:	DATE: See DWG No. 2015-2516	
	ENGINEER: HYDROSTRUCTURES 4717A WASHINGTON BLVD. ARBUTUS, MARYLAND 21227	DGN BY: PAS DWN BY: OLA CHKD BY: EJA	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION	
		REVIEWED BY:									APPROVED BY: SEE DWG	
		DATE REVIEWED:									DATE: No. 2015-2516	
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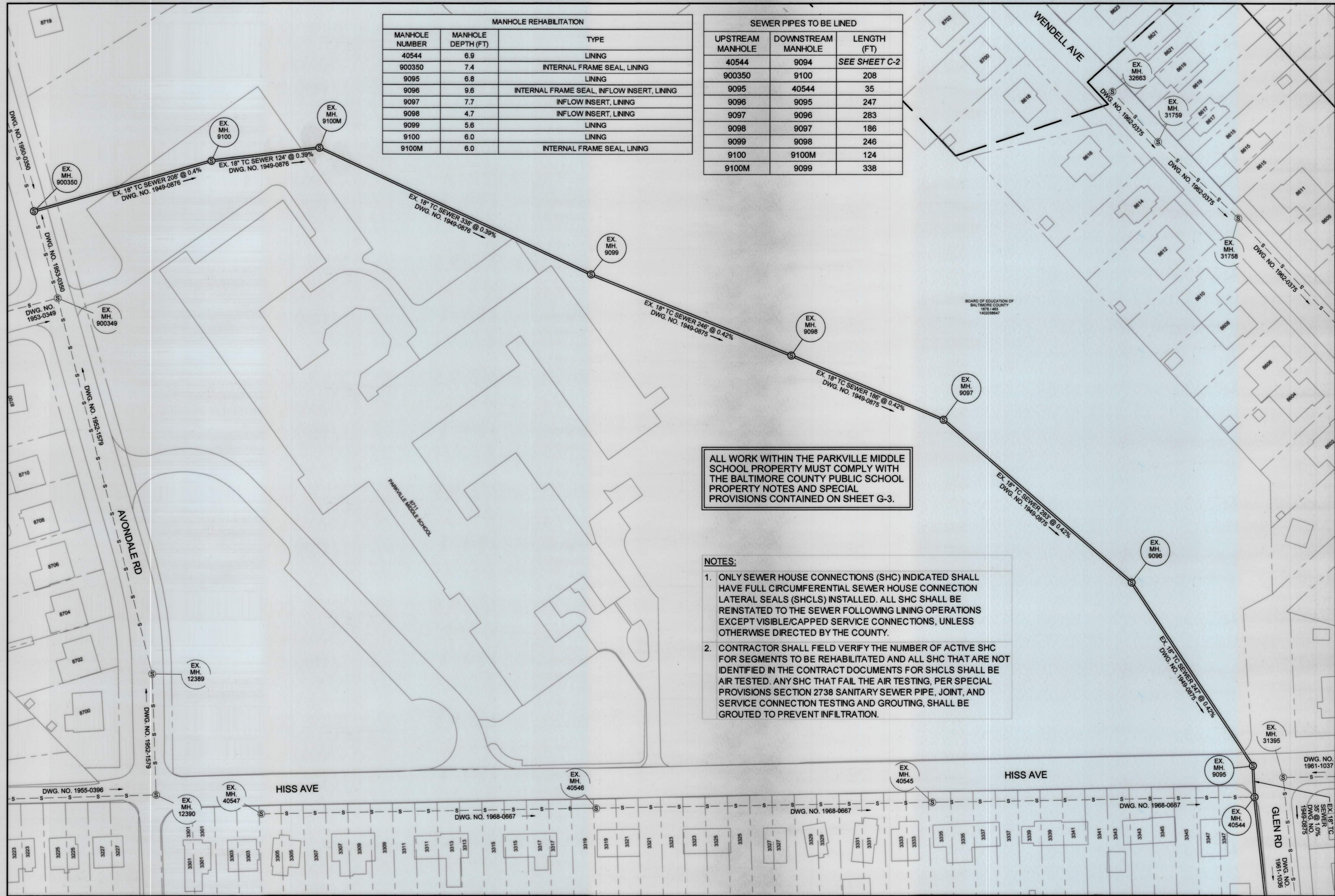
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION
GENERAL NOTES

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

SHEET DESIGNATION	CONTRACT NUMBER
G-3	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 3 OF 31	
DRAWING NUMBER	2015-2518
FILE NO.:	1



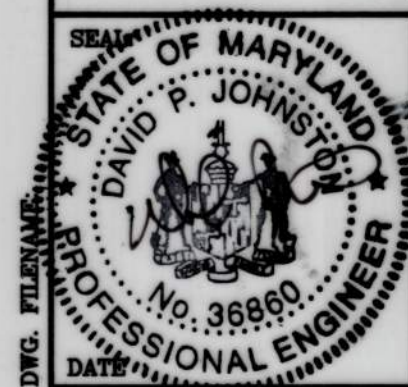
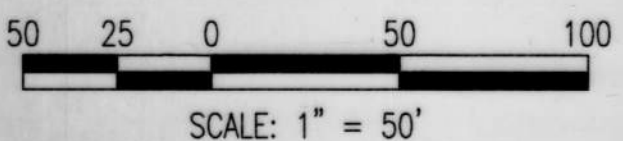
MANHOLE REHABILITATION		
MANHOLE NUMBER	MANHOLE DEPTH (FT)	TYPE
40544	6.9	LINING
900350	7.4	INTERNAL FRAME SEAL, LINING
9095	6.8	LINING
9096	9.6	INTERNAL FRAME SEAL, INFLOW INSERT, LINING
9097	7.7	INFLOW INSERT, LINING
9098	4.7	INFLOW INSERT, LINING
9099	5.6	LINING
9100	6.0	LINING
9100M	6.0	INTERNAL FRAME SEAL, LINING

SEWER PIPES TO BE LINED		
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	LENGTH (FT)
40544	9094	SEE SHEET C-2
900350	9100	208
9095	40544	35
9096	9095	247
9097	9096	283
9098	9097	186
9099	9098	246
9100	9100M	124
9100M	9099	338

ALL WORK WITHIN THE PARKVILLE MIDDLE SCHOOL PROPERTY MUST COMPLY WITH THE BALTIMORE COUNTY PUBLIC SCHOOL PROPERTY NOTES AND SPECIAL PROVISIONS CONTAINED ON SHEET G-3.

NOTES:

- ONLY SEWER HOUSE CONNECTIONS (SHC) INDICATED SHALL HAVE FULL CIRCUMFERENTIAL SEWER HOUSE CONNECTION LATERAL SEALS (SHCLS) INSTALLED. ALL SHC SHALL BE REINSTATED TO THE SEWER FOLLOWING LINING OPERATIONS EXCEPT VISIBLE/CAPPED SERVICE CONNECTIONS, UNLESS OTHERWISE DIRECTED BY THE COUNTY.
- CONTRACTOR SHALL FIELD VERIFY THE NUMBER OF ACTIVE SHC FOR SEGMENTS TO BE REHABILITATED AND ALL SHC THAT ARE NOT IDENTIFIED IN THE CONTRACT DOCUMENTS FOR SHCLS SHALL BE AIR TESTED. ANY SHC THAT FAIL THE AIR TESTING, PER SPECIAL PROVISIONS SECTION 2738 SANITARY SEWER PIPE, JOINT, AND SERVICE CONNECTION TESTING AND GROUTING, SHALL BE GROUTED TO PREVENT INFILTRATION.



PROFESSIONAL CERTIFICATION			AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHI	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. _____ EXPIRATION DATE: _____									28NE17, 29NE17, 29NE18, 30NE17	PLAN SCALE: 1"=50'	APPROVED BY: _____ DIRECTOR	
							R.O.W. NO.	NSE		HOR: N/A VER: N/A	DATE: See DWG No. 2015-2516	
ENGINEER: HYDROSTRUCTURES <small>A BARBERIS Company</small> 5269 Cleveland Street, Ste 206 Virginia Beach, Virginia 23462			BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION
DGN BY: UM												APPROVED BY: SEE DWG.
DWN BY: TL			REVIEWED BY:									DATE: No. 2015-2516
CHKD BY: DJ			DATE REVIEWED:									CHIEF

MATCHLINE - SEE SHEET C-1

SEWER PIPES TO BE LINED		
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	LENGTH (FT)
31391	9093	163
38298	52806	115
38300	38298	171
40544	9094	296
52806	52807	70
52807	9090	SEE SHEET C-4
9092	38298	214
9093	9092	86
9094	31391	156
9095	40544	SEE SHEET C-1
9096	9095	SEE SHEET C-1

MANHOLE REHABILITATION		
MANHOLE NUMBER	MANHOLE DEPTH (FT)	TYPE
31391	7.4	INTERNAL FRAME SEAL, INFLOW INSERT, LINING
38298	5.8	LINING
38300	10.0	INTERNAL FRAME SEAL, LINING
40544	6.9	SEE SHEET C-1
52806	10.1	EXTERNAL FRAME SEAL, LINING
52807	7.8	INTERNAL FRAME SEAL, EXTERNAL FRAME SEAL, LINING
9092	9.8	LINING
9093	8.0	LINING
9094	11.5	LINING
9095	6.8	SEE SHEET C-1

SPOT REPAIRS			
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.)	TYPE OF REPAIR
31391	9093	88	GROUTING*
31391	9093	91	GROUTING*
31391	9093	109	GROUTING*
31391	9093	116	GROUTING*
31391	9093	122	GROUTING*
38298	52806	96	GROUTING*
40544	9094	137	GROUTING*
40544	9094	140	GROUTING*
40544	9094	155	GROUTING*
9093	9092	50	GROUTING*
9093	9092	54	GROUTING*
9093	9092	60	GROUTING*

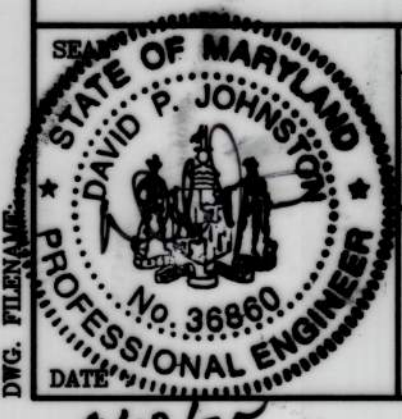
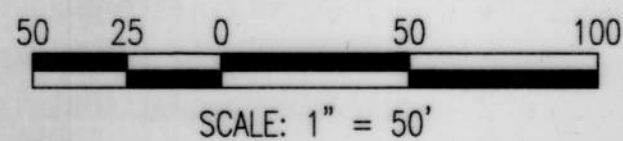
* CONTINGENT REPAIR - REQUIRES PRIOR APPROVAL FROM COUNTY ENGINEER

SEWER HOUSE CONNECTION - LATERAL REPAIRS			
REPAIR NUMBER	UPSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.) WITH CLOCK POSITION	TYPE OF REPAIR
1	38300	28CL12	SHCLS*
2	38300	87CL3	SHCLS*

* CIP SEWER HOUSE CONNECTION LATERAL SEAL

- NOTES:
- ONLY SEWER HOUSE CONNECTIONS (SHC) INDICATED SHALL HAVE FULL CIRCUMFERENTIAL SEWER HOUSE CONNECTION LATERAL SEALS (SHCLS) INSTALLED. ALL SHC SHALL BE REINSTATED TO THE SEWER FOLLOWING LINING OPERATIONS EXCEPT VISIBLE/CAPPED SERVICE CONNECTIONS, UNLESS OTHERWISE DIRECTED BY THE COUNTY.
 - CONTRACTOR SHALL FIELD VERIFY THE NUMBER OF ACTIVE SHC FOR SEGMENTS TO BE REHABILITATED AND ALL SHC THAT ARE NOT IDENTIFIED IN THE CONTRACT DOCUMENTS FOR SHCLS SHALL BE AIR TESTED. ANY SHC THAT FAIL THE AIR TESTING, PER SPECIAL PROVISIONS SECTION 2738 SANITARY SEWER PIPE, JOINT, AND SERVICE CONNECTION TESTING AND GROUTING, SHALL BE GROUTED TO PREVENT INFILTRATION.

12741
DWG. NO. 1953-0025



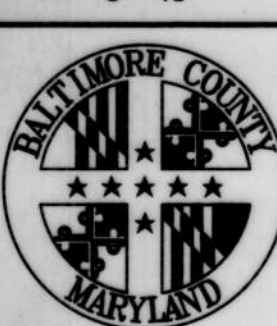
PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.					R.O.W. NO.	NSE	28NE17, 29NE17, 29NE18	PLAN SCALE: 1"=50'	APPROVED BY: DIRECTOR
LICENSE NO. 38860 EXPIRATION DATE								PROFILE SCALE: HORIZ N/A VERT N/A	DATE: See DWG No. 2015-2516
ENGINEER: HYDROSTRUCTURES	DON BY: UM	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
5269 Cleveland Street, Ste 206 Virginia Beach, Virginia 23462	DWN BY: TL	REVIEWED BY:							BUR. OF ENGINEERING & CONSTRUCTION
	CHD BY: DJ	DATE REVIEWED:							APPROVED BY: SEE DWG
									DATE: No. 2015-2516

SUBDIVISION: PARKVILLE

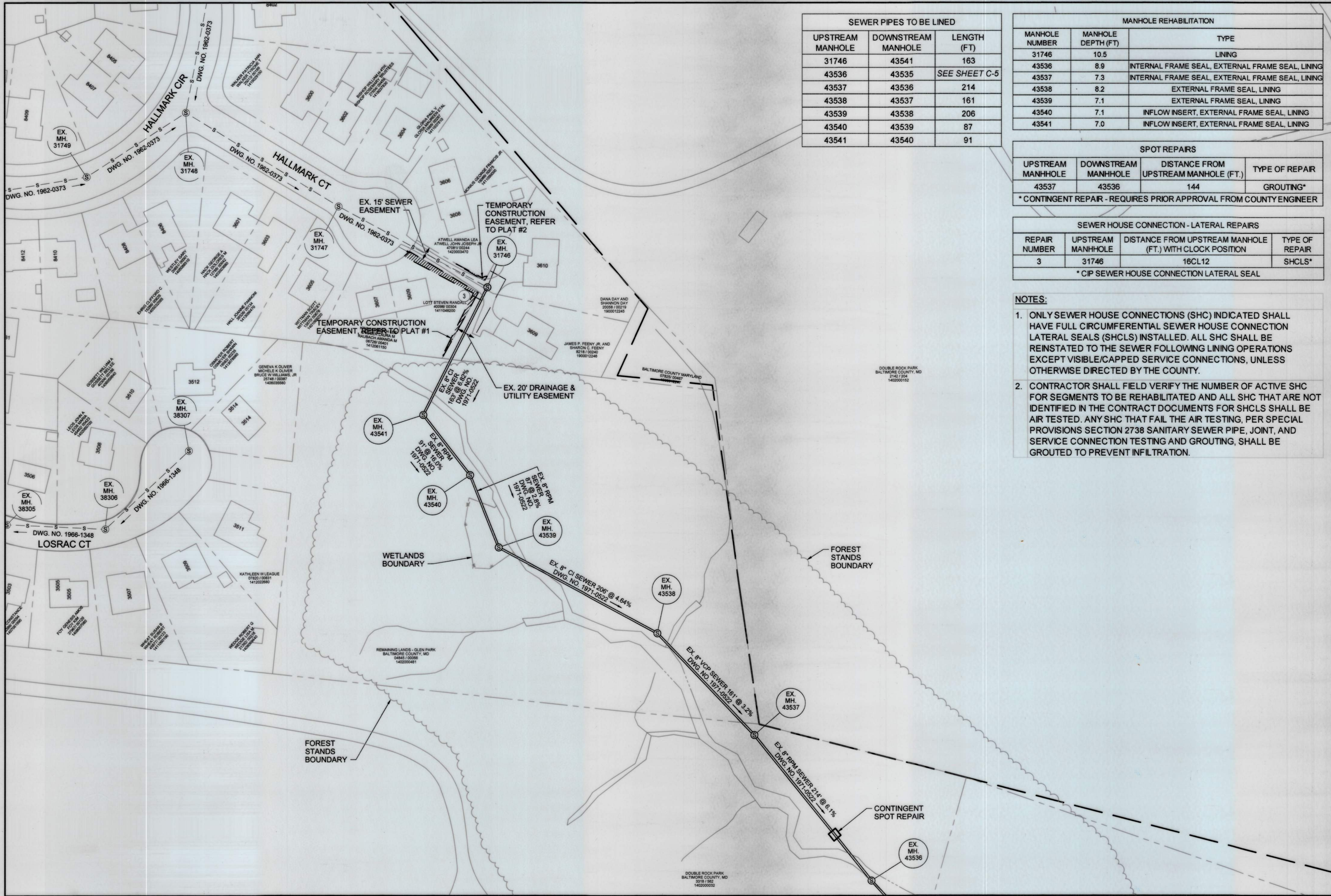
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION
PLAN - TEXAS AVE
PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

SHEET DESIGNATION	CONTRACT NUMBER
C-2	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 5 OF 31	
DRAWING NUMBER	2015-2520
FILE NO.	1



SCANNED



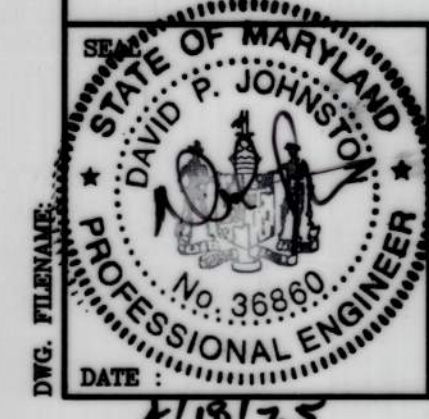
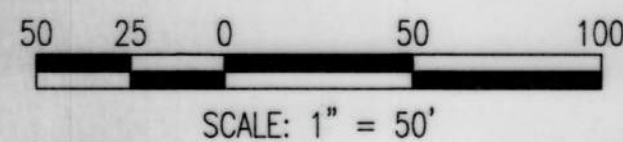
SEWER PIPES TO BE LINED		
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	LENGTH (FT)
31746	43541	163
43536	43535	SEE SHEET C-5
43537	43536	214
43538	43537	161
43539	43538	206
43540	43539	87
43541	43540	91

MANHOLE REHABILITATION		
MANHOLE NUMBER	MANHOLE DEPTH (FT)	TYPE
31746	10.5	LINING
43536	8.9	INTERNAL FRAME SEAL, EXTERNAL FRAME SEAL, LINING
43537	7.3	INTERNAL FRAME SEAL, EXTERNAL FRAME SEAL, LINING
43538	8.2	EXTERNAL FRAME SEAL, LINING
43539	7.1	EXTERNAL FRAME SEAL, LINING
43540	7.1	INFLOW INSERT, EXTERNAL FRAME SEAL, LINING
43541	7.0	INFLOW INSERT, EXTERNAL FRAME SEAL, LINING

SPOT REPAIRS			
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.)	TYPE OF REPAIR
43537	43536	144	GROUTING*
* CONTINGENT REPAIR - REQUIRES PRIOR APPROVAL FROM COUNTY ENGINEER			

SEWER HOUSE CONNECTION - LATERAL REPAIRS			
REPAIR NUMBER	UPSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.) WITH CLOCK POSITION	TYPE OF REPAIR
3	31746	16CL12	SHCLS*
* CIP SEWER HOUSE CONNECTION LATERAL SEAL			

- NOTES:
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 - CONTRACTOR SHALL FIELD VERIFY THE NUMBER OF ACTIVE SHC FOR SEGMENTS TO BE REHABILITATED AND ALL SHC THAT ARE NOT IDENTIFIED IN THE CONTRACT DOCUMENTS FOR SHCLS SHALL BE AIR TESTED. ANY SHC THAT FAIL THE AIR TESTING, PER SPECIAL PROVISIONS SECTION 2738 SANITARY SEWER PIPE, JOINT, AND SERVICE CONNECTION TESTING AND GROUTING, SHALL BE GROUTED TO PREVENT INFILTRATION.



PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SH	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
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. 36869									
EXPIRATION DATE									
ENGINEER:		DGN BY: UJM	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER
		DWN BY: TL	REVIEWED BY:						
		CHKD BY: DJ	DATE REVIEWED:						

DATE: 4/18/25

SHEET DESIGNATION		CONTRACT NUMBER
C-3		15269 SXO
JOB ORDER NUMBER		231-201-0077-7225
SHEET 6 OF 31		
DRAWING NUMBER		2015-2521
FILE NO.: 1		

BALTIMORE COUNTY MARYLAND

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD

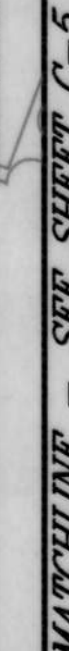
SEWER REHABILITATION

PLAN - DOUBLE ROCK PARK I

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

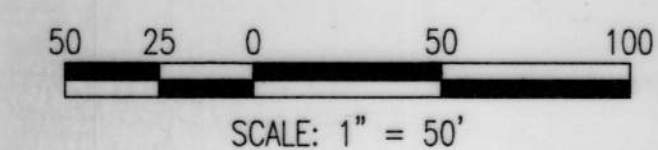


MANHOLE REHABILITATION		
MANHOLE NUMBER	MANHOLE DEPTH (FT)	TYPE
2363	8.5	EXTERNAL FRAME SEAL, LINING
23633	13.8	EXTERNAL FRAME SEAL, LINING
23634	7.3	EXTERNAL FRAME SEAL, LINING
2364	10.7	EXTERNAL FRAME SEAL, LINING
2365	9.9	EXTERNAL FRAME SEAL, LINING
2366	6.8	EXTERNAL FRAME SEAL, LINING
2367	9.3	INTERNAL FRAME SEAL, EXTERNAL FRAME SEAL, LINING
52806	10.1	SEE SHEET C-2
52807	7.8	SEE SHEET C-2
9089	4.8	EXTERNAL FRAME SEAL, LINING
9090	6.6	INTERNAL FRAME SEAL, EXTERNAL FRAME SEAL, LINING


SPOT REPAIRS			
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.)	TYPE OF REPAIR
2364	2363	222	GROUTING*
2364	2363	284	GROUTING*
2365	2364	38	GROUTING*
2365	2364	48	GROUTING*
2366	2365	92	GROUTING*
2366	2365	126	GROUTING*
2366	2365	157	GROUTING*
2366	2365	180	GROUTING*
2367	2366	41	GROUTING*
2367	2366	133	GROUTING*

* CONTINGENT REPAIR - REQUIRES PRIOR APPROVAL FROM COUNTY ENGINEER

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BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION		
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD SEWER REHABILITATION PLAN - DOUBLE ROCK PARK II		
SUBDIVISION: PARKVILLE	PARKVILLE, MARYLAND	ELECTION DIST. NO.: 14c6

SHEET DESIGNATION	CONTRACT NUMBER
C-4	15269 SXO
	JOB ORDER NUMBER
	231-201-0077-7225
	SHEET 7 OF 31
	DRAWING NUMBER
	2015-2522
	FILE NO.: 1

MATCHLINE - SEE SHEET C-5

MANHOLE REHABILITATION		
MANHOLE NUMBER	MANHOLE DEPTH (FT)	TYPE
12777	10.2	LINING
12778	9.3	INTERNAL FRAME SEAL, LINING
12779	7.7	LINING
17560	8.5	LINING
17561	6.8	LINING
17562	12.0	LINING
17563	10.6	INTERNAL FRAME SEAL, INFLOW INSERT, LINING
17563A	8.7	LINING
17565	9.3	INTERNAL FRAME SEAL, LINING
17566	8.8	INTERNAL FRAME SEAL, LINING
23719	11.4	EXTERNAL FRAME SEAL, LINING
23720	12.4	EXTERNAL FRAME SEAL, LINING
23721	9.4	SEE SHEET C-5
31010	11.4	INTERNAL FRAME SEAL, EXTERNAL FRAME SEAL, LINING
38268	10.2	LINING

POINT REPAIRS			
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.)	TYPE OF REPAIR
17563	17566	32 to 40	MISSING PIPE SECTION*
17563A	17563	72 to 80	MISSING PIPE SECTION*

* CONTINGENT REPAIR - REQUIRES PRIOR APPROVAL FROM COUNTY ENGINEER

SPOT REPAIRS			
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.)	TYPE OF REPAIR
17560	17561	108	GROUTING*
17560	17561	157	GROUTING*
17560	17561	260	GROUTING*
17560	17561	321	GROUTING*
17561	17562	112	GROUTING*
17561	17562	114	GROUTING*
17561	17562	116	GROUTING*
17563A	17563	11	GROUTING*
17566	17565	79	GROUTING*
17566	17565	188	GROUTING*
23719	23720	259	GROUTING*
23720	23721	67	SEE SHEET C-5
38268	12778	147	GROUTING*

