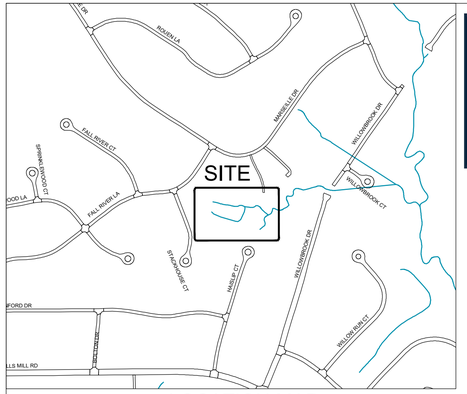
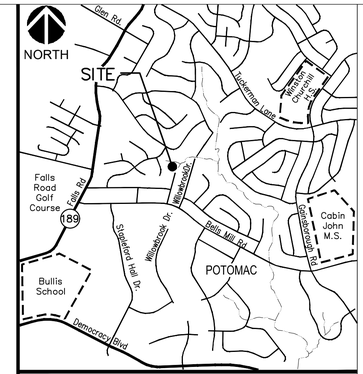


LOCATION MAP
1" = 500'

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager
Charley Chen, P.E., Senior Engineer
August 28, 2024, Date
File #: 23-SP-05

MONTGOMERY COUNTY, MARYLAND
IMPERVIOUS AREA CREDITS
PINE KNOLLS-10901 POND RETROFIT - SEDIMENT CONTROL



VICINITY MAP
SCALE 1"=2000'
MONT CO. MAP PAGE 5284 GRID A-4

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02	GENERAL NOTES	GN-01	02 OF 20	SC0002
03	DRAINAGE AREA MAP	DA-01	03 OF 20	SC0003
04	EXISTING CONDITIONS PLAN	EC-01	04 OF 20	SC0004
05	DEMOLITION PLAN	DM-01	05 OF 20	SC0005
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23	MAINTENANCE OF TRAFFIC	MT-03		

MISS UTILITY

THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL UNDERGROUND UTILITIES IN THE AREA OF PROPOSED WORK ARE LOCATED PRIOR TO COMMENCING CONSTRUCTION WORK. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

THE CONTRACTOR IS ALSO RESPONSIBLE FOR LOCATING ALL PRIVATE UTILITIES (NOT LOCATED BY MISS UTILITY) WITHIN M-NCPPC PROPERTY AT THEIR EXPENSE. ALL UTILITIES SHOWN ON THE PLANS ARE PROVIDED FOR INFORMATION ONLY AND SHALL BE CONSIDERED APPROXIMATE. M-NCPPC SHALL NOT BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. ANY UTILITIES OR OTHER UNDERGROUND FACILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S SOLE EXPENSE.

SITE ADDRESS

FALL RIVER LANE
POTOMAC, MD 20854

OWNER/APPLICANT

MONTGOMERY COUNTY DEPARTMENT
OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE
4TH FLOOR
WHEATON, MD 20902
ATTN: MR. SAEYIN OH
PH: 240-777-7795

DEPARTMENT OF PERMITTING SERVICES

Marc Elrich, County Executive
Rabbiah Sabbakhan, Director

November 1, 2023

Mr. Gregory Fox
A Morton Thomas and Associates
700 King Farm BLVD STE 300
Rockville, MD 20850

Re: REVISED **COMBINED STORMWATER MANAGEMENT CONCEPT/*SITE DEVELOPMENT STORMWATER MANAGEMENT PLAN*** for
Pine Knolls Pond Retrofit
SM File #: 266335
Tract Size/Zone: 3.16 ac R-200
Total Concept Area: 1.07 ac
Lots/Block: NA
Parcel(s): NA
Watershed: Cabin John Creek

Dear Mr. Fox:

Based on a review by the Department of Permitting Services (DPS) Review Staff, the revised stormwater management concept for the above-mentioned project is **acceptable**. The stormwater management concept consists of retrofitting an existing stormwater management structure to achieve what the Montgomery County Department of Environmental Protection (MCDEP) believes will provide environmental benefit.

This project is not associated with new development; therefore, it is not subject to minimum stormwater management treatment criteria. DPS will not review it for conformance with such standards. DPS will review the detailed plans for compliance with sediment control requirements. Safe 10-year conveyance through the project must be demonstrated.

Review for compliance with MD-378 pond standards must be conducted by the Montgomery Soil Conservation District or the Maryland Department of the Environment. Approved pond review plans must be included as a part of the sediment control permit package that is submitted to DPS.

The following items will need to be addressed during the detailed sediment control/stormwater management plan stage:

1. An engineered sediment control plan must be submitted for this project.
2. This revised approval letter supersedes the previous approval letter dated September 22, 2014.

This list may not be all-inclusive and may change based on available information at the time.

DPS Montgomery County Department of Permitting Services
2425 Reedie Drive, 7th Floor, Wheaton, Maryland 20902 | 240-777-0311
www.montgomerycountymd.gov/permittingservices

Mr. Gregory Fox
November 1, 2023
Page 2 of 2

Payment of a stormwater management contribution in accordance with Section 2 of Stormwater Management Regulation 4-90 **is not required**.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact Joel Karpas at 240-777-6206.

Sincerely,

Mark Etheridge, Manager
Water Resources Section
Division of Land Development Services

cc: SM File # 266335

STRUCTURAL Required/Provided: NA
WAIVED: NA

TREE CANOPY REQUIREMENTS TABLE

To be completed by the consultant and placed on the first sheet of the Sediment Control/Stormwater Management plan set for all projects

Exempt.: Yes ☑ No ☐ If exempt under Section 55-5 of the Code, please check the applicable exemption category below.

Total Property Area	Total Disturbed Area
137,650 square feet	47,375 square feet
Shade Trees Required	**Shade Trees Proposed to be Planted**
18	N/A
Fee in Lieu (Trees Required - Trees Planted) x $250	$ N/A

Required Number of Shade Trees

Area (sq.ft.) of the Limits of Disturbance FROM	TO	Number of Shade Trees Required
1	6,000	3
6,001	8,000	6
8,001	12,000	9
12,001	14,000	12
14,001	40,000	15

If the square footage of the limits of disturbance is more than 40,000, then the number of shade trees required must be calculated using the following formula:

(Number of Square Feet in Limits of Disturbance ÷ 40,000) x 15

EXEMPTION CATEGORIES:

- ☑ 55-5(a) any activity that is subject to Article II of Chapter 22A;
- ☐ 55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A;
- ☐ 55-5(f) any activity conducted by the County Parks Department;
- ☑ 55-5(g) routine or emergency maintenance of an existing stormwater management facility, including an existing access road, if the person performing the maintenance has obtained all required permits;
- ☐ 55-5(h) any stream restoration project if the person performing the work has obtained all necessary permits;
- ☑ 55-5(i) cutting or clearing any tree to comply with applicable provisions of any federal, state, or local law governing safety of dams;
- ☐ OTHER: Specify per Section 55-5 of the Code. _____

DRAINAGE STATEMENT

I understand that DPS approval of this sediment control/stormwater management plan for demonstrated compliance with required environmental runoff treatment standards. This DPS sediment control/stormwater management plan approval does not relieve me of professional responsibility. I have analyzed the proposed design for sediment control permit no. 290165 and hereby certify that, based upon my background, training and experience, I have determined that the proposed improvements shown on this plan meet relevant laws and regulations. I further acknowledge that I have analyzed the post development drainage patterns for this project from the standpoint of my responsibilities under current Maryland Law and have determined that if permission is required from adjacent property owners, I have obtained it and have made copies of those permissions available to DPS.

Engineer's Signature — 07-17-2024
GREGORY W. FOX, PE
Printed Name

MS4 SUMMARY TABLE - POND/WETLAND

FACILTY ID	FACILITY TYPE	DRAINAGE AREA (AC)1	CREDITED IA (AC)2	TARGETED WQv (AC-FT)	PROVIDED WQv WET POOL (AC-FT)	PROVIDED WQv EXTENDED DETENTION (AC-FT)	TOTAL WQv AC-FT	TARGETED CPv (AC-FT)	PROVIDED CPv (AC-FT)	TARGETED ESDv (AC-FT)	PROVIDED ESDv (AC-FT)
10901	POND	79	18.05	1.70	0.69	1.56	2.25	3.84	0	N/A	N/A

1. DRAINAGE AREA IS THE TOTAL PHYSICAL DRAINAGE AREA TO THE FACILITY, INCLUDING CHILD FACILITIES
2. CREDITED IMPERVIOUS AREA IS THE CURRENTLY UNTREATED IMPERVIOUS AREA THAT FALLS WITHIN MONTGOMERY COUNTY'S MS4 JURISDICTION

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

PROPERTY INFORMATION

00 FALLS RIVER LANE, POTOMAC, MD 20854
LEGAL DESCRIPTION: 5396-1 PAR 4 PINE KNOLLS / 5396-1 PAR 8 PINE KNOLLS
PARCEL: N/A
LIBER/FOLIO: 5689/585
SUBDIVISION: 0036 PLAT REF: N/A
ZONING: R-200 USE CLASS: I-P
WATERSHED: CABIN JOHN CREEK (02140207)

RELATED REQUIRED PERMITS

To be completed by the consultant and placed on the first sheet of the Sediment Control/Stormwater Management plan set for all projects

IT IS THE RESPONSIBLITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN
ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT

TYPE OF PERMIT	REQ'D	NOT REQ'D	PERMIT NO.	EXPIRATION DATE	WORK RESTRICTION DATES
MCDPS Floodplain district		X			N/A
WATERWAYS/WETLAND(S)					
a. Corps of Engineers	X		NAB-2023-61516-P05	JUNE 30, 2025	MARCH 1 - JUNE 15
b. MDE	X		23-NT-3243		MARCH 1 - JUNE 15
c. MDE Water Quality Certification	X		23-NT-3243		MARCH 1 - JUNE 15
MDE Dam Safety	X		23-SP-05		N/A
*DPS Roadside Tree Protection Plan		X	N/A	Approval Date N/A	N/A
**NPDES NOTICE OF INTENT	X				N/A
FEMA LOMR (REQUIRED POST CONSTRUCTION)		X	N/A		
OTHERS (Please list):					
MNCPPC		X	N/A	N/A	N/A
WSSC	X		24RMS9132A	N/A	N/A
DPS ROW	X		PUBL-399984	JAN. 19, 2026	N/A

*A COPY OF THE APPROVED ROADSIDE TREES PROTECTION PLAN MUST BE DELIVERED TO THE SEDIMENT CONTROL INSPECTOR AT THE PRECONSTRUCTION MEETING.

**WHEN A NOTICE OF INTENT IS REQUIRED, THE SEDIMENT CONTROL PERMIT MAY NOT BE ISSUED UNTIL CONFIRMATION OF AUTHORIZATION UNDER THE MDE'S 20-CP PERMIT HAS BEEN SUBMITTED TO DPS.

RECORD DRAWING CERTIFICATION

A record set of approved Sediment Control/Stormwater Management plans must be maintained on-site at all times. In addition to stormwater management items, these plans must include the number and location of all trees proposed to be planted to comply with the Tree Canopy Law. Any approved modifications or deletions of stormwater practices or tree canopy plantings or information must be shown on this record set of plans and on the Tree Canopy Requirements table. Upon completion of the project, this record set of plans, including hereon this signed Record Drawing Certification, must be submitted to the MCDPS inspector. In addition to this Record Drawing Certification, a formal Stormwater Management As-Built submission [ ] **is req'd** [ ] **is not required** for this project.

If this project is subject to a **Stormwater Management Right of Entry and Maintenance Agreement, that document is recorded in Montgomery County Land Records at:**

Liber N/A **Folio** N/A . This Record Drawing will serve as referenced in the recorded document.

"This record drawing accurately and completely represents the stormwater management practices and tree canopy plantings as they were constructed or planted. All stormwater management practices were constructed per the approved Sediment Control / Stormwater Management plans or subsequent approved revisions."

Owner/Developer Signature — Date

FIELD CHECK OF RECORD DRAWING BY MCDPS INSPECTOR: INITIALS: _____ DATE: _____

TECHNICAL REVIEW OF SEDIMENT CONTROL	ADMINISTRATIVE REVIEW
Reviewed Date	Reviewed Date
TECHNICAL REVIEW OF STORMWATER MANAGEMENT	**SMALL LOT DRAINAGE APPROVAL**
	N/A: ☐ OR
Reviewed Date	Reviewed Date
MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.	NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.

DPS approval of a sediment control or stromwater management plan is for demonstrated compliance with minimum environmental runnoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.

290165
SEDIMENT CONTROL PERMIT NO.

266335
SM. FILE NO.
STORMWATER MANAGEMENT:

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. 31777
Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31777 · PROFESSIONAL ENGINEER

2024-08-27

SC/SWM SHEET #01 OF 20

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DWN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT SCALE: 1" = 20'
PLOT DATE: 8/27/2024
SIZE: ANSI D
FILE NAME: 1204-10901-CV01.DWG

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEYIN OH 240-777-7795
MONTGOMERY COUNTY DEPARTMENT
OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
COVER SHEET

SHEET NO.
1 OF 23
CV-01

GENERAL NOTES

1. THE CONTRACTOR WILL IMMEDIATELY INFORM THE COUNTY OF ANY DISCREPANCIES FOUND BETWEEN THE PROJECT PLANS AND CONTRACT SPECIFICATIONS.
2. FOR CONSTRUCTION, ALL HORIZONTAL CONTROL SHALL BE NAD 83/91 AND VERTICAL CONTROL NAVD 88.
3. TYPES OF STORM DRAIN STRUCTURES REFER TO THE 'DESIGN STANDARDS' OF MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION, UNLESS OTHERWISE NOTED.
4. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE LINES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR SIX (6) INCHES, WHICHEVER IS LESS, THE CONTRACTOR SHALL CONTACT THE COUNTY.
5. REPAIRS TO UTILITIES OR PROPERTY DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
6. CALL "MISS UTILITY" AT 1-800-257-7777 FOURTY-EIGHT (48) HOURS PRIOR TO BEGINNING EXCAVATION TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES.
7. CLEARING TO BE LIMITED TO THE "LIMIT OF DISTURBANCE" AS SHOWN ON THE PLANS.
8. ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.
9. DISTURBED AREAS ADJACENT TO ESTABLISHED LAWNS SHALL BE SODDED. OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
10. THE CONTRACTOR SHALL OBTAIN A ROADSIDE TREE PERMIT FOR ANY MAINTENANCE, TREATMENT, PLANTING, REMOVAL OR ROOT CUTTING ON TREES WITHIN THE PUBLIC RIGHT-OF-WAY BEFORE STARTING A JOB. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES - MARYLAND FOREST, PARK AND WILDLIFE SERVICE WHOSE TELEPHONE NUMBER IS (301) 854-6060.
11. CONTACT THE WASHINGTON SUBURBAN SANITARY COMMISSION SYSTEM MAINTENANCE ENGINEER BEFORE EXCAVATING BENEATH OR IN THE VICINITY OF EXISTING WATER OR SEWER LINES. BACKFILL TO BE DONE UNDER THE SUPERVISION OF W.S.S.C. CALL 301-699-4420.
12. CONTACT WASHINGTON GAS DISPATCH OFFICER AT (703) 750-4831 BEFORE EXCAVATING BENEATH OR IN THE VICINITY OF EXISTING GAS MAIN AND SERVICE LATERALS.
13. PRIOR TO VEGETATIVE STABILIZATION, ALL DISTURBED AREAS MUST BE TOPSOILED PER THE MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL".