* CONTINGENT REPAIR - REQUIRES PRIOR APPROVAL FROM COUNTY ENGINEER

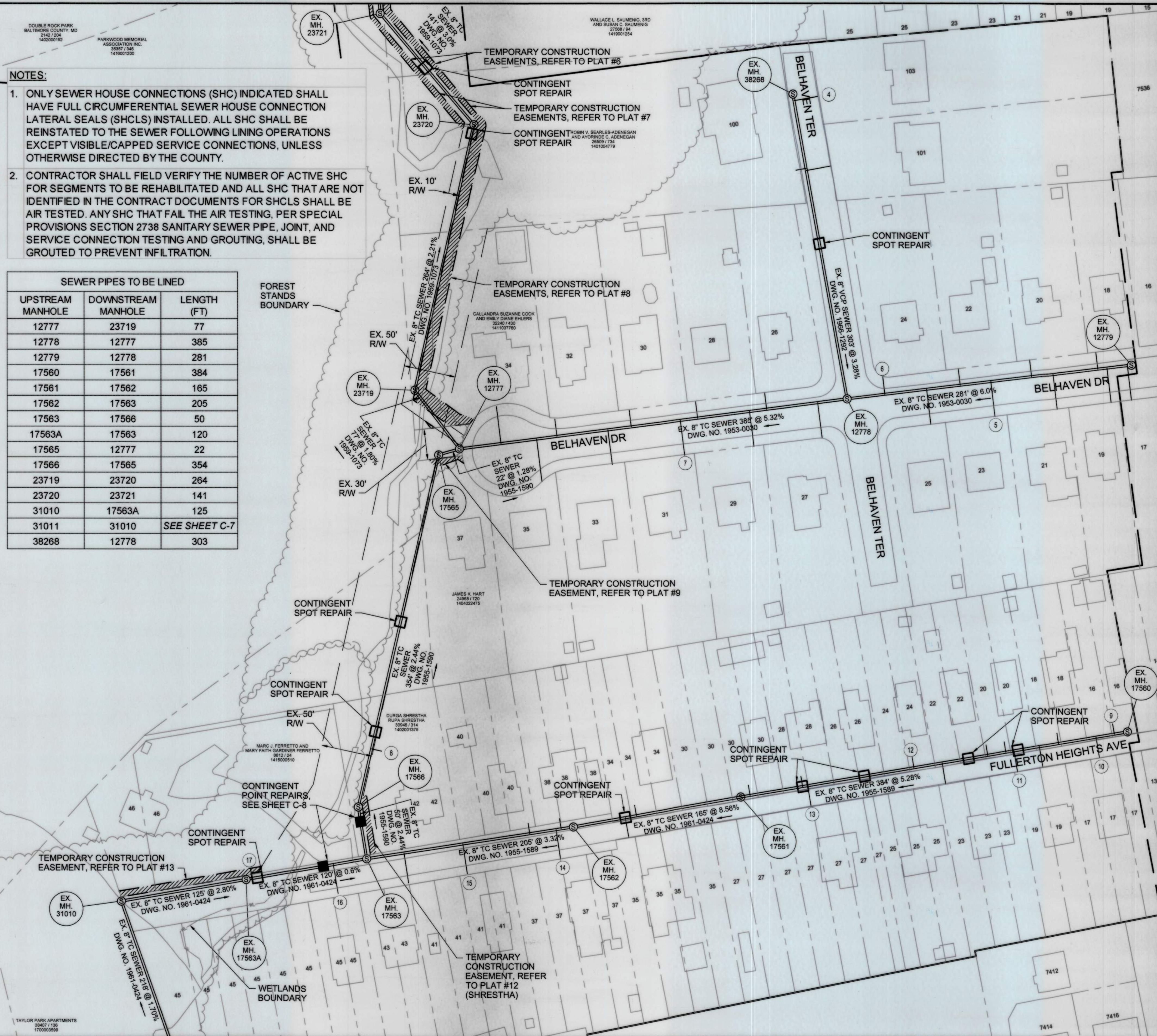
SEWER HOUSE CONNECTION - LATERAL REPAIRS			
REPAIR NUMBER	UPSTREAM MANHOLE	DISTANCE FROM UPSTREAM MANHOLE (FT.) WITH CLOCK POSITION	TYPE OF REPAIR
4	38268	6CL9	SHCLS*
5	12779	138CL9	SHCLS*
6	12779	242CL3	SHCLS*
7	12778	164CL9	SHCLS*
8	17566	62CL3	SHCLS*
9	17560	13CL3	SHCLS*
10	17560	31CL9	SHCLS*
11	17560	112CL9	SHCLS*
12	17560	211CL3	SHCLS*
13	17560	316CL9	SHCLS*
14	17562	17CL10	SHCLS*
15	17562	109CL9	SHCLS*
16	17563A	86CL3	SHCLS*
17	17563A	6CL9	SHCLS*

* CIP SEWER HOUSE CONNECTION LATERAL SEAL

NOTES:

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SEWER PIPES TO BE LINED		
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	LENGTH (FT)
12777	23719	77
12778	12777	385
12779	12778	281
17560	17561	384
17561	17562	165
17562	17563	205
17563	17566	50
17563A	17563	120
17565	12777	22
17566	17565	354
23719	23720	264
23720	23721	141
31010	17563A	125
31011	31010	SEE SHEET C-7
38268	12778	303



MATCHLINE - SEE SHEET C-7



PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
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. 38969									
EXPIRATION DATE									
ENGINEER: HYDROSTRUCTURES									
5269 Cleveland Street, Ste 206									
Virginia Beach, Virginia 23462									
DGN BY: UM	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
DWN BY: TL	REVIEWED BY:								
CHKD BY: DJ	DATE REVIEWED:								
APPROVED BY: SEE DWG									
DATE: 2015-2516									

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION
 PLAN - FULLERTON HEIGHTS AVE

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

SHEET DESIGNATION	CONTRACT NUMBER
C-6	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 9 OF 31	
DRAWING NUMBER	2015-2524
FILE NO.	1

50 25 0 50 100
 SCALE: 1" = 50'

SCANNED

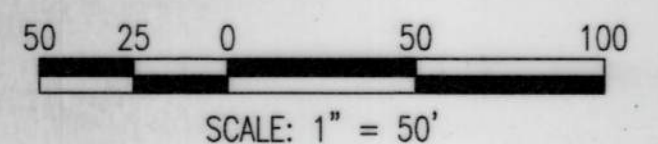
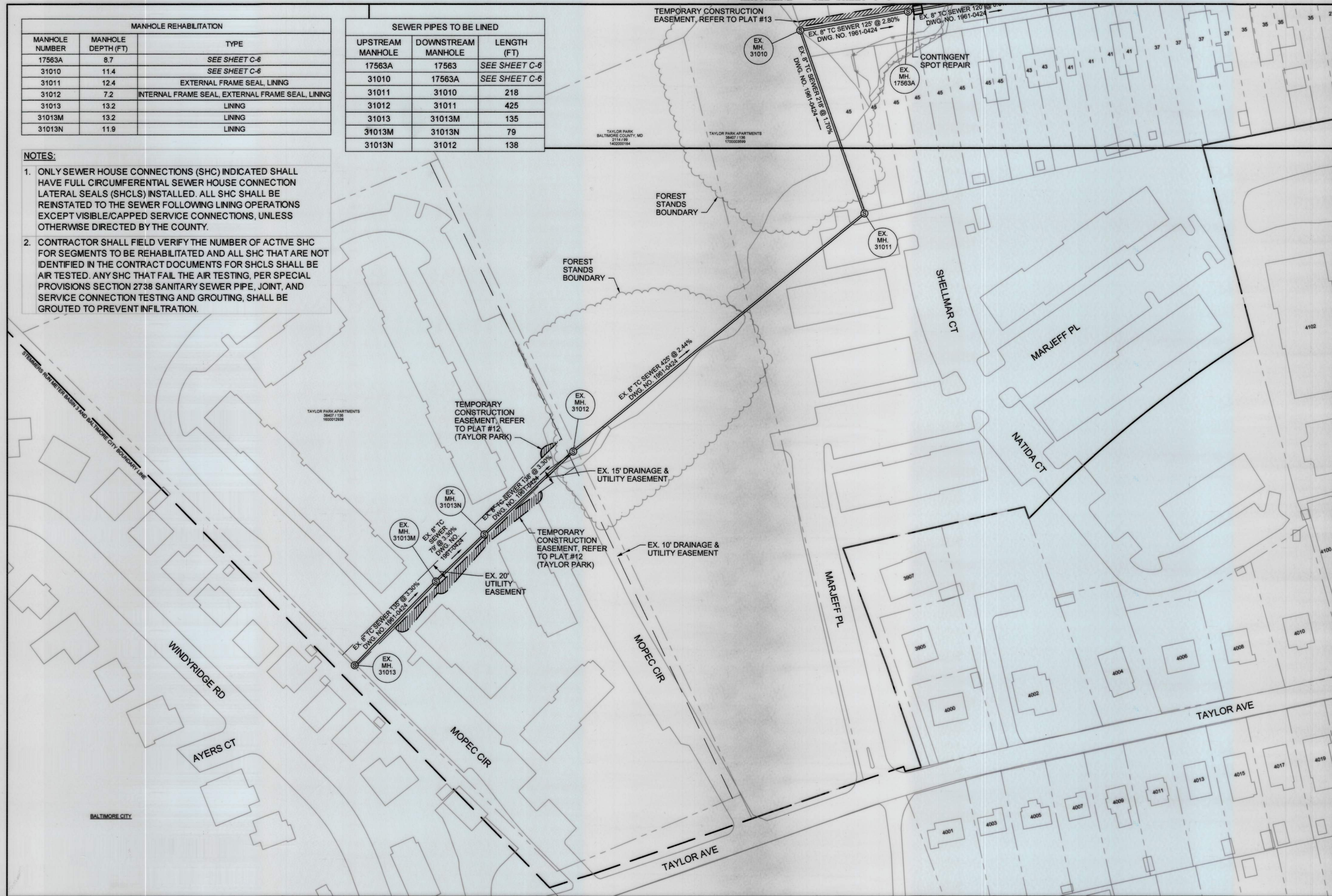
MATCHLINE - SEE SHEET C-6

MANHOLE REHABILITATION		
MANHOLE NUMBER	MANHOLE DEPTH (FT)	TYPE
17563A	8.7	SEE SHEET C-6
31010	11.4	SEE SHEET C-6
31011	12.4	EXTERNAL FRAME SEAL, LINING
31012	7.2	INTERNAL FRAME SEAL, EXTERNAL FRAME SEAL, LINING
31013	13.2	LINING
31013M	13.2	LINING
31013N	11.9	LINING

SEWER PIPES TO BE LINED		
UPSTREAM MANHOLE	DOWNSTREAM MANHOLE	LENGTH (FT)
17563A	17563	SEE SHEET C-6
31010	17563A	SEE SHEET C-6
31011	31010	218
31012	31011	425
31013	31013M	135
31013M	31013N	79
31013N	31012	138

NOTES:

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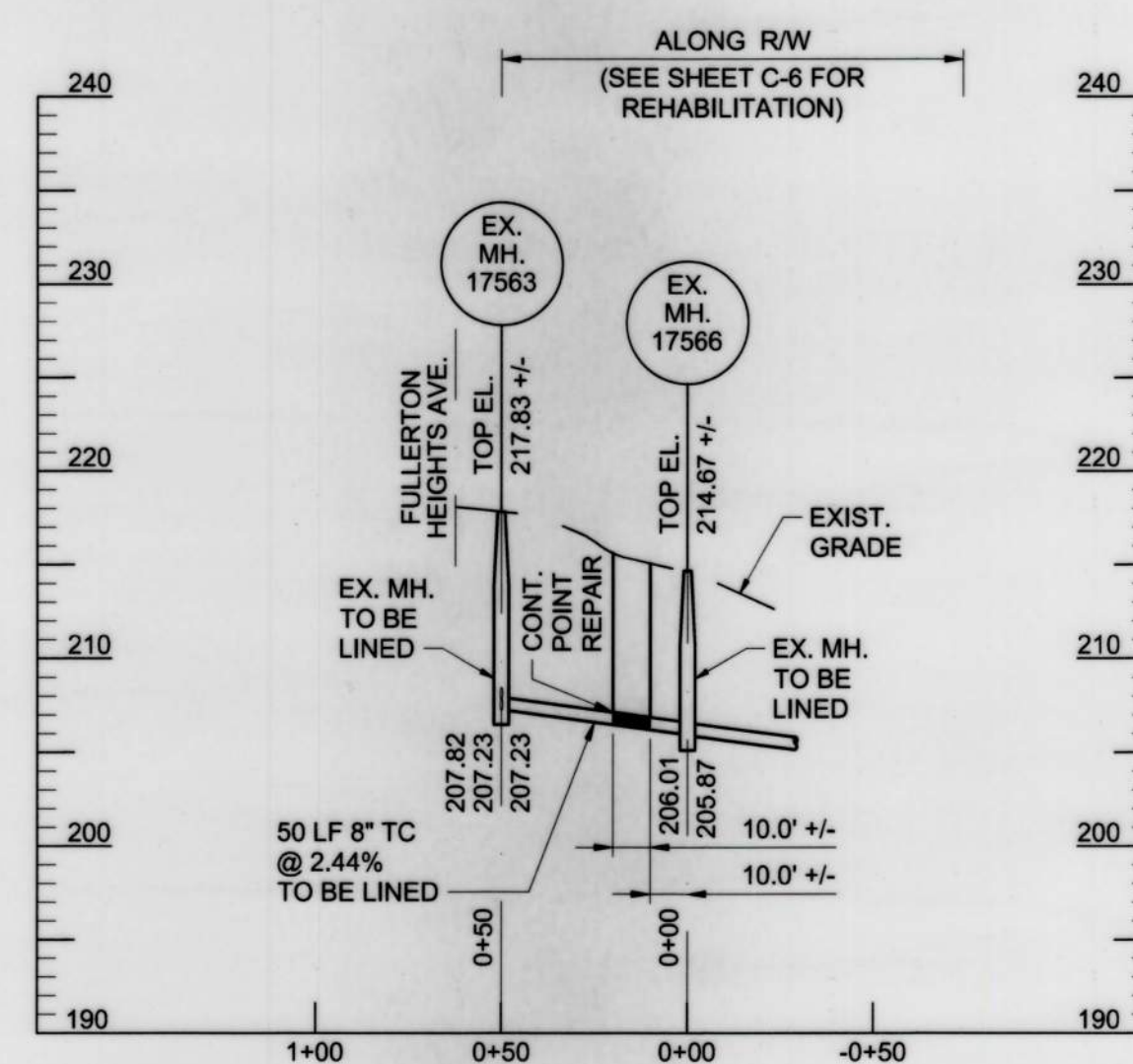
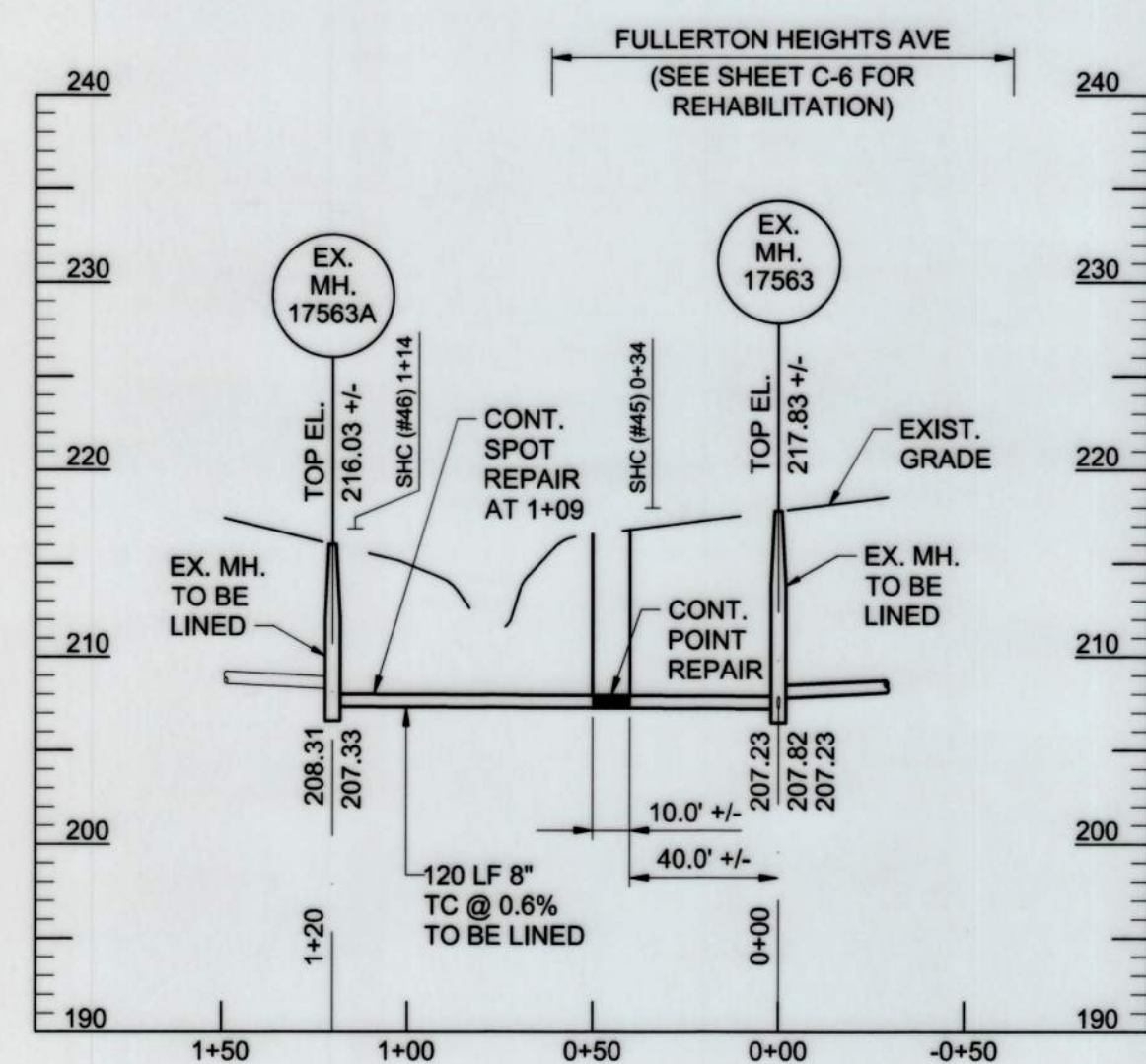
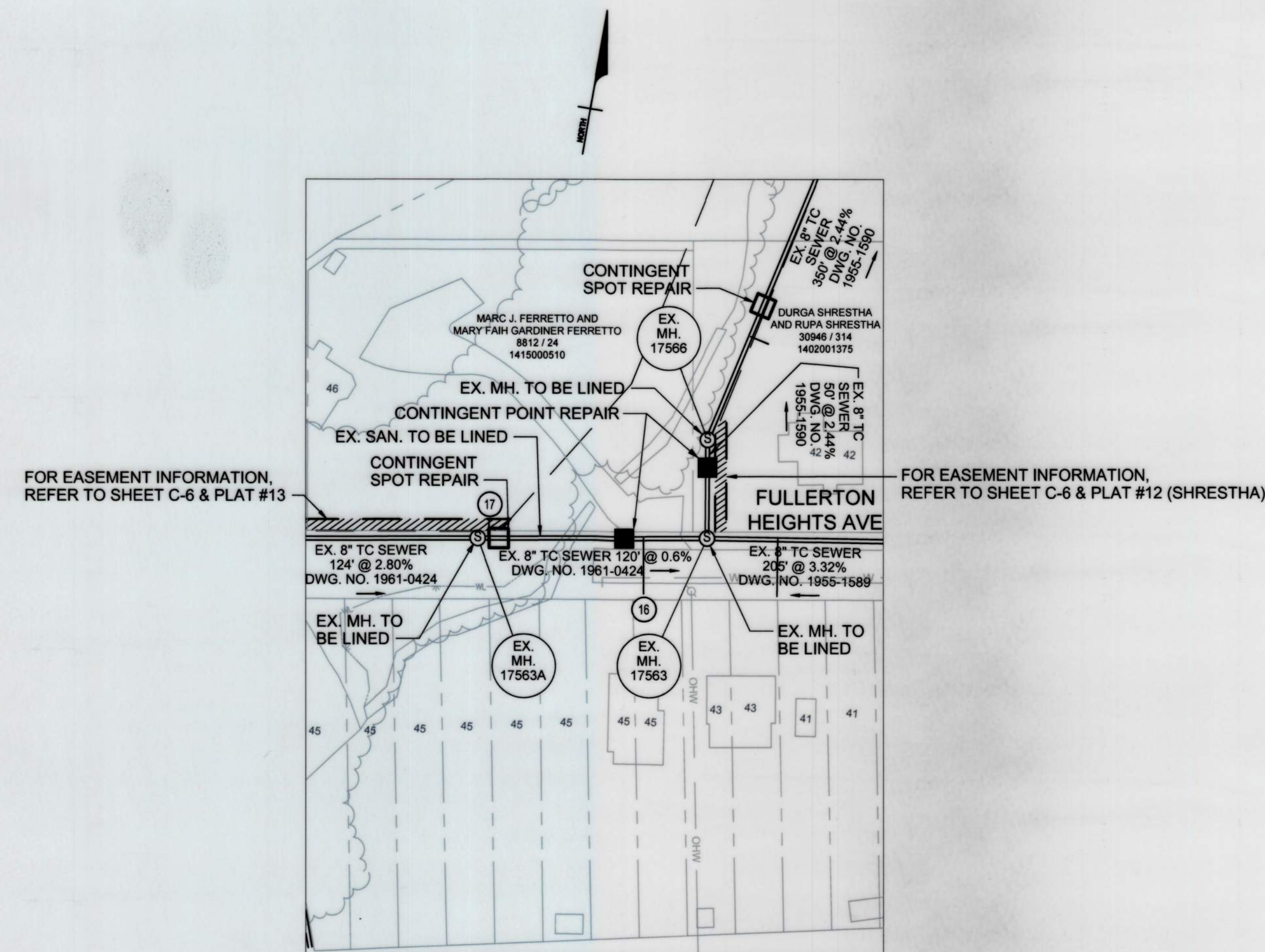
PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHY	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.					R.O.W. NO.	NSE	25NE17	PLAN SCALE: 1"=50'	APPROVED BY: DIRECTOR
								PROFILE SCALE: HORIZ: N/A VERT: N/A	DATE: See DWG No. 2015-2516
ENGINEER: HYDROSTRUCTURES		DGN BY: UM	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER
5269 Cleveland Street, Ste 206 Virginia Beach, Virginia 23462		DWN BY: TL	REVIEWED BY:						BUR. OF ENGINEERING & CONSTRUCTION
		CHKD BY: DJ	DATE REVIEWED:						APPROVED BY: SEE DWG
									DATE: No. 2015-2516

SUBDIVISION: PARKVILLE

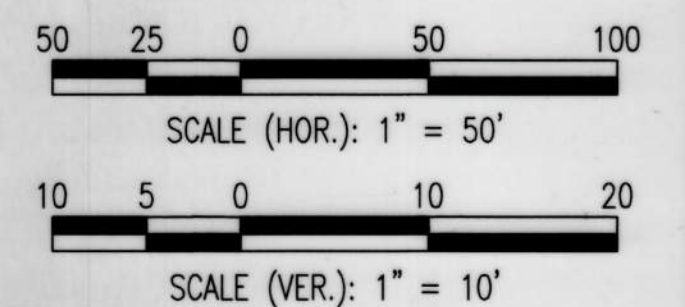
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION
PLAN - MOPEC CIR
PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

SHEET DESIGNATION	CONTRACT NUMBER
C-7	15269 SXO
JOB ORDER NUMBER	
231-201-0077-7225	
SHEET 10 OF 31	
DRAWING NUMBER	
2015-2525	
FILE NO.: 1	



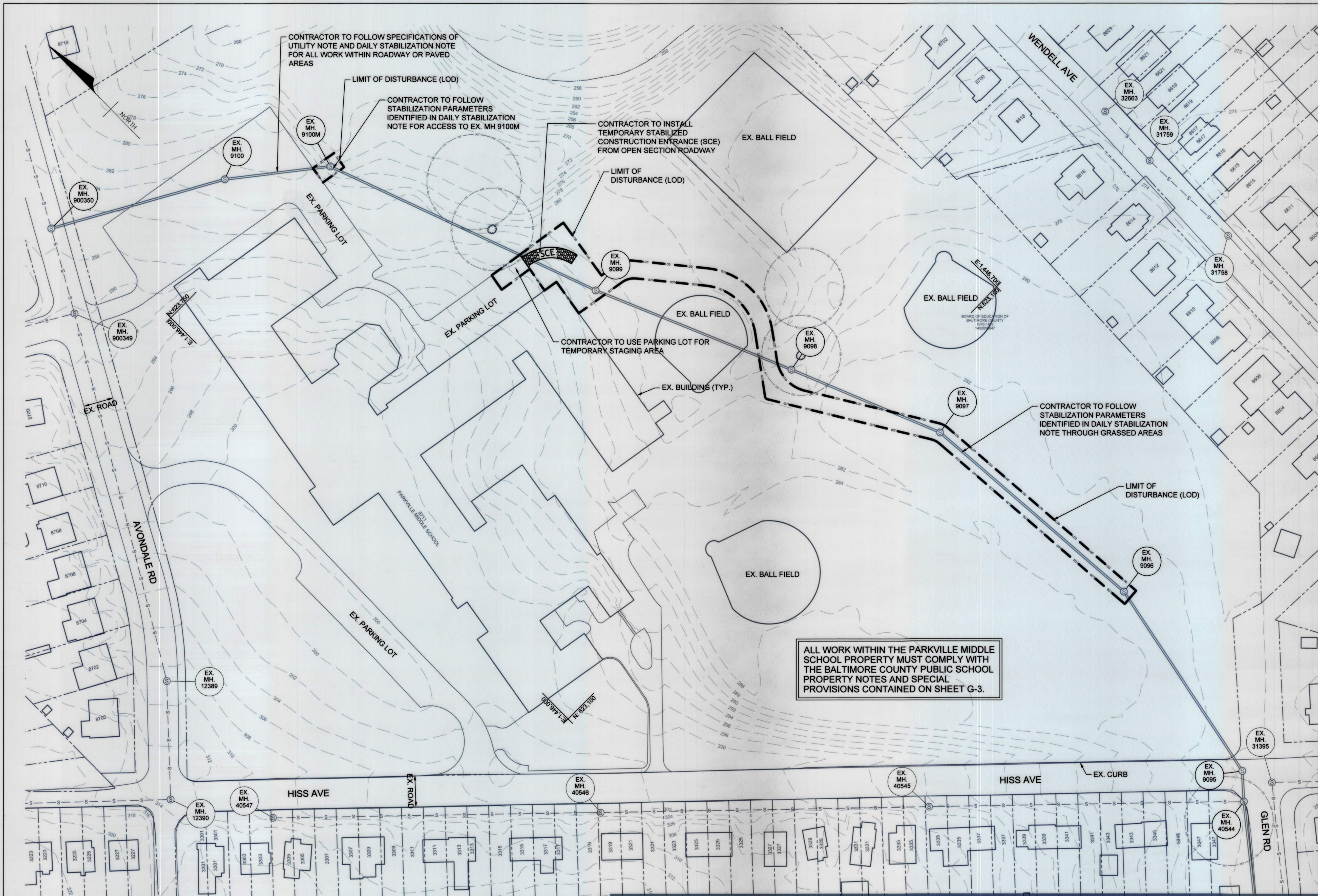
- NOTES:
1. POINT REPAIRS AND NEW MANHOLES TO BE COMPLETED BEFORE PIPE LINING.
 2. RECONNECT SHC TO NEW PIPE AS REQUIRED.
 3. EXISTING UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FROM THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY THE EXISTENCE, SIZE, TYPE, DEPTH, AND LOCATION OF ALL UTILITIES PRIOR TO STARTING ANY WORK. ANY DISCREPANCIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BEGINNING WORK.
 4. SEE BGE FACILITIES NOTE ON SHEET G-3.