ABBREVIATIONS

AHD	Ahead
APPROX.	Approximate
Þ or B/L	Baseline
BK	Back / Book
BIT.	Bituminous
B.C.	Bituminous Concrete
B.M.	Bench Mark
BOT.	Bottom
C.C.	Center of Curve
CAP	Corrugated Aluminum Pipe
CAPA	Corrugated Aluminum Pipe Arch
CATV	Cable Television
Ñ or C/L	Centerline
CL.	Class
CLF	Chainlink Fence
CMP	Corrugated Metal Pipe
C.O.	Cleanout
COMB.	Combination
CONC.	Concrete
CONSTR.	Construction
COR.	Corner
CORR.	Correction
CPP-S	Corrugated Polyethylene Pipe - Type 'S'
CSP	Corrugated Steel Pipe - Aluminized Type 2
CSPA	Corrugated Steel Pipe Arch - Aluminized Type 2
DC	Degree of Curve
D.H.V.	Design Hourly Volume
D.I.	Drop Inlet
DIA.	Diameter
D.O.	Double Opening
E	East
E	Electric
EA	Each
ELEV	Elevation
ES	End Section
EX or EXIST	Existing
FT	Feet
F or FL	Flowline
F.B.D.	Flat Bottom Ditch
F.H.	Fire Hydrant
FWD.	Forward
G	Gas
G.V.	Gas Valve
H.B.	Handbox
HDPE	High Density Polyetheylene
HDWL.	Headwall
HERCP	Horizontal Ellipitical Reinforced Concrete Pipe
HP	High Point
IN	Inch
I.S.T	Inlet Sediment Trap
INV.	Invert
J.B.	Junction Box
K	K Inlet
L	Length
LF	Linear Feet
L.L.	Liquid Limit
LP	Low Point
L.P.	Light Pole
LT.	Left
MAC.	Macadam
MAX.	Maximum
MOD.	Modified
MIN.	Minimum
N	North
NB	Northbound
NE	Northeast
N.P.	Non-Plastic
O.C.	On Center
OHE	Overhead Electric
PAV'T.	Pavement
PC	Point of Curvature
PCC	Point of Compound Curvature
P/C	Point of Crown
P/GE	Profile Grade Elevation
P.G.E.	Profile Ground Elevation
P.G.L.	Profile Grade Line
P/GL	Profile Ground Line
P.I.	Plasticity Index
PI	Point of Intersection
POC	Point On Curve
POT	Point On Tangent
PPWP	Polyvinyl Chloride Profile Wall Pipe
PROP	Proposed
PRC	Point of Reverse Curve
PT	Point
PT	Point of Tangency
PVC	Polyvinyl Chloride
R	Radius
R.F.	Rock Fragments
RT	Right
RW OR R/W	Right of Way
RCP	Reinforced Concrete Pipe
RCPP	Reinforced Concrete Pressure Pipe
R.Q.D.	Rock Quality Designation
R.M.	Rootmat
S	South
SAN.	Sanitary Sewer
SB OR S/B	Southbound
S.D.	Storm Drain
S.D.D.	Surface Drain Ditch
SF	Silt Fence
SF	Square Feet
SHT.	Sheet
S.P.T.	Standard Penetration Testing
SRP	Steel Spiral Rib Pipe - Aluminized Type 2
SRPA	Steel Spiral Rib Pipe arch - Aluminized Type 2
SSF	Super Silt Fence
STD.	Standard
STA.	Station
SO.	Single Opening
SY	Square Yards
SWM	Stormwater Management
T	Tangent
T	Telephone
T.C.	Top of Cover
T.G.	Top of Grade
T OR TL	Traverse Line
T.M.	Top of Manhole
TRAV.	Traverse
TS	Temporary Swale
T.S.	Top of Slab
T.S.	Topsoil
TYP.	Typical
U.D.	Under Drain
U.G.	Underground
U.P.	Utility Pole
USDA	United States Department of Agriculture
W	Water
W	West
WB	Westbound
WB	Wetland Buffer
W.M.	Water Meter
W.S.	Wrapped Steel
WSE	Water Surface Elevation
WUS	Waters of the United States
W.V.	Water Valve

LEGEND

425	MAJOR CONTOURS
424	MINOR CONTOURS
	THALWEG
	WATER SURFACE
	TOP OF BANK
	EXISTING 100 YEAR FLOODPLAIN
100YR	PROPOSED 100 YEAR FLOODPLAIN
LOD LOD	LIMIT OF DISTURBANCE
SF SF	SILT FENCE
SSF SSF	SUPER SILT FENCE
TSF TSF	TRENCHLESS SILT FENCE
TSSF TSSF	TRENCHLESS SUPER SILT FENCE
BOF BOF	BLAZE ORANGE FENCE
	TREE REMOVAL
	STAGING AND STOCKPILING AREA
	MULCH ACCESS ROAD
	HARDWOOD MATTING
	CRITICAL ROOT ZONE
	STABILIZED CONSTRUCTION ENTRANCE
FB	FILTERING BAG
	PUMP AROUND LOCATION
Z Z	FLEXIBLE DIVERSION PIPE
	SAND BAGS
FL-12 FL-12	FILTER LOG
	REMOVABLE PUMPING STATION
TP	TREE PROTECTION
	TEMPORARY DEWATERING DEVICE AND CMP RISER WITH TRASH RACK
	SANDBAG DIVERSION
	TEMPORARY 15" HDPE DIVERSION PIPE
	TEMPORARY RPS DISCHARGE PIPE
P	PUMP AROUND LOCATION

	EXSITING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
SS SS	EXISTING SANITARY SEWER
SD SD	EXISTING STORM DRAIN
W W	EXISTING WATER SUPPLY
E E	EXISTING ELECTRIC
G G	EXISTING GAS
C C	EXISTING COMMUNICATIONS
	EXISTING TREELINE
	EXISTING PROPERTY LINE
	EXISTING WOODEN FENCE
	EXISTING TREE
	EXISTING TRAVERSE POINT
TFP	EXISTING TRAFFIC POLE
EJB	EXISTING ELECTRIC JUNCTION BOX
D	EXISTING STORMDRAIN MANHOLE
G	EXISTING GAS METER
G	EXISTING GAS VALVE
W	EXISTING WATER METER
W	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
S	EXISTING SEWER MANHOLE
S	EXISTING SEWER CLEAN OUT
T	EXISTING TELCO MANHOLE
TRI	EXISTING TELCO RISER
	EXISTING SIGN
	EXISTING LIGHT POLE
	EXISTING UTILITY POLE
	EXISTING GUY WIRE
E	EXISTING ELECTRIC MANHOLE
T	EXISTING TRANSFORMER
	EXISTING CONCRETE SIDEWALK
	EXISTING ASPHALT WALK/PATH
	EXISTING DELINEATED WETLAND
	EXISTING BENCHMARK
(DATR)	DATA ACCORDING TO RECORD

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager
Charley Chen, P.E., Senior Engineer
August 28, 2024, Date
File #: 23-SP-05

SC/SWM SHEET #02 OF 20

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31177 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DWN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 8/27/2024
PLOT SCALE: 1" = 30'
SIZE: ANSI D
FILE NAME: 1204-10901-GN01.DWG

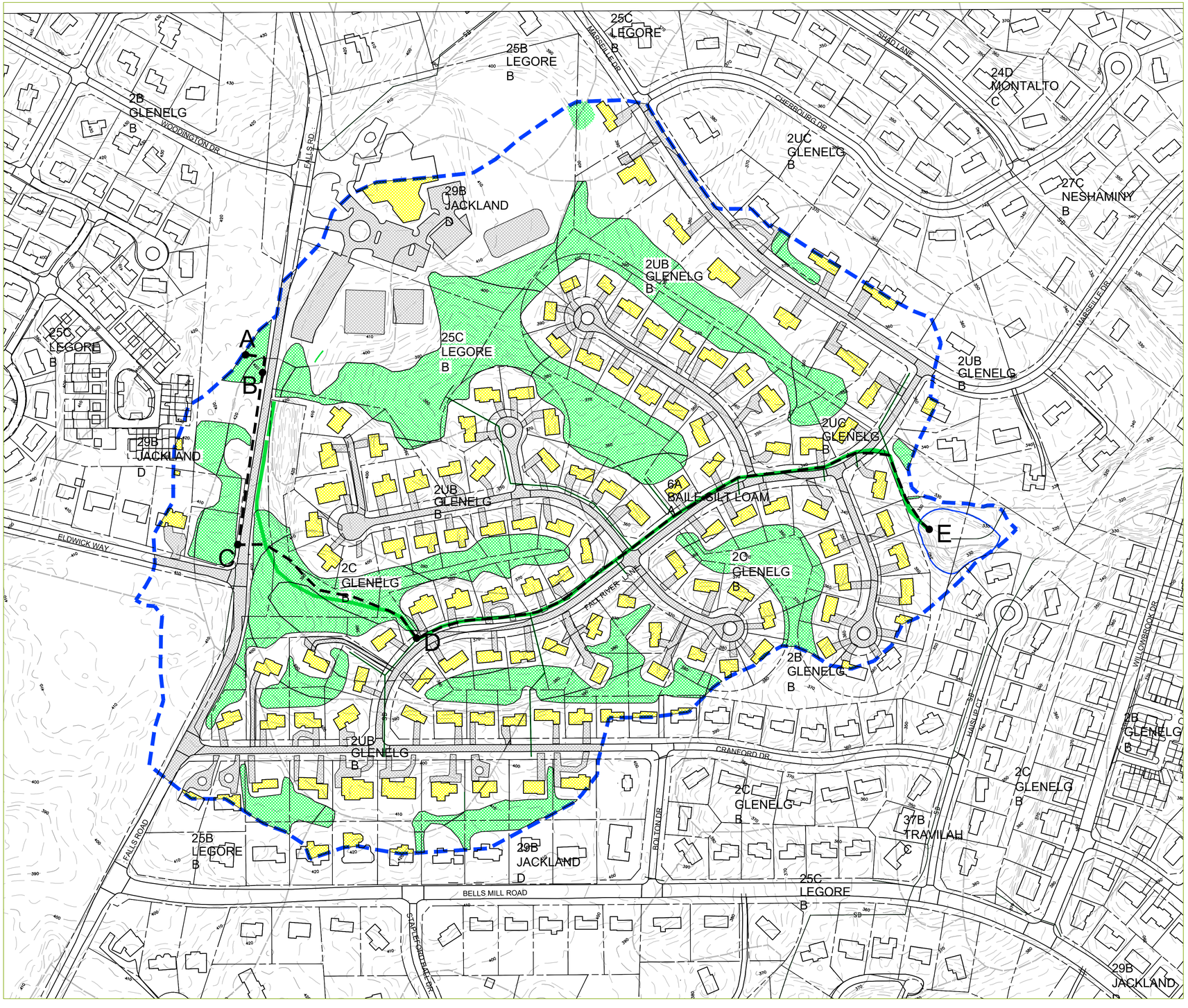
AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEYN OH 240-777-7795
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
COVER SHEET

SHEET NO.
2 OF 23
CV-01



POND #10901 – DRAINAGE AREA SUMMARY

	BUILDINGS	SIDEWALKS	DRIVEWAYS	ROADWAYS	TOTAL IMPERVIOUS
"A" SOILS	31,608 SF	0 SF	0 SF	54,775 SF	86,383 SF (1.98 AC.)
"B" SOILS	226,739 SF	0 SF	0 SF	318,065 SF	544,804 SF (12.51 AC.)
"D" SOILS	41,381 SF	0 SF	0 SF	113,572 SF	154,953 SF (3.56 AC.)
TOTAL	299,728 SF	0 SF	0 SF	486,412 SF	786,140 SF

POND #10901 – DRAINAGE AREA SUMMARY

	OPEN SPACE	WOODS	TOTAL AREA
"A" SOILS	242,650 SF (5.57 AC.)	43,311 SF (0.99 AC.)	372,344 SF (8.55 AC.)
"B" SOILS	1,295,668 SF (29.744 AC.)	648,253 SF (14.88 AC.)	2,488,725 SF (57.13 AC.)
"D" SOILS	309,440 SF (7.10 AC.)	97,253 SF (2.23 AC.)	561,646 SF (12.89 AC.)
TOTAL	1,847,758 SF	788,817 SF	3,422,715 SF

POND #10901 – TIME OF CONCENTRATION

Tc SEGMENT	DESCRIPTION	LENGTH
A –> B	SHEET FLOW	100 FT
B –> C	SHALLOW CONCENTRATED FLOW	500
C –> D	CHANNEL FLOW	600
D –> E	CHANNEL FLOW	1814

LEGEND

- DRAINAGE DIVIDE
- SD — EXISTING STORM DRAIN
- Tc PATH
- SOILS BOUNDARY
- BUILDINGS
- PAVEMENT
- WOODS

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150 ft.

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager
Charley Chen, P.E., Senior Engineer
August 28, 2024, Date
File #: 23-SP-05

SC/SWM SHEET #03 OF 20

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. 31777

Expiration Date 02/01/2025

Seal:

STATE OF MARYLAND · GREGORY W. FOX · No. 31177 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
SUBMITTED BY: AMT
PLOT SCALE: 1" = 150'
SIZE: ANSI D
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 8/26/2024
FILE NAME: 1204-10901-DA01.DWG

AMT CONSULTING ENGINEERS
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(301)881-2545

res
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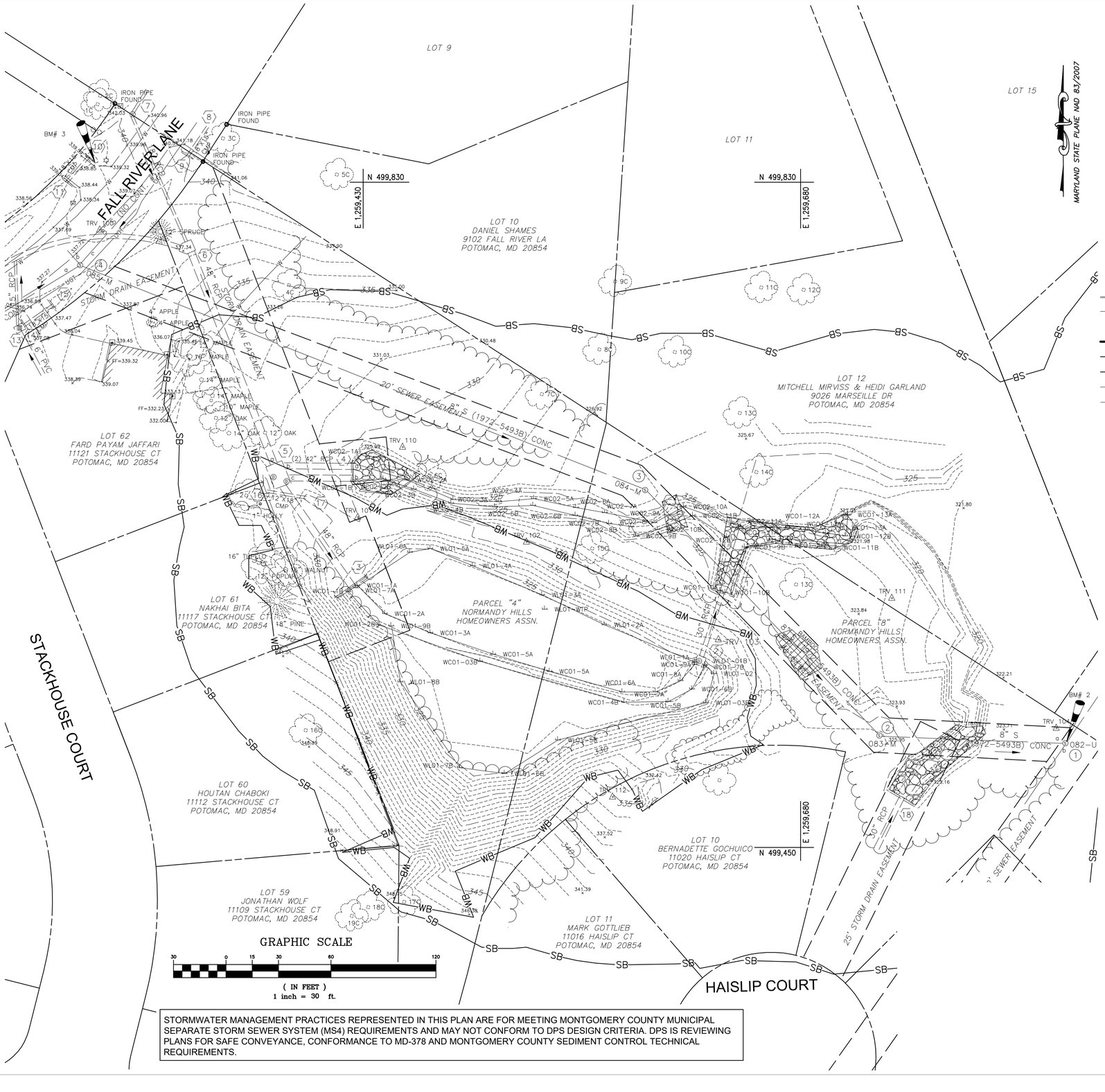
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
DRAINAGE AREA MAP

SHEET NO.
03 OF 23
DA-01



LEGEND

- DELINEATED WETLAND FLAG
- WATER VALVE
- FIRE HYDRANT
- STORMDRAIN MANHOLE
- GUY WIRE
- LAMP POLE
- SANITARY SEWER MANHOLE
- SPRINKLER CONTROL BOX
- SINGLE POST SIGN
- ELECTRIC JUNCTION BOX
- MAIL BOX
- COMMUNICATION MANHOLE
- CABLE BOX
- GAS VALVE
- GAS METER
- ELECTRIC METER
- TRAVERSE
- BENCHMARK
- CURB
- WOODEN FENCE
- (DATR) DATA ACCORDING TO RECORDS
- LIMITS OF DISTURBANCE
- STREAM BUFER
- WETLANDS BUFER
- WETLANDS
- STREAM / WATER SURFACE
- TREE REMOVAL

SEWER

SHOWN AS (1)

1 TOP=326.80
a INV IN=316.20
b INV IN=316.10
INV OUT=315.90

2 TOP=326.20
INV IN=317.30
INV OUT=317.20

3 TOP=326.94
INV IN=318.29
INV OUT=318.20

4 TOP=337.80
a INV IN=326.24
b INV IN=326.47
c INV IN=326.55
INV OUT=326.25

5 TOP=337.54
a INV IN=326.97
b INV IN=326.84
c INV IN=326.84
INV OUT=326.81

STORMDRAIN

SHOWN AS (1)

1 ENDWALL
INV=320.78

2 RISER
TOP=329.31
NO ACCESS

3 ENDWALL
INV=322.31

4 ENDWALL
a INV=324.28
B INV=324.30

5 INLET
TOP=332.25
a INV IN=324.85
b INV OUT=324.85
c INV OUT=324.65
INV OUT=324.25
WEIR ELEV=328.00

6 STRUCTURE
LOCATION (DATR)
NOT FOUND IN FIELD

7 MANHOLE
TOP=340.99
INV IN=335.84
INV OUT=335.74

8 HEADWALL
INV=340.06

9 ENDWALL
INV=338.67

10 HEADWALL
INV=337.32

11 ENDWALL
INV=336.07

12 GRATE
TOP=334.83
INV IN=332.71
INV OUT=331.53

13 GRATE
TOP=335.17
INV IN=332.46
INV OUT=331.13

14 ENDWALL
INV=334.63

15 HEADWALL
INV=335.37

16 END SECTION
INV=329.62

17 END SECTION
INV=329.37

18 ENDWALL
INV=320.10

BENCHMARK DATA:

NO	ELEV	DESCRIPTION
2	326.91	X-CUT AT RIM OF SEWER MANHOLE
3	339.32	X-CUT AT AT TOP OF HEADWALL

TRAVERSE DATA:

NO	NORTHING	EASTING	ELEV	DESCRIPTION
100	499802.7199	1259279.5130	338.26	REBAR AND CAP
101	499638.5530	1259427.0877	330.19	REBAR AND CAP
102	499624.4310	1259523.4768	330.62	REBAR AND CAP
103	499568.6656	1259633.0904	329.30	REBAR AND CAP
104	499518.0514	1259826.1872	325.38	REBAR AND CAP
110	499678.6274	1259452.6418	329.76	60d NAIL
111	499592.3954	1259732.2158	322.73	60d NAIL
112	499478.7955	1259572.6302	335.13	60d NAIL

NOTES

1. HORIZONTAL DATUM: MARYLAND STATE PLANE NAD 83/2007

2. VERTICAL DATUM: NAVD 88

3. BOUNDARY INFORMATION SHOWN HEREON WAS OBTAINED FROM RECORDS AND VERIFIED IN THE FIELD INSOFAR AS POSSIBLE AND IS NOT TO BE CONSIDERED A BOUNDARY SURVEY.