	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHI	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
	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.							NSE	25NE17	1"=50'	APPROVED BY: DATE: See DWG No. 2015-2516
	ENGINEER: HYDROSTRUCTURES		BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	
	5289 Cleveland Street, Ste 206 Virginia Beach, Virginia 23462		REVIEWED BY:								
DATE: 4/18/25		DGN BY: UM		DATE REVIEWED:						APPROVED BY: SEE DWG DATE: 2015-2516	

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION	
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD	
SEWER REHABILITATION	
PLAN & PROFILE - FULLERTON HEIGHTS AVE	
SUBDIVISION: PARKVILLE	PARKVILLE, MARYLAND
ELECTION DIST. NO.: 14c6	

SHEET DESIGNATION	CONTRACT NUMBER
C-8	15269 SXO
JOB ORDER NUMBER	
231-201-0077-7225	
SHEET 11 OF 31	
DRAWING NUMBER	
2015-2526	
FILE NO.: 1	



UTILITY NOTE:
1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

MAINTENANCE NOTE:
CONTRACTOR SHALL INSPECT AND MAINTAIN ALL SEDIMENT CONTROL MEASURES AND DEVICES AFTER EVERY STORM EVENT. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.

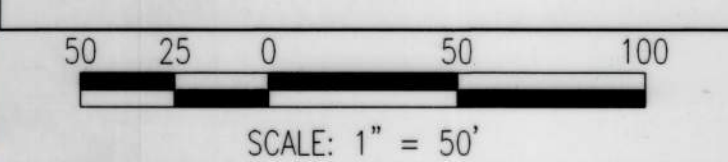
DAILY STABILIZATION NOTE:
CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
1. FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
2. FOR AREAS TO BE VEGETATIVELY STABILIZED:
2.1. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
2.2. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.
ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SUPER SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

LEGEND

- EX. STREAM
- PROPERTY LINE
- LIMIT OF DISTURBANCE (LOD)
- STABILIZED CONSTRUCTION ENTRANCE (SCE)
- SUPER SILT FENCE
- SUPER FENCE DIVERSION
- 12" DIAMETER FILTER LOG
- EX. CONTOUR
- TEMP. GRADING CONTOUR
- TEMP. GRADING INDEX CONTOUR
- TEMP. CONSTRUCTION EASEMENT
- TEMP. MULCH ACCESS ROAD
- TEMP. TIMBER MATS
- ROPIII ROCK OUTLET PROTECTION III
- TEMP. BRIDGE

ALL WORK WITHIN THE PARKVILLE MIDDLE SCHOOL PROPERTY MUST COMPLY WITH THE BALTIMORE COUNTY PUBLIC SCHOOL PROPERTY NOTES AND SPECIAL PROVISIONS CONTAINED ON SHEET G-3.

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
David Bauman 5-20-25
Date



OWNER/DEVELOPER: BCDPW ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204 PHONE: (410)-887-3300		DESIGN PROFESSIONAL: HYDROSTRUCTURES ADDRESS: 5269 CLEVELAND ST. SUITE 208, VIRGINIA BEACH, VA 23462 PHONE: (757)-630-7888 EMAIL: David.Johnston@hydrostructures.com		DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL	
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION					
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD SEWER REHABILITATION					
ACCESS, EROSION & SEDIMENT CONTROL, AND GRADING PLAN - HISS AVE					
SUBDIVISION: PARKVILLE PARKVILLE, MARYLAND ELECTION DIST. NO.: 14c6					
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. 36860 EXPIRATION DATE 1/21/2027 ENGINEER: HYDROSTRUCTURES 5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462		AS-BUILT / REVISION BY: _____ DATE: _____ P.W.A. NO. _____ KEY SHEET _____ POSITION SHIT _____ DRAWING SCALE _____ DEPARTMENT OF PUBLIC WORKS _____ APPROVED BY: _____ DATE: _____ See DWG No. 2015-2516 APPROVED BY: GCE DWG DATE: 11-2015-2516		CONTRACT NUMBER 15269 SXO JOB ORDER NUMBER 231-201-0077-7225 SHEET 12 OF 31 DRAWING NUMBER 2015-2527 FILE NO.: 1	
ENGINEER: HYDROSTRUCTURES 5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462		BUREAU OF ENGINEERING AND CONSTRUCTION BUILDINGS _____ HIGHWAYS _____ STRUCTURES _____ STORM DRAINS _____ SEWER _____ WATER _____ FIELD ENGINEER _____ REVIEWED BY: _____ DATE REVIEWED: _____		SEAL OF MARYLAND DAVID P. JOHNSTON PROFESSIONAL ENGINEER 4/18/25	



UTILITY NOTE:

1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

MAINTENANCE NOTE:

CONTRACTOR SHALL INSPECT AND MAINTAIN ALL SEDIMENT CONTROL MEASURES AND DEVICES AFTER EVERY STORM EVENT. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.

DAILY STABILIZATION NOTE:

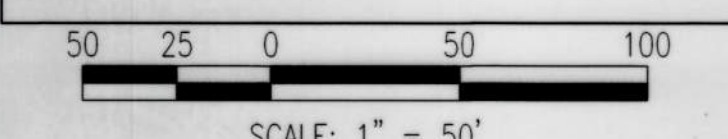
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1. FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
2. FOR AREAS TO BE VEGETATIVELY STABILIZED:
 - 2.1. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
 - 2.2. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.

ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SUPER SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

- LEGEND**
- EX. STREAM
 - PROPERTY LINE
 - LIMIT OF DISTURBANCE (LOD)
 - STABILIZED CONSTRUCTION ENTRANCE (SCE)
 - SUPER SILT FENCE
 - SUPER FENCE DIVERSION
 - 12" DIAMETER FILTER LOG
 - EX. CONTOUR
 - TEMP. GRADING CONTOUR
 - TEMP. GRADING INDEX CONTOUR
 - TEMP. CONSTRUCTION EASEMENT
 - TEMP. MULCH ACCESS ROAD
 - TEMP. TIMBER MATS
 - ROPIII ROCK OUTLET PROTECTION III
 - TEMP. BRIDGE

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Dave Bachman 5-20-25
Date



	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION	SHT	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS	
	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. 36860 EXPIRATION DATE 2/27/2027												
	ENGINEER: HYDROSTRUCTURES 5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462												
DGN BY: _____		BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	APPROVED BY: SEE DWG DATE: 2015-2516		
DWN BY: _____		REVIEWED BY: _____										APPROVED BY: _____ DATE: _____	
CHKD BY: _____		DATE REVIEWED: _____										SUBDIVISION: PARKVILLE PARKVILLE, MARYLAND	
OWNER/DEVELOPER: BCDPW ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204 PHONE: (410)-887-3300													
DESIGN PROFESSIONAL: HYDROSTRUCTURES ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462 PHONE: (757)-630-7989 EMAIL: David.Johnston@hydrostructures.com													
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION													
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD													
SEWER REHABILITATION													
ACCESS, EROSION & SEDIMENT CONTROL, AND GRADING PLAN - TEXAS AVE													
ELECTION DIST. NO.: 14c6													




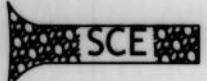




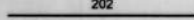
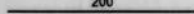


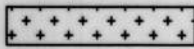
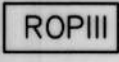
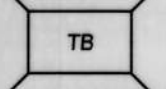
SHEET DESIGNATION	CONTRACT NUMBER
C-10	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 13 OF 31	DRAWING NUMBER
2015-2528	FILE NO.: 1



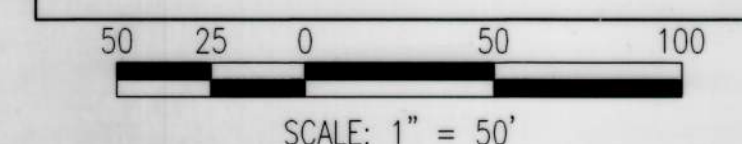
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1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
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LEGEND	
	EX. STREAM
	PROPERTY LINE
	LIMIT OF DISTURBANCE (LOD)
	STABILIZED CONSTRUCTION ENTRANCE (SCE)
	SUPER SILT FENCE
	SUPER FENCE DIVERSION
	12" DIAMETER FILTER LOG
	EX. CONTOUR
	TEMP. GRADING CONTOUR
	TEMP. GRADING INDEX CONTOUR
	TEMP. CONSTRUCTION EASEMENT
	TEMP. MULCH ACCESS ROAD
	TEMP. TIMBER MATS
	ROCK OUTLET PROTECTION III
	TEMP. BRIDGE

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
David Bachman 5-20-25
Date



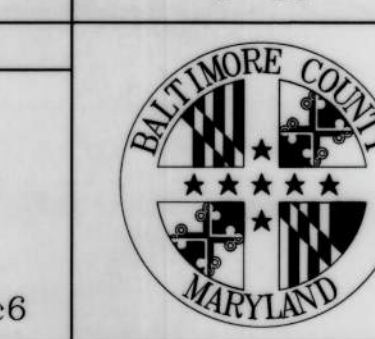
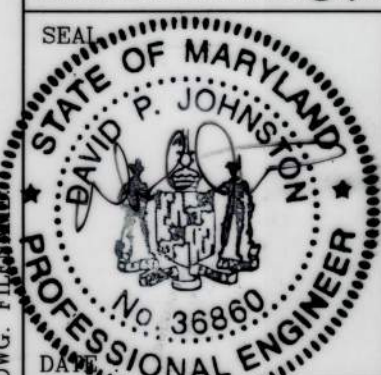
SHEET DESIGNATION	CONTRACT NUMBER
C-11	15269 SXO
JOB ORDER NUMBER	
231-201-0077-7225	
SHEET 14 OF 31	
DRAWING NUMBER	
2015-2529	
FILE NO.: 1	

DESIGN PROFESSIONAL: HYDROSTRUCTURES
ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462
PHONE: (757)-630-7989
EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW
ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204
PHONE: (410)-887-3300

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SH	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
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. 36860									
EXPIRATION DATE 2/27/2027									
ENGINEER: HYDROSTRUCTURES									
5269 Cleveland Street, Suite 206									
Virginia Beach, VA 23462									
DGN BY:	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION
DWN BY:	REVIEWED BY:								
CHKD BY:	DATE REVIEWED:								

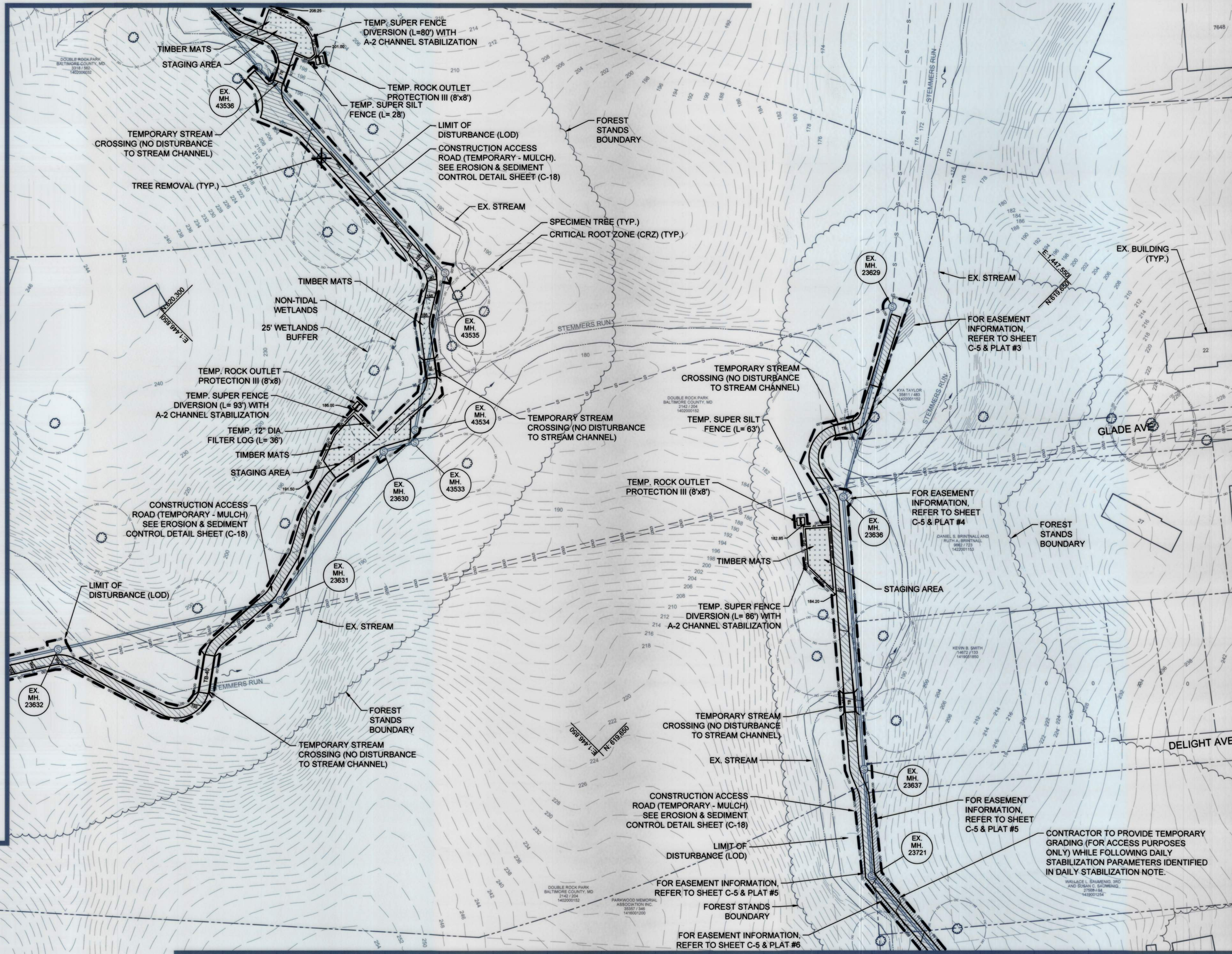
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION
ACCESS, EROSION & SEDIMENT CONTROL, AND GRADING PLAN - DOUBLE ROCK PARK I
SUBDIVISION: PARKVILLE PARKVILLE, MARYLAND
ELECTION DIST. NO.: 14c6



SCANNED

MATCHLINE - SEE SHEET C-11

MATCHLINE - SEE SHEET C-12



- UTILITY NOTE:**
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LEGEND

---	EX. STREAM
---	PROPERTY LINE
---	LIMIT OF DISTURBANCE (LOD)
SC	STABILIZED CONSTRUCTION ENTRANCE (SCE)
---	SUPER SILT FENCE
---	SUPER FENCE DIVERSION
FL-12	12" DIAMETER FILTER LOG
---	EX. CONTOUR
---	TEMP. GRADING CONTOUR
---	TEMP. GRADING INDEX CONTOUR
---	TEMP. CONSTRUCTION EASEMENT
---	TEMP. MULCH ACCESS ROAD
---	TEMP. TIMBER MATS
ROPIII	ROCK OUTLET PROTECTION III
TB	TEMP. BRIDGE

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
David Beckman 5-20-25
Date

SCALE: 1" = 50'

MATCHLINE - SEE SHEET C-14

DESIGN PROFESSIONAL: HYDROSTRUCTURES
ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462
PHONE: (757) 630-7589
EMAIL: David.Johnston@hydrostructures.com

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
**STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION**

ACCESS, EROSION & SEDIMENT CONTROL, AND GRADING PLAN - DOUBLE ROCK PARK III

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

SEAL STATE OF MARYLAND DAVID P. JOHNSON PROFESSIONAL ENGINEER LICENSE NO. 36860 EXPIRATION DATE 2/27/2027 DATE 4/18/25	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
	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.							NSE	25NE18, 26NE17, 26NE18, 27NE18	PLAN SCALE: 1"=50' PROFILE SCALE: HOR: N/A VER: N/A	APPROVED BY: DIRECTOR DATE: See DWG No. 2015-2516
	ENGINEER: HYDROSTRUCTURES 5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462		BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
	DGN BY: _____ DWN BY: _____ CHKD BY: _____		REVIEWED BY: _____								APPROVED BY: SEE DWG DATE: No. 2015-2516

SHEET DESIGNATION	CONTRACT NUMBER
C-13	15269 SXO
JOB ORDER NUMBER	
231-201-0077-7225	
SHEET 16 OF 31	
DRAWING NUMBER	
2015-2531	
FILE NO.: 1	



MATCHLINE - SEE SHEET C-14

- UTILITY NOTE:**
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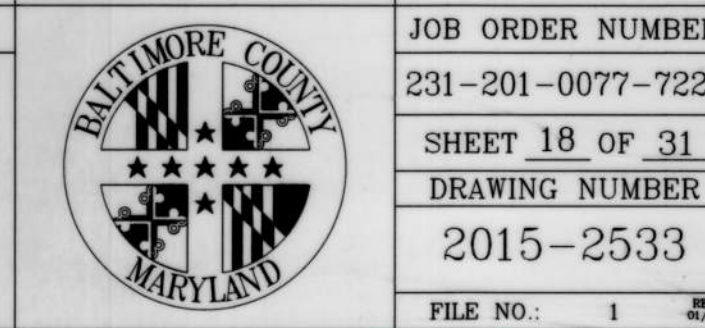
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LEGEND	
	EX. STREAM
	PROPERTY LINE
	LIMIT OF DISTURBANCE (LOD)
	STABILIZED CONSTRUCTION ENTRANCE (SCE)
	SUPER SILT FENCE
	SUPER FENCE DIVERSION
	12" DIAMETER FILTER LOG
	EX. CONTOUR
	TEMP. GRADING CONTOUR
	TEMP. GRADING INDEX CONTOUR
	TEMP. CONSTRUCTION EASEMENT
	TEMP. MULCH ACCESS ROAD
	TEMP. TIMBER MATS
	ROPIII ROCK OUTLET PROTECTION III
	TEMP. BRIDGE

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Dave Ballman 5-26-25
Date

50 25 0 50 100
SCALE: 1" = 50'

SHEET DESIGNATION	CONTRACT NUMBER
C-15	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 18 OF 31	
DRAWING NUMBER	2015-2533
FILE NO.	1



DESIGN PROFESSIONAL: HYDROSTRUCTURES
ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462
PHONE: (757)-630-7989
EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW
ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204
PHONE: (410)-887-3300

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION

ACCESS, EROSION & SEDIMENT CONTROL, AND GRADING PLAN - MOPEC CIR

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6



PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
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.									
ENGINEER: HYDROSTRUCTURES A DUKES COMPANY 5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462									
LICENSE NO. 36860 EXPIRATION DATE 2/27/2027									
DGN BY: _____		BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
DWN BY: _____		REVIEWED BY: _____							
CHKD BY: _____		DATE REVIEWED: _____							
APPROVED BY: <i>SEE DWG</i>									
DATE: No. 2015-2516									

GENERAL NOTES

- REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
- WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT.
- AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE 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.
- ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RESUBMISSION TO BALTIMORE COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
- DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG H.22, FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
- ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE INITIATION OF THE CHANGE.
- EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN.
- THE FOLLOWING ITEM MAY BE USED AS APPLICABLE: REFER TO "MARYLAND GUIDELINES TO WATERWAY CONSTRUCTION BY THE WATER MANAGEMENT ADMINISTRATION OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, REVISED NOVEMBER, 2000, FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY CONSTRUCTION.
- PUMPING SEDIMENT-LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. ANY PORTABLE DEWATERING DEVICE MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE.

GENERAL CONSTRUCTION NOTES

- SEWAGE FLOW IN EXISTING SEWER IS TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. AT NO TIME WILL IT BE PERMITTED FOR SEWAGE TO BE DISCHARGED ONTO THE GROUND OR INTO ANY STREAMS. ALL COSTS TO MAINTAIN FLOW ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR SEWER PIPE.
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT POSSIBLE. CONTRACTOR TO REMOVE THE STUMPS AND ROOTS OF ANY TREE OR SHRUB THAT NEEDS REMOVAL. ANY EXISTING STUMPS WITHIN THE LIMIT OF DISTURBANCE ALSO WILL BE REMOVED. ALL COSTS FOR REMOVAL OF TREES, SHRUBS, STUMPS, ETC. WILL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "CLEARING AND GRUBBING".
- SILT FENCE LOCATION SHOWN ON PLAN.
- SEWER ALIGNMENT TO BE REGRADED TO ORIGINAL CONTOURS AND STABILIZED. THE EXISTING COVER CONDITIONS WILL BE REESTABLISHED ONCE THE SEWER IS INSTALLED.
- ANY AREA OUTSIDE THE EXISTING PAVING AND RIGHT OF WAY IN THE CONTRACTORS OPINION IS NEEDED TO PERFORM HIS WORK MUST BE ACQUIRED BY THE CONTRACTOR AT HIS COST AND MUST BE APPROVED BY THE ENGINEER AND BY APPROPRIATE STATE/COUNTY ENVIRONMENTAL AGENCIES.
- IF THE TRENCH MUST REMAIN OPEN LONGER THAN THE ONE DAY, SILT FENCE SHALL BE PLACED DOWN HILL FROM THE TRENCH.

GENERAL NOTES - BALTIMORE COUNTY

- THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH ABOVE MENTIONED REQUIREMENTS.
- ALL SWALES HAVE BEEN DESIGNATED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH ABOVE MENTIONED REQUIREMENTS.
- ANY EXCESS MATERIAL SHALL BE TAKEN TO A SITE WITH AN OPEN GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN.
- HIGH VISIBILITY FENCE MUST BE INSTALLED AT THE LIMIT OF DISTURBANCE WHERE THE LIMIT OF DISTURBANCE IS WITHIN 50 FEET OF CRITICAL AREA BUFFER, FOREST TO REMAIN OR WETLANDS.
- THERE SHALL BE NO NEW IMPERVIOUS AREA AS A RESULT OF THE INSTALLATION.
- STORMWATER MANAGEMENT HAS BEEN ADDRESSED THROUGH A STORMWATER MANAGEMENT VARIANCE.

GRADING NOTES

- THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.

SEDIMENT CONTROL NOTES

- TEMPORARY STOCKPILE: THE CONSTRUCTION EASEMENT AND/OR EXISTING PAVING LOCATED WITHIN THE LIMITS OF DISTURBANCE (I.O.D.) SHALL BE USED AS THE ONSITE TEMPORARY STOCKPILE AREA. IF THE CONTRACTOR ELECTS TO DO SO, THE CONTRACTOR MUST ADHERE TO SOIL CONSERVATION RULES AND REGULATIONS. THE TEMPORARY STOCKPILE MUST DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE AND POSITIONED TO NOT IMPEDE UPON OR IMPAIR THE FUNCTION OF SAID DEVICE AND NOT ALTER DRAINAGE DIVIDES. ANY OFFSITE AREA THAT THE CONTRACTOR DESIRES TO USE AS A TEMPORARY STOCKPILE AREA SHALL BE IN A SITE WITH AN OPEN GRADING PERMIT, AND AN APPROVED SEDIMENT CONTROL PLAN AND MUST BE APPROVED BY THE SEDIMENT CONTROL INSPECTOR AND A REPRESENTATIVE OF THE ENVIRONMENTAL IMPACT REVIEW SECTION OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.
- NO STAGING OF EQUIPMENT OR STOCKPILING OF MATERIAL SHALL OCCUR WITHIN 100' OF ANY STREAM OR TIDAL WETLANDS, 25' OF ANY NON-TIDAL WETLAND, WITHIN LIMITS OF WETLANDS, OUTSIDE OF THE APPROVED LIMIT OF DISTURBANCE, OR WITHIN THE 100 YEAR FLOODPLAIN, UNLESS DIRECTED AND APPROVED IN THE PLANS.
- ALL WORK IN FLOODPLAINS MUST BE DONE IN STRICT ACCORDANCE WITH APPLICABLE STATE PERMIT REQUIREMENTS.
- ADDITIONAL SILT FENCE MAY BE REQUIRED BY THE SEDIMENT CONTROL INSPECTOR OR BY THE CONSTRUCTION INSPECTOR AS NECESSARY TO PROTECT THE STREAMS AND WETLANDS. IT IS THE INTENT OF THE PLANS THAT SILT FENCE BE USED DOWNGRADE OF ALL DISTURBED AREAS AND TO PROTECT ALL STREAMS AND WETLANDS.
- ALL STORM DRAINS, DITCHES, ETC. SHALL REMAIN FUNCTIONAL DURING CONSTRUCTION AND SHALL BE PROTECTED BY THE CONTRACTOR FROM SEDIMENT RUNOFF. EXCAVATED MATERIAL SHALL NOT BE PLACED IN, OR OBSTRUCT DRAINAGE DITCHES. DITCHES AND OTHER STORM DRAIN FACILITIES SHALL BE RETURNED TO ORIGINAL CONDITION FOLLOWING CONSTRUCTION. DURING TRENCH DEWATERING OPERATIONS, NO WATER SHALL BE DISCHARGED DIRECTLY ACROSS THE GROUND NOR INTO AN EXISTING BODY OF WATER OR STREAM WITHOUT FIRST FLOWING THROUGH AN APPROVED DEWATERING BASIN OR PORTABLE SEDIMENT TANK.
- ALL SANITARY SEWER SHOWN ON THE PLANS ARE PROPOSED UNLESS OTHERWISE NOTED.
- ALL CONTOURS SHALL BE RETURNED TO ORIGINAL CONDITION AFTER CONSTRUCTION.
- IN WORK AREAS ADJACENT TO STREAMS AND WETLANDS, THE SEDIMENT CONTROL INSPECTOR MAY REQUIRE THE INSTALLATION OF SUPER SILT FENCE DOWNSTREAM OF THE DISTURBED AREA IF DAILY STABILIZATION CANNOT BE ACHIEVED.
- ALL NECESSARY EASEMENTS AND/OR LETTERS OF PERMISSION WILL BE ACQUIRED PRIOR TO THE BEGINNING OF CONSTRUCTION.

TEMPORARY STOCKPILES

TEMPORARY STOCKPILES SHALL BE:

- LOCATED WITHIN THE LIMIT OF DISTURBANCE (LOD).
- DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE.
- POSITIONED TO NOT IMPEDE UPON, OR IMPAIR THE FUNCTION OF SAID DEVICE.
- POSITIONED TO NOT ALTER DRAINAGE DIVIDES.

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

- ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE. *
- INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC.

ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E.23 (OR AS MAY BE AMENDED). THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

NOTE

IN ALL DISTURBED AREAS WITHIN WETLANDS BOUNDARIES, THE CONTRACTOR SHALL REMOVE THE TOP 6" OF SOIL FOR SEWER CONSTRUCTION AND STOCKPILE. AFTER SEWER INSTALLATION, THE AREA SHALL BE RESTORED TO THE ORIGINAL TOPOGRAPHY USING THE STOCKPILED SOIL FOR THE FINAL 6" OF FILL. IN ADDITION, THE AREAS SHALL BE VEGETATIVELY STABILIZED WITH "WET MIX" AS MANUFACTURED BY ENVIRENS INC. OR AN APPROVED EQUAL, APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY (DEPS). MULCHING IS NOT REQUIRED.

SEQUENCE OF OPERATIONS

-ALL REQUIRED STATE, FEDERAL, AND LOCAL PERMITS MUST BE OBTAINED PRIOR TO THE PRECONSTRUCTION MEETING.

- ALL REQUIRED EASEMENTS AND/OR RIGHTS OF WAYS MUST BE OBTAINED PRIOR TO INITIATION OF CONSTRUCTION.
- NOTIFY MARYLAND DEPARTMENT OF THE ENVIRONMENT, INSPECTION AND COMPLIANCE PROGRAM, (410-537-3510) AT LEAST 5 DAYS PRIOR TO BEGINNING WORK. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS, SEDIMENT CONTROL (410-887-3226) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
- IF APPLICABLE, ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE, WHERE THE LIMIT IS WITHIN 50 FEET OF THE FOREST BUFFER/ CONSERVATION EASEMENT. THIS SHALL BE COMPLETED BY AND INSPECTED AT THE PRE-CONSTRUCTION MEETING.
- CLEAR AND GRUB FOR SEDIMENT & EROSION CONTROL MEASURES ONLY.
- INSTALL ALL SEDIMENT & EROSION CONTROL MEASURES, DEVICES, AND STABILIZED CONSTRUCTION ENTRANCES AS INDICATED ON THE PLANS. IF SPECIFIED, PROVIDE TEMPORARY ACCESS GRADING AS THE ACCESS IS INSTALLED. THE ACCESS GRADING IS TO BE STABILIZED PER THE DAILY STABILIZATION NOTE WHERE APPLICABLE. INSTALL TEMPORARY MULCH ACCESS ROADS TO GAIN ACCESS TO PROJECT WORK AREAS. INSTALL TIMBER MATS AS INDICATED ON THE PLANS IN WETLANDS, WETLAND BUFFERS, AND OVER UNDERGROUND UTILITIES. INSTALL TEMPORARY BRIDGES AS SHOWN ON THE PLANS TO SPAN EXISTING CHANNELS.
- NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS, SEDIMENT CONTROL UPON COMPLETION OF SAID INSTALLATION.
- WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB THE REMAINDER OF SITE.
- ALL WORK PERFORMED WITHIN PAVED AREAS SHOULD FOLLOW THE SPECIFICATIONS IN THE UTILITY NOTE AND DAILY STABILIZATION NOTE FOR PAVED AREAS.
- IF EXCAVATION IS REQUIRED, EXCAVATE BY PLACING THE EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH AND INSTALL THE SEWER SYSTEM. AS SEWER IS INSTALLED, BACKFILL THE TRENCH AND STABILIZE THE AREA DISTURBED. EXCAVATE ONLY FOR THAT AMOUNT OF WORK THAT CAN BE INSTALLED, BACKFILLED, AND STABILIZED BY THE END OF EACH WORKING DAY. FOLLOW THE UTILITY NOTE ON THE SHEETS. SAME DAY STABILIZATION WILL BE REQUIRED.
- REMOVE THE TEMPORARY ACCESS AND GRADING RESTORING GRADES TO PRE-CONSTRUCTION CONDITIONS, AND PERMANENTLY STABILIZE IN ACCORDANCE WITH THE DAILY STABILIZATION NOTE.
- UPON COMPLETION, AND STABILIZATION OF SITE, WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS

- NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
- PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100-YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
- RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, OR 100-YEAR FLOODPLAIN TEMPORARILY IMPACTED BY CONSTRUCTION.
- ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOILA SP.) AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS AND WATERWAYS DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST-CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM:

USE IV WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR.
- STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

Owner's Certification:

"I/We hereby certify that any clearing, grading, construction and/or development will be done pursuant to this plan and that any responsible personnel involved in this construction project will have a Certificate of Attendance at a Maryland Department of Environment approved training program for the control of sediment and erosion before beginning the project. I/We also certify that the site will be inspected at the end of each working day, and that any needed maintenance will be completed so as to insure that all sediment control practices are left in operational condition. I/We authorize the right of entry for periodic on-site evaluation by the Baltimore County Soil Conservation District Board of Supervisors or their authorized agents."

Lisa K. Eicholtz *for* Director,
Signature of Owner Title

3/14/2025
Date

Lisa K. Eicholtz
Print Name

Engineer's Certification:

"I certify that this plan of erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site, and that this plan was prepared in accordance with the requirements of the Baltimore County Soil Conservation District and the current State of Maryland specifications for Soil Erosion and Sediment Control. I have reviewed this erosion and sediment control plan with the owner."

David P. Johnston
Signature

03/11/2025
Date

David P. Johnston
Print Name

36860
MD License No.

OWNER'S/ DEVELOPER'S CERTIFICATION - GRADING:

"I/We certify that all grading on this site will be done in accordance with the current grading requirements as set forth by the Baltimore County Department of Environmental Protection and Sustainability and with the requirements specified in requirements specified in Article 33, Title 5 of the Baltimore County Code."

Lisa K. Eicholtz *for* Director,
Signature of Owner Title

3/14/2025
Date

Lisa K. Eicholtz
Print Name

All swales have been designed by the engineer to convey runoff according to Baltimore County Department of Public Works Design Standards.

DESIGN PROFESSIONAL: HYDROSTRUCTURES

ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462

PHONE: (757)-630-7989

EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW

ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204

PHONE: (410)-887-3300

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD SEWER REHABILITATION

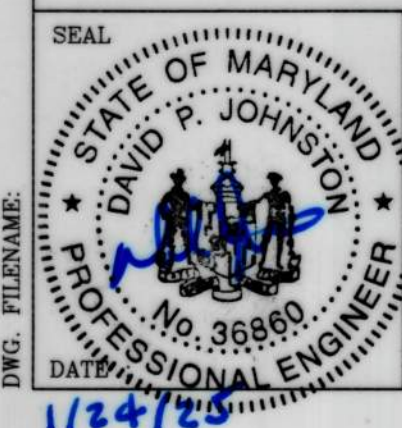
EROSION & SEDIMENT CONTROL NOTES AND CERTIFICATIONS

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

SHEET DESIGNATION	CONTRACT NUMBER
C-16	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 19 OF 31	
DRAWING NUMBER	2015-2534
FILE NO.	



PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SH	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
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.						NNE & NSE	25NNE17-18, 25NSE17-18, 25NNE17, 25NSE17-18, 25NNE17	PLAN SCALE: N/A PROFILE SCALE: HOR: N/A VER: N/A	APPROVED BY: <i>SEE DRAWING</i> DIRECTOR DATE: <i>2015-2516</i>
LICENSE NO. <i>36860</i>	EXPIRATION DATE <i>2/27/2027</i>				R.O.W. NO.				
ENGINEER: <i>HYDROSTRUCTURES</i>	DGN BY: _____	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462	DWN BY: _____	REVIEWED BY: _____					<i>SEE DWG</i>	<i>SEE DWG</i>	BUR. OF ENGINEERING & CONSTRUCTION
	CHRD BY: _____	DATE REVIEWED: _____					<i>2015-2516</i>	<i>2015-2516</i>	APPROVED BY: <i>SEE DRAWING</i> CHIEF DATE: <i>2015-2516</i>













Table H-3: Compost

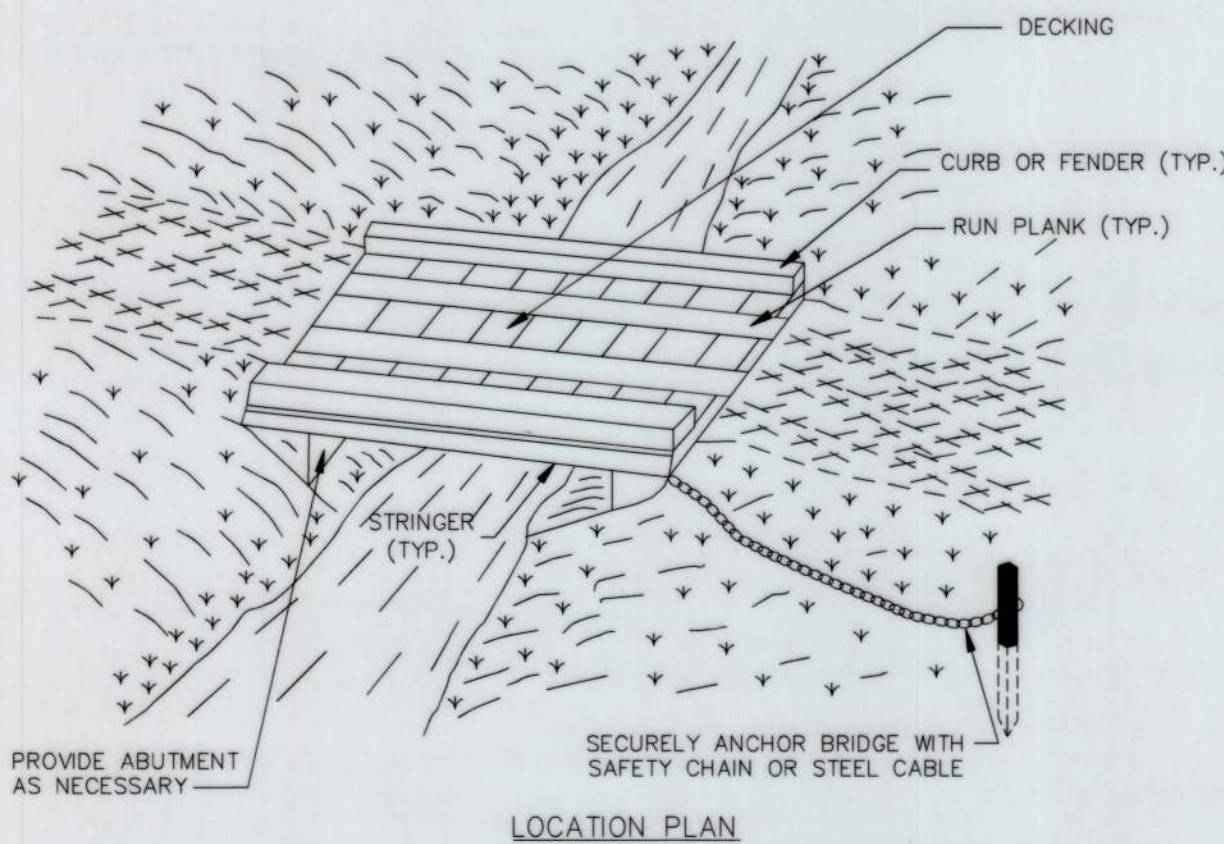
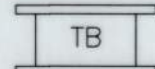
Parameters ¹	Acceptable Range
pH	5.0 - 8.5
Moisture content	30% - 60%, wet weight basis
Organic matter content	25% - 65%, dry weight basis
Particle size	% passing a selected mesh size, dry weight basis 3 in (75 mm), 100% passing 1 in (25 mm), 90 - 100% passing 0.75 in (19 mm), 70 - 100% passing 0.25 in (6.4 mm), 30 - 60% passing 0.04 in (1 mm), 30% min. passing
Physical contaminants (manmade inerts)	<1% dry weight basis

Adapted from AASHTO Standards Specs for Compost Filter Socks and EPA Example Compost Filter Parameters.

¹ Recommended test methodologies are provided in Test Methods for the Examination of Composting and Compost (TMEC, The U.S. Composting Council).

DETAIL H-4-1 TEMPORARY ACCESS BRIDGE

STANDARD SYMBOL



NOTE: TIME OF YEAR RESTRICTIONS DO NOT APPLY TO THE CONSTRUCTION OR REMOVAL OF A TEMPORARY ACCESS BRIDGE UNLESS THERE IS DISTURBANCE TO THE STREAM CHANNEL.

1 OF 2

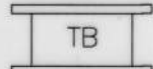
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

2011

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

DETAIL H-4-1 TEMPORARY ACCESS BRIDGE

STANDARD SYMBOL



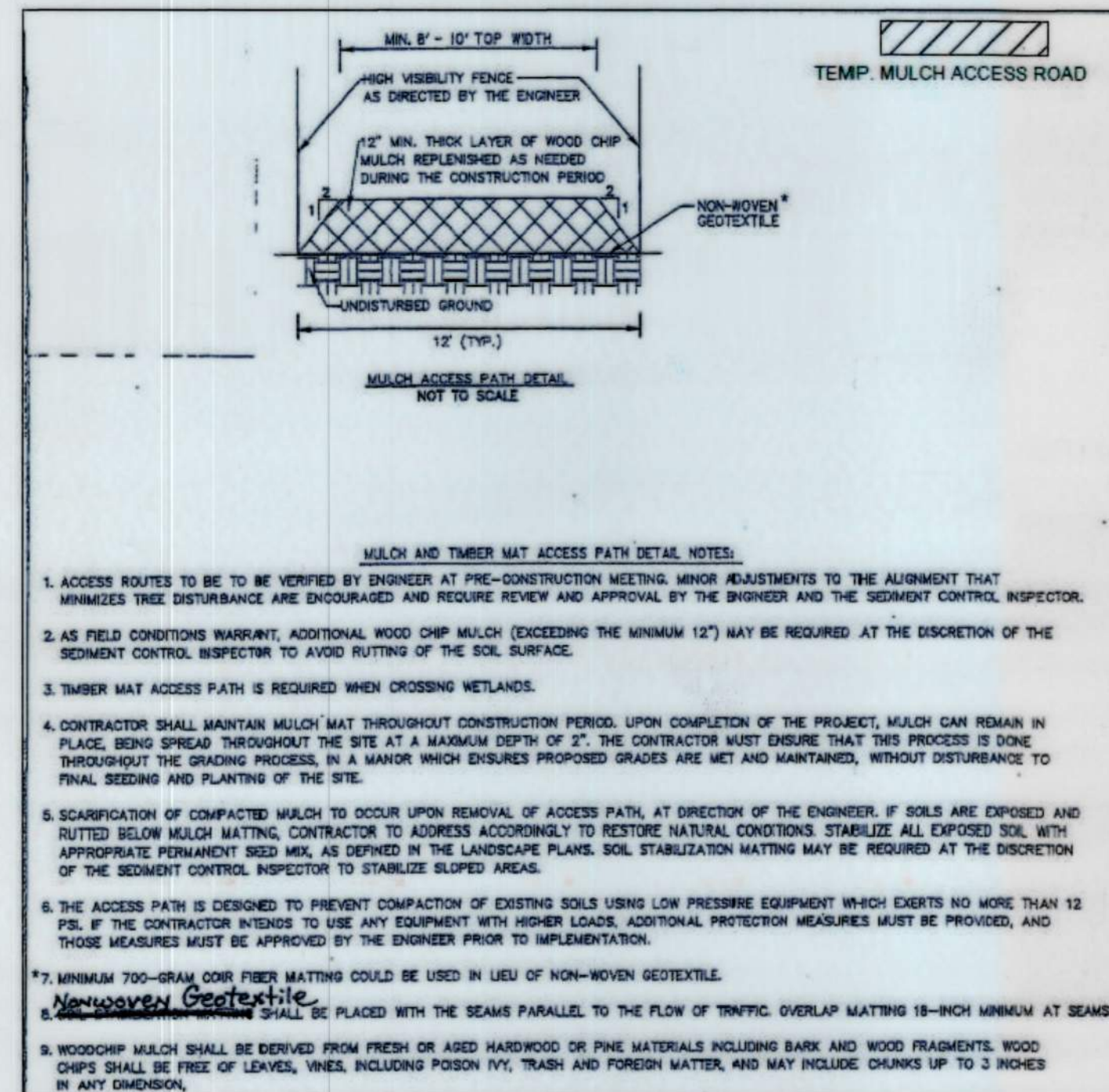
CONSTRUCTION SPECIFICATIONS

1. CONSTRUCT TEMPORARY BRIDGE STRUCTURE AT OR ABOVE THE BANK ELEVATION TO PREVENT IMPACTS FROM FLOATING MATERIALS AND DEBRIS.
2. PLACE ABUTMENTS PARALLEL TO, AND ON, STABLE BANKS.
3. CONSTRUCT BRIDGE TO SPAN ENTIRE CHANNEL UNLESS OTHERWISE INDICATED ON APPROVED PLAN.
4. USE STRINGERS CONSISTING OF LOGS, SAWN TIMBER, PRESTRESSED CONCRETE BEAMS, METAL BEAMS, OR OTHER APPROVED MATERIALS.
5. SELECT DECKING MATERIALS TO PROVIDE SUFFICIENT STRENGTH TO SUPPORT THE ANTICIPATED LOAD. PLACE ALL DECKING MEMBERS PERPENDICULAR TO THE STRINGERS, BUTT TIGHTLY, AND SECURELY FASTEN. DECKING MATERIALS MUST BE BUTTED TIGHTLY TO PREVENT ANY SOIL MATERIAL TRACKED ONTO THE BRIDGE FROM FALLING INTO THE WATERWAY BELOW.
6. SECURELY FASTEN OPTIONAL RUN PLANKING FOR THE LENGTH OF THE SPAN. PROVIDE A RUN PLANK FOR EACH TRACK OF THE EQUIPMENT WHEELS. ALTHOUGH RUN PLANKS ARE OPTIONAL, THEY MAY BE NECESSARY TO PROPERLY DISTRIBUTE LOADS.
7. INSTALL CURBS THE ENTIRE LENGTH OF THE OUTER SIDES OF THE DECK TO PREVENT SEDIMENT FROM ENTERING THE STREAM CHANNEL.
8. ANCHOR BRIDGE SECURELY AT ONLY ONE END USING STEEL CABLE OR CHAIN, ANCHORING AT ONLY ONE END WILL PREVENT CHANNEL OBSTRUCTION IN THE EVENT THAT FLOODWATERS FLOAT THE BRIDGE. ACCEPTABLE ANCHORS ARE LARGE TREES, LARGE BOULDERS, OR DRIVEN STEEL POSTS. ANCHOR MUST BE SUFFICIENT TO PREVENT THE BRIDGE FROM FLOATING DOWNSTREAM.
9. AREAS DISTURBED DURING BRIDGE INSTALLATION AND/OR REMOVAL MUST NOT BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.
10. STABILIZE APPROACH TO BRIDGE AND KEEP FREE OF EROSION. CLEAN SEDIMENT FROM DECKING AND CURBS DAILY BY SCRAPING, SWEEPING, AND/OR VACUUMING. ENSURE THAT DECKING AND CURBS REMAIN TIGHTLY BUTTED WITHOUT GAPS. REMOVE DEBRIS TRAPPED BY BRIDGE. MAINTAIN AREAS ADJACENT TO CROSSING TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
11. AFTER THE TEMPORARY CROSSING IS NO LONGER NEEDED, REMOVE IT WITHIN 14 CALENDAR DAYS. IF SUBJECT TO THE USE DESIGNATION CLOSURE, REMOVE AT THE END OF CLOSURE PERIOD. PROTECT STREAM BANKS DURING BRIDGE REMOVAL AND STABILIZE ALL DISTURBED AREAS WITH EROSION CONTROL MATTING. ACCOMPLISH REMOVAL OF THE BRIDGE AND CLEAN UP OF THE AREA WITHOUT CONSTRUCTION EQUIPMENT WORKING IN THE WATERWAY CHANNEL. STORE ALL REMOVED MATERIALS IN AN APPROVED STAGING AREA.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

2011

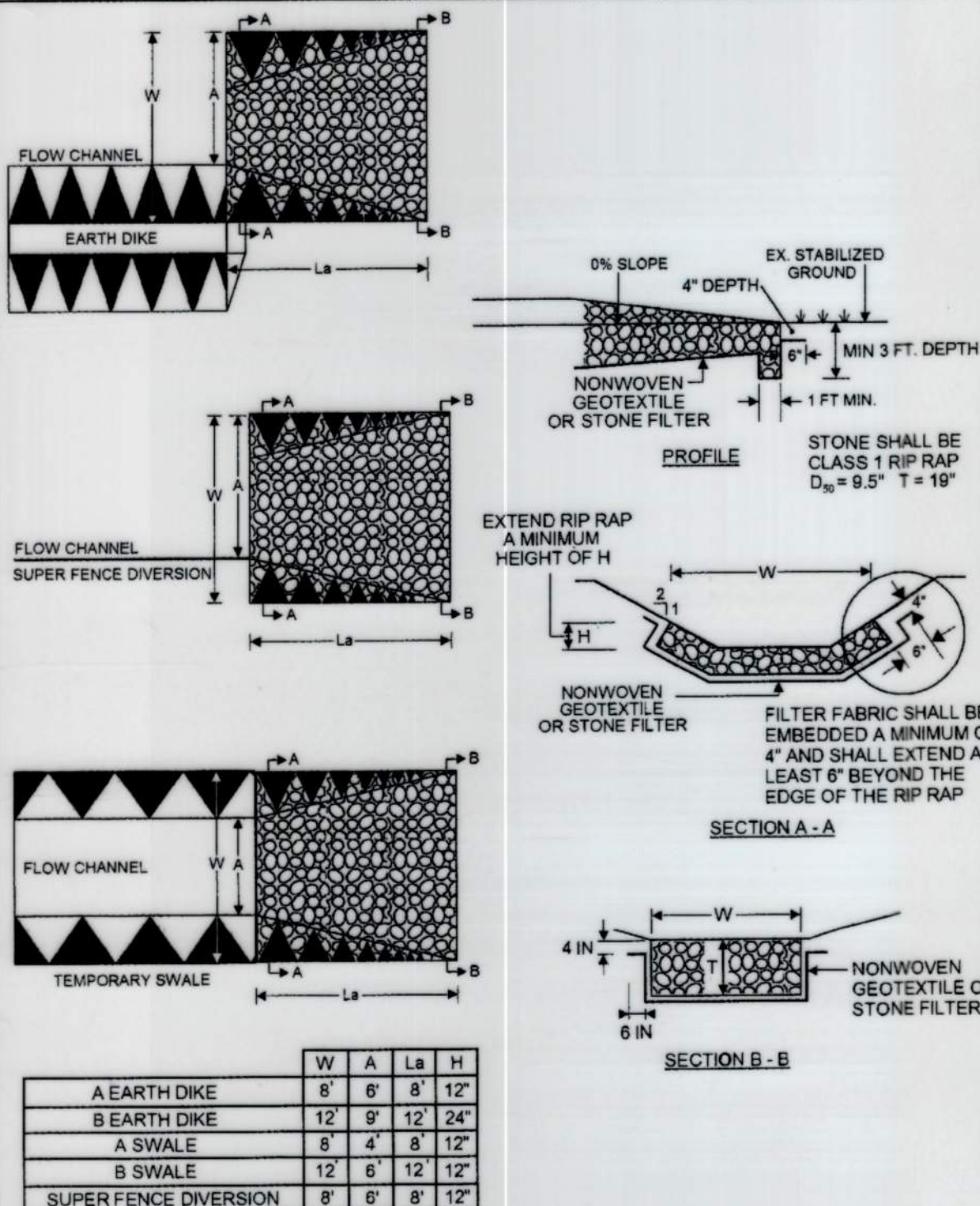
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

- MULCH AND TIMBER MAT ACCESS PATH DETAIL NOTES:
1. ACCESS ROUTES TO BE TO BE VERIFIED BY ENGINEER AT PRE-CONSTRUCTION MEETING. MINOR ADJUSTMENTS TO THE ALIGNMENT THAT MINIMIZES TREE DISTURBANCE ARE ENCOURAGED AND REQUIRE REVIEW AND APPROVAL BY THE ENGINEER AND THE SEDIMENT CONTROL INSPECTOR.
 2. AS FIELD CONDITIONS WARRANT, ADDITIONAL WOOD CHIP MULCH (EXCEEDING THE MINIMUM 12") MAY BE REQUIRED AT THE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR TO AVOID RUTTING OF THE SOIL SURFACE.
 3. TIMBER MAT ACCESS PATH IS REQUIRED WHEN CROSSING WETLANDS.
 4. CONTRACTOR SHALL MAINTAIN MULCH MAT THROUGHOUT CONSTRUCTION PERIOD. UPON COMPLETION OF THE PROJECT, MULCH CAN REMAIN IN PLACE, BEING SPREAD THROUGHOUT THE SITE AT A MAXIMUM DEPTH OF 2". THE CONTRACTOR MUST ENSURE THAT THIS PROCESS IS DONE THROUGHOUT THE GRADING PROCESS, IN A MANNER WHICH ENSURES PROPOSED GRADES ARE MET AND MAINTAINED, WITHOUT DISTURBANCE TO FINAL SEEDING AND PLANTING OF THE SITE.
 5. SCARIFICATION OF COMPACTED MULCH TO OCCUR UPON REMOVAL OF ACCESS PATH, AT DIRECTION OF THE ENGINEER. IF SOILS ARE EXPOSED AND RUTTED BELOW MULCH MATTING, CONTRACTOR TO ADDRESS ACCORDINGLY TO RESTORE NATURAL CONDITIONS. STABILIZE ALL EXPOSED SOIL WITH APPROPRIATE PERMANENT SEED MIX, AS DERIVED IN THE LANDSCAPE PLANS. SOIL STABILIZATION MATTING MAY BE REQUIRED AT THE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR TO STABILIZE SLOPED AREAS.
 6. THE ACCESS PATH IS DESIGNED TO PREVENT COMPACTION OF EXISTING SOILS USING LOW PRESSURE EQUIPMENT WHICH EXERTS NO MORE THAN 12 PSI. IF THE CONTRACTOR INTENDS TO USE ANY EQUIPMENT WITH HIGHER LOADS, ADDITIONAL PROTECTION MEASURES MUST BE PROVIDED, AND THOSE MEASURES MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.
 - *7. MINIMUM 700-GRAM COIR FIBER MATTING COULD BE USED IN LIEU OF NON-WOVEN GEOTEXTILE.
 8. NON-WOVEN GEOTEXTILE SHALL BE PLACED WITH THE SEAMS PARALLEL TO THE FLOW OF TRAFFIC. OVERLAP MATTING 18-INCH MINIMUM AT SEAMS.
 9. WOODCHIP MULCH SHALL BE DERIVED FROM FRESH OR AS DRY HARDWOOD OR PINE MATERIALS INCLUDING BARK AND WOOD FRAGMENTS. WOOD CHIPS SHALL BE FREE OF LEAVES, VINES, INCLUDING POISON IVY, TRASH AND FOREIGN MATTER, AND MAY INCLUDE CHUNKS UP TO 3 INCHES IN ANY DIMENSION.