4. UTILITIES SHOWN ARE BASED ON FIELD INVESTIGATION, VISIBLE FIELD EVIDENCE, AVAILABLE RECORDS AND QUALITY LEVEL "B" SUBSURFACE UTILITY DESIGNATION.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager — August 28, 2024, Date
Charley Chen, P.E., Senior Engineer — File #: 23-SP-05

SC/SWM SHEET #04 OF 20

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31777 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT SCALE: 1" = 30'
PLOT DATE: 8/27/2024
SIZE: ANSI D
FILE NAME: 1204-10901-EC01.DWG

AMT CONSULTING ENGINEERS
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SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEYIN OH 240-777-7705
MONTGOMERY COUNTY DEPARTMENT
OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EXISTING CONDITIONS PLAN

SHEET NO.
4 OF 23
EC-01

DEMOLITION NOTES

1. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS SO AS NOT TO DAMAGE EXISTING ADJACENT FACILITIES AND STRUCTURES. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION OR BETTER UNLESS NOTED OTHERWISE.
2. LIVE UNDERGROUND AND OVERHEAD UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTRACT AN INDEPENDENT FIRM TO LOCATE "ALL" UNDERGROUND UTILITIES AND INFRASTRUCTURE INCLUDING BUT NOT LIMITED TO : PIPES, DRAINS, CABLE, ETC., IN ANY PROPOSED EXCAVATION AREA. THE CONTRACTOR IS ALERTED TO THE FACT THAT "MISS UTILITY" MUST BE CONTACTED AT 1-800-257-7777 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION. NOTE: "MISS UTILITY" WILL NOT LOCATE PRIVATE INFRASTRUCTURE.
4. EXISTING SIGNS, BOLLARDS, AND MINOR SITE FEATURES IN THE WAY OF PROPOSED CONSTRUCTION, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE REMOVED AND REINSTALLED AT NO ADDITIONAL COST TO THE OWNER.
5. ALL TRENCHES AND PITS RESULTING FROM THE REMOVAL OF EXISTING PIPES, FOUNDATIONS, INLETS, MANHOLES, UTILITIES, ETC. SHALL BE BACK FILLED WITH SELECT BACK FILL MATERIAL AND COMPACTED IN 6 INCH MAXIMUM LIFTS.
6. ANY UNCHARTED SUBSURFACE FOOTINGS, STRUCTURES, UTILITIES, ETC. ENCOUNTERED DURING EXCAVATION WORK SHALL BE REMOVED AS DIRECTED BY THE DEP PROJECT MANAGER. THE CONTRACTOR SHALL NOTIFY THE DEP PROJECT MANAGER IMMEDIATELY IF THIS SITUATION OCCURS.
7. THE CONTRACTOR IS OBLIGATED TO REMOVE ALL EXISTING FEATURES AS NECESSARY TO CONSTRUCT PROJECT. THIS PLAN IN NO WAY LIMITS THE EXTENT OF DEMOLITION REQUIRED.
8. TREES WITHIN 15 FEET OF THE DOWNSTREAM EMBANKMENT WITH A DBH OF LESS THAN 6" SHALL BE CUT FLUSH WITH THE GROUND AND TREATED WITH A WATERPROOF SEALANT.
9. TREES WITHIN 15 FEET OF THE DOWNSTREAM EMBANKMENT WITH A DBH GREATER THAN OR EQUAL TO 6" SHALL BE REMOVED. REMOVAL TO INCLUDE THE TREE, ROOT BALL, AND ALL ROOTS GREATER THAN 1/2" IN DIAMETER.

LOT 9 · LOT 3 · LOT 11 · LOT 10 DANIEL SHAMES 9102 FALL RIVER LA POTOMAC, MD 20854 · LOT 12 MITCHELL MIRVISS & HEIDI GARLAND 9026 MARSEILLE DR POTOMAC, MD 20854 · LOT 62 FARD PAYAM JAFFARI 11121 STACKHOUSE CT POTOMAC, MD 20854 · LOT 61 NAKHAI BITA 11117 STACKHOUSE CT POTOMAC, MD 20854 · LOT 60 HOUTAN CHABOKI 11112 STACKHOUSE CT POTOMAC, MD 20854 · LOT 59 JONATHAN WOLF 11109 STACKHOUSE CT POTOMAC, MD 20854 · LOT 10 BERNADETTE GOCHUICO 11020 HAISLIP CT POTOMAC, MD 20854 · LOT 11 MARK GOTTLIEB 11016 HAISLIP CT POTOMAC, MD 20854 · PARCEL "4" NORMANDY HILLS HOMEOWNERS ASSN. · PARCEL "5" NORMANDY HILLS HOMEOWNERS ASSN. · FALL RIVER LANE · STACKHOUSE COURT · HAISLIP

MARYLAND STATE PLANE NAD 83/2007 · N 499,830 E 1,259,450 · N 499,830 E 1,259,680 · N 499,450 E 1,259,680

PROTECT THE EXISTING CHAIN LINK FENCE ON TOP OF EXISTING TWIN 42" ENDWALL.

REMOVE EXISTING TREE

REMOVE EXISTING HEADWALL

REMOVE EXISTING RIPRAP FOR REUSE

REMOVE / CLEAR ALL BRUSH AND TREES WITHIN UP TO LOD LINE AS SHOWN

EXISTING FLOW SPLITTER THE EXISTING 48" RCP TO BE TEMPORARILY BLOCKED

SB-1 · SB-2 · SB-3

REMOVE EXISTING TREE

LIMITS OF TREE CLEARING, TREES TO BE REMOVED WITHIN LOD

REMOVE EXISTING 30" PIPE

REMOVE EXISTING WOODEN FENCE AND REPLACE BY 4' HIGH NEW WOODEN FENCE.

REMOVE EXISTING GROUTED RIPRAP

REMOVE EXISTING CONCRETE CHANNEL

REMOVE BAMBOOS AND LEYLAND CYPRUS TREE ON EMBANKMENT WITHIN LOD

REMOVE EXISTING RISER STRUCTURE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

SC/SWM SHEET #05 OF 20

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31177 · PROFESSIONAL ENGINEER

2024-08-27

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager · Charley Chen, P.E., Senior Engineer · August 28, 2024 · File #: 23-SP-05

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT · CKD BY: GWF · DWN BY: RRT · SUBMITTED BY: AMT · DATE: 09/27/23 · TASK ORDER NO.: · CONTRACT NO.: · FILE NUMBER: · PLOT SCALE: 1" = 30' · PLOT DATE: 8/27/2024 · SIZE: ANSI D · FILE NAME: 1204-10901-DM01.DWG

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEVYN OH 240-777-3795
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

DEMOLITION PLAN

SHEET NO.
5 OF 23
DM-01

MATCHLINE - SEE THIS SHEET

MATCHLINE - SEE THIS SHEET

MARYLAND STATE PLANE NAD 83/2007

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

EMBANKMENT SECTION LINE

EMBANKMENT BASELINE

SETTLED TOP OF EMBANKMENT ELEV=331

BOTTOM ELEV=319.10

EMBANKMENT ACCESS PATH BRIDGE

CONSTRUCTION

REPLACE EXISTING CL II RIP-RAP AND ADD NEW CL II RIP-RAP WITHIN WORK AREA. 47'(L)xVARIES"(D)xVARIES(W) D50=16"

8" LOW FLOW ORIFICE

INSTALL NEW WEIR STRUCTURE

LOW FLOW ORIFICE w/TRASH RACK

INSTALL CLASS I RIPRAP 16'(L)x19.5"(D)xVARIES(W) D50 = 9.5"

EMBANKMENT BASELINE

SETTLED TOP OF EMBANKMENT ELEV=331

INSTALL CLASS I RIPRAP 75'(L)x19.5"(D)x6'(W) D50=9.5"

MATCH RIPRAP IN GRADE

INSTALL CLASS I RIPRAP 68'(L)x19.5"(D)xVARIES(W) D50 = 9.5"

GABION BASKETS

PERMANENT POOL WSE=323.00
EXTENDED DETENTION WSE=327.75
1YR WSE=328.20
2YR WSE=328.45
10YR WSE=329.15
100YR WSE=329.44

LOT 62
FARD PAYAM JAFFARI
11121 STACKHOUSE CT
POTOMAC, MD 20854

LOT 61
NAKHAI BITA
11117 STACKHOUSE CT
POTOMAC, MD 20854

LOT 60
HOUTAN CHABOKI
11112 STACKHOUSE CT
POTOMAC, MD 20854

LOT 59
JONATHAN WOLF
11109 STACKHOUSE CT
POTOMAC, MD 20854

LOT 11
MARK GOTTLIEB
11016 HAISLIP CT

PARCEL "8"
NORMANDY HILLS HOMEOWNERS ASSN.

NORMANDY HILLS HOMEOWNERS ASSOC.

STACKHOUSE COURT

FALL RIVER LANE

20' SEWER EASEMENT

8" S (1972-5493B) CONC

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

SC/SWM SHEET #06 OF 20

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. 31777

Expiration Date 02/01/2025

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2024-08-27

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager

Charley Chen, P.E., Senior Engineer

August 28, 2024
Date
File #: 23-SP-05

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
PLOT SCALE: 1" = 20'
PLOT DATE: 8/27/2024
SIZE: ANSI D
DATE: 09/27/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
FILE NAME: 1204-10901-GR01.DWG

AMT CONSULTING ENGINEERS
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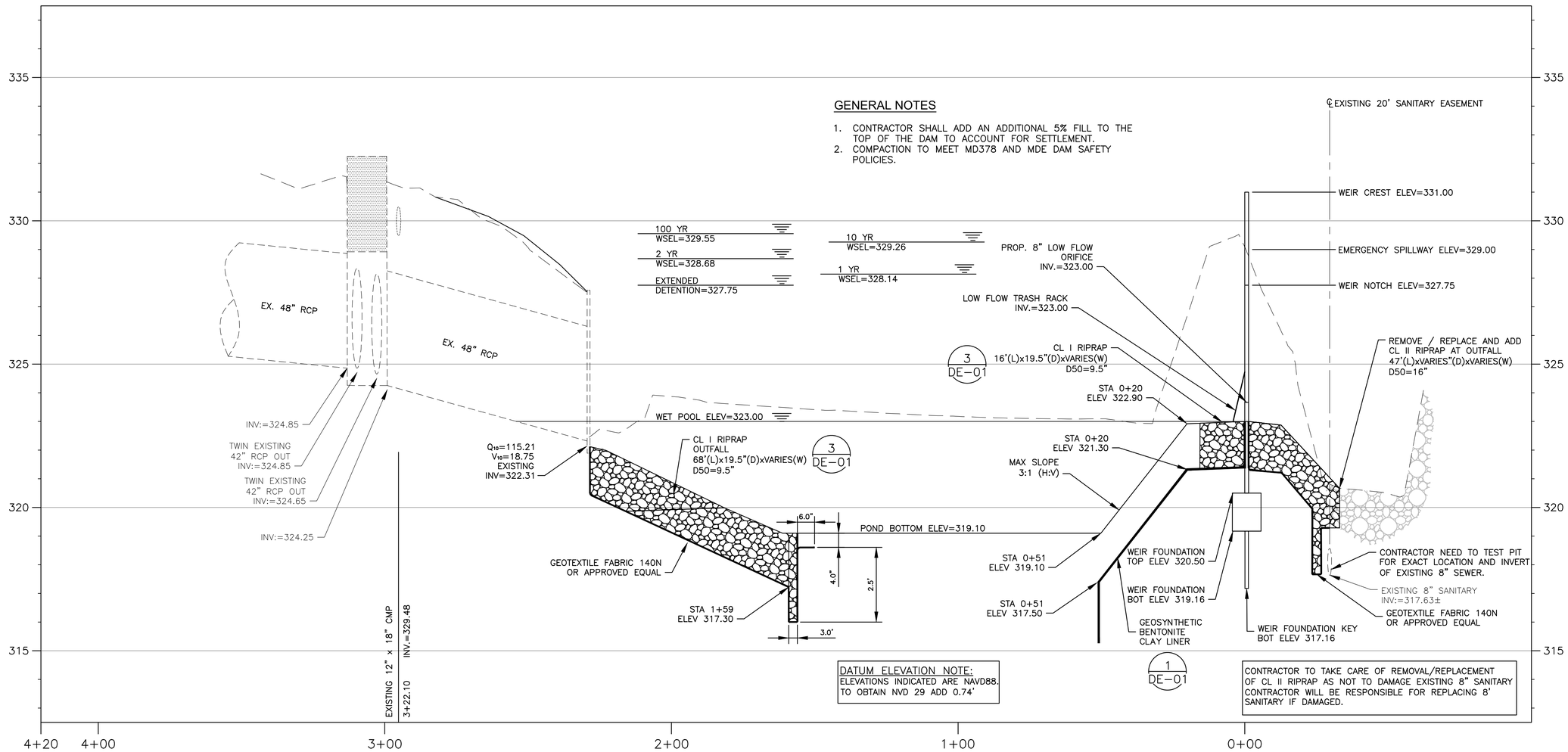
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

GRADING PLAN

SHEET NO.
6 OF 23
GR-01



POND CONSTRUCTION BASELINE

SCALE: HORZ 1" = 20'
VERT. 1" = 2'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

SC/SWM SHEET #07 OF 20

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager
Charley Chen, P.E. Senior Engineer
August 28, 2024 Date
File #: 23-SP-05

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2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
PLOT SCALE: 1=1
PLOT DATE: 8/27/2024
FILE NUMBER:
SIZE: ANSI D
FILE NAME: 1204-10901-PR01 - LAYOUT1.DWG

AMT CONSULTING ENGINEERS
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SUITE 300
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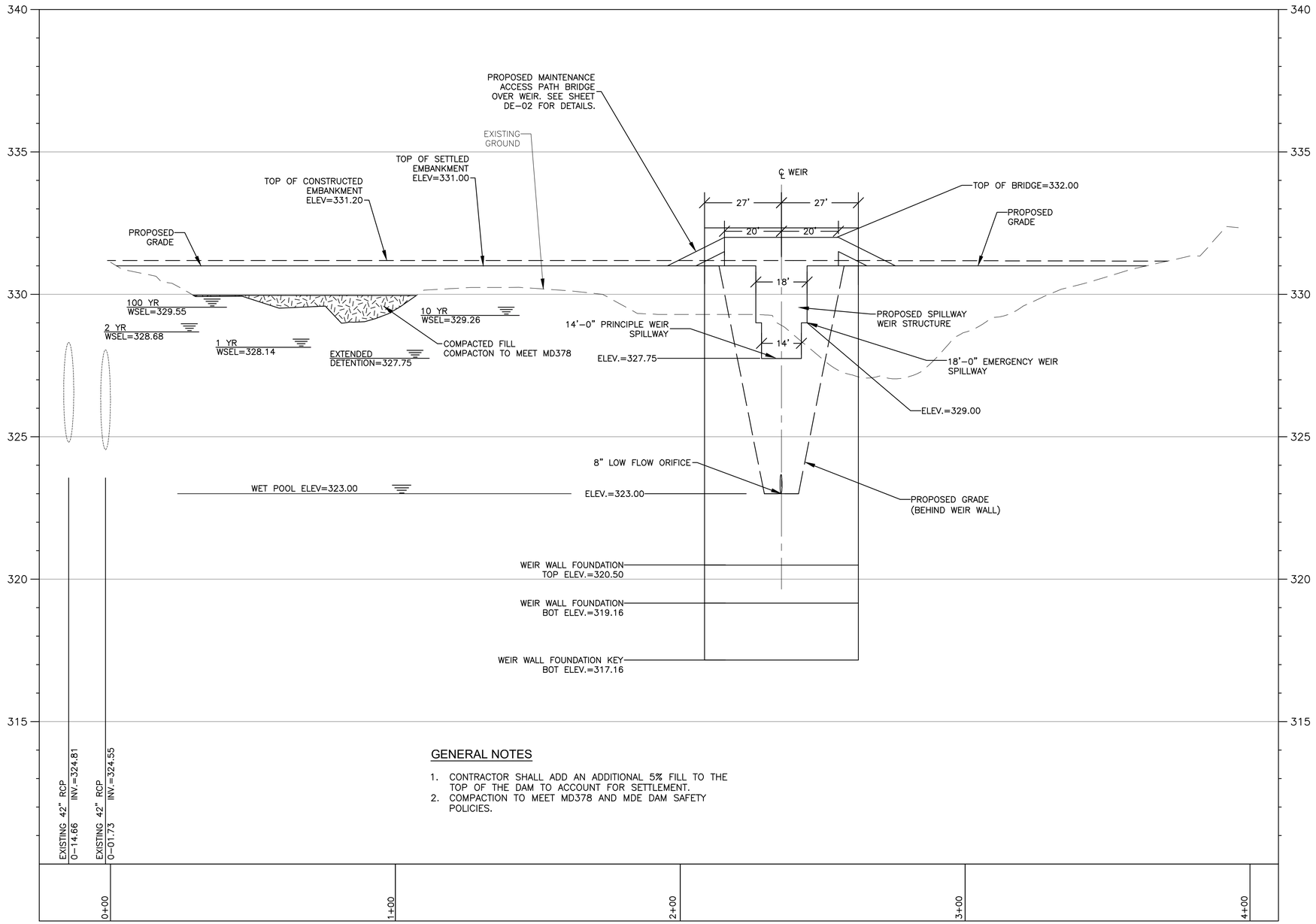
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

PROFILE

SHEET NO.
7 OF 23
PR-01



GENERAL NOTES

1. CONTRACTOR SHALL ADD AN ADDITIONAL 5% FILL TO THE TOP OF THE DAM TO ACCOUNT FOR SETTLEMENT.
2. COMPACTION TO MEET MD378 AND MDE DAM SAFETY POLICIES.

POND EMBANKMENT BASELINE

SCALE: HORZ 1" = 20'
VERT. 1" = 2'

NOTES

1. CONTRACTOR SHALL CONSTRUCT TOP OF EMBANKMENT TO ALLOW FOR 5% SETTLEMENT OF FILL MATERIAL.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager
Charley Chen, P.E. Senior Engineer
August 28, 2024 Date
File #: 23-SP-05

SC/SWM SHEET #08 OF 20

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2024-08-27

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MONTGOMERY COUNTY • MARYLAND

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DWN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT SCALE: AS SHOWN
PLOT DATE: 8/27/2024
SIZE: ANSI D
FILE NAME: 1204-10901-PR02.DWG

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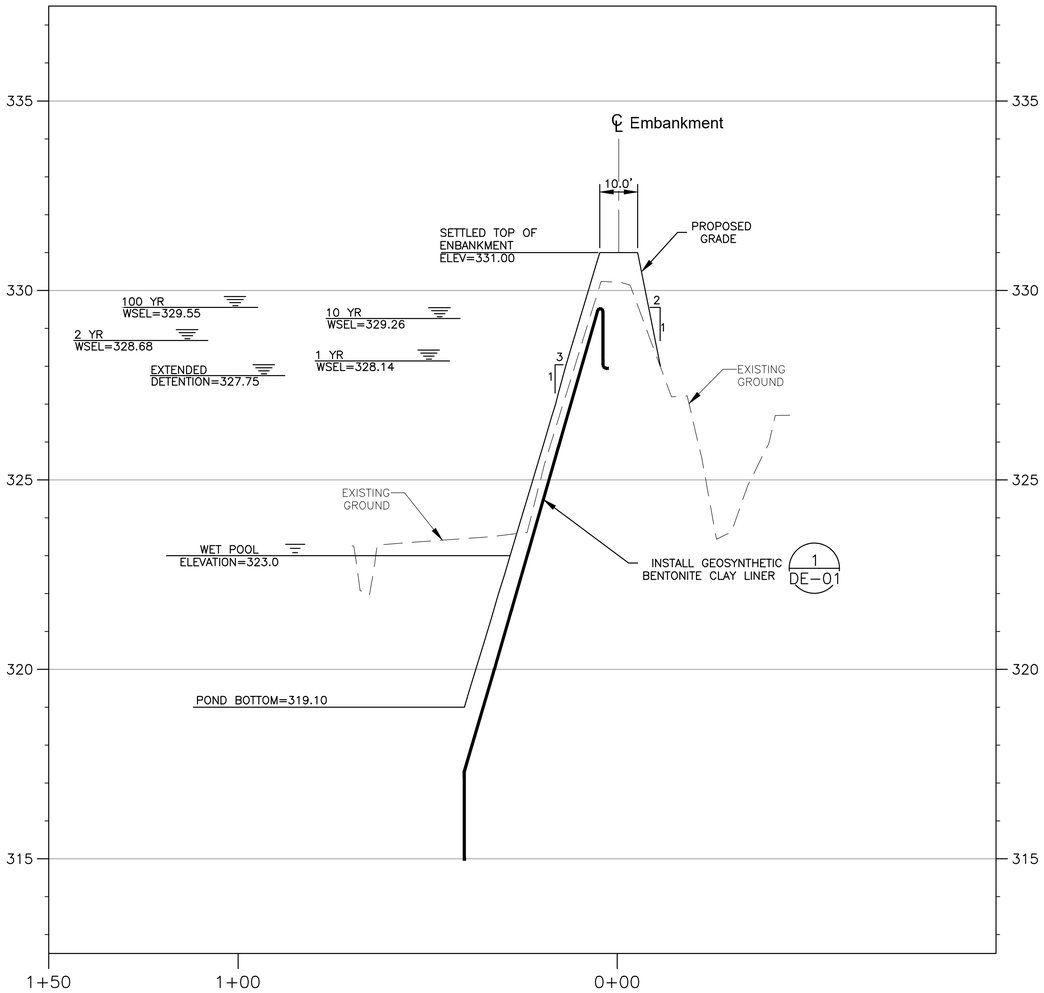
SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

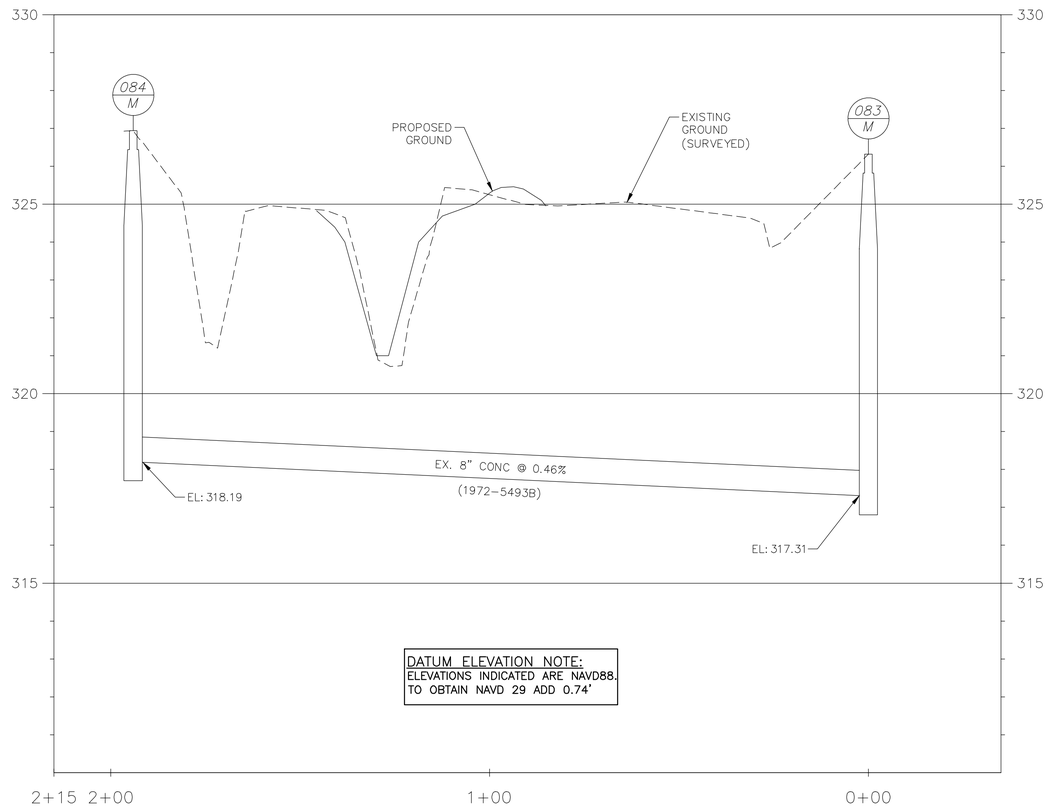
PROFILES

SHEET NO.
08 OF 23
PR-02



1 PR-03 EMBANKMENT TO BASIN SECTION

SCALE: HORZ 1" = 20'
VERT. 1" = 2'



DATUM ELEVATION NOTE:
ELEVATIONS INDICATED ARE NAVD88.
TO OBTAIN NAVD 29 ADD 0.74'

EX. WSSC 8" SANITARY - MH 083-M TO MH 084-M

SCALE: HORZ 1" = 20'
VERT. 1" = 2'

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager
Charley Chen, P.E., Senior Engineer
August 28, 2024, Date
File #: 23-SP-05

SC/SWM SHEET #09 OF 20

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31177 · PROFESSIONAL ENGINEER

2024-08-27

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
PLOT SCALE: AS SHOWN
PLOT DATE: 8/27/2024
FILE NUMBER:
SIZE: ANSI D
FILE NAME: 1204-10901-PR03.DWG

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
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res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEYN OH 240-777-7795
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
PROFILES

SHEET NO.
09 OF 23
PR-03

STORMWATER MAINTENANCE SCHEDULE - POND

MONTHLY INSPECTION

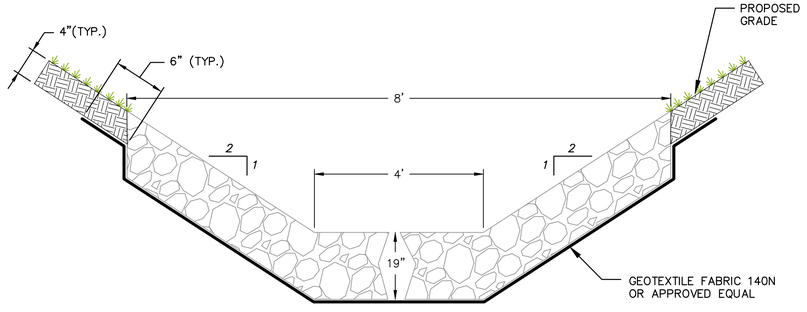
INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION
DEBRIS AND TRASH	CHECK FOR TRASH AND DEBRIS IN FACILITY INCLUDING INLETS, FOREBAY, RISER, WEIRS, OUTLETS, CONVEYANCE SYSTEMS, AND AREA AROUND FACILITY.	REMOVE ALL TRASH AND DEBRIS AND DISPOSE IN AN ACCEPTABLE MANNER. UNCLOG ALL OPENINGS.
VEGETATIVE COVER	CHECK FOR CHANNELIZING, EROSION, AND BARE SPOTS. CHECK FOR VEGETATION BLOCKING INLETS AND OUTLET. CHECK FOR WOODY GROWTH ON EMBANKMENT.	REMOVE OR CUT BACK VEGETATION AROUND INLET AND OUTLET STRUCTURES. MOW SIDE SLOPES AND BASIN SURFACE WHEN GRASS EXCEEDS 12 INCHES IN HEIGHT. REMOVE GRASS CLIPPINGS. CUT TREES WITH 4 INCH OR SMALLER DIAMETER FLUSH TO GROUND. RE-SEED OR RE-PLANT BARE AREAS IN ACCORDANCE WITH APPROVED LANDSCAPING PLANS. CONTACT MDE SEDIMENT, STORMWATER, AND DAM SAFETY PLAN REVIEW DIVISION REGARDING REMOVAL OF TREES LARGER THAN 4 INCH DIAMETER.

SEASONAL INSPECTION AND AFTER A MAJOR STORM

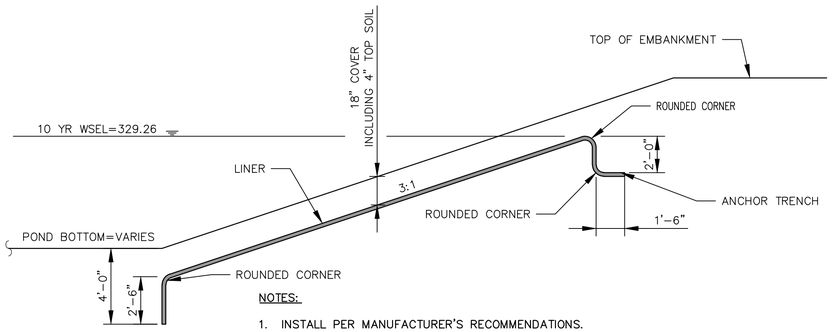
INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION
PONDING LEVEL/ DEWATERING	CHECK PONDING LEVELS. THE DRY STORAGE VOLUME SHOULD DEWATER WITHIN 24 HOURS OF RAINFALL (12 HOURS FOR USE III AND IV WATERSHEDS). CHECK LOW FLOW DEVICE FOR CLOGGING.	REFURBISH LOW FLOW DEVICE IF CLOGGED. CONFIRM ADEQUATE DEWATERING WITH FOLLOW UP INSPECTIONS.
EROSION	CHECK INLETS, GRAVEL DIAPHRAGM, FOREBAY, FILTER BED, OUTLETS, AND SIDE SLOPES FOR EROSION, RILLS, GULLIES, AND RUNOFF CHANNELIZATION.	RE-GRADE IF CONCENTRATED FLOW IS CAUSING RILLS OR GULLYING THROUGH THE FACILITY. GRADE, VEGETATE, AND/OR ARMOR TO PROVIDE STABLE CONVEYANCE IN ACCORDANCE WITH APPROVED PLANS.
SEDIMENT ACCUMULATION	CHECK FOR ACCUMULATED SEDIMENT IN CONVEYANCE SYSTEMS AND FOREBAY. CHECK FOR ACCUMULATED SEDIMENT ON BASIN SURFACE. CHECK FOR CLOGGED OPENINGS.	WHEN THE FOREBAY DEPTH IS LESS THAN HALF THE APPROVED DESIGN, REMOVE SEDIMENT. WHEN SEDIMENT ACCUMULATION ON BASIN SURFACE EXCEEDS 1 INCH, REMOVE SEDIMENT. REMOVE SEDIMENT FROM CLOGGED OPENINGS. DISPOSE OF ALL SEDIMENT IN AN ACCEPTABLE LOCATION.
BLOCKAGES	CHECK OVERFLOW INLET (RISER) AND PIPING FOR BLOCKAGES. CHECK OBSERVATION WELLS FOR WATER LEVEL.	CLEAR OUT ANY BLOCKAGES.

ANNUAL INSPECTION

INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION
MAINTENANCE ACCESS	CHECK FOR ACCESSIBILITY TO POND INCLUDING RISER AND SPILLWAYS.	REMOVE EXCESSIVE VEGETATIVE GROWTH AND OBSTRUCTIONS. REPAIR ACCESS WAY OR ROAD TO STABLE CONDITION.
WOODY VEGETATION	CHECK FOR WOODY VEGETATION ON ZONES OF CONCERN: THE EMBANKMENT, WITHIN 15 FEET OF THE TOE OF EMBANKMENT, WITHIN A 25 FOOT RADIUS OF THE CONTROL STRUCTURE (RISER OR WEIR), AND WITHIN 15 FEET OF PRINCIPAL SPILLWAY PIPE.	MOW DOWN WOODY VEGETATION WITHIN ZONES OF CONCERN. CUT TREES WITH 4 INCH OR SMALLER DIAMETER FLUSH TO GROUND. RE-SEED BARE AREAS ACCORDING TO PLAN STABILIZATION REQUIREMENTS. CONTACT MDE SEDIMENT, STORMWATER, AND DAM SAFETY PLAN REVIEW DIVISION REGARDING REMOVAL OF LARGER TREES THAN 4 INCH DIAMETER.
INLETS	CHECK FOR FLOW BLOCKAGES, EROSION, RILLS, GULLIES, AND DISPLACED RIPRAP.	RESTORE GRADES AND RE-SEED OR ARMOR BARE AREAS TO PROVIDE STABLE CONVEYANCE IN ACCORDANCE WITH THE APPROVED PLANS.
TRASH RACK	CHECK THAT TRASH RACK IS CLEAR OF BLOCKAGES AND IN GOOD CONDITION.	REMOVE ANY BLOCKAGES. REPAIR OR REPLACE TO GOOD WORKING CONDITION IN ACCORDANCE WITH THE APPROVED PLANS.
POND DRAIN	CHECK OPERATION. KEEP DRAIN CHAINED AND LOCKED.	REPAIR IN ACCORDANCE WITH APPROVED PLANS.
RISER AND BARREL	CHECK FOR EVIDENCE OF CRACKS, SPALLING, AND JOINT FAILURES. CHECK CONNECTION BETWEEN RISER AND BARREL FOR WATER TIGHTNESS. CHECK SPILLWAY PIPE FOR WATER TIGHT JOINTS. CHECK FOR SEEPAGE AROUND AND ALONG SPILLWAY PIPE.	REPAIR OR REPLACE TO GOOD WORKING CONDITION IN ACCORDANCE WITH THE APPROVED PLANS.
STRUCTURAL COMPONENTS: ENDWALLS,HEADWALLS, WEIRS AND ABUTMENTS.	CHECK FOR EVIDENCE OF STRUCTURAL DETERIORATION, SPALLING, OR CRACKING. CHECK FOR SEEPAGE. CHECK FOR MISSING MANHOLE COVERS OR INLET GRATES.	REPAIR TO GOOD CONDITION ACCORDING TO SPECIFICATIONS ON THE APPROVED PLANS.
OUTFALL	CHECK FOR DISPLACED RIPRAP, BLOW OUTS, UNSTABLE CONVEYANCE, AND EROSION BELOW THE OUTLET.	REPAIR AND RESTORE FUNCTION IN ACCORDANCE WITH THE APPROVED PLANS AND TO ACHIEVE STABLE CONVEYANCE.
EMBANKMENT INTEGRITY	CHECK UPSTREAM FACE AND DOWNSTREAM FACE FOR SOFT SPOTS AND BOGGY AREAS, BOILS AT THE TOE, SETTLEMENTS, DEPRESSIONS AND BULGES, SIGNS OF EROSION, ANIMAL BURROWS, SLOPE FAILURES, AND SEEPAGE. CHECK THAT GROUND COVER IS IN GOOD CONDITION. CHECK FOR WETLAND TYPE VEGETATION.	REPAIR AND STABILIZE IN ACCORDANCE WITH THE APPROVED PLANS. PRESENCE OF WETLAND VEGETATION ON EMBANKMENT MAY INDICATE SEEPAGE AND STRUCTURAL INTEGRITY CONCERNS. CONTACT MDE SEDIMENT, STORMWATER, AND DAM SAFETY PLAN REVIEW DIVISION MDE SEDIMENT BEFORE PERFORMING MAJOR POND REPAIRS.
EMERGENCY SPILLWAY CHANNEL	CHECK FOR EVIDENCE OF EROSION, SOFT OR WET AREAS, OR OBSTRUCTIONS. CHECK FOR WOODY VEGETATION. CHECK FOR DISPLACED RIPRAP.	REMOVE ANY OBSTRUCTIONS. MOW AND CUT FLUSH TREES WITH 4 INCH OR SMALLER DIAMETER. RE-SEED OR ARMOR BARE AREAS TO PROVIDE STABLE CONVEYANCE IN ACCORDANCE WITH THE APPROVED PLANS. CONTACT MDE SEDIMENT, STORMWATER, AND DAM SAFETY PLAN REVIEW DIVISION REGARDING REMOVAL OF LARGER TREES THAN 4 INCH DIAMETER.
OVERALL FUNCTION OF FACILITY	CHECK THAT PRACTICE IS FUNCTIONING AS DESIGNED.	REPAIR TO GOOD CONDITION ACCORDING TO SPECIFICATIONS ON THE APPROVED PLANS.