ROCK OUTLET PROTECTION III

STANDARD SYMBOL

[ROP III]



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MODIFIED - 2012

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

ROCK OUTLET PROTECTION III

STANDARD SYMBOL

[ROP III]

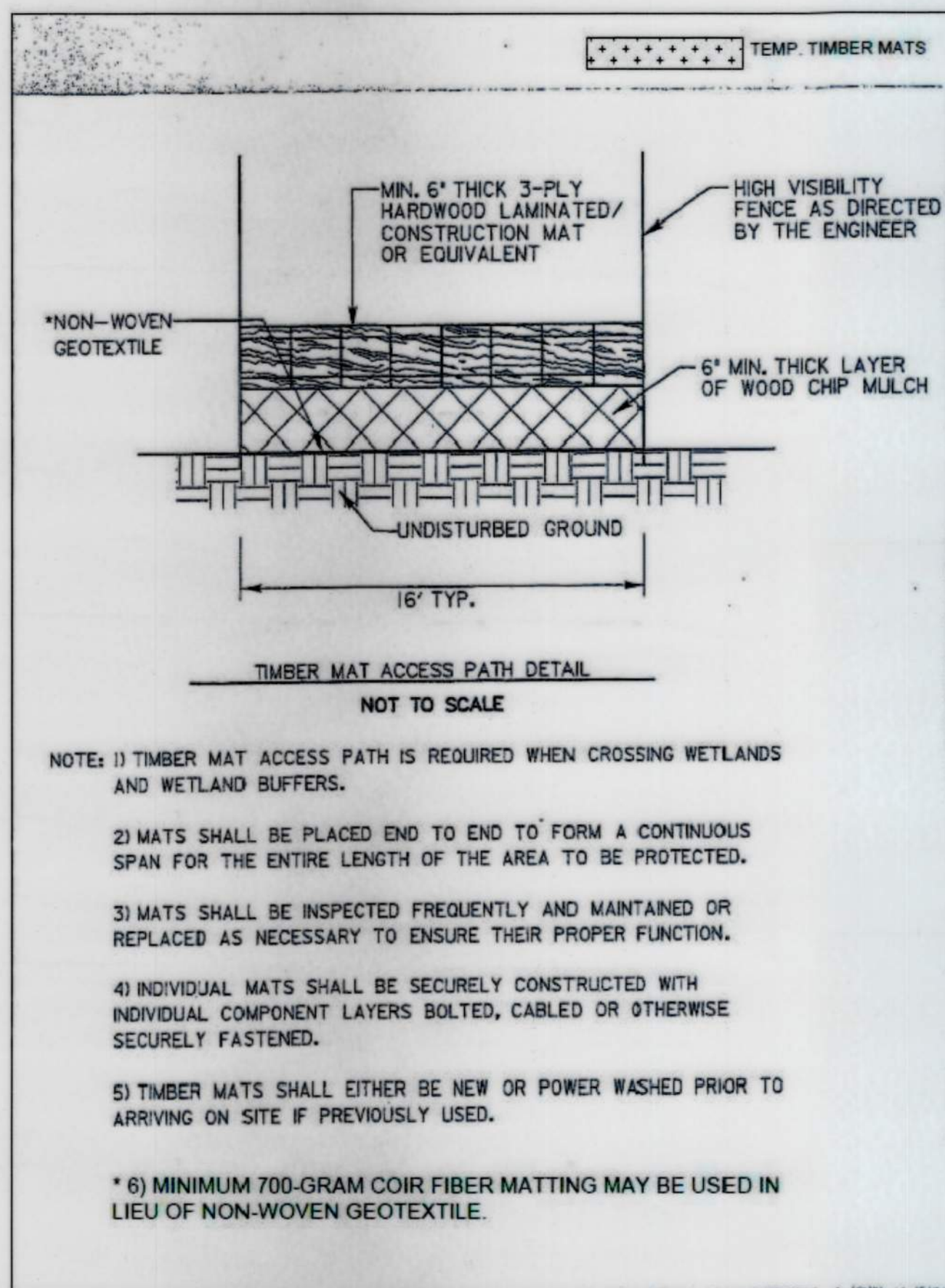
CONSTRUCTION SPECIFICATIONS

1. RIP RAP AND STONE MUST CONFORM TO SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS AND PROTECT FROM PUNCTURING, CUTTING OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (3/4 TO 1 1/2 INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIP RAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND THE GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIP RAP AN EMBED AT LEAST 4 INCHES AT SIDES OF RIP RAP.
5. CONSTRUCT RIP RAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIP RAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIP RAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
7. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLOOGEED RIP RAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MODIFIED - 2012

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

NOTE: 1) TIMBER MAT ACCESS PATH IS REQUIRED WHEN CROSSING WETLANDS AND WETLAND BUFFERS.

- 2) MATS SHALL BE PLACED END TO END TO FORM A CONTINUOUS SPAN FOR THE ENTIRE LENGTH OF THE AREA TO BE PROTECTED.
- 3) MATS SHALL BE INSPECTED FREQUENTLY AND MAINTAINED OR REPLACED AS NECESSARY TO ENSURE THEIR PROPER FUNCTION.
- 4) INDIVIDUAL MATS SHALL BE SECURELY CONSTRUCTED WITH INDIVIDUAL COMPONENT LAYERS BOLTED, CABLED OR OTHERWISE SECURELY FASTENED.
- 5) TIMBER MATS SHALL EITHER BE NEW OR POWER WASHED PRIOR TO ARRIVING ON SITE IF PREVIOUSLY USED.

* 6) MINIMUM 700-GRAM COIR FIBER MATTING MAY BE USED IN LIEU OF NON-WOVEN GEOTEXTILE.

DESIGN PROFESSIONAL: HYDROSTRUCTURES

ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462

PHONE: (757)-630-7989

EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW

ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204

PHONE: (410)-887-3300

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION

EROSION & SEDIMENT CONTROL DETAILS

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL

David Johnston 5-20-25
Date

SHEET DESIGNATION

C-18

CONTRACT NUMBER

15269 SXO



JOB ORDER NUMBER

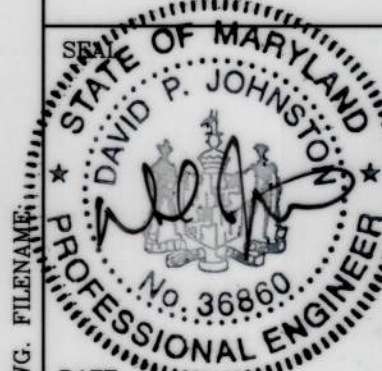
231-201-0077-7225

SHEET 21 OF 31

DRAWING NUMBER

2015-2536

FILE NO.: 1



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. 36860 EXPIRATION DATE 2/27/2027

ENGINEER: **HYDROSTRUCTURES**

5269 Cleveland Street, Suite 206

Virginia Beach, VA 23462

DGN BY: _____

DWN BY: _____

CHKD BY: _____

BUREAU OF ENGINEERING AND CONSTRUCTION

REVIEWED BY: _____

DATE REVIEWED: _____

AS-BUILT / REVISION

BY DATE

P.W.A. NO.

KEY SHEET

POSITION SHT

DRAWING SCALE

DEPARTMENT OF PUBLIC WORKS

APPROVED BY: _____

DATE: See DWG No. 2015-2516

DIRECTOR

CHIEF

No. 2015-2516

R.O.W. NO.

NNE & NSE

28N017-18, 28N017-19, 28N017-20, 28N017-21, 28N017-22, 28N017-23, 28N017-24, 28N017-25, 28N017-26, 28N017-27, 28N017-28, 28N017-29, 28N017-30, 28N017-31, 28N017-32, 28N017-33, 28N017-34, 28N017-35, 28N017-36, 28N017-37, 28N017-38, 28N017-39, 28N017-40, 28N017-41, 28N017-42, 28N017-43, 28N017-44, 28N017-45, 28N017-46, 28N017-47, 28N017-48, 28N017-49, 28N017-50, 28N017-51, 28N017-52, 28N017-53, 28N017-54, 28N017-55, 28N017-56, 28N017-57, 28N017-58, 28N017-59, 28N017-60, 28N017-61, 28N017-62, 28N017-63, 28N017-64, 28N017-65, 28N017-66, 28N017-67, 28N017-68, 28N017-69, 28N017-70, 28N017-71, 28N017-72, 28N017-73, 28N017-74, 28N017-75, 28N017-76, 28N017-77, 28N017-78, 28N017-79, 28N017-80, 28N017-81, 28N017-82, 28N017-83, 28N017-84, 28N017-85, 28N017-86, 28N017-87, 28N017-88, 28N017-89, 28N017-90, 28N017-91, 28N017-92, 28N017-93, 28N017-94, 28N017-95, 28N017-96, 28N017-97, 28N017-98, 28N017-99, 28N017-100

BUILDINGS

HIGHWAYS

STRUCTURES

STORM DRAINS

SEWER

WATER

FIELD ENGINEER

B-1 STANDARDS AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE

DESIGN CRITERIA:

- WHERE POSSIBLE, LOCATE THE STABILIZED CONSTRUCTION ENTRANCES AT THE HIGH SIDE OF THE PROJECT AREA.
- FOR SINGLE FAMILY RESIDENTIAL LOTS, LOCATE THE ENTRANCE AT THE PERMANENT DRIVEWAY.
- STABILIZED CONSTRUCTION ENTRANCES CANNOT BE INSTALLED OVER PAVEMENT.
- MINIMUM LENGTH IS 50 FEET (30 FEET FOR SINGLE FAMILY RESIDENTIAL LOTS).
- MINIMUM WIDTH IS 10 FEET. FLARE ENTRANCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- THE ORIENTATION OF THE STABILIZED CONSTRUCTION ENTRANCE MAY VARY FROM A STRAIGHT LINE TO A CURVE OR "T" SHAPE DEPENDING ON THE TOPOGRAPHY AND RIGHT-OF-WAY.
- ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE STABILIZED CONSTRUCTION ENTRANCE (SCE) MUST BE PIPED UNDER THE ENTRANCE. SIZE THE PIPE TO CONVEY THE RUNOFF GENERATED BY THE 2-YEAR, 24-HOUR FREQUENCY STORM AT MINIMUM. THE MINIMUM PERMISSIBLE PIPE SIZE IS 6 INCHES. WHEN THE ENTRANCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY.

MAINTENANCE:

THE SCE MUST BE MAINTAINED IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. THIS MAY REQUIRE ADDING STONE OR MAKING OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN A CLEAN SURFACE, THE MOUNTABLE BERM, AND THE SPECIFIED DIMENSIONS. ALL STONE OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO THE ADJACENT ROADWAY MUST BE REMOVED IMMEDIATELY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING THE ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS THE WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

B-2 STANDARDS AND SPECIFICATIONS FOR WASH RACK OPTION

DESIGN CRITERIA:

- SCE WITH WASH RACK MUST DRAIN TO AN APPROVED SEDIMENT TRAPPING DEVICE.
- SCE WITH WASH RACK CANNOT BE INSTALLED OVER EXISTING PAVEMENT.
- WASH RACK MUST BE DESIGNED OF MATERIAL THAT IS CONSTRUCTED AND MANUFACTURED TO WITHSTAND THE ANTICIPATED TRAFFIC LOADS. WASH RACKS MAY BE OF CONCRETE, STEEL, OR OTHER MATERIALS.

MAINTENANCE:

THE AREA UNDER THE WASH RACK MUST BE MAINTAINED FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, THE WASH RACK MUST BE REPAIRED OR REPLACED.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

A) SEEDING

- SPECIFICATIONS
 - ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
 - MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
 - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 - SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
- APPLICATION
 - DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDER AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 - DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
 - IF FERTILIZER IS APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
 - LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNED OR HYDRATED LIME WHEN HYDROSEEDING.
 - MIX SEED AND FERTILIZER ON SITE AND APPLY IMMEDIATELY AND WITHOUT INTERRUPTION.
 - WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B) MULCHING

- MULCH MATERIALS (IN ORDER OF PREFERENCE)
 - STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
 - WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 - WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
 - WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 - WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
- APPLICATION
 - APPLY MULCH TO ALL SEEDER AREAS IMMEDIATELY AFTER SEEDING.
 - WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDER AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
 - WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- ANCHORING
 - A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
 - A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 - LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

CONDITIONS WHERE PRACTICE APPLIES:

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA:

- SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
- FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
- WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

TEMPORARY SEEDING SUMMARY

HARDINESS ZONE (FROM FIGURE B.3): 7A SEED MIXTURE (FROM TABLE B.1): N/A				FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC.)	SEEDING DATES		
N/A	ANNUAL RYEGRASS	40	2/15 - 4/30 8/15 - 11/30	436 LB/AC. (10 LB/ 1000 SF)	2 TONS/AC. (90 LB/ 1000 SF)
	FOXTAIL MILLET	30	5/1 - 8/14		

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION:

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE:

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES:

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA:

A. SEED MIXTURES

1. GENERAL USE

- SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
 - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
- TURFGRASS MIXTURES
 - AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
 - KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET.
- NOTES:
SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND"

CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SELECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.

C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A) CENTRAL MD: MARCH 1 TO MAY 15,

AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)

SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15
(HARDINESS ZONES: 7A, 7B)

- TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
- IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

Permanent Seeding Summary

Hardiness Zone (from Figure B.3): 7a Seed Mixture (from Table B.3): 6 or 12				Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/acre)	* Seeding Dates	Seeding Depths	N	P2O5	
6	Tall Fescue	40	Feb 15 to Apr 30 Aug 15 to Oct 31	1/4-1/2 in	45 pounds per acre (10 lb/1000 sq ft)	90 pounds per acre (20 lb/1000 sq ft)	90 pounds per acre (20 lb/1000 sq ft)
	Perennial Ryegrass	25					
	White Clover	5					
12	Crimping Red Fescue	25	Feb 15 to Apr 30 Aug 15 to Oct 31	1/4-1/2 in	45 pounds per acre (10 lb/1000 sq ft)	90 pounds per acre (20 lb/1000 sq ft)	90 pounds per acre (20 lb/1000 sq ft)
	Hard Fescue	25					
	Sheep Fescue	25					
	White Clover	5					
	Red Clover	3					

* For seeding dates May 1 to Aug 14, add 3.5 lbs/acre of Foxtail Millet to seed mixture No. 6 and 4.00 lbs/acre of Foxtail Millet to seed mixture No. 12.

DESIGN PROFESSIONAL: HYDROSTRUCTURES

ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462

PHONE: (757)-630-7989

EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW

ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204

PHONE: (410)-987-3300

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION

EROSION & SEDIMENT CONTROL SPECIFICATIONS

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION (CONTINUED)

- SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

1. GENERAL SPECIFICATIONS

- CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
- SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
- SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
- SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

2. SOD INSTALLATION

- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
- WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
- WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.

3. SOD MAINTENANCE

- IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
- AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
- DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

B-4-7 STANDARDS AND SPECIFICATIONS FOR HEAVY USE AREA PROTECTION

CRITERIA

- A MINIMUM 4-INCH BASE COURSE OF CRUSHED STONE OR OTHER SUITABLE MATERIALS INCLUDING WOOD CHIPS OVER NONWOVEN GEOTEXTILE SHOULD BE PROVIDED AS SPECIFIED IN SECTION H-1 MATERIALS.
- SELECT THE STABILIZING MATERIAL BASED ON THE INTENDED USE, DESIRED MAINTENANCE FREQUENCY, AND RUNOFF CONTROL.
- THE TRANSPORT OF SEDIMENTS, NUTRIENTS, OILS, CHEMICALS, PARTICULATE MATTER ASSOCIATED WITH VEHICULAR TRAFFIC AND EQUIPMENT, AND MATERIAL STORAGE NEEDS TO BE CONSIDERED IN THE SELECTION OF MATERIAL. ADDITIONAL CONTROL MEASURES MAY BE NECESSARY TO CONTROL SOME OF THESE POTENTIAL POLLUTANTS.
- SURFACE EROSION CAN BE A PROBLEM ON LARGE HEAVY USE AREAS. IN THESE SITUATIONS, MEASURES TO REDUCE THE FLOW LENGTH OF RUNOFF OR EROSION VELOCITIES NEED TO BE CONSIDERED.

MAINTENANCE

THE HEAVY USE AREAS MUST BE MAINTAINED IN A CONDITION THAT MINIMIZES EROSION. THIS MAY REQUIRE ADDING SUITABLE MATERIAL, AS SPECIFIED ON THE APPROVED PLANS, TO MAINTAIN A CLEAN SURFACE.

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

CRITERIA

- THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
- THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATION NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.
- RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
- ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
- CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
- WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
- STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
- IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

MAINTENANCE

THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL

David Johnston 5/20/25
Date

SHEET DESIGNATION C-19 CONTRACT NUMBER 15269 SXO

JOB ORDER NUMBER 231-201-0077-7225

SHEET 22 OF 31

DRAWING NUMBER 2015-2537

FILE NO.: 1

SCANNED



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. 36860 EXPIRATION DATE 2/27/2027

ENGINEER:

HYDROSTRUCTURES

5269 Cleveland Street, Suite 206

Virginia Beach, VA 23462

4/1/25

AS-BUILT / REVISION

BY DATE P.W.A. NO. KEY SHEET POSITION SHIT

NNE & NSE

26N017-18, 26N017-19, 26N017-20, 26N017-21, 26N017-22, 26N017-23, 26N017-24, 26N017-25, 26N017-26, 26N017-27, 26N017-28, 26N017-29, 26N017-30, 26N017-31, 26N017-32, 26N017-33, 26N017-34, 26N017-35, 26N017-36, 26N017-37, 26N017-38, 26N017-39, 26N017-40, 26N017-41, 26N017-42, 26N017-43, 26N017-44, 26N017-45, 26N017-46, 26N017-47, 26N017-48, 26N017-49, 26N017-50, 26N017-51, 26N017-52, 26N017-53, 26N017-54, 26N017-55, 26N017-56, 26N017-57, 26N017-58, 26N017-59, 26N017-60, 26N017-61, 26N017-62, 26N017-63, 26N017-64, 26N017-65, 26N017-66, 26N017-67, 26N017-68, 26N017-69, 26N017-70, 26N017-71, 26N017-72, 26N017-73, 26N017-74, 26N017-75, 26N017-76, 26N017-77, 26N017-78, 26N017-79, 26N017-80, 26N017-81, 26N017-82, 26N017-83, 26N017-84, 26N017-85, 26N017-86, 26N017-87, 26N017-88, 26N017-89, 26N017-90, 26N017-91, 26N017-92, 26N017-93, 26N017-94, 26N017-95, 26N017-96, 26N017-97, 26N017-98, 26N017-99, 26N017-100

DGN BY: BUREAU OF ENGINEERING AND CONSTRUCTION

DWN BY: REVIEWED BY:

CHKD BY: DATE

B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION:

USING VEGETATION AS COVER TO PROTECT EXPOSED SOIL FROM EROSION.

PURPOSE:

TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL.

CONDITIONS WHERE PRACTICE APPLIES:

ON ALL DISTURBED AREAS NOT STABILIZED BY OTHER METHODS. THIS SPECIFICATION IS DIVIDED INTO SECTIONS ON INCREMENTAL STABILIZATION; SOIL PREPARATION, SOIL AMENDMENTS AND TOPSOILING; SEEDING AND MULCHING; TEMPORARY STABILIZATION; AND PERMANENT STABILIZATION.

EFFECTS ON WATER QUALITY AND QUANTITY:

STABILIZATION PRACTICES ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUNOFF TO DOWNSTREAM AREAS.

PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF, INFILTRATION, EVAPORATION, TRANSPIRATION, PERCOLATION, AND GROUNDWATER RECHARGE. OVER TIME, VEGETATION WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH.

VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICALS CARRIED BY RUNOFF TO RECEIVING WATERS. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT WITHIN THE ROOT ZONE.

SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDBED PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.

ADEQUATE VEGETATIVE ESTABLISHMENT:

INSPECT SEEDD AREAS FOR VEGETATIVE ESTABLISHMENT AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON.

1. ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUND COVER.
2. IF AN AREA HAS LESS THAN 40 PERCENT GROUND COVER, RESTABILIZE FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDBED PREPARATION, AND SEEDING.
3. IF AN AREA HAS BETWEEN 40 AND 94 PERCENT GROUND COVER, OVER-SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED.
4. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.6.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

DEFINITION:

ESTABLISHMENT OF VEGETATIVE COVER ON CUT AND FILL SLOPES.

PURPOSE:

TO PROVIDE TIMELY VEGETATIVE COVER ON CUT AND FILL SLOPES AS WORK PROGRESSES.

CONDITIONS WHERE PRACTICE APPLIES:

ANY CUT OR FILL SLOPE GREATER THAN 15 FEET IN HEIGHT. THIS PRACTICE ALSO APPLIES TO STOCKPILES.

CRITERIA:

A. INCREMENTAL STABILIZATION - CUT SLOPES

1. EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES.
2. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1):
 - a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE EXCAVATION.
 - b. PERFORM PHASE 1 EXCAVATION, PREPARE SEEDBED, AND STABILIZE.
 - c. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.
 - d. PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

NOTE: ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.

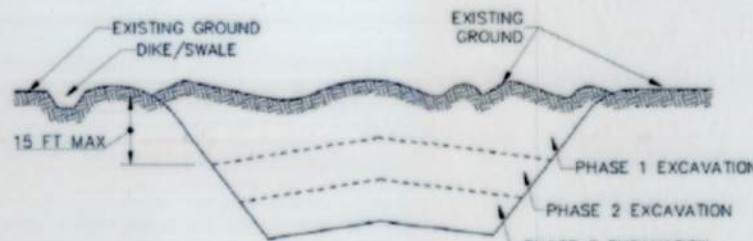


FIGURE B.1: INCREMENTAL STABILIZATION - CUT

B. INCREMENTAL STABILIZATION - FILL SLOPES

1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL SLOPES AS THE WORK PROGRESSES.
2. STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET, OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
3. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
4. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.2):
 - a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SILT FENCE ON LOW SIDE OF FILL UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA.
 - b. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
 - c. PLACE PHASE 1 FILL, PREPARE SEEDBED, AND STABILIZE.
 - d. PLACE PHASE 2 FILL, PREPARE SEEDBED, AND STABILIZE.
 - e. PLACE FINAL PHASE FILL, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.