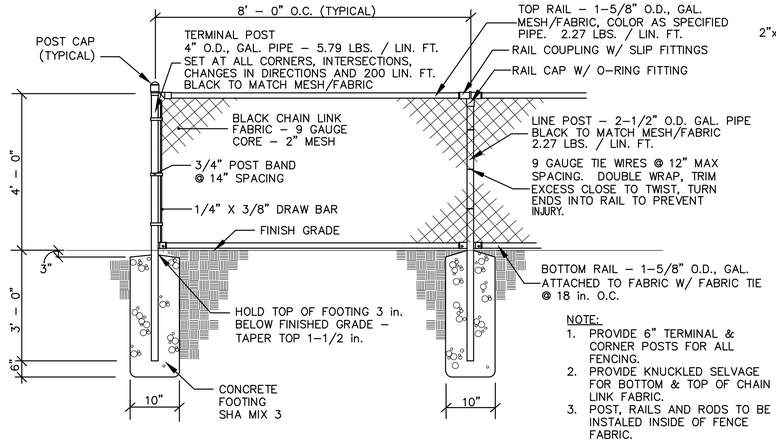
3 DE-01 CLASS I RIPRAP DITCH SECTION VIEW
NOT TO SCALE



NOTES:

1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. LINER SHALL HAVE A MASS/AREA OF 0.75 LB/SF MINIMUM.
3. LINER INSTALLATION MUST BE PERFORMED IN SMALL SEGMENTS. ENTIRE EMBANKMENT MUST NOT BE EXCAVATED AT ONCE DUE TO UNAVAILABILITY OF LARGE STORAGE AND STOCKPILE AREA AND POTENTIAL DAMAGE TO THE EMBANKMENT FROM AN UNEXPECTED STORM EVENT. CONTRACTOR MUST EXCAVATE ONLY SMALL SEGMENT, PERPENDICULAR TO THE LENGTH OF THE EMBANKMENT, ON WHICH LINER CAN BE INSTALLED DURING A DAY AND AREA MUST BE BACKFILLED AT END OF THE DAY.

1 DE-01 GEOSYNTHETIC BENTONITE CLAY LINER DETAIL
NOT TO SCALE



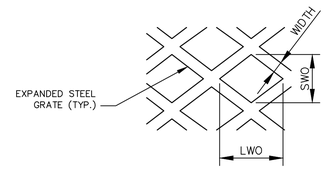
NOTE:

1. PROVIDE 6" TERMINAL & CORNER POSTS FOR ALL FENCING.
2. PROVIDE KNUCKLED SELVAGE FOR BOTTOM & TOP OF CHAIN LINK FABRIC.
3. POST, RAILS AND RODS TO BE INSTALED INSIDE OF FENCE FABRIC.
4. MATERIALS TO MEET REQUIREMENTS OF AASHTO M181.

CHAIN LINK FENCE DETAIL 4 DE-01
NOT TO SCALE

GENERAL NOTES FOR TRASH RACK

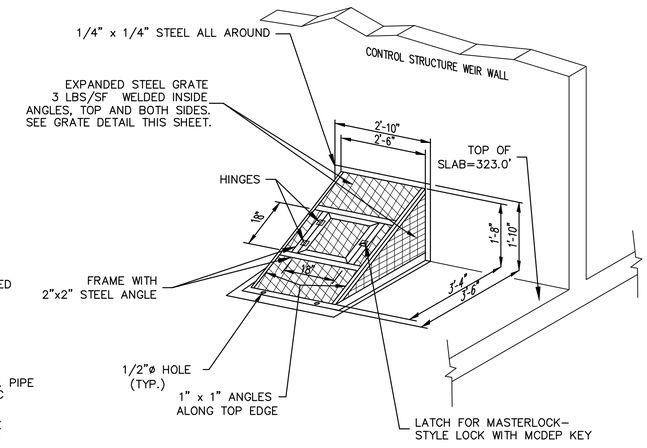
1. STEEL TO CONFORM TO ASTM A 36.
2. ALL SURFACES TO BE HOT–DIPPED GALVANIZED AFTER FABRICATION.
3. TRASH RACK(S) TO FASTENED TO WALL WITH 3/8" STAINLESS STEEL ANCHOR BOLTS AND THREADED INSERTS. TRASH RACK(S) TO BE HINGED AT A MIN. OF TWO POINTS TO THE CONCRETE BASE.
4. TRASH RACK(S) TO BE CENTERED OVER OPENING.
5. IF THE WIDTH OF TRASH RACK EXCEEDS 3' A BRACE MUST BE PROVIDED IN THE CENTER OF THE TRASH RACK.
6. FABRICATOR MAY MODIFY COMPONENTS OF TRASH RACK FRAME TO IMPROVE CONSTRUCTABILITY OF TRASH RACK. MODIFICATIONS MUST BE APPROVED BY MCDPS PRIOR TO FABRICATION.



EXPANDED STEEL GRATE OPENING DETAIL

LBS/SF	LWO	SWO	WIDTH
3.0	3.44"	.940"	.264"

2 DE-01 EXPANDED METAL TRASH RACK FOR LOW FLOW ORIFICE
NOT TO SCALE



5 DE-01 EXPANDED METAL TRASH RACK FOR 8" DIP LOW FLOW ORIFICE
NOT TO SCALE

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski, District Manager — Charley Chen, P.E., Senior Engineer — August 28, 2024 (Date) — File #: 23-SP-05

SC/SWM SHEET #10 OF 20

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31777 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT | DRN BY: RRT | SUBMITTED BY: AMT | PLOT SCALE: 1:1 | DATE: 09/21/23 | TASK ORDER NO.: | CKD BY: GWF | CONTRACT NO.: | PLOT DATE: 8/27/2024 | FILE NUMBER: | K VALUE: N/A | SIZE: ANSI D | FILE NAME: SMSC010-22-093.DWG

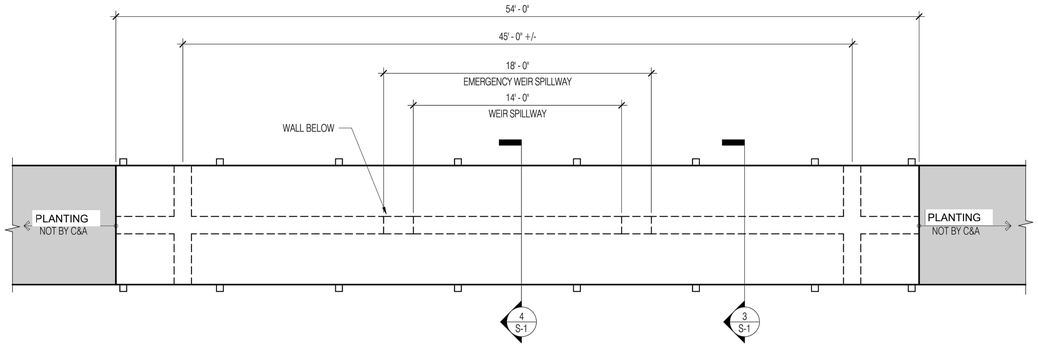
AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEYIN OH 240-777-7705
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

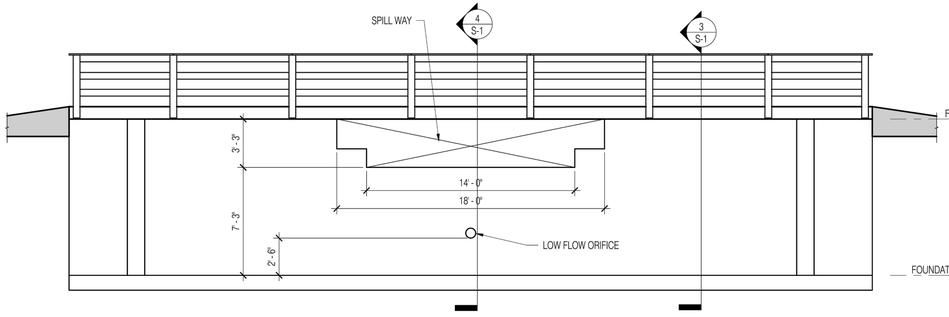
SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
DETAILS

SHEET NO. 10 OF 23
DE-01



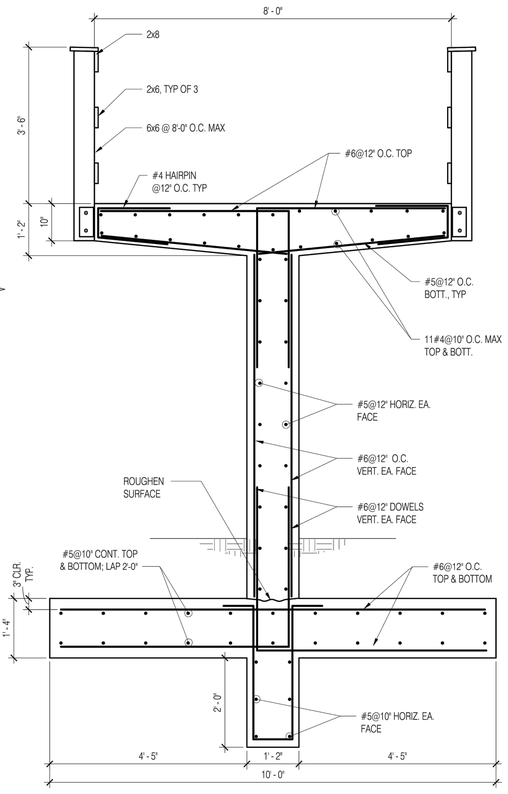
1 PLAN VIEW

1/4" = 1'-0"



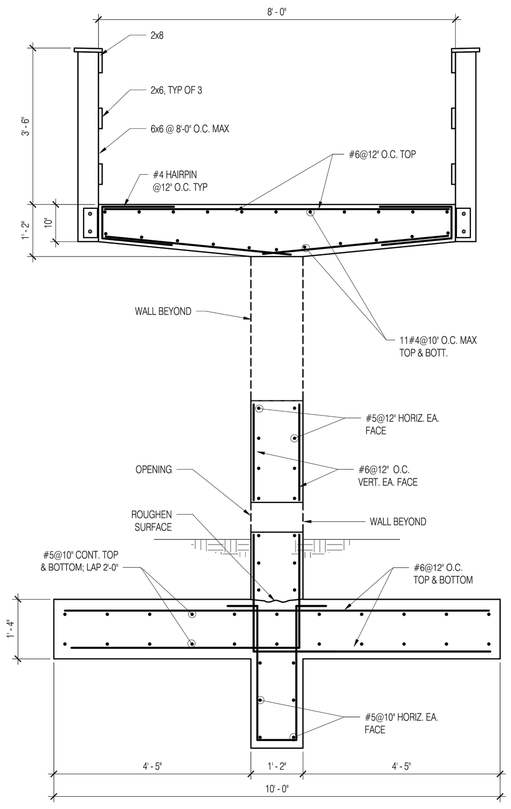
2 ELEVATION

1/4" = 1'-0"



3 WEIR WALL

3/4" = 1'-0"



4 WEIR WALL @ SPILL WAY

3/4" = 1'-0"

SC/SWM SHEET #11 OF 20

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. 27322

Expiration Date 04/22/2026

Seal:

2024-08-28

Montgomery Soil Conservation District
Small Pond Approval

John Zawitoski
District Manager

Charley Chen, P.E.
Senior Engineer

August 28, 2024
Date

File #: 23-SP-05

CAGLEY REF #2023 130

DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: CRW
DRN BY: CRW
CKD BY: CF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT SCALE: AS SHOWN
PLOT DATE: 8/28/2024
SIZE: ANSI D
FILE NAME: SMSC010-22-093.003.DWG

AMT
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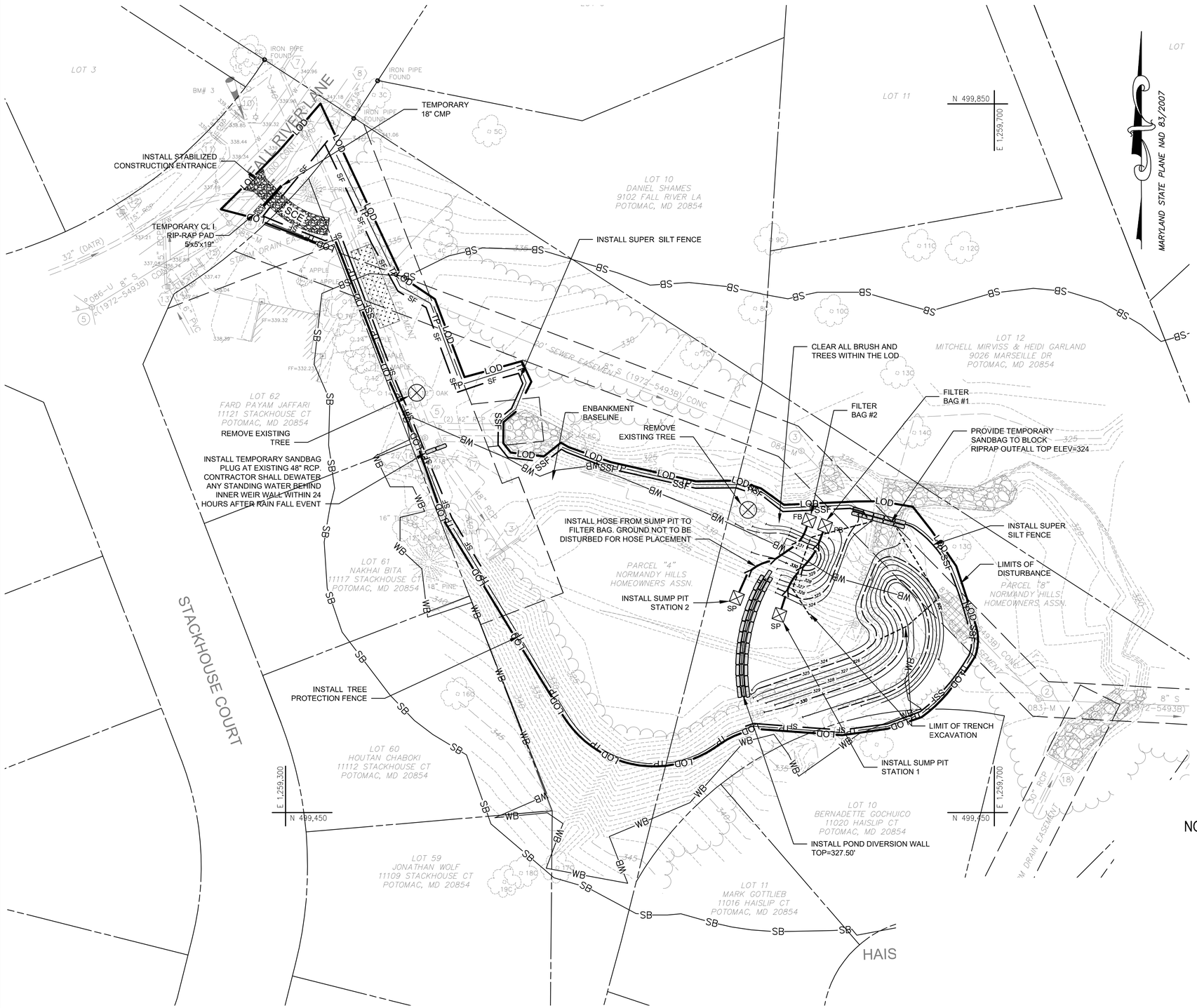
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

DETAILS

SHEET NO.
11 OF 23
DE-02



SEQUENCE OF CONSTRUCTION - INITIAL PHASE

1. PRIOR TO CLEARING TREES, INSTALLING SEDIMENT CONTROL MEASURES, OR GRADING, A PRECONSTRUCTION MEETING MUST BE CONDUCTED ON-SITE WITH THE MONTGOMERY DEPARTMENT OF PERMITTING SERVICES (MCDPS) SEDIMENT CONTROL INSPECTOR (240) 777-6210 (48 HOURS NOTICE), THE MNCPPC, PLANNING DEPARTMENT, PLANS ENFORCEMENT INSPECTOR (301) 495-4571 (48 HOURS NOTICE), MONTGOMERY COUNTY SOIL CONSERVATION DISTRICT ENGINEER AND DISTRICT MANAGER (301) 590-2855 (5 DAY NOTICE PRIOR TO COMMENCEMENT CONSTRUCTION), THE OWNERS REPRESENTATIVE, AND THE SITE ENGINEER.
2. THE LIMITS OF DISTURBANCE MUST BE FIELD MARKED PRIOR TO CLEARING OF TREES, INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITIES.
3. THE PERMITTEE MUST OBTAIN WRITTEN APPROVAL FROM THE MNCPPC INSPECTOR, CERTIFYING THAT THE LIMITS OF DISTURBANCE AND TREE PROTECTION MEASURES ARE CORRECTLY MARKED AND INSTALLED PRIOR TO COMMENCING ANY CLEARING.
4. CLEAR AND GRADE FOR INSTALLATION OF SEDIMENT CONTROL DEVICES.
5. INSTALL SEDIMENT CONTROL DEVICES SCE, TEMPORARY 18" CMP, TEMPORARY CLI RIPRAP PAD, TREE PROTECTION FENCE, SILT FENCE, SUPER SILT FENCE, SANDBAGS AT THE OUTFALL, SUMP PIT STATION 1 AND FILTER BAG #1, AND TEMPORARY SANDBAG PLUG AT EXISTING 48" RCP INFLOW PIPE.
6. REMOVE EXISTING RISER, 30" RCP, ENDWALL, AND HE CLASS II RIPRAP (SALVAGE FOR REUSE) AND EXCAVATE EMBANKMENT.
7. INSTALL SANDBAG DIVERSION, SUMP PIT STATION 2 AND FILTER BAG #2. REMOVE TEMPORARY SANDBAG PLUG AT EXISTING 48" RCP INFLOW PIPE.
8. CONSTRUCT NEW CONCRETE WEIR, RIPRAP, LOW FLOW PIPE, AND GABION BASKETS/MATTING CASCADES. AS THE WEIR CONSTRUCTION PROGRESSES, KEEP THE 36" CLEAN WATER DIVERSION IN PLACE. THE CLEAN WATER PIPE MAY BE ADJUSTED, AS NECESSARY PROVIDING POSITIVE DRAINAGE DURING THE WORK AREA.
9. AFTER THE NEW CONCRETE WEIR IS CONSTRUCTED, AND WITH THE APPROVAL OF THE MCDPS INSPECTOR, REINSTALL THE TEMPORARY SANDBAG PLUG AT EXISTING 48" RCP INFLOW PIPE, REMOVE THE 36" CLEAR WATER FLEX PIPE, COMPLETE EMBANKMENT GRADING, AND INSTALLATION OF THE GEOSYNTHETIC BENTONITE CLAY LINER CLAY LINER.
10. THE CONTRACTOR IS TO PROVIDE AS-BUILT SURVEYS TO THE ENGINEER FOR APPROVAL AND CONFIRMATION OF AS-BUILT GRADES TO DESIGN GRADES.
11. STABILIZE DISTURBED AREAS.
12. CONTINUE TO THE FINAL PHASE.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL MEET CURRENT MONTGOMERY COUNTY STANDARDS AND DIRECTIVES.
2. EXCAVATE TO FINAL GRADES AS SHOWN ON THIS SHEET. IMMEDIATELY STABILIZE WITH EROSION CONTROL MATTING AFTER FINAL GRADES ARE REACHED.
3. CONTRACTOR SHALL RUN THE TEMPORARY 36" HDPE CLEAN WATER FLEX PIPE THROUGH THE SANDBAG WALL AND OPEN EMBANKMENT AREA DURING CONSTRUCTION.
4. STAGING, MATERIAL STORAGE, AND STOCKPILING AREAS ARE TO BE WITHIN THE LOD ON THE PROJECT SITE.

NOTE TO THE CONTRACTOR: THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

SC/SWM SHEET #12 OF 20

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

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. 31777

Expiration Date 02/01/2025

Seal:

STATE OF MARYLAND
GREGORY W. FOX
No. 31177
PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
CKD BY: GWF
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
SUBMITTED BY: AMT
FILE NUMBER:
PLOT SCALE: 1" = 30'
PLOT DATE: 8/27/2024
SIZE: ANSI D
FILE NAME: 1204-10901-EP01 - LAYOUT1.DWG

AMT CONSULTING ENGINEERS
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res
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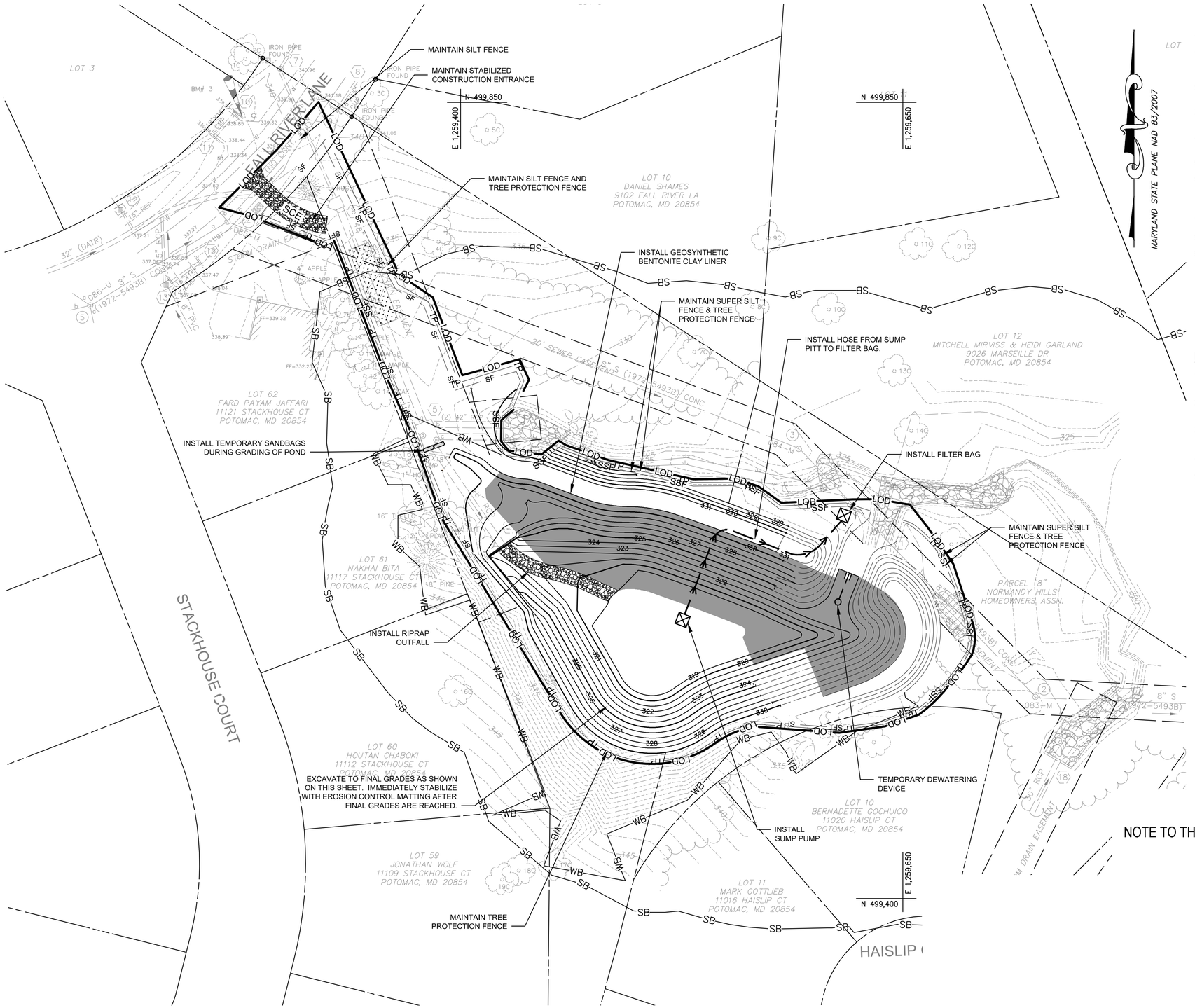
SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EROSION AND SEDIMENT CONTROL PLAN
& SEQUENCE OF CONSTRUCTION
INITIAL PHASE

SHEET NO.
12 OF 23
EP-01



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(IN FEET)
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SEQUENCE OF CONSTRUCTION - FINAL PHASE

1. WITH THE APPROVAL OF THE MCDPS INSPECTOR, REMOVE SANDBAG DIVERSION AND SUMP PIT STATION 1, AND FILTER BAG #1 AND INSTALL TEMPORARY DEWATERING DEVICE ONTO LOW FLOW PIPE.
2. GRADE POND, INSTALL RIPRAP OUTFALL DITCH FROM THE 48" RCP INFLOW PIPE, AND THE INSTALLATION OF THE GEOSYNTHETIC CLAY LINER TO THE LIMITS AS SHOWN ON THE PLAN.
3. USE SP 2 AS NECESSARY TO PROVIDE DEWATERING DURING CONSTRUCTION. DEWATER POND THOUGH PST'S OR FILTER BAG PRIOR TO DISCHARGING BACK INTO THE STREAM.
4. COMPLETE POND GRADING AND PROVIDE SEEDING AND STRAW MULCH IN ALL OTHER DISTURBED AREAS ABOVE THE PERMANENT POOL.
5. STABILIZE ALL DISTURBED AREAS.
6. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR DEWATER POND, REMOVE SEDIMENT FROM POND, AND REMOVE ALL SEDIMENT AND EROSION CONTROL DEVICES, TEMPORARY DEWATERING DEVICE, AND TEMPORARY SANDBAG PLUG AT EXISTING 48" RCP INFLOW PIPE.
7. INSTALL LOW FLOW TRASH RACK, AND STABILIZE REMAINING AREAS.
8. INSTALL PLANT MATERIAL.
9. PERFORM AS-BUILT SURVEY. SUBMIT AS-BUILT PLANS AND MATERIAL AND DELIVERY TICKETS TO MCDPS FOR APPROVAL AND PROVIDE COPIES TO MNCPPC.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL MEET CURRENT MONTGOMERY COUNTY STANDARDS AND DIRECTIVES.
2. CONSTRUCT AND MAINTAIN THE SEDIMENT TRAP AND PIPE OUTLET ACCORDING TO MONTGOMERY COUNTY SPECIFICATIONS AND DETAIL, AS SHOWN ON EP-04.
3. CONTRACTOR SHALL RUN THE TEMPORARY 6" HDPE DIVERSION PIPE FROM THE DEWATERING DEVICE TO THE 6" LOW FLOW PIPE CONNECTION SHALL BE WATER TIGHT.
4. CONTRACTOR SHALL INSTALL SUMP PIT(S) BEFORE GRADING THE POND.
5. STAGING, MATERIAL STORAGE, AND STOCKPILING AREAS ARE TO BE WITHIN THE LOD ON THE PROJECT SITE.

NOTE TO THE CONTRACTOR: THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

SC/SWM SHEET #13 OF 20

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31171 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
SUBMITTED BY: AMT
PLOT SCALE: 1" = 30'
PLOT DATE: 8/27/2024
FILE NAME: 1204-10901-EP04 - LAYOUT1.DWG
SIZE: ANSI D
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:

AMT CONSULTING ENGINEERS
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SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EROSION AND SEDIMENT CONTROL PLAN
& SEQUENCE OF CONSTRUCTION
FINAL PHASE

SHEET NO.
13 OF 23
EP-02

1. THE PERMITTEE SHALL NOTIFY THE DEPARTMENT OF PERMITTING SERVICES (DPS) FORTY-EIGHT (48) HOURS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE DEPARTMENT, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN THEM OR THEIR REPRESENTATIVE, THEIR ENGINEER AND AN AUTHORIZED REPRESENTATIVE OF THE DEPARTMENT.

2. THE PERMITTEE MUST OBTAIN INSPECTION AND APPROVAL BY DPS AT THE FOLLOWING POINTS:

   A. AT THE REQUIRED PRE-CONSTRUCTION MEETING.

   B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES AND PRIOR TO ANY OTHER LAND DISTURBING ACTIVITY.

   C. DURING THE INSTALLATION OF A SEDIMENT BASIN OR STORMWATER MANAGEMENT STRUCTURE AT THE REQUIRED INSPECTION POINTS (SEE INSPECTION CHECKLIST ON PLAN). NOTIFICATION PRIOR TO COMMENCING CONSTRUCTION IS MANDATORY.

   D. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).

   E. PRIOR TO FINAL ACCEPTANCE.

3. THE PERMITTEE SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE, SHALL HAVE THEM INSPECTED AND APPROVED BY THE DEPARTMENT PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES, SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE DEPARTMENT.

4. THE PERMITTEE SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED PUBLIC THOROUGHFARE(S). ALL MATERIALS DEPOSITED ONTO PUBLIC THOROUGHFARE(S) SHALL BE REMOVED IMMEDIATELY.

5. THE PERMITTEE SHALL INSPECT PERIODICALLY AND MAINTAIN CONTINUOUSLY IN EFFECTIVE OPERATING CONDITION, ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE DEPARTMENT. THE PERMITTEE IS RESPONSIBLE FOR IMMEDIATELY REPAIRING OR REPLACING ANY SEDIMENT CONTROL MEASURES WHICH HAVE BEEN DAMAGED OR REMOVED BY THE PERMITTEE OR ANY OTHER PERSON.

6. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. ALL AREAS DISTURBED OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST BE MINIMIZED AND STABILIZED IMMEDIATELY. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.

7. THE PERMITTEE SHALL APPLY SOD, SEED, AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED ON THAT AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS, AND AREAS WITHIN FIFTY (50) FEET OF A BUILDING UNDER CONSTRUCTION MAY BE EXEMPT FROM THIS REQUIREMENT, PROVIDED THAT EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED AND MAINTAINED TO PROTECT THOSE AREAS.

8. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL STABILIZE ALL CONTRIBUTORY DISTURBED AREAS WITH REQUIRED SOIL AMENDMENTS AND TOPSOIL, USING SOD OR AN APPROVED PERMANENT SEED MIXTURE AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHEN THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED WITHIN SEVEN (7) CALENDAR DAYS OF ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, AN APPROVED TEMPORARY SEED AND STRAW ANCHORED MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE COMPLETED PRIOR TO THE FOLLOWING APRIL 15.

9. THE SITE PERMIT, WORK, MATERIALS, APPROVED SC/SM PLANS, AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF MONTGOMERY COUNTY.

10. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO LOWER THE WATER DOWN SLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. MECHANICAL DEVICES MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.

11. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITHIN 3 CALENDAR DAYS OF ESTABLISHMENT WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES.

12. SEDIMENT CONTROL DEVICES SHALL BE REMOVED, WITH PERMISSION OF THE DEPARTMENT, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.

13. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS OR ON RESIDENTIAL LOTS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NON- MAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.

14. THE PERMITTEE SHALL INSTALL A SPLASHBLOCK AT THE BOTTOM OF EACH DOWNSPOUT UNLESS THE DOWNSPOUT IS CONNECTED BY A DRAIN LINE TO AN ACCEPTABLE OUTLET.

15. FOR FINISHED GRADING, THE PERMITTEE SHALL PROVIDE ADEQUATE GRADIENTS SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS MORE THAN TWENTY-FOUR (24) HOURS AFTER THE END OF A RAINFALL, EXCEPT IN DESIGNATED DRAINAGE COURSES AND SWALE FLOW AREAS, WHICH MAY DRAIN AS LONG AS FORTY-EIGHT (48) HOURS AFTER THE END OF A RAINFALL.

16. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A BUILDING WHICH IS EXISTING OR UNDER CONSTRUCTION. NO BUILDING MAY BE CONSTRUCTED WITHIN 20 FEET OF A SEDIMENT TRAP OR BASIN.

17. ALL INLETS IN NON-SUMP AREAS SHALL HAVE ASPHALT BERMS INSTALLED AT THE TIME OF BASE PAVING ESTABLISHMENT.

18. THE SEDIMENT CONTROL INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SEDIMENT CONTROL MEASURES, AS DEEMED NECESSARY.

19. ALL TRAP ELEVATIONS ARE RELATIVE TO THE OUTLET ELEVATION, WHICH MUST BE ON EXISTING UNDISTURBED GROUND.

20. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

21. SEDIMENT TRAP(S)/BASIN(S) SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO THE POINT OF ONE-HALF (1/2) THE WET STORAGE DEPTH OF THE TRAP/BASIN (1/4 THE WET STORAGE DEPTH FOR ST-III) OR WHEN REQUIRED BY THE SEDIMENT CONTROL INSPECTOR.

22. SEDIMENT REMOVED FROM TRAPS/BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN.

23. ALL SEDIMENT BASINS AND TRAPS MUST BE SURROUNDED WITH A WELDED WIRE SAFETY FENCE. THE FENCE MUST BE AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THE TWO INCHES IN WIDTH AND FOUR INCHES IN HEIGHT, WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.

24. NO EXCAVATION IN THE AREAS OF EXISTING UTILITIES IS PERMITTED UNLESS THEIR LOCATION HAS BEEN DETERMINED. CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK.