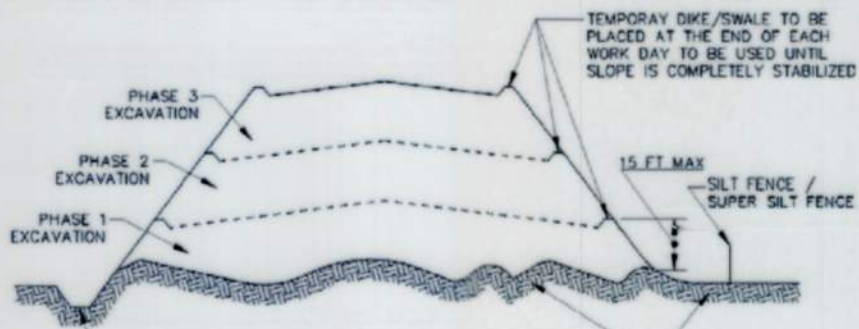


FIGURE B.2: INCREMENTAL STABILIZATION - FILL

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION:

THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE:

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES:

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA:

A. SOIL PREPARATION

1. TEMPORARY STABILIZATION

- a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
- a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - i. SOIL PH BETWEEN 6.0 AND 7.0.
 - ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 - iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
 - d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING

1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 - a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1-1/2 INCHES IN DIAMETER.
 - b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
6. TOPSOIL APPLICATION
 - a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 - b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
7. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

DESIGN PROFESSIONAL: HYDROSTRUCTURES

ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462

PHONE: (757)-630-7989

EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW

ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204

PHONE: (410)-887-3300

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION

EROSION & SEDIMENT CONTROL SPECIFICATIONS (CONTINUED)

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL

David Basman 5/20/25
Date

SHEET DESIGNATION CONTRACT NUMBER

C-20

15269 SXO

JOB ORDER NUMBER

231-201-0077-7225

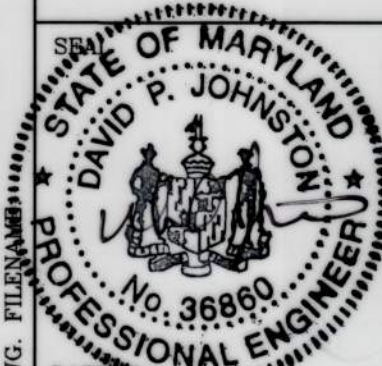
SHEET 23 OF 31

DRAWING NUMBER

2015-2538

FILE NO.: 1

SCANNED



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. 36860	EXPIRATION DATE 2/27/2027
ENGINEER: HYDROSTRUCTURES A DUKES COMPANY	
5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462	

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
				NNE & NSE	28N017-18, 28N017-19, 27N017-18, 28N017, 28N017-19, 30N017	PLAN SCALE: N/A PROFILE SCALE: HOR: N/A VER: N/A	APPROVED BY: DIRECTOR DATE: See DWG No. 2015-2516
BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							APPROVED BY: SEE DWG DATE: No. 2015-2516
DATE REVIEWED:							CHIEF

H-1 STANDARDS AND SPECIFICATIONS FOR MATERIALS

TABLE H.1: GEOTEXTILE FABRICS

		WOVEN SLIT FILM GEOTEXTILE		WOVEN MONOFILAMENT GEOTEXTILE		NONWOVEN GEOTEXTILE	
		MINIMUM AVERAGE ROLL VALUE ¹					
		MD	CD	MD	CD	MD	CD
PROPERTY	TEST METHOD						
GRAB TENSILE STRENGTH	ASTM D-4632	200 LB	200 LB	370 LB	250 LB	200 LB	200 LB
GRAB TENSILE ELONGATION	ASTM D-4632	15%	10%	15%	15%	50%	50%
TRAPEZOIDAL TEAR STRENGTH	ASTM D-4533	75 LB	75 LB	100 LB	60 LB	80 LB	80 LB
PUNCTURE STRENGTH	ASTM D-6241	450 LB		900 LB		450 LB	
APPARENT OPENING SIZE ²	ASTM D-4751	U.S. SIEVE 30 (0.59 MM)		U.S. SIEVE 70 (0.21 MM)		U.S. SIEVE 70 (0.21 MM)	
PERMITTIVITY	ASTM D-4491	0.05 SEC ⁻¹		0.28 SEC ⁻¹		1.1 SEC ⁻¹	
ULTRAVIOLET RESISTANCE RETAINED AT 500 HOURS	ASTM D-4355	70% STRENGTH		70% STRENGTH		70% STRENGTH	

¹ ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV). MARV IS CALCULATED AS THE TYPICAL MINUS TWO STANDARD DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.

² VALUES FOR AOS REPRESENT THE AVERAGE MAXIMUM OPENING.

GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPP) AND CONFORM TO THE VALUES IN TABLE H.1.

THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OR POLYESTERS, AND FORMED INTO A STABLE NETWORK SO THE FILAMENTS OR YARNS RETAIN THEIR DIMENSIONAL STABILITY RELATIVE TO EACH OTHER, INCLUDING SELVAGES.

WHEN MORE THAN ONE SECTION OF GEOTEXTILE IS NECESSARY, OVERLAP THE SECTIONS BY AT LEAST ONE FOOT. THE GEOTEXTILE MUST BE PULLED TAUT OVER THE APPLIED SURFACE. EQUIPMENT MUST NOT RUN OVER EXPOSED FABRIC. WHEN PLACING RIPRAP ON GEOTEXTILE, DO NOT EXCEED A ONE FOOT DROP HEIGHT.

TABLE H.2: STONE SIZE

TYPE	SIZE RANGE	D ₅₀	D ₁₀₀	AASHTO	MIDSIZE WEIGHT ³
NUMBER 57 ¹	3/8 TO 1 1/2 INCH	1/2 IN	1 1/2 IN	M-43	N/A
NUMBER 1	2 TO 3 INCH	2 1/2 IN	3 IN	M-43	N/A
RIPRAP ² (CLASS 0)	4 TO 7 INCH	5 1/2 IN	7 IN	N/A	N/A
CLASS I	N/A	9 1/2 IN	15 IN	N/A	40 LB
CLASS II	N/A	16 IN	24 IN	N/A	200 LB
CLASS III	N/A	23 IN	34 IN	N/A	600 LB

¹ THIS CLASSIFICATION IS TO BE USED ON THE UPSTREAM FACE OF STONE OUTLETS AND CHECK DAMS.

² THIS CLASSIFICATION IS TO BE USED FOR GABIONS.

³ OPTIMUM GRADATION IS 50 PERCENT OF THE STONE BEING ABOVE AND 50 PERCENT BELOW THE MIDSIZE.

STONE MUST BE BE COMPOSED OF A WELL GRADED MIXTURE OF STONE SIZED SO THAT FIFTY (50) PERCENT OF THE PIECES BY WEIGHT ARE LARGER THAN THE SIZE DETERMINED BY USING THE CHARTS. A WELL GRADED MIXTURE, AS USED HEREIN, IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF LARGER STONE SIZES BUT WITH A SUFFICIENT MIXTURE OF THE OTHER SIZES TO FILL THE SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE IN SUCH A MIXTURE MUST NOT EXCEED THE RESPECTIVE D₁₀₀ SELECTED FROM TABLE H.2. THE D₅₀ REFERS TO THE MEDIAN DIAMETER OF THE STONE. THIS IS THE SIZE FOR WHICH 50 PERCENT, BY WEIGHT, WILL BE SMALLER AND 50 PERCENT WILL BE LARGER.

NOTE: RECYCLED CONCRETE EQUIVALENT MAY BE SUBSTITUTED FOR ALL STONE CLASSIFICATIONS FOR TEMPOARY CONTROL MEASURES ONLY. CONCRETE BROKEN INTO THE SIZES MEETING THE APPROPRIATE CLASSIFICATION, CONTAINING NO STEEL REINFORCEMENT, AND HAVING A MINIMUM DENSITY OF 150 POUNDS PER CUBIC FOOT MAY BE USED AS AN EQUIVALENT.

H-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY ACCESS WATERWAY CROSSINGS

DEFINITION:

A STRUCTURE PLACED ACROSS A WATERWAY TO PROVIDE ACCESS FOR CONSTRUCTION PURPOSES FOR A PERIOD OF LESS THAN ONE YEAR. TEMPORARY ACCESS CROSSINGS ARE NOT TO BE UTILIZED TO MAINTAIN TRAFFIC FOR THE GENERAL PUBLIC.

PURPOSE:

TO PROVIDE SAFE, POLLUTION FREE ACCESS ACROSS A WATERWAY FOR CONSTRUCTION EQUIPMENT BY ESTABLISHING MINIMUM STANDARDS AND SPECIFICATIONS FOR THE DESIGN, CONSTRUCTION, MAINTENANCE, AND REMOVAL OF THE STRUCTURE. A TEMPORARY ACCESS WATERWAY CROSSING IS NECESSARY TO PREVENT CONSTRUCTION EQUIPMENT FROM DAMAGING THE WATERWAY, BLOCKING FISH MIGRATION, AND TRACKING SEDIMENT AND OTHER POLLUTANTS INTO WATERWAY. A WATERWAY CROSSING MAY CREATE A CHANNEL CONSTRUCTION, THUS THE TEMPORARY NATURE OF WATERWAY ACCESS CROSSING MUST BE STRESSED. THE CROSSING SHOULD BE IN PLACE FOR THE SHORTEST PRACTICAL PERIOD OF TIME AND REMOVED AS SOON AS ITS FUNCTION IS COMPLETED.

CONDITIONS WHERE PRACTICE APPLIES:

TEMPORARY WATERWAY CROSSINGS MUST CONFORM TO THE TECHNICAL REQUIREMENTS OF THESE STANDARDS AND SPECIFICATIONS AS WELL AS ANY SPECIFIC REQUIREMENTS IMPOSED BY THE MDE WETLANDS AND WATERWAYS PROGRAM. THE DESIGNS ARE BASED ON WATERWAY GEOMETRY RATHER THAN THE DRAINAGE AREA CONTRIBUTING TO THE POINT OF CROSSING. THE PRINCIPAL CONSIDERATION OF THESE STANDARDS AND SPECIFICATIONS IS EROSION AND SEDIMENT CONTROL. STRUCTURAL INTEGRITY AND SAFETY FOR EXPECTED LOADING MUST ALSO BE CONSIDERED WHEN DESIGNING TEMPORARY ACCESS WATERWAY CROSSINGS. THE TWO TYPES OF STANDARD TEMPORARY WATERWAY CROSSINGS ARE BRIDGES AND CULVERTS. BRIDGES ARE PREFERABLE.

DESIGN CRITERIA:

1. STREAM CLOSURES: THE STREAM CHANNEL MUST NOT BE DISTURBED DURING RESTRICTED TIME PERIODS. STREAM CLOSURE DATES FOR FISH SPAWNING OR MIGRATION WITHIN WATERWAYS ARE AS FOLLOWS:

USE I AND IP: MARCH 1 – JUNE 15
USE II: JUNE 1 – SEPTEMBER 30 AND DECEMBER 16 – MARCH 14
USE III AND IIP: OCTOBER 1 – APRIL 30
USE IV: MARCH 1 – MAY 31
SAV*: APRIL 1 – OCTOBER 15

* SUBMERGED AQUATIC VEGETATION (SAV)

FOR MORE INFORMATION ABOUT THE CLOSURES BASED ON STREAM USES AND SAV'S CONTACT MDE WETLANDS AND WATERWAYS PROGRAM.

2. AQUATIC MIGRATION: FISH PASSAGE MUST NOT BE OBSTRUCTED BY THE INSTALLATION OF A WATERWAY CROSSING. BRIDGES POSE THE LEAST POTENTIAL FOR CREATING BARRIERS TO AQUATIC MIGRATION. THE CONSTRUCTION OF A WATERWAY CROSSING MUST NOT CAUSE A SIGNIFICANT WATER LEVEL DIFFERENCE BETWEEN THE UPSTREAM AND DOWNSTREAM WATER SURFACE ELEVATIONS.

3. SITE LOCATION: LOCATE THE TEMPORARY CROSSING WHERE THERE WILL BE THE LEAST DISTURBANCE TO THE EXSITING WATERWAY BANKS AND APPROACHES. WHEN POSSIBLE, LOCATE THE CROSSING AT A POINT RECEIVING MINIMAL SURFACE RUNOFF. CONSIDER THE EFFORT THAT WILL BE REQUIRED TO RESTORE THE AREA AFTER THE TEMPORARY CROSSING IS REMOVED.

4. CROSSING ALIGNMENT: THE TEMPORARY WATERWAY CROSSING SHOULD BE AT RIGHT ANGLES TO THE STREAM, UNLESS THE APPROACH CONDITIONS DICTATE OTHERWISE.

5. APPROACHES: THE CENTERLINE OF BOTH APPROACHES NEEDS TO COINCIDE WITH THE CENTERLINE OF THE CROSSING FOR A MINIMUM DISTANCE OF 50 FEET FROM THE TOP OF EACH STREAM BANK, UNLESS PRECLUDED BY PHYSICAL OR RIGHT-OF-WAY CONSTRAINTS. THE APPROACHES SHOULD BE KEPT AS CLOSE TO THE EXISTING GRADE AS POSSIBLE. APPROACHES SHOULD HAVE A MINIMUM WIDTH OF 12 FEET AND A MAXIMUM WIDTH OF 20 FEET DEPENDING ON THE SIZE OF THE VEHICLES THAT WILL USE THE CROSSING.

6. SURFACE RUNOFF: RUNOFF ON THE APPROACHES MUST BE AT A NON-EROSIVE VELOCITY. THIS CAN BE ATTAINED THROUGH SURFACE STABILIZATION OR SURFACE RUNOFF DIVERSION. SURFACE RUNOFF FROM UNSTABILIZED APPROACHES MUST DISCHARGE TO AN APPROVED SEDIMENT CONTROL DEVICE.

7. REMOVAL: AFTER THE TEMPORARY CROSSING IS NO LONGER NEEDED, REMOVE IT WITHIN 14 CALENDER DAYS UNLESS WITHIN THE USE DESIGNATION STREAM CLOSURE PERIOD.

H-4-1 STANDARDS AND SPECIFICATIONS FOR TEMPORARY ACCESS BRIDGE

DEFINITION:

A TEMORARY WATERWAY CROSSING THAT SPANS THE STREAM CHANNEL.

DESIGN CONSIDERATIONS:

GENERALLY, A TEMPORARY ACCESS BRIDGE CAUSES LESS DISTURBANCE TO THE WATERWAY BED AND BANKS AND POSES LESS INTERFERENCE WITH FISH MIGRATION THAN A CULVERT ACCESS CROSSING.

TIME OF THE YEAR RESTRICTIONS DO NOT APPLY TO THE COSTRUCTION OR REMOVAL OF A TEMPORARY ACCESS BRIDGE UNLESS THERE IS DISTURBANCE TO THE STREAM CHANNEL.

MAINTENANCE:

THE APPROACH TO THE BRIDGE MUST BE STABILIZED AND KEPT FREE OF EROSION. THE DECKING AND CURBS MUST BE CLEANED OF SEDIMENT DAILY BY SCRAPING, SWEEPING, AND/OR VACUUMING. THE DECKING AND CURBS MUST REMAIN TIGHTLY BUTTED WITHOUT GAPS. DEBRIS TRAPPED BY THE BRIDGE MUST BE REMOVED. THE AREAS ADJACENT TO THE CROSSING MUST BE MAINTAINED TO CONTINUOSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

H-5 STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

DEFINITION:

CONTROLLING THE SUSPENSION OF DUST PARTICLES FROM CONSTRUCTION ACTIVITIES.

PURPOSE:

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES TO REDUCE ON AND OFF-SITE DAMAGE INCLUDING HEALTH AND TRAFFIC HAZARDS.

CONDITIONS WHERE PRACTICE APPLIES:

AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS:

- MULCHES: SEE SECTION B-4-2 SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS, SECTION B-4-3 SEEDING AND MULCHING, AND SECTION B-4-4 TEMPORARY STABILIZATION. MULCH MUST BE ANCHORED TO PREVENT BLOWING.
- VEGETATIVE COVER: SEE SECTION B-4-4 TEMPORARY STABILIZATION
- TILLAGE: TILL TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT THAT MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION: SPRINKLE SITE WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. THE SITE MUST NOT BE IRRIGATED TO THE POINT RUNOFF OCCURS.
- BARRIERS: SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
- CHEMICAL TREATMENT: USE OF CHEMICAL TREATMENT REQUIRES APPROVAL BY THE APPROPRIATE PLAN REVIEW AUTHORITY.



PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS
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.							NNE & NSE	25NE17-18, 26NE17-18, 27NE17-18, 28NE17, 29NE17-18, 30NE17	PLAN SCALE: N/A PROFILE SCALE: HOR: N/A VER: N/A	APPROVED BY: See DWG No. 2015-2516 DATE: _____
ENGINEER: HYDROSTRUCTURES 5269 Cleveland Street, Suite 206 Virginia Beach, VA 23462		BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
DGN BY: _____		REVIEWED BY: _____								
CHKD BY: _____		DATE REVIEWED: _____								

DESIGN PROFESSIONAL: HYDROSTRUCTURES
ADDRESS: 5269 CLEVELAND ST. SUITE 206, VIRGINIA BEACH, VA 23462
PHONE: (757)-630-7989
EMAIL: David.Johnston@hydrostructures.com

OWNER/DEVELOPER: BCDPW
ADDRESS: 111 W. CHESAPEAKE AVE #307 TOWSON, MD 21204
PHONE: (410)-887-3300

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD

SEWER REHABILITATION

EROSION & SEDIMENT CONTROL SPECIFICATIONS (CONTINUED)

SUBDIVISION: PARKVILLE

PARKVILLE, MARYLAND

ELECTION DIST. NO.: 14c6

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL

Don Baehman 5-20-25
Date

SHEET DESIGNATION	CONTRACT NUMBER
C-21	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 24 OF 31	DRAWING NUMBER
2015-2539	
FILE NO.: 1	

STEMMERS RUN SEWERSHED METER BASINS 2B AND 3 SEWER REHABILITATION

FOREST CONSERVATION PLAN/ FOREST BUFFER PROTECTION PLAN

BALTIMORE COUNTY, MARYLAND

BACKGROUND DATA

1. TOTAL TRACT AREA: 4.3 ACRES

2. BASE DATA OBTAINED FROM THE FOLLOWING SOURCES: BALTIMORE COUNTY GIS DATA, STATE HIGHWAY CENTERLINE GIS DATA, US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE SOILS DATA, MARYLAND DEPARTMENT OF NATURAL RESOURCES (MDNR) WETLAND GIS DATA, US FISH AND WILDLIFE SERVICE (USFWS) NATIONAL WETLANDS INVENTORY GIS DATA, US GEOLOGICAL SURVEY NATIONAL HYDROGRAPHY DATASET, MARYLAND HISTORICAL TRUST (MHT) GIS DATA, AND FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 100-YEAR FLOODPLAIN DATA.

3. IN AN EMAIL DATED JULY 31, 2024, MHT STATED THAT THERE ARE NO HISTORIC PROPERTIES AFFECTED BY THE PROJECT. IN A LETTER DATED AUGUST 9, 2024, MDNR STATED THAT THERE ARE NO STATE LISTED SPECIES AFFECTED BY THE PROJECT.

4. A SEARCH PERFORMED ON THE USFWS IPAC DATABASE IDENTIFIED NORTHERN LONG-EARED BAY (ENDANGERED), TRICOLORED BAT (PROPOSED-ENDANGERED), AND MONARCH BUTTERFLY (CANDIDATE SPECIES) WITHIN THE PROJECT LIMITS OF DISTURBANCE. NO CRITICAL HABITATS WERE IDENTIFIED. PERFORMING THE 'DETERMINATION EFFECT' PROCESS INDICATED THAT THE PROJECT IS NOT LIKELY TO CAUSE AN INCIDENTAL TAKE OF NORTHERN LONG-EARED BAT.

FOREST RESOURCES

1. FOREST STAND DELINEATION CONDUCTED DECEMBER 10, 11, AND 12, 2014 BY VIRGINIA BOONE AND ELIZABETH PONS, CEM STAFF. TREE DIAMETERS WERE MEASURED USING DBH TAPE. AN ADDITIONAL FIELD VISIT WAS PERFORMED IN MAY 2024 TO VERIFY THE ORIGINALLY DELINEATED CONDITIONS.

2. BASED ON CORRESPONDENCE DATED OCTOBER 3, 2019 FROM BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ANY FOREST CLEARING FOR THIS PROJECT WILL REQUIRE MITIGATION AT A RATIO OF 1:1. TOTAL FOREST CLEARING ASSOCIATED WITH THIS PROJECT IS 3.3 ACRES. TO SATISFY MITIGATION THIS PLAN PROVIDES 11 ON-SITE REFORESTATION PLANTING AREAS TOTALING 1.80 ACRES. THE REMAINING 1.50 REFORESTATION REQUIREMENT WILL BE MET BY PAYMENT OF FEE-IN- LIEU TO THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY FOREST CONSERVATION FUND.

3. NO REFORESTATION PLANTING WILL OCCUR WITHIN A 10 FOOT OFF-SET FROM THE CENTERLINE OF THE EXISTING SEWER LINE TO ALLOW FOR ACCESS AND MAINTENANCE OF THE UTILITY LINE.

4. TREE PROTECTION FENCING, ROOT PRUNING, MULCH ROADWAYS, AND TIMBER MATTING WILL BE UTILIZED TO MINIMIZE IMPACTS TO CRITICAL ROOT ZONES DURING CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO THE MEASURES NOTED ON THIS PLAN AND THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DURING CONSTRUCTION.

5. SPECIMEN TREES WITHIN FOREST MUST BE MITIGATED BY MEETING THE REFORESTATION REQUIREMENTS FOR THE PROJECT. SPECIMEN TREES LOCATED OUTSIDE FOREST MUST BE MITIGATED BY ADDITIONAL REFORESTATION OR BY PAYMENT OF FEE IN LIEU TO THE BALTIMORE COUNTY FOREST CONSERVATION FUND. BECAUSE OF WOODY PLANT RESTRICTIONS WITHIN THE UTILITY RIGHT-OF-WAY, OFF-SITE REFORESTATION OR FEE-IN- LIEU MAY BE NECESSARY TO MEET THIS REQUIREMENT.

6. A FOREST CONSERVATION PLAN FOR THIS PROJECT MUST BE APPROVED PRIOR TO ANY PERMIT APPROVAL.

7. A VARIANCE WAS GRANTED BY BALTIMORE COUNTY EPS TO ALLOW THE REMOVAL OF 12 SPECIMEN TREES ON THIS PROJECT SITE AND MITIGATION WAS PROVIDED BY MEETING THE REFORESTATION AND MITIGATION REQUIREMENTS PURSUANT TO FOREST CONSERVATION PLAN FOR THIS PROJECT.

WATER RESOURCES

1. ACCORDING TO FEMA FLOOD INSURANCE RATE MAP PANEL NO. 2400100410F (EFFECTIVE DATE SEPTEMBER 28, 2008), THE STUDY AREA DOES NOT CROSS THE 100-YEAR FLOODPLAIN.

2. THE ENTIRE LIMITS OF DISTURBANCE IS LOCATED OUTSIDE THE CHESAPEAKE BAY CRITICAL AREA.

3. FIELD STUDIES CONDUCTED ON DECEMBER 16, 17, AND 18, 2014, AND RE-VERIFIED IN MAY 2024 IDENTIFIED A TOTAL OF THREE WETLANDS AND NINE STREAMS WITHIN THE STUDY AREA. WETLAND COVER TYPES INCLUDE PALUSTRINE FORESTED AND PALUSTRINE EMERGENT. STREAM CLASSIFICATIONS INCLUDE PERENNIAL, INTERMITTENT, AND EPHEMERAL.

4. ALL NINE STREAMS WITHIN THE STUDY AREA ARE USE IV STREAMS. THE STUDY AREA IS WITHIN THE PATAPSCO RIVER WATERSHED (02130901).

5. A JOINT PERMIT MODIFICATION WAS SUBMITTED TO MDE AND USACE ON MARCH 7, 2019. MDE PROVIDED AUTHORIZATION ON MARCH 19, 2019 UNDER PERMIT NO.15-NT-0257/201561258 AND USACE AUTHORIZATION WAS ISSUED ON AUGUST 22, 2019 UNDER PERMIT NO. CENAB-OPR-MN (BA DPW/TEXAS AVE/UTILITY LINE MAINTENANCE) 2015-61258-M04. BECAUSE THE PROJECT WAS PLACED ON HOLD AND CAN NO LONGER BE EXTENDED, A NEW JPA AUTHORIZATION PACKAGE HAS BEEN SUBMITTED TO MDE. IT IS ANTICIPATED THE PROJECT WILL BE RE-AUTHORIZED AS A CATEGORY 'A' BASED ON THE AMOUNT OF PROPOSED IMPACTS.

DEVELOPER'S CERTIFICATE

The undersigned agrees to execute all the features of Approved Final Forest Conservation Plan No. _____, including financial bonding, forest planting, maintenance, and all other applicable agreements.

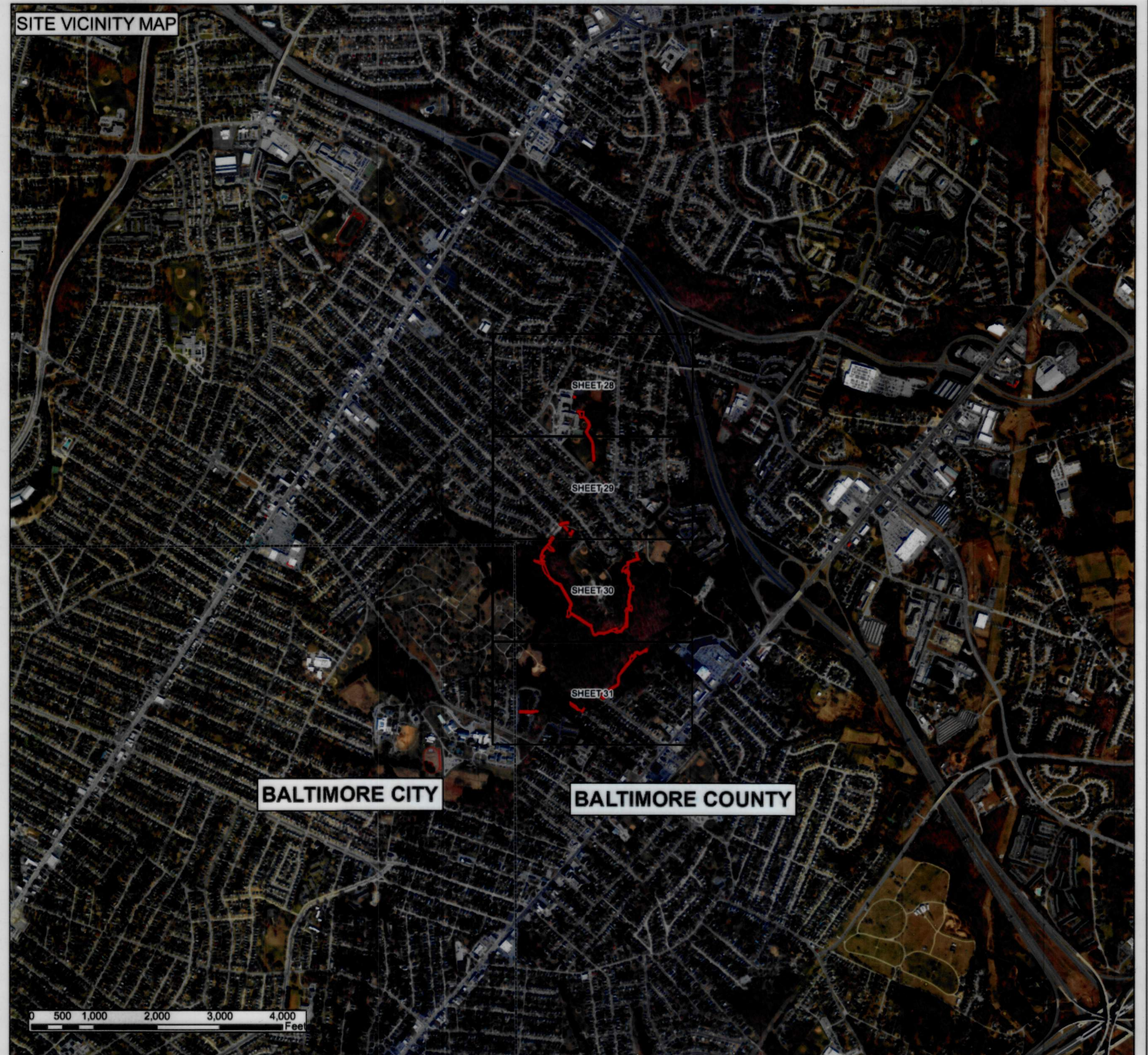
Developer's Name: Baltimore County MD Government
Printed Company Name

Contact Person or Owner: Lesak K. Eicholtz
Printed Name

Address: 111 W. Chesapeake Ave Towson MD 21204

Phone and Email: 410-551-2786 leicholtz@baltimorecountymd.gov

Signature: Lesak K. Eicholtz



BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL
PROTECTION AND SUSTAINABILITY

FOREST BUFFER PROTECTION PLAN APPROVAL

Approved by: [Signature] Date: 4/9/2025
Environmental Impact Review

Forest Buffer Protection Plan # FBP 19-090 REV

BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL
PROTECTION AND SUSTAINABILITY

FOREST CONSERVATION PLAN APPROVAL

Approved by: [Signature] Date: 4/9/2025
Environmental Impact Review

Forest Conservation Plan # FC 19-071 REV

CEM 42 N. MAIN ST. BAL. AIR, MD 21014 Date: January 2025	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SH	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS	
	THIS PLAN WAS PREPARED BY: PETER SCHIRM DNR QUALIFIED PROFESSIONAL										APPROVED BY: <u>SEE DRAWING</u> DATE: <u>2015-2516</u>	
	DGN BY: <u>PS</u>		BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION
	OWN BY: <u>JT</u>		REVIEWED BY:									APPROVED BY: <u>SEE DRAWING</u> DATE: <u>2015-2516</u>
42 NORTH MAIN STREET BAL. AIR, MD 21014		CHKD BY: <u>PS</u>		DATE REVIEWED:								DATE: <u>2015-2516</u>

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
SEWER REHABILITATION
FOREST CONSERVATION PLAN/ FOREST BUFFER PROTECTION PLAN

SUBDIVISION: PARKVILLE

PARKVILLE MARYLAND

ELECTION DIST. NO. 14dB

SHEET DESIGNATION	CONTRACT NUMBER
C-22	15269 SXO
JOB ORDER NUMBER	
231-201-0077-7225	
SHEET 25 OF 31	
DRAWING NUMBER	
2015-2540	
FILE NO.: 1	

TREE IMPACT SUMMARY TABLE									
ID	STAND	COMMON NAME	SCIENTIFIC NAME	DBH(IN.)	CONDITION	STATUS/PROTECTION			
1		Southern Red Oak	Quercus falcata	31.5	Good	Retain			
2		Sweet Gum	Liquidambar styraciflua	30.6	Good	Retain			
3		Silver Maple	Acer saccharinum	34.1	Good	Retain			
4	FS-1	Southern Red Oak	Quercus falcata	31.5	Good	Retain			
5	FS-2	White Oak	Quercus alba	36.8	Good	Retain			
6	FS-3	Tulip Poplar	Liriodendron tulipifera	38.8	Fair	Retain/TPF			
7	FS-4	Tulip Poplar	Liriodendron tulipifera	31.4	Fair	Retain			
8	FS-4	Tulip Poplar	Liriodendron tulipifera	34	Fair	Retain			
9	FS-4	Tulip Poplar	Liriodendron tulipifera	39.1	Good	Retain			
10		Northern Red Oak	Quercus rubra	34.6	Good	Retain			
11		Pin Oak	Quercus palustris	33	Good	Retain/TPF			
12		Northern Red Oak	Quercus rubra	35	Good	Retain			
13		Tulip Poplar	Liriodendron tulipifera	32.4	Fair	Retain/TPF			
14		Tulip Poplar	Liriodendron tulipifera	34.5	Good	Retain			
15	FS-5	Chestnut Oak	Quercus prinus	30.3	Good	Retain/TPF/Root Pruning			
16	FS-5	Northern Red Oak	Quercus rubra	33.6	Good	Retain/TPF/Root Pruning			
17	FS-5	White Oak	Quercus alba	31.1	Good	Retain/TPF/Root Pruning			
18	FS-5	Northern Red Oak	Quercus rubra	30.4	Good	Remove			
19	FS-5	Tulip Poplar	Liriodendron tulipifera	33.6	Good	Retain/TPF			
20	FS-5	Scarlet Oak	Quercus coccinea	35.1	Good	Retain/TPF			
21	FS-5	Scarlet Oak	Quercus coccinea	33.9	Good	Remove			
22	FS-5	Tulip Poplar	Liriodendron tulipifera	30	Good	Remove			
23	FS-5	Tulip Poplar	Liriodendron tulipifera	31.7	Fair	Remove			
24	FS-5	Tulip Poplar	Liriodendron tulipifera	30.9	Fair	Remove			
25	FS-5	Northern Red Oak	Quercus rubra	31.9	Good	Retain			
26	FS-5	Tulip Poplar	Liriodendron tulipifera	30.6	Good	Retain			
27	FS-5	Tulip Poplar	Liriodendron tulipifera	34.7	Good	Retain			
28	FS-5	Tulip Poplar	Liriodendron tulipifera	33.6	Good	Retain			
29	FS-5	Black Oak	Quercus velutina	36.8	Fair	Retain			
30	FS-5	Black Oak	Quercus velutina	37.4	Good	Retain/TPF/Root Pruning			
31	FS-5	Scarlet Oak	Quercus coccinea	36.8	Good	Retain/TPF/Root Pruning			
32	FS-5	American Beech	Fagus grandifolia	30.2	Good	Retain/TPF			
33	FS-5	American Beech	Fagus grandifolia	30	Good	Retain			
34	FS-5	Tulip Poplar	Liriodendron tulipifera	34	Good	Retain/TPF			
35	FS-5	Tulip Poplar	Liriodendron tulipifera	30.5	Good	Retain			
36	FS-5	Tulip Poplar	Liriodendron tulipifera	33.2	Good	Remove			
37	FS-5	Tulip Poplar	Liriodendron tulipifera	44.1	Good	Retain/TPF			
38	FS-5	Tulip Poplar	Liriodendron tulipifera	42.4	Good	Retain			
39	FS-5	Black Oak	Quercus velutina	38	Good	Retain/TPF/Root Pruning			
40	FS-5	Tulip Poplar	Liriodendron tulipifera	31.3	Good	Retain			
41	FS-5	Red Maple	Acer rubrum	35.2	Good	Retain/TPF/Root Pruning			
42	FS-5	Tulip Poplar	Liriodendron tulipifera	36	Good	Retain			
43	FS-5	Tulip Poplar	Liriodendron tulipifera	32.3	Good	Retain			
44	FS-5	Tulip Poplar	Liriodendron tulipifera	35.5	Good	Retain			
45	FS-5	Tulip Poplar	Liriodendron tulipifera	36.5	Good	Retain			
46	FS-5	Tulip Poplar	Liriodendron tulipifera	30	Good	Retain			
47	FS-5	Tulip Poplar	Liriodendron tulipifera	30.5	Good	Retain/TPF/Root Pruning			
48	FS-5	Tulip Poplar	Liriodendron tulipifera	40.5	Good	Retain/TPF/Root Pruning			
49	FS-5	Tulip Poplar	Liriodendron tulipifera	30.9	Fair	Retain			
50	FS-5	Tulip Poplar	Liriodendron tulipifera	37.2	Good	Retain/TPF/Root Pruning			
51	FS-5	Tulip Poplar	Liriodendron tulipifera	31.2	Good	Retain			
52	FS-5	Northern Red Oak	Quercus rubra	31.3	Good	Retain			
53	FS-5	Tulip Poplar	Liriodendron tulipifera	35.5	Good	Retain			
54	FS-5	Black Oak	Quercus velutina	31.5	Good	Retain			
55	FS-5	Tulip Poplar	Liriodendron tulipifera	34.2	Good	Retain			
56	FS-5	Chestnut Oak	Quercus prinus	32.2	Good	Retain			
57	FS-5	Tulip Poplar	Liriodendron tulipifera	33.4	Good	Retain/TPF			
58	FS-5	White Oak	Quercus alba	31.1	Good	Remove			
59	FS-5	Chestnut Oak	Quercus prinus	30.1	Good	Retain/TPF			
60	FS-5	Tulip Poplar	Liriodendron tulipifera	33.1	Good	Retain			

TREE IMPACT SUMMARY TABLE									
ID	STAND	COMMON NAME	SCIENTIFIC NAME	DBH(IN.)	CONDITION	STATUS/PROTECTION			
61	FS-5	Black Oak	Quercus velutina	33.5	Good	Remove			
62	FS-5	Black Oak	Quercus velutina	30.9	Good	Retain/TPF			
63	FS-5	Scarlet Oak	Quercus coccinea	33.2	Good	Retain/TPF			
64	FS-5	Northern Red Oak	Quercus rubra	45.1	Good	Retain/TPF			
65	FS-5	Scarlet Oak	Quercus coccinea	39.2	Good	Retain			
66	FS-5	Tulip Poplar	Liriodendron tulipifera	31.5	Good	Retain			
67	FS-5	White Oak	Quercus alba	34.3	Good	Retain			
68	FS-5	Black Oak	Quercus velutina	34.3	Good	Retain			
69	FS-5	American Beech	Fagus grandifolia	35.5	Good	Retain			
70	FS-5	White Oak	Quercus alba	30.1	Good	Retain/TPF/Root Pruning			
71	FS-5	American Beech	Fagus grandifolia	31.9	Good	Retain/TPF			
72	FS-5	Tulip Poplar	Liriodendron tulipifera	31	Good	Retain			
73	FS-5	Tulip Poplar	Liriodendron tulipifera	32.8	Good	Retain			
74	FS-5	Tulip Poplar	Liriodendron tulipifera	45.3	Good	Retain			
75	FS-5	Tulip Poplar	Liriodendron tulipifera	33.8	Good	Retain/TPF/Root Pruning			
76	FS-5	Tulip Poplar	Liriodendron tulipifera	32.1	Good	Retain			
77	FS-5	Northern Red Oak	Quercus rubra	32.9	Good	Retain/TPF			
78	FS-5	Tulip Poplar	Liriodendron tulipifera	32	Good	Retain/TPF			
79	FS-5	Tulip Poplar	Liriodendron tulipifera	33.5	Good	Retain			
80	FS-5	Northern Red Oak	Quercus rubra	40.6	Good	Retain			
81	FS-5	Tulip Poplar	Liriodendron tulipifera	40	Good	Retain/TPF			
82	FS-5	Tulip Poplar	Liriodendron tulipifera	35.4	Good	Retain			
83	FS-5	Tulip Poplar	Liriodendron tulipifera	33.2	Good	Retain			
84	FS-5	Black Oak	Quercus velutina	31.3	Good	Retain			
85	FS-5	Tulip Poplar	Liriodendron tulipifera	32.9	Good	Retain/TPF/Root Pruning			
86	FS-5	Tulip Poplar	Liriodendron tulipifera	31.2	Good	Remove			
87	FS-5	American Beech	Fagus grandifolia	31	Good	Retain			
88	FS-5	Tulip Poplar	Liriodendron tulipifera	37.6	Good	Retain			
89	FS-5	Tulip Poplar	Liriodendron tulipifera	31.3	Good	Retain			
90	FS-5	American Beech	Fagus grandifolia	30.9	Fair	Retain			
91	FS-5	Tulip Poplar	Liriodendron tulipifera	30.9	Good	Retain/TPF			
92	FS-5	Black Oak	Quercus velutina	31.3	Good	Remove			
93	FS-5	Tulip Poplar	Liriodendron tulipifera	30	Good	Retain			
94	FS-5	Tulip Poplar	Liriodendron tulipifera	34.5	Good	Retain			
95	FS-5	Tulip Poplar	Liriodendron tulipifera	38.3	Good	Retain			
96	FS-5	Tulip Poplar	Liriodendron tulipifera	33.9	Good	Retain			
97		Red Maple	Acer rubrum	30	Good	Retain			
98		Red Maple	Acer rubrum	30	Good	Retain			
99		Black Cherry	Prunus serotina	30	Good	Remove			
100		Norway Maple	Acer platanoides	30	Good	Retain/TPF			
101	FS-4	Tulip Poplar	Liriodendron tulipifera	30	Good	Retain			
102	FS-4	Black Oak	Quercus velutina	30	Good	Retain			
103	FS-4	Other	Fagus grandifolia	30	Good	Retain			
104	FS-4	Scarlet Oak	Quercus coccinea	33.2	Good	Retain			
105		American Beech	Fagus grandifolia	40	Good	Retain			
106		Tulip Poplar	Liriodendron tulipifera	30	Good	Retain			
107		Black Oak	Quercus velutina	30	Good	Retain			
108	FS-4	Chestnut Oak	Quercus prinus	36.3	Good	Retain			
109		Northern Red Oak	Quercus rubra	30.3	Good	Retain			
110	FS-4	Tulip Poplar	Liriodendron tulipifera	31.7	Good	Remove			
111	FS-4	Tulip Poplar	Liriodendron tulipifera	31.2	Good	Retain/TPF			
112	FS-4	Tulip Poplar	Liriodendron tulipifera	33.6	Good	Retain			
113	FS-4	Northern Red Oak	Quercus rubra	41.8	Good	Retain/TPF			
114	FS-4	Tulip Poplar	Liriodendron tulipifera	30.7	Good	Retain			
115	FS-4	Tulip Poplar	Liriodendron tulipifera	35.8	Good	Retain			
116	FS-4	Tulip Poplar	Liriodendron tulipifera	30	Good	Retain			
117	FS-4	American Beech	Fagus grandifolia	30	Good	Retain			
120		White Oak	Quercus alba	36.5	Good	Retain			
121		White Oak	Quercus alba	30.7	Good	Retain			

NATURAL RESOURCES TABLE		
Natural Resource	Acres	Linear Feet
100-Year Floodplain	0.00	N/A
Streams	0.06	289
Stream Buffers	2.10	4,124
Wetlands	0.04	N/A
Wetland Buffers	0.24	N/A
Forest Within Stream Buffers	1.98	3,901
Forest Within 100-Year Floodplain	0.00	N/A
NOTE: SIZES ARE WITHIN THE LOD AS SHOWN ON THE PLAN		

ON-SITE SOILS*			
Map Unit Name	Map Unit Symbol	Slope (%)	Erosion Factor Kw (Whole Soil)
BTD	Beltville-Urban land complex	5 to 15	No
IsA	Issue silt loam	N/A	No
LeC	Legore silt loam	8 to 15	No
LeD	Legore silt loam	15 to 25	No
LiE	Legore silt loam	25 to 45	No
McD	Manor-Bannertown sandy loams	15 to 25	No
MeB	Manor-Urban land complex	0 to 8	No
MeC	Manor-Urban land complex	8 to 15	No
MiC	Mount Lucas-Urban land complex	8 to 15	No
RuD	Russett-Urban land complex	5 to 15	No
SfB	Sassafras-Urban land complex	0 to 5	No
UaB	Udorthents	0 to 8	No
UuB	Urban land-Udorthents complex	0 to 8	No
39B**	Udorthents	0 to 8	No

*The study area includes more than one soil survey area (Baltimore County and Baltimore City), which may result in map unit symbols, soil properties, and interpretations that do not completely agree.
**Baltimore City

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PLANTING SCHEDULE - Planting Area 1 - 0.91 AC (890 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
ARSH	Acer rubrum	Red maple	5'	CG	3	12' o.c.
BNSH	Betula nigra	River birch	5'	CG	2	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					0.6 lbs

PLANTING SCHEDULE - Planting Area 2 - 0.39 AC (3,443 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
ARSH	Acer rubrum	Red maple	5'	CG	10	12' o.c.
CCRSH	Carpinus caroliniana	American hornbeam	5'	CG	10	12' o.c.
CHVSH	Chamaelirium virginicum	White tripartite	5'	CG	10	12' o.c.
POCOSH	Platanus occidentalis	American sycamore	5'	CG	10	12' o.c.
QALSH	Quercus alba	White oak	5'	CG	10	12' o.c.
QPHSH	Quercus phellos	Willow oak	5'	CG	10	12' o.c.
QRUSH	Quercus rubra	Northern red oak	5'	CG	10	12' o.c.
SHRUBS						
VDN18H	Viburnum dentatum	Southern arrowwood	18"	CG	10	12' o.c.
HVA18H	Hamelia virginiana	American witchhazel	18"	CG	10	12' o.c.
LBE18H	Lindera benzoin	Spicebush	18"	CG	10	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					11.8 lbs

PLANTING SCHEDULE - Planting Area 3 - 0.68 AC (5,985 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
ARSH	Acer rubrum	Red maple	5'	CG	15	12' o.c.
DVSH	Disopygia virginiana	Persimmon	5'	CG	15	12' o.c.
FORSH	Fagus grandifolia	American beech	5'	CG	15	12' o.c.
CCRSH	Carpinus caroliniana	American hornbeam	5'	CG	15	12' o.c.
LTUSH	Liriodendron tulipifera	Yellow poplar	5'	CG	15	12' o.c.
CHVSH	Chamaelirium virginicum	White tripartite	5'	CG	15	12' o.c.
POCOSH	Platanus occidentalis	American sycamore	5'	CG	15	12' o.c.
QPHSH	Quercus phellos	Pine Oak	5'	CG	15	12' o.c.
QRUSH	Quercus rubra	Willow oak	5'	CG	15	12' o.c.
SHRUBS						
VDN18H	Viburnum dentatum	Southern arrowwood	18"	CG	14	12' o.c.
CCA18H	Cercis canadensis	Eastern redbud	18"	CG	14	12' o.c.
HVA18H	Hamelia virginiana	American witchhazel	18"	CG	14	12' o.c.
LBE18H	Lindera benzoin	Spicebush	18"	CG	14	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					22 lbs

PLANTING SCHEDULE - Planting Area 4 - 0.21 AC (1,835 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
COASH	Celtis occidentalis	Hackberry	5'	CG	10	12' o.c.
CCAASH	Cercis canadensis	Eastern redbud	5'	CG	10	12' o.c.
QALSH	Quercus alba	Flowering dogwood	5'	CG	10	12' o.c.
QPHSH	Quercus phellos	American holly	5'	CG	9	12' o.c.
LTUSH	Liriodendron tulipifera	Yellow poplar	5'	CG	9	12' o.c.
SHRUBS						
HVA18H	Hamelia virginiana	American witchhazel	18"	CG	9	12' o.c.
LBE18H	Lindera benzoin	Spicebush	18"	CG	9	12' o.c.
VDN18H	Viburnum dentatum	Southern Arrowwood	18"	CG	9	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					8.4 lbs

PLANTING SCHEDULE - Planting Area 5 - 0.23 AC (1,995 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
LSTSH	Liquidambar styraciflua	Sweet gum	5'	CG	10	12' o.c.
LTUSH	Liriodendron tulipifera	Yellow poplar	5'	CG	10	12' o.c.
SALSH	Sassafras albidum	Sassafras	5'	CG	10	12' o.c.
QALSH	Quercus alba	White oak	5'	CG	10	12' o.c.
QRUSH	Quercus rubra	Northern red oak	5'	CG	10	12' o.c.
SHRUBS						
LBE18H	Lindera benzoin	Spicebush	18"	CG	10	12' o.c.
VDN18H	Viburnum dentatum	Southern Arrowwood	18"	CG	10	12' o.c.
VLEN18H	Viburnum lentago	Hannyberry	18"	CG	9	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					9.2 lbs

PLANTING SCHEDULE - Planting Area 6 - 0.09 AC (7,995 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
QASH	Quercus alba	White oak	5'	CG	11	12' o.c.
QRUSH	Quercus rubra	Northern red oak	5'	CG	10	12' o.c.
SHRUBS						
LBE18H	Lindera benzoin	Spicebush	18"	CG	10	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					3.8 lbs

PLANTING SCHEDULE - Planting Area 7 - 0.12 AC (1,045 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
ARUSH	Acer rubrum	Red maple	5'	CG	11	12' o.c.
COASH	Cornus canadensis	American hornbeam	5'	CG	11	12' o.c.
CFLSH	Cornus florida	Flowering dogwood	5'	CG	11	12' o.c.
POCOSH	Platanus occidentalis	American sycamore	5'	CG	11	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					4.8 lbs

PLANTING SCHEDULE - Planting Area 8 - 0.22 AC (1,948 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
IOPSH	Ilex opaca	American holly	5'	CG	11	12' o.c.
QRUSH	Quercus rubra	Northern red oak	5'	CG	11	12' o.c.
QASH	Quercus alba	White oak	5'	CG	11	12' o.c.
POCOSH	Platanus occidentalis	American sycamore	5'	CG	11	12' o.c.
SHRUBS						
LBE18H	Lindera benzoin	Spicebush	18"	CG	11	12' o.c.
VDN18H	Viburnum dentatum	Southern Arrowwood	18"	CG	11	12' o.c.
VLEN18H	Viburnum lentago	Hannyberry	18"	CG	11	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					6.8 lbs

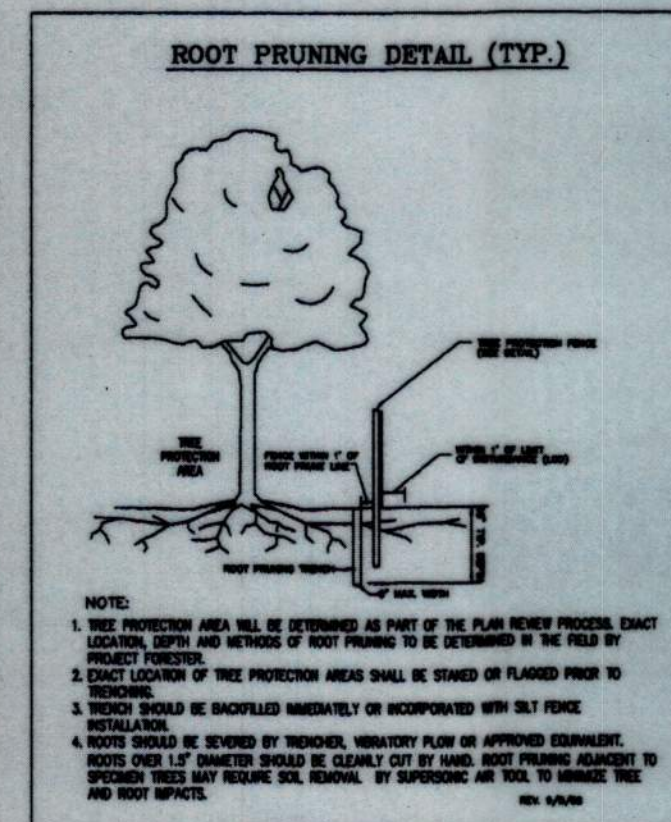
PLANTING SCHEDULE - Planting Area 9 - 0.01AC (218 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
POCOSH	Platanus occidentalis	American sycamore	5'	CG	2	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					0.20 lbs

PLANTING SCHEDULE - Planting Area 10 - 0.02 AC (191 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
ARUSH	Acer rubrum	Red maple	5'	CG	3	12' o.c.
POCOSH	Platanus occidentalis	American sycamore	5'	CG	2	12' o.c.
SHRUBS						
VDN18H	Viburnum dentatum	Southern arrowwood	18"	CG	2	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					0.8 lbs