25. OFF-SITE SPOIL OR BORROW AREAS MUST HAVE PRIOR APPROVAL BY DPS.

26. SEDIMENT TRAP/BASIN DEWATERING FOR CLEANOUT OR REPAIR MAY ONLY BE DONE WITH THE DPS INSPECTOR'S PERMISSION. THE INSPECTOR MUST APPROVE THE DEWATERING METHOD FOR EACH APPLICATION. THE FOLLOWING METHODS MAY BE CONSIDERED: A. PUMP DISCHARGE MAY BE DIRECTED TO ANOTHER ON-SITE SEDIMENT TRAP OR BASIN, PROVIDED IT IS OF SUFFICIENT VOLUME AND THE PUMP INTAKE IS FLOATED TO PREVENT AGITATION OR SUCTION OF DEPOSITED SEDIMENTS; OR B. THE PUMP INTAKE MAY UTILIZE A REMOVABLE PUMPING STATION AND MUST DISCHARGE INTO AN UNDISTURBED AREA THROUGH A NON-EROSIVE OUTLET; OR C. THE PUMP INTAKE MAY BE FLOATED AND DISCHARGE INTO A DIRT BAG (12 OZ. NON-WOVEN FABRIC), OR APPROVED EQUIVALENT, LOCATED IN AN UNDISTURBED BUFFER AREA.

REMEMBER: DEWATERING OPERATION AND METHOD MUST HAVE PRIOR APPROVAL BY THE DPS INSPECTOR.

27. THE PERMITTEE MUST NOTIFY THE DEPARTMENT OF ALL UTILITY CONSTRUCTION ACTIVITIES WITHIN THE PERMITTED LIMITS OF DISTURBANCE PRIOR TO THE COMMENCEMENT OF THOSE ACTIVITIES.

28. TOPSOIL MUST BE APPLIED TO ALL PERVIOUS AREAS WITHIN THE LIMITS OF DISTURBANCE PRIOR TO PERMANENT STABILIZATION IN ACCORDANCE WITH MDE "STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS".

B-3 STANDARDS AND SPECIFICATIONS FOR LAND GRADING

DEFINITION

RESHAPING THE EXISTING LAND SURFACE TO PROVIDE SUITABLE TOPOGRAPHY FOR BUILDING FACILITIES AND OTHER SITE IMPROVEMENTS.

PURPOSE

TO PROVIDE EROSION CONTROL AND VEGETATIVE ESTABLISHMENT FOR EXTREME CHANGES IN GRADE.

CONDITIONS WHERE PRACTICE APPLIES

EARTH DISTURBANCES OR EXTREME GRADE MODIFICATIONS ON STEEP OR LONG SLOPES.

DESIGN CRITERIA

THE GRADING PLAN SHOULD BE BASED ON THE INCORPORATION OF BUILDING DESIGNS AND STREET LAYOUTS THAT FIT AND UTILIZE EXISTING TOPOGRAPHY AND DESIRABLE NATURAL SURROUNDINGS TO AVOID EXTREME GRADE MODIFICATIONS. INFORMATION SUBMITTED MUST PROVIDE SUFFICIENT TOPOGRAPHIC SURVEYS AND SOIL INVESTIGATIONS TO DETERMINE LIMITATIONS THAT MUST BE IMPOSED ON THE GRADING OPERATION RELATED TO SLOPE STABILITY, ADJACENT PROPERTIES, DRAINAGE PATTERNS, MEASURES FOR WATER REMOVAL, AND VEGETATIVE TREATMENT, ETC.

MANY JURISDICTIONS HAVE REGULATIONS AND DESIGN PROCEDURES ALREADY ESTABLISHED FOR LAND GRADING THAT MUST BE FOLLOWED. THE PLAN MUST SHOW EXISTING AND PROPOSED CONTOURS FOR THE AREA(S) TO BE GRADED INCLUDING PRACTICES FOR EROSION CONTROL, SLOPE STABILIZATION, AND SAFE CONVEYANCE OF RUNOFF (E.G., WATERWAYS, LINED CHANNELS, REVERSE BENCHES, GRADE STABILIZATION STRUCTURES). THE GRADING/CONSTRUCTION PLANS ARE TO INCLUDE THE PHASING OF THESE PRACTICES AND CONSIDERATION OF THE FOLLOWING:

1. PROVISIONS TO SAFELY CONVEY SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR STABLE WATER COURSES TO ENSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.

2. CUT AND FILL SLOPES, STABILIZED WITH GRASSES, NO STEEPER THAN 2:L. (WHERE THE SLOPE IS TO BE MOWED, THE SLOPE SHOULD BE NO STEEPER THAN 3:L, BUT 4:L IS PREFERRED BECAUSE OF SAFETY FACTORS RELATED TO MOWING STEEP SLOPES.) SLOPES STEEPER THAN 2:L REQUIRE SPECIAL DESIGN AND STABILIZATION CONSIDERATIONS TO BE SHOWN ON THE PLANS.

3. BENCHING PER DETAIL B-3-1 WHENEVER THE VERTICAL INTERVAL (HEIGHT) OF ANY 2:L SLOPE EXCEEDS 20 FEET; FOR 3:L SLOPES, WHEN IT EXCEEDS 30 FEET; AND FOR 4:L SLOPES, WHEN IT EXCEEDS 40 FEET. LOCATE BENCHES TO DIVIDE THE SLOPE FACE AS EQUALLY AS POSSIBLE AND TO CONVEY THE WATER TO A STABLE OUTLET. SOILS, SEEPS, ROCK OUTCROPS, ETC. ARE TO BE TAKEN INTO CONSIDERATION WHEN DESIGNING BENCHES.

   A. PROVIDE BENCHES WITH A MINIMUM WIDTH OF SIX FEET FOR EASE OF MAINTENANCE.

   B. DESIGN BENCHES WITH A REVERSE SLOPE OF 6:L OR FLATTER TO THE TOE OF THE UPPER SLOPE AND WITH A MINIMUM OF ONE FOOT IN DEPTH. GRADE THE LONGITUDINAL SLOPE OF THE BENCH BETWEEN 2 PERCENT AND 3 PERCENT, UNLESS ACCOMPANIED BY APPROPRIATE DESIGN AND COMPUTATIONS.

   C. THE MAXIMUM ALLOWABLE FLOW LENGTH WITHIN A BENCH IS 800 FEET UNLESS ACCOMPANIED BY APPROPRIATE DESIGN AND COMPUTATIONS.

4. DIVERSION OF SURFACE WATER FROM THE FACE OF ALL CUT AND FILL SLOPES USING EARTH DIKES OR SWALES. CONVEY SURFACE WATER DOWN SLOPE USING A DESIGNED STRUCTURE, AND:

   A. PROTECT THE FACE OF ALL GRADED SLOPES FROM SURFACE RUNOFF UNTIL THEY ARE STABILIZED.

   B. DO NOT SUBJECT THE SLOPE'S FACE TO ANY CONCENTRATED FLOW OF SURFACE WATER SUCH AS FROM NATURAL DRAINAGE WAYS, GRADED SWALES, DOWNSPOUTS, ETC.

   C. PROTECT THE FACE OF THE SLOPE BY SPECIAL EROSION CONTROL MATERIALS TO INCLUDE, BUT NOT BE LIMITED TO, APPROVED VEGETATIVE STABILIZATION PRACTICES, RIPRAP OR OTHER APPROVED STABILIZATION METHODS.

5. SERRATED SLOPE AS SHOWN IN DETAIL B-3-2. THE STEEPEST ALLOWABLE SLOPE FOR RIPABLE ROCK IS 1.5:1. FOR NON ROCK SURFACES, THE SLOPES ARE TO BE 2:1 OR FLATTER. THESE STEPS WILL WEATHER AND ACT TO HOLD MOISTURE, LIME, FERTILIZER AND SEED THUS PRODUCING A MUCH QUICKER AND LONGER LIVED VEGETATIVE COVER AND BETTER SLOPE STABILIZATION.

6. SUBSURFACE DRAINAGE PROVISIONS. PROVIDE SUBSURFACE DRAINAGE WHERE NECESSARY TO INTERCEPT SEEPAGE THAT WOULD OTHERWISE ADVERSELY AFFECT SLOPE STABILITY OR CREATE EXCESSIVELY WET SITE CONDITIONS.

7. PROXIMITY TO ADJACENT PROPERTY. SLOPES MUST NOT BE CREATED CLOSE TO PROPERTY LINES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED DAMAGES.

8. QUALITY OF FILL MATERIAL. FILL MATERIAL MUST BE FREE OF BRUSH, RUBBISH, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER OBJECTIONABLE MATERIAL. DO NOT PLACE FROZEN MATERIALS IN THE FILL NOR PLACE THE FILL MATERIAL ON A FROZEN FOUNDATION.

9. STABILIZATION. STABILIZE ALL DISTURBED AREAS STRUCTURALLY OR VEGETATIVELY IN COMPLIANCE WITH SECTION B-4 STANDARDS AND SPECIFICATIONS FOR STABILIZATION PRACTICES.

MAINTENANCE

THE LINE, GRADE, AND CROSS SECTION OF BENCHING AND SERRATED SLOPES MUST BE MAINTAINED. BENCHES AND SERRATED SLOPES MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

1. ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUNDCOVER.

2. IF AN AREA HAS LESS THAN 40 PERCENT GROUNDCOVER, RESTABILIZE FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDBED PREPARATION, AND SEEDING.

3. IF AN AREA HAS BETWEEN 40 AND 94 PERCENT GROUNDCOVER, OVER-SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED.

4. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.6.

NOTE TO THE CONTRACTOR: THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

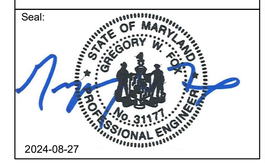
SC/SWM SHEET #14 OF 20

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. 31777

Expiration Date 02/01/2025

Seal:



2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT SCALE: 1
PLOT DATE: 8/27/2024
SIZE: ANSI D
FILE NAME: 1204-10901-EN01 - LAYOUT1.DWG

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SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EROSION & SEDIMENT CONTROL NOTES

SHEET NO.
14 OF 23
EN-01

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.

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.

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 1½ 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.

C. 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 5ACRES 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.

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

DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

NOTE TO THE CONTRACTOR: THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

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

CRITERIA

A. SEEDING

1. SPECIFICATIONS
   A. 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.
   B. 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.
   C. 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.
   D. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIEN TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
   A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
      I. 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.
      II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

   B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
      I. 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.
      II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
   C. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
      I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
      II. 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 BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
      III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
      IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
   A. 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.
   B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
      I. 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.
      II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
      III. 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 ABLOTTER-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.
      IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
      V. 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.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

SC/SWM SHEET #15 OF 20

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. 31777

Expiration Date 02/01/2025

Seal:

STATE OF MARYLAND · GREGORY W. [illegible] · No. 31777 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
CKD BY: GWF
SUBMITTED BY: AMT
DATE: 09/21/23
TASK ORDER NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 8/27/2024
PLOT SCALE: 1:1
SIZE: ANSI D
FILE NAME: 1204-10901-EN02 - LAYOUT1.DWG

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MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EROSION & SEDIMENT CONTROL NOTES

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EN-02

2. APPLICATION

A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED 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.

C. 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.

3. 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:

I. 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.

II. 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.

III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR 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.

IV. 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

DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

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

1. 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.

2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.

3. 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): 6B SEED MIXTURE (FROM TABLE B.1):					FERTILIZER RATE (10–20–20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS		
1	BARLEY PLUS FOXTAIL MILLET	96 30	3/1–5/15 8/1–10/15	1"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
2	ANNUAL RYEGRASS	40	3/1–3/15 8/1–10/15	1/2"		
3	FOXTAIL MILLET	30	5/16–7/31	1/2"		
4	PEARL MILLET	20	5/16–7/31	1/2"		

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

A. 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.

B. 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 AREAPLANTING.

C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.

D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 ½ 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 .

2. TURFGRASS MIXTURES

A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

B. 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.

I. 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.

II. 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.

III. 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.

IV. 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: 1½ 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 NCERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, 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)

D. 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 1½ INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.

E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (½ 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): 6B SEED MIXTURE (FROM TABLE B.3): 4,5					FERTILIZER RATE (10–20–20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	N	P205	K20	
4.5	CREEPING RED FESCUE PERENNIAL RYEGRASS VIRGINIA WILD RYE RED TOP	20 25 5 1	3/1–3/15 5/16–6/15 8/1–10/15	1/4–1/2 in.	45 lb/ac (1.0 lb/1000 sf)	90 lb/ac (2.0 lb/1000 sf)	90 lb/ac (2.0 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)

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

1. GENERAL SPECIFICATIONS

A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.

B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF ¾ INCH, PLUS OR MINUS ¼ 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.

C. 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.

D. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.

E. 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

A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

B. 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.

C. 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.

D. 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

A. 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.

B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.

C. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN ⅓ 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.

NOTE TO THE CONTRACTOR: THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

SC/SWM SHEET #16 OF 20

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. FOX · No. 31171 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT
DRN BY: RRT
SUBMITTED BY: AMT
PLOT SCALE: 1.0000
DATE: 09/21/23
TASK ORDER NO.:
CKD BY: GWF
CONTRACT NO.:
PLOT DATE: 8/27/2024
FILE NUMBER:
SIZE: ANSI D
FILE NAME: 1204-10901-EN03 - LAYOUT1.DWG

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEVIN OH 240-777-3795
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

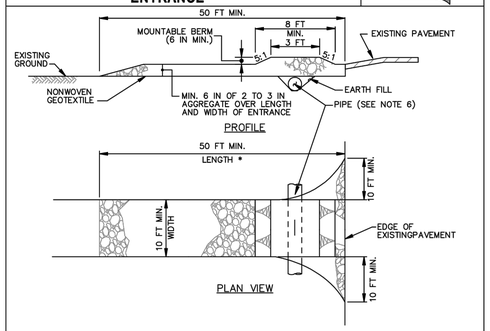
SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EROSION & SEDIMENT CONTROL NOTES

SHEET NO.
16 OF 23
EN-03

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

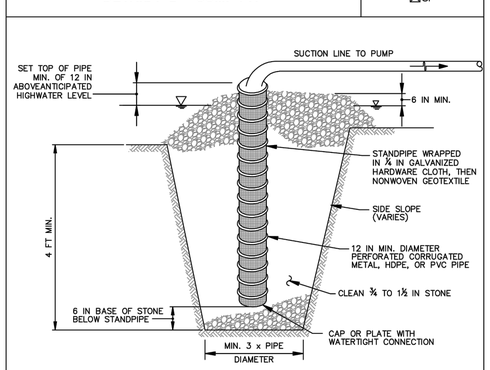
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

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 F-2 SUMP PIT

STANDARD SYMBOL: SP



CONSTRUCTION SPECIFICATIONS

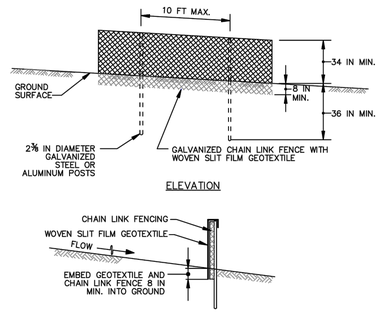
1. USE 12 INCH OR LARGER DIAMETER CORRUGATED METAL, HDPE, OR PVC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER. BOTTOM OF PIPE MUST BE CAPPED WITH WATERTIGHT SEAL.
2. WRAP PIPE WITH ¼ INCH GALVANIZED HARDWARE CLOTH AND WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS, OVER THE HARDWARE CLOTH.
3. EXCAVATE PIT TO THREE TIMES THE PIPE DIAMETER AND FOUR FEET IN DEPTH. PLACE ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
4. SET TOP OF PIPE MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
5. BACKFILL PIT AROUND THE PIPE WITH ¾ TO 1½ INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
6. DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
7. A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.

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 E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



CONSTRUCTION SPECIFICATIONS

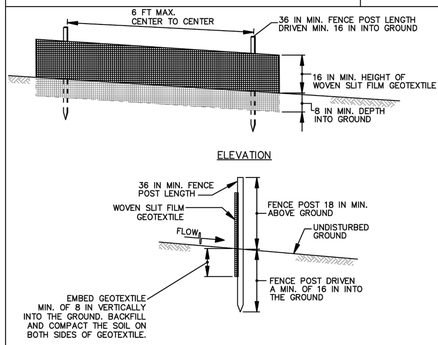
1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H–1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

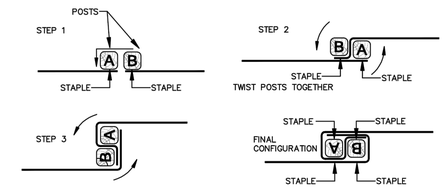
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF





JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

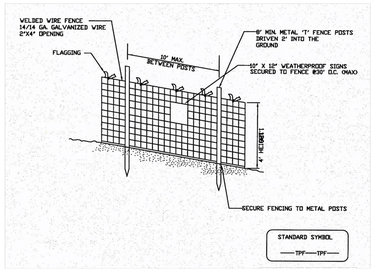
1 OF 2

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

Tree Protection Fence Detail

Not to scale



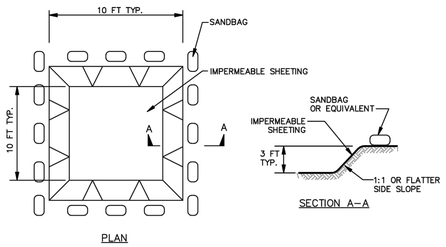
NOTES

1. Practice may be combined with sediment control fencing.
2. Location and limits of fencing should be coordinated in field with arborist.
3. Boundaries of protection area should be staked prior to installing protective device.
4. Root damage should be avoided.
5. Protection signage is required.
6. Fencing shall be maintained throughout construction.