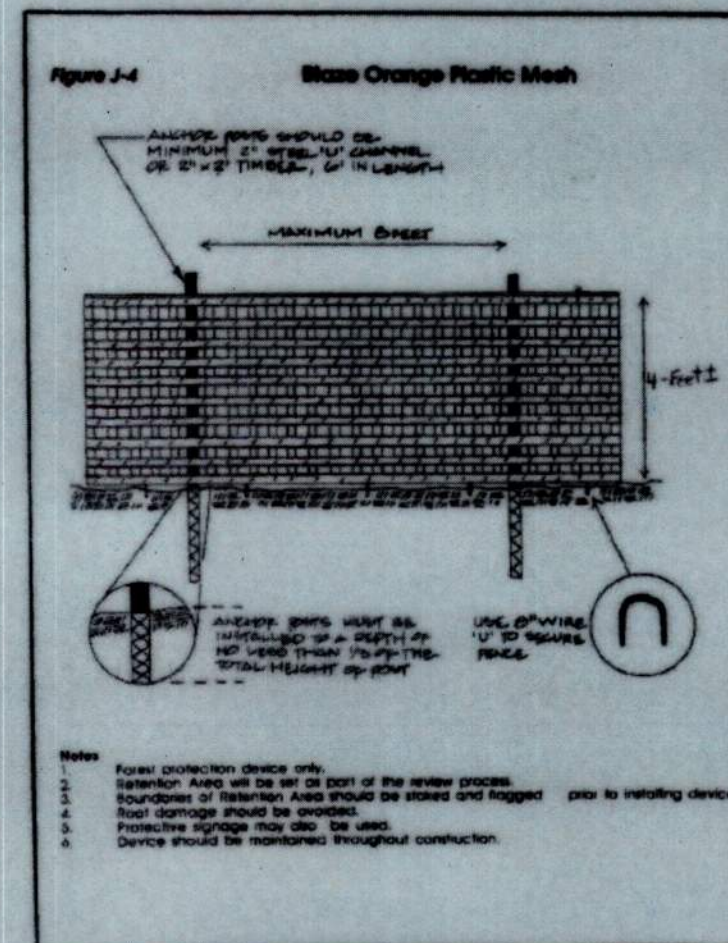
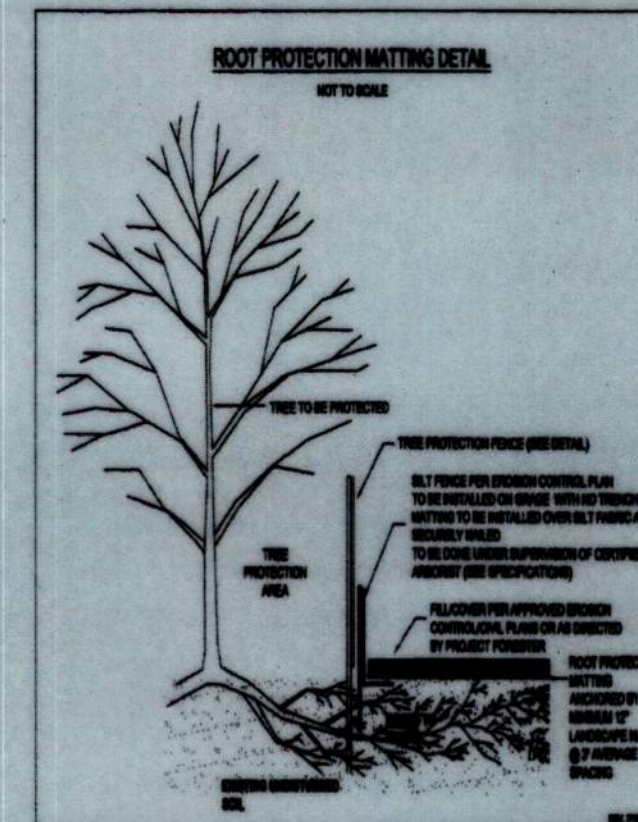
PLANTING SCHEDULE - Planting Area 11 - 0.01 AC (147 SF)						
TYPE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QUANTITY	SPACING
TREES						
ARUSH	Acer rubrum	Red maple	5'	CG	1	12' o.c.
QPHSH	Quercus phellos	Willow oak	5'	CG	2	12' o.c.
SEEDING						
HSD	Herbaceous seed dry - 40 lbs/acre of PLS - See Herbaceous Seed Mix Species List - Dry for species.					0.04 lbs

HERBACEOUS SEED MIX SPECIES LIST - WET				
TYPE	BOTANICAL NAME	COMMON NAME	%	
GRASSES	CB	Carex baileyi	Bailey's Sedge	30%
	CL	Carex lurida	Shallow Sedge	30%
	JT	Juncus tenuis	Path Rush	10%
				32%
FORBS	IV	Iris versicolor	Blue Flag Iris	10%
	LC	Lobelia cardinalis	Cardinal Flower	10%
	SF	Symplocarpus foetidus	Skunk Cabbage	10%
Note - Herbaceous seed to spread separately from shrub seed				
SHRUBS	LB	Lindera benzoin	Spicebush	50%
	SC	Sambucus canadensis	Common Elderberry	50%
Note - Shrub seed to spread separately from herbaceous seed				

HERBACEOUS SEED MIX SPECIES LIST - DRY				
TYPE	BOTANICAL NAME	COMMON NAME	%	
GRASSES	CP	Carex pensylvanica	Pennsylvania Sedge	22%
	CS	Carex swani	Swan's Sedge	10%
	EH	Elymus hystrix	Bottlebrush Grass	30%
	FR	Festuca rubra	Red Fescue	32%
FORBS	AD	Aster divaricatus	White Wood Aster	3%
	SC	Solidago caesia	Bluestem Goldenrod	3%
Note - Herbaceous seed to spread separately from shrub seed				
SHRUBS	LB	Lindera benzoin	Spicebush	50%
	VD	Viburnum dentatum	Southern Arrowwood	50%
Note - Shrub seed to spread separately from herbaceous seed				



- FOREST CONSERVATION MEASURES FOR MATURE TREES AND SPECIMEN TREES TO BE RETAINED**
- After the limits of disturbance have been located in the field, orange high visibility fence or another approved protective device will be installed manually along the limits of disturbance at or within the critical root zones of the trees requiring protection.
 - At the time work is to be conducted in a particular area, the tree protection measures shall be in place, and any required stress reduction techniques (root pruning, crown reduction/pruning, root aeration, matting, etc.) will be discussed and implemented. The stress reduction measures shall be performed prior to commencement of grading/construction activities in the affected area. Stress reduction measures shall be performed under the supervision of a professional qualified in the care of trees, and must be documented.
 - During the construction, tree protection devices shall be maintained, and a professional qualified in the care of trees shall conduct periodic inspections to determine the health of the trees, and any additional measures that must be taken as it relates to the health of the trees. Any changes to the plans, or additional problems concerning the trees, must be brought to the attention of Baltimore County EPS-EIR at 410-887-3980 prior to implementation of any of the changes.
 - At the completion of the construction project, Baltimore County EPS-EIR shall be contacted at 410-887-3980 so that an inspection of the project area can be conducted. Additional tree stress reduction measures or mitigation may be required.



CEM 42 N. MAIN ST. BEL AIR, MD 21014 Date: January 2025	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHI	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS	
	THIS PLAN WAS PREPARED BY: PETER SCHERR DNR QUALIFIED PROFESSIONAL								PLAN SCALE: 1"=100'	APPROVED BY: SEE DRAWING DIRECTOR	
	DGN BY: PS		BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION
	DWN BY: JT		REVIEWED BY:							APPROVED BY: SEE DRAWING CHIEF	
42 NORTH MAIN STREET BEL AIR, MD 21014		CHKD BY: PS	DATE REVIEWED:							DATE: 2015-2516	

SUBDIVISION: PARKVILLE

PARKVILLE MARYLAND

ELECTION DIST. NO: 1405

SHEET DESIGNATION	CONTRACT NUMBER
C-24	15289 SXO
JOB ORDER NUMBER	
231-201-0077-7225	
SHEET 27 OF 31	
DRAWING NUMBER	
2015 - 2542	
FILE NO. 1	REV. 2105



Legend

- | | | | | |
|-----------------------|-------------------------|--------------------------|------------------------|-------------------------------|
| LIMITS OF DISTURBANCE | INDIVIDUAL TREE | DELINEATED STREAMS | SOIL TYPE BOUNDARY | EDGE OF PAVEMENT |
| MATCHLINE | TREE PROTECTION FENCING | DELINEATED WETLANDS | TREE LINE | COUNTY BOUNDARY |
| FOREST BUFFER | TREE TO BE REMOVED | WETLAND BUFFER | POTENTIAL FIDS HABITAT | 15-25 PERCENT SLOPES |
| MANHOLES | CRITICAL ROOT ZONE | FOREST PLANTING | PARCEL BOUNDARY | 25 PERCENT SLOPES AND GREATER |
| PIPES | 100 YEAR FLOODPLAIN | 2 FOOT CONTOURS | MHT PROPERTY | |
| SPECIMEN TREE | DELINEATED FOREST STAND | BALTIMORE COUNTY STREAMS | BUILDINGS | |



Date: January 2025

PROFESSIONAL CERTIFICATION

THIS PLAN WAS PREPARED BY:
PETER SCHERR
DNR QUALIFIED PROFESSIONAL

42 NORTH MAIN STREET
BEL AIR, MD 21014

DGN BY: PS

DWN BY: JT

CHKD BY: PS

AS-BUILT / REVISION

BUREAU OF ENGINEERING
AND CONSTRUCTION

REVIEWED BY:

DATE REVIEWED:

BUILDINGS

HIGHWAYS

STRUCTURES

STORM DRAIN

SEWER

WATER

FIELD ENGINEER

SUR. OF ENGINEERING & CONSTRUCTION

CHIEF

KEY SHEET

POSITION SHY

PLAN SCALE: 1"=50'

PROFILE SCALE:

DEPARTMENT OF PUBLIC WORKS

APPROVED BY: SEE DRAWING

DATE: 2015-2516

DATE: 2015-2516

KEY SHEET

POSITION SHY

PLAN SCALE: 1"=50'

PROFILE SCALE:

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PLAN SCALE: 1"=50'

PROFILE SCALE:

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD

SEWER REHABILITATION

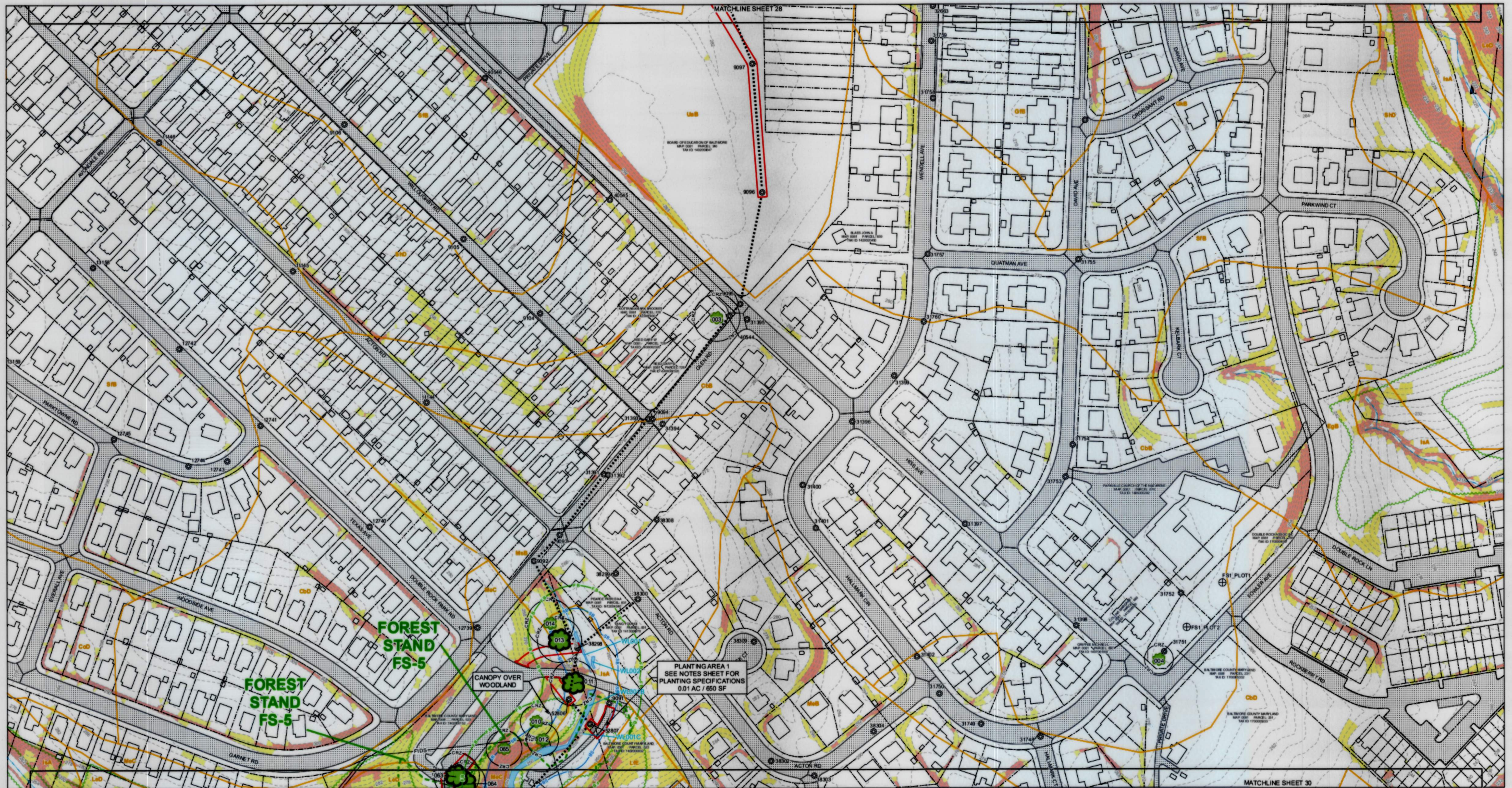
FOREST CONSERVATION PLAN/ FOREST BUFFER PROTECTION PLAN

PARKVILLE MARYLAND

ELECTION DIST. NO. 1405

SHEET DESIGNATION	CONTRACT NUMBER
C-25	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 28 OF 31	DRAWING NUMBER
2015 - 2543	FILE NO. 1





Legend

- | | | | | |
|-----------------------|-------------------------|--------------------------|------------------------|-------------------------------|
| LIMITS OF DISTURBANCE | INDIVIDUAL TREE | DELINEATED STREAMS | SOIL TYPE BOUNDARY | EDGE OF PAVEMENT |
| MATCHLINE | TREE PROTECTION FENCING | DELINEATED WETLANDS | TREE LINE | COUNTY BOUNDARY |
| FOREST BUFFER | TREE TO BE REMOVED | WETLAND BUFFER | POTENTIAL FIDS HABITAT | 15-25 PERCENT SLOPES |
| MANHOLES | CRITICAL ROOT ZONE | FOREST PLANTING | PARCEL BOUNDARY | 25 PERCENT SLOPES AND GREATER |
| PIPES | 100 YEAR FLOODPLAIN | 2 FOOT CONTOURS | MHT PROPERTY | |
| SPECIMEN TREE | DELINEATED FOREST STAND | BALTIMORE COUNTY STREAMS | BUILDINGS | |

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SH	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS	
THIS PLAN WAS PREPARED BY: PETER SCHERR DNR QUALIFIED PROFESSIONAL									PLAN SCALE: 1"=20'	APPROVED BY: SEE DRAWING	
42 NORTH MAIN STREET BAL. ATR. MD 21014									PROFILE SCALE: 1"=20'	DATE: 2015-2516	
DGN BY: PS	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAIN	SEWER	WATER	FIELD ENGINEER	BUREAU OF ENGINEERING & CONSTRUCTION		
OWN BY: JT	REVIEWED BY:			SEE DWG	SEE DWG			APPROVED BY: SEE DRAWING		CHIEF	
CHKD BY: PS	DATE REVIEWED:			2015-2516	2015-2516			DATE: 2015-2516			

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
 STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD
 SEWER REHABILITATION
 FOREST CONSERVATION PLAN/ FOREST BUFFER PROTECTION PLAN

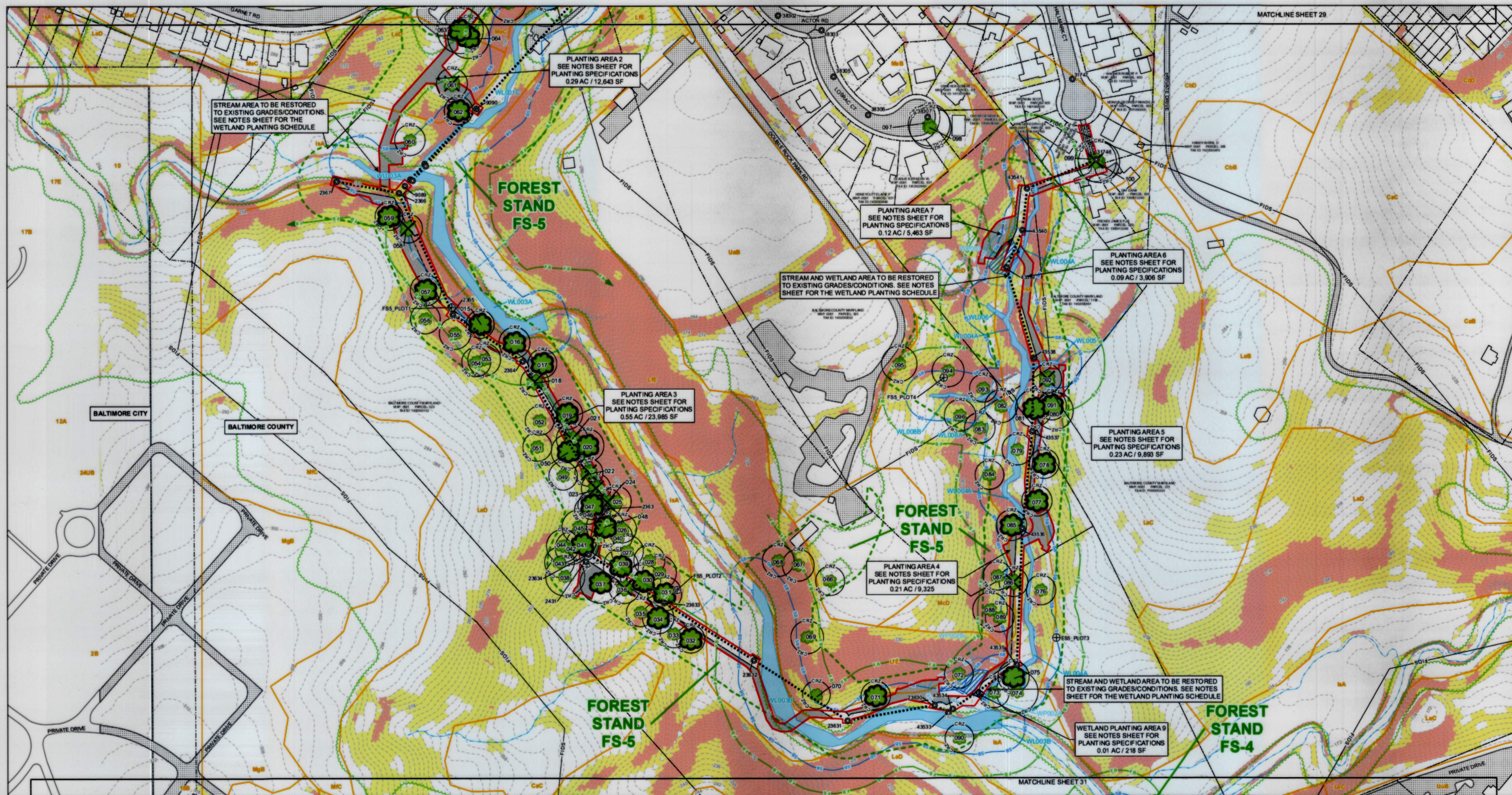
SUBDIVISION: PARKVILLE

PARKVILLE MARYLAND

ELECTION DIST. NO: 1408









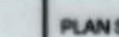



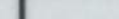











SHEET DESIGNATION	CONTRACT NUMBER
C-26	15269 SXO
JOB ORDER NUMBER	
231-201-0077-7225	
SHEET 29 OF 31	
DRAWING NUMBER	
2015-2544	
FILE NO: 1	





Legend

- | | | | | |
|---|--|---|---|--|
| <ul style="list-style-type: none"> LIMITS OF DISTURBANCE MATCHLINE FOREST BUFFER MANHOLES PIPES SPECIMEN TREE | <ul style="list-style-type: none"> INDIVIDUAL TREE TREE PROTECTION FENCING TREE TO BE REMOVED CRITICAL ROOT ZONE 100 YEAR FLOODPLAIN DELINEATED FOREST STAND | <ul style="list-style-type: none"> DELINEATED STREAMS DELINEATED WETLANDS WETLAND BUFFER FOREST PLANTING 2 FOOT CONTOURS BALTIMORE COUNTY STREAMS | <ul style="list-style-type: none"> SOIL TYPE BOUNDARY TREE LINE POTENTIAL FIDS HABITAT PARCEL BOUNDARY MHT PROPERTY BUILDINGS | <ul style="list-style-type: none"> EDGE OF PAVEMENT COUNTY BOUNDARY 15-25 PERCENT SLOPES 25 PERCENT SLOPES AND GREATER |
|---|--|---|---|--|

<div><p>42 N. MAIN ST BEL AIR, MD 21014</p></div> <div>Date: January 2025</div>	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHY	DRAWING SCALE		DEPARTMENT OF PUBLIC WORKS	
	THIS PLAN WAS PREPARED BY: PETER SCHERR DNR QUALIFIED PROFESSIONAL 											APPROVED BY: <u>SEE DRAWING</u> DIRECTOR	
												DATE: <u>2015 - 2516</u>	
												PLAN SCALE: <u>1"=100'</u>	
												PROFILE SCALE: <u> </u>	
42 NORTH MAIN STREET BEL AIR, MD 21014		DGN BY: <u>PS</u>	BUREAU OF ENGINEERING AND CONSTRUCTION		BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	SUR. OF ENGINEERING & CONSTRUCTION	
		DWN BY: <u>JT</u>	REVISIONS BY:									APPROVED BY: <u>SEE DWG</u> CHIEF	
		CHKD BY: <u>PS</u>	DATE REVIEWED:									DATE: <u>2015 - 2516</u>	

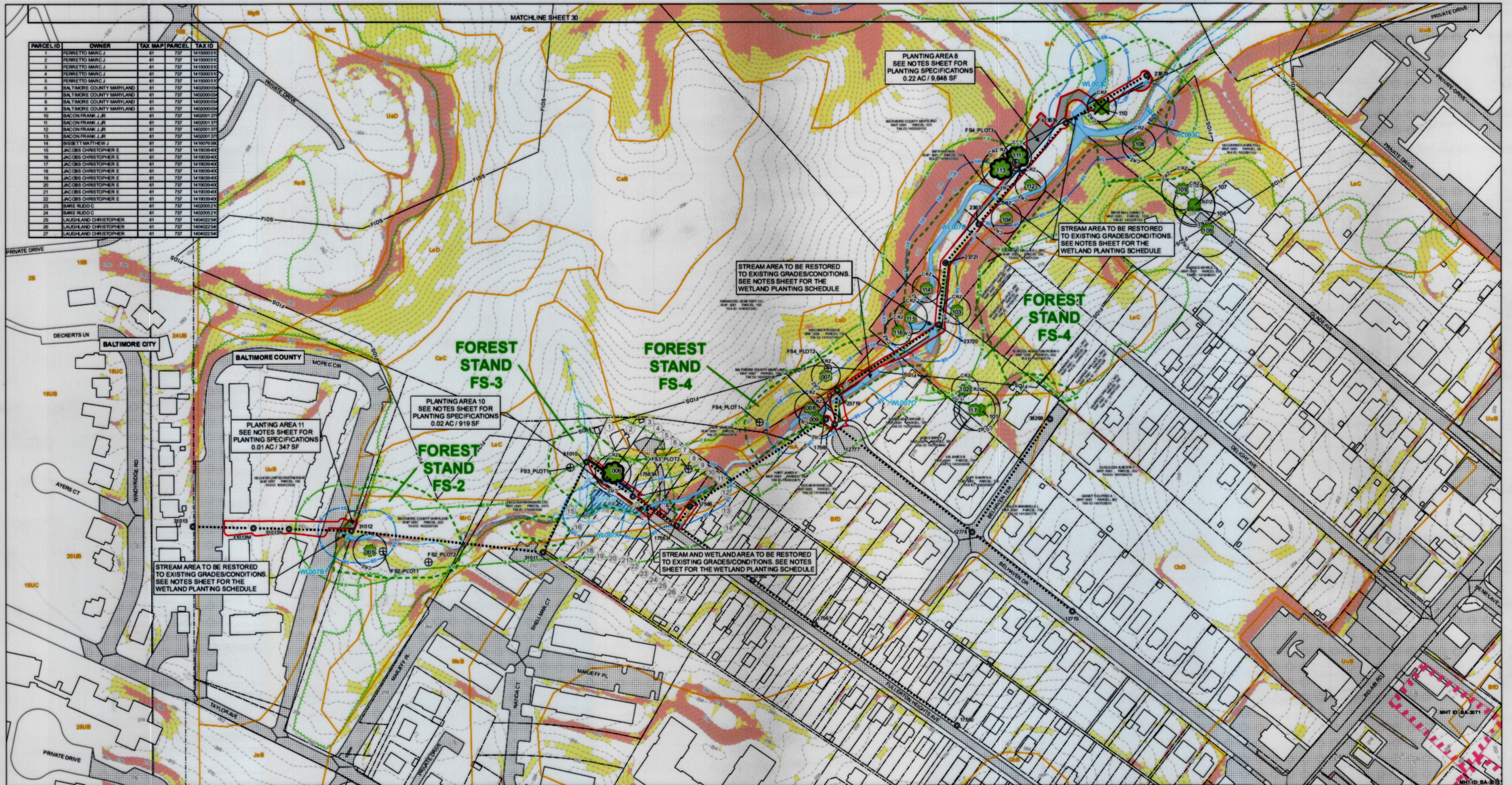
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

STEMMERS RUN SEWERSHED, METER BASINS 2B AND 3 OFF ROAD SEWER REHABILITATION

FOREST CONSERVATION PLAN/ FOREST BUFFER PROTECTION PLAN

SHEET DESIGNATION	CONTRACT NUMBER
C-27	15289 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 30 OF 31	
DRAWING NUMBER	2015 - 2545
FILE NO. 1	

For sheet 31 See 2015-3262



Legend

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|-----------------------|-------------------------|--------------------------|------------------------|-------------------------------|
| LIMITS OF DISTURBANCE | INDIVIDUAL TREE | DELINEATED STREAMS | SOIL TYPE BOUNDARY | EDGE OF PAVEMENT |
| MATCHLINE | TREE PROTECTION FENCING | DELINEATED WETLANDS | TREE LINE | COUNTY BOUNDARY |
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| MANHOLES | CRITICAL ROOT ZONE | FOREST PLANTING | PARCEL BOUNDARY | 25 PERCENT SLOPES AND GREATER |
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| SPECIMEN TREE | DELINEATED FOREST STAND | BALTIMORE COUNTY STREAMS | BUILDINGS | |



Date: January 2025

PROFESSIONAL CERTIFICATION

THIS PLAN WAS PREPARED BY:
PETER SCHERR
DNR QUALIFIED PROFESSIONAL

42 NORTH MAIN STREET
BAL AIR, MD 21014

AS-BUILT / REVISION

BUREAU OF ENGINEERING
AND CONSTRUCTION

DATE REVIEWED:

BY

DATE

DATE REVIEWED:

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P.W.A. NO.

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SHEET DESIGNATION	CONTRACT NUMBER
C-28	15269 SXO
JOB ORDER NUMBER	231-201-0077-7225
SHEET 31 OF 31	
DRAWING NUMBER	2015-3172
FILE NO.	1

SCANNED