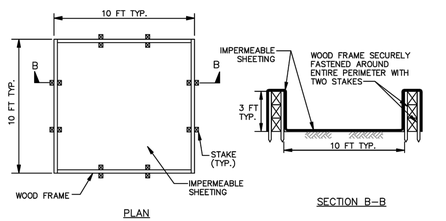
Montgomery County Planning Department • M-NCPPC
MontgomeryPlanning.org

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL: CWS



EXCAVATED WASHOUT STRUCTURE



WASHOUT STRUCTURE WITH WOOD PLANKS

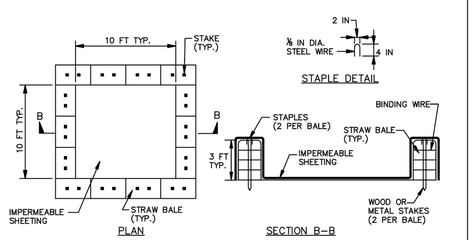
1 OF 2

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-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL: CWS



NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

WASHOUT STRUCTURE WITH STRAW BALES

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET–VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

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

NOTE TO THE CONTRACTOR: THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

SC/SWM SHEET #17 OF 20

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. 31777

Expiration Date 02/01/2025

Seal: STATE OF MARYLAND · GREGORY W. SEAY · No. 31171 · PROFESSIONAL ENGINEER

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT | DRN BY: RRT | SUBMITTED BY: AMT | DATE: 09/21/23 | CKD BY: GWF | PLOT DATE: 8/27/2024 | FILE NAME: 1204-10901-ED01 - LAYOUT1.DWG | TASK ORDER NO.: | CONTRACT NO.: | FILE NUMBER: | PLOT SCALE: 1.0000 '=1" | SIZE: ANSI D

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
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ROCKVILLE, MD 20850
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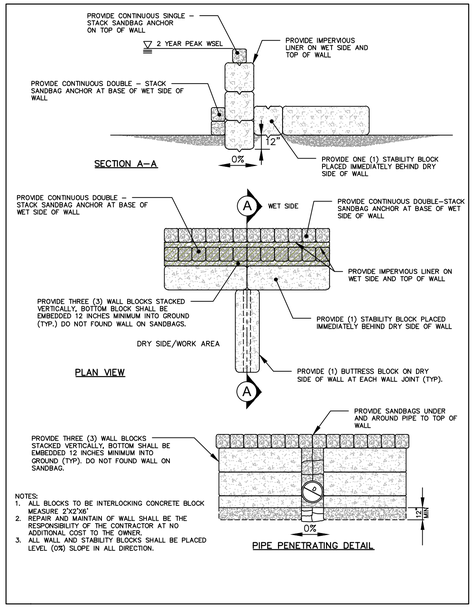
res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEVIN OH 240-777-7795
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EROSION & SEDIMENT CONTROL DETAILS

SHEET NO. 17 OF 23
ED-01



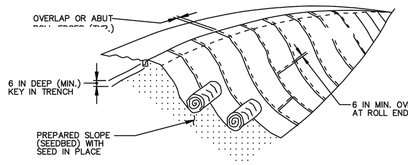
POND DIVERSION WALL

N.T.S.

DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL

TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



ISOMETRIC VIEW

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE HARDWOOD-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

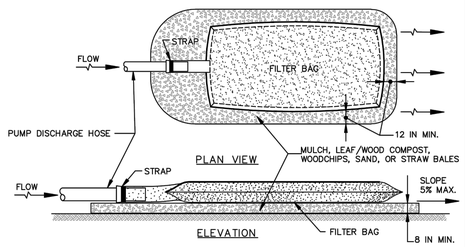
TEMPORARY SOIL STABILIZATION MATTING

N.T.S.

DETAIL F-4 FILTER BAG

STANDARD SYMBOL

☒FB



CONSTRUCTION SPECIFICATIONS

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC^{-1})	1.2 SEC^{-1}	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15–0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

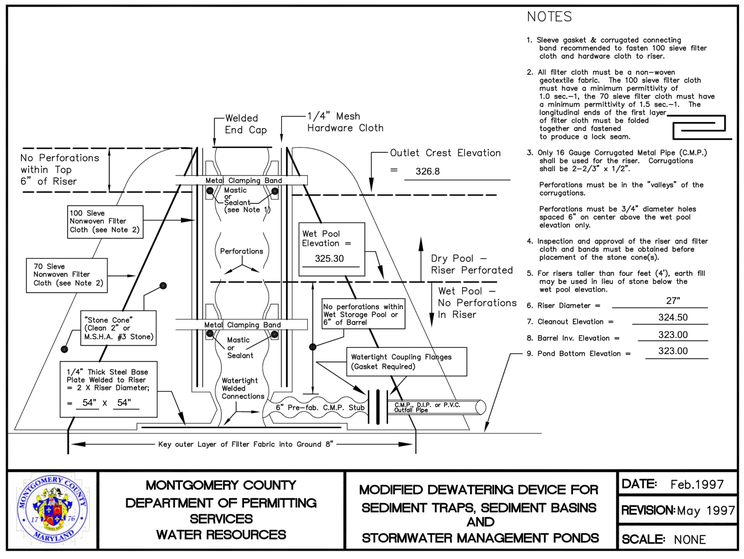
6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES, DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

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

FILTER BAG

N.T.S.



MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES WATER RESOURCES	MODIFIED DEWATERING DEVICE FOR SEDIMENT TRAPS, SEDIMENT BASINS AND STORMWATER MANAGEMENT PONDS	DATE: Feb.1997 REVISION: May 1997 SCALE: NONE

SEDIMENT BASIN DEWATERING DEVICE

N.T.S.

SEDIMENT CONTROL/STORMWATER MANAGEMENT CERTIFICATIONS

CERTIFICATIONS ON THIS SHEET MUST BE ON EVERY SEDIMENT CONTROL/STORMWATER MANAGEMENT PLAN.

OWNER'S/DEVELOPER'S CERTIFICATION

I/We hereby certify that all clearing, grading, construction, and or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project.

Signature — 02-21-2024 Date

WILLIAM WEAVER MARYLAND STATE BUSINESS MANAGER
Printed Name and Title

DESIGN CERTIFICATION

I hereby certify that this plan has been prepared in accordance with the "2011 Maryland Standards and Specification for Soil Erosion and Sediment Control," Montgomery County Department of Permitting Services Executive Regulations 5-90, 7-02AM and 36-90, and Montgomery County Department of Public Works and Transportation "Storm Drain Design Criteria" dated August 1988.

Design Engineer Signature — 07–17–2024 Date

GREGORY W. FOX, PE — Printed Name
31177 — Registration Number

CERTIFICATION OF THE QUANTITIES

I hereby certify that the estimated total amount of excavation and fill as shown on these plans has been computed to 1523 cubic yards of excavation, 667 cubic yards of fill and the total area to be disturbed as shown on these plans has been determined to be 47,375 square feet.

Signature — 07–17–2024 Date

GREGORY W. FOX, PE — Printed Name and Title
31177 — Registration Number

NOTE TO THE CONTRACTOR: THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

STORMWATER MANAGEMENT PRACTICES REPRESENTED IN THIS PLAN ARE FOR MEETING MONTGOMERY COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) REQUIREMENTS AND MAY NOT CONFORM TO DPS DESIGN CRITERIA. DPS IS REVIEWING PLANS FOR SAFE CONVEYANCE, CONFORMANCE TO MD-378 AND MONTGOMERY COUNTY SEDIMENT CONTROL TECHNICAL REQUIREMENTS.

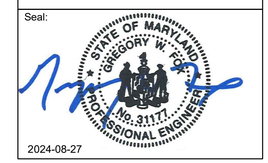
SC/SWM SHEET #18 OF 20

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. 31777

Expiration Date 02/01/2025

Seal:



2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT | DRN BY: RRT | CKD BY: GWF | SUBMITTED BY: AMT | DATE: 09/21/23 | TASK ORDER NO.: | CONTRACT NO.: | FILE NUMBER: | PLOT DATE: 8/27/2024 | PLOT SCALE: 1 = 1 | SIZE: ANSI D | FILE NAME: 1204-10901-ED02 - LAYOUT1.DWG

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

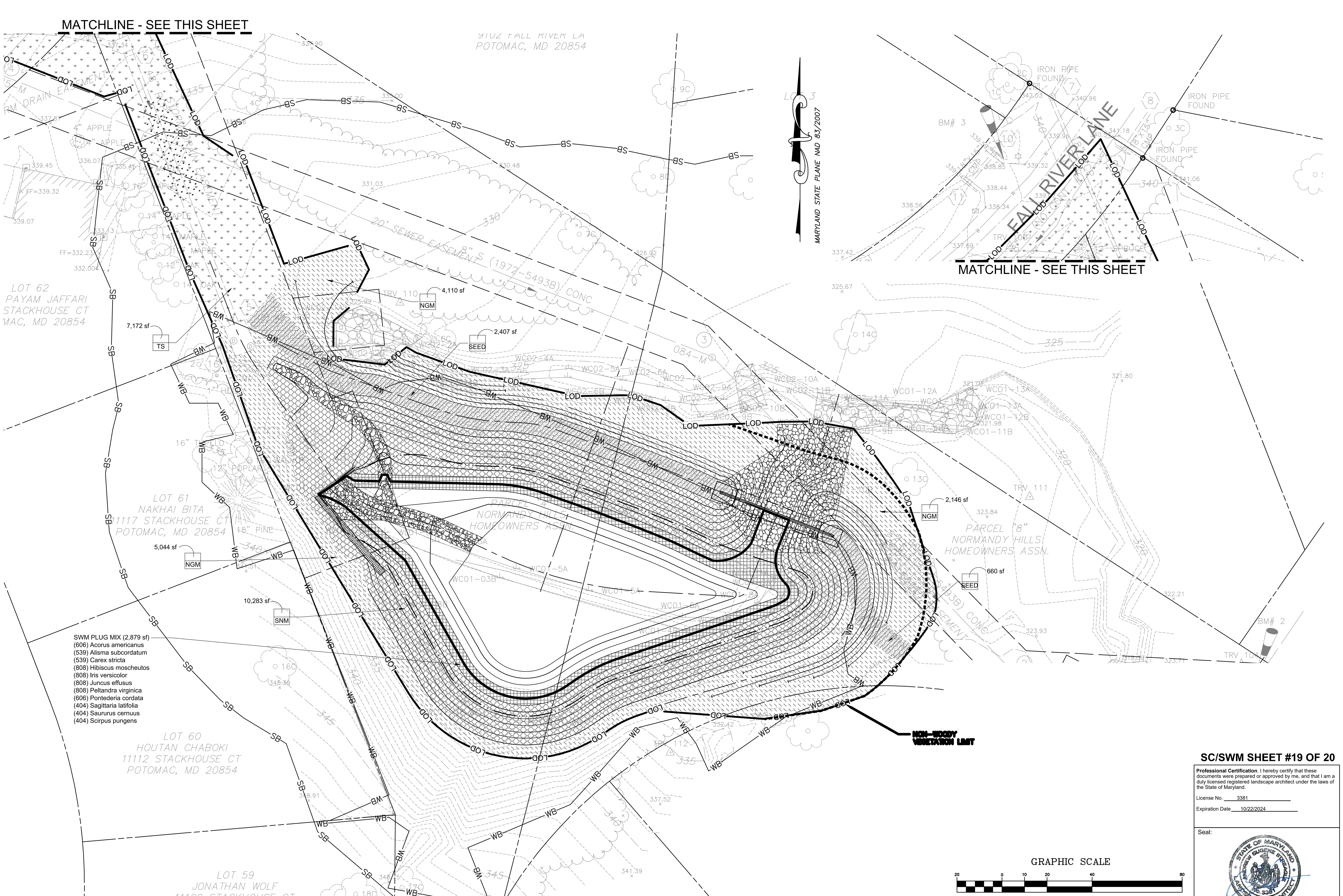
res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEVIN OH 240-777-7795
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

EROSION & SEDIMENT CONTROL DETAILS

SHEET NO. 18 OF 23
ED-02



SC/SWM SHEET #19 OF 20

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

License No. 3381

Expiration Date 10/22/2024

Seal: STATE OF MARYLAND — ANDREW EUGENE STREAGLE — NO. 3381 — LANDSCAPE ARCHITECT

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: AS | DATE: 09/21/23
DWN BY: AS | CKD BY: RRT | TASK ORDER NO.:
SUBMITTED BY: AMT | CONTRACT NO.:
PLOT SCALE: 1"=20' | PLOT DATE: 8/26/2024 | FILE NUMBER:
SIZE: ANSI D | FILE NAME: 1204-10901-LS01.DWG

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
ROCKVILLE, MD 20850
(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEYIN OH 240-777-7795
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OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

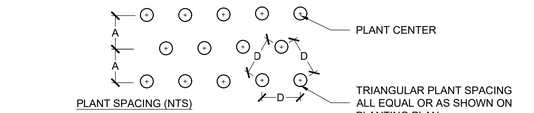
SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
LANDSCAPE PLAN

GENERAL PLANTING NOTES:

1. THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY, AND ANY OTHER INFORMATION SHOWN IS FOR REFERENCE ONLY. SEE SITE PLAN FOR INFORMATION ABOUT ALL LAYOUT, GRADING AND OTHER SITE IMPROVEMENTS.
2. CALL MISS UTILITY AT 1-800-552-7001 TO MARK UTILITIES AT LEAST 48 HOURS BEFORE DIGGING.
3. ALL MATERIALS AND PLANTING PROCEDURES EXCEPT AS OTHERWISE NOTED SHALL CONFORM TO THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" BY THE LANDSCAPE CONTRACTORS ASSOCIATION MD-DC-VA.
4. PLANTS SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. (ANSI Z60.1)
5. PLANT NAMES SHALL BE THOSE GIVEN IN THE LATEST EDITION OF STANDARD PLANT NAMES, AMERICAN COMMITTEE ON HORTICULTURAL NOMENCLATURE.
6. THE CONTRACTOR SHALL SUBMIT REPRESENTATIVE SOIL SAMPLES FROM BOTH IN-SITU SOILS AND SOILS BROUGHT IN FROM OFF-SITE TO A STATE LICENSED TESTING LABORATORY. THE CONTRACTOR SHALL INCORPORATE OR APPLY SOIL AMENDMENTS AND FERTILIZATION BASED UPON RESULTS OF THE SOIL TESTS AND RECOMMENDATIONS BY THE TEST LAB.
7. THE CONTRACTOR SHALL STAKE OUT ALL PLANTING BEDS AND TREE LOCATIONS FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER AND REPRESENTATIVE BEFORE DIGGING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND COORDINATE PLANTINGS WITH ALL EXISTING UTILITIES. IF DISCREPANCIES OCCUR BECAUSE OF UTILITY LOCATIONS OR OTHER EXISTING CONDITIONS THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY TO COORDINATE ANY NECESSARY ADJUSTMENTS.
8. ALL PLANT MATERIAL SHALL BE LABELED BY THE NURSERY AND DELIVERED WITH LABELS IN PLACE FOR INSPECTION. SUBSTITUTIONS IN PLANT SPECIES OR SIZE WILL NOT BE PERMITTED EXCEPT WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT. DO NOT PRUNE UNTIL PLANT MATERIAL HAS BEEN PLANTED BUT AS SOON THEREAFTER AS IS ADVISABLE UNDER STANDARD HORTICULTURAL PRACTICES. FOR TREE PRUNING AND CARE METHODS PLEASE REFER TO THE NATIONAL ARBORIST STANDARDS, LATEST EDITION.
9. IT IS OF UTMOST IMPORTANCE THAT ALL PLANT MATERIAL BE SET SLIGHTLY HIGHER IN RELATION TO GRADE THAN IT WAS GROWN IN THE NURSERY AND WITH GOOD EARTH TO ROOT CONTACT. ANY MATERIALS OR WORK MAY BE REJECTED BY THE LANDSCAPE ARCHITECT IF IT DOES NOT MEET THIS OR ANY OTHER REQUIREMENT OF THE SPECIFICATIONS. REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
10. IN CASE OF DISCREPANCIES BETWEEN QUANTITIES ON THE PLANT LIST AND THE PLAN, THE PLAN SHALL GOVERN.
11. SEED BARE AREAS AS DIRECTED BY OWNER FOR ALL DISTURBED AREAS TO BE STABILIZED THAT ARE NOT LANDSCAPED OR COVERED.
12. IMMEDIATELY COVER WITH LIGHT STRAW MULCH FOR STABILIZATION AND MOISTURE RETENTION. SUBSTITUTE WINTER WHEAT FOR ANNUAL RYE IF SEEDING AFTER OCTOBER 1. RESEED AND MULCH ALL AREAS WITH LESS THAN 80% GERMINATION.
13. SEED CAN BE PURCHASED THROUGH ERNST CONSERVATION SEEDS AT 9006 MERCER PIKE, MEADVILLE, PENNSYLVANIA 16335; (800) 873-3321 (TOLL FREE); (814) 336-2404 (PHONE); (814) 336- 5191 (FAX), OR APPROVED EQUAL. THE PAPER WORK, SAMPLES AND CERTIFICATION FOR ALL ALTERNATIVES SHALL BE SUBMITTED AND APPROVED PRIOR TO PURCHASE.
14. THE CONTRACTOR SHALL WATER ALL PLANTS WELL ON THE DAY THEY ARE PLANTED.

PLANT_SCHEDULE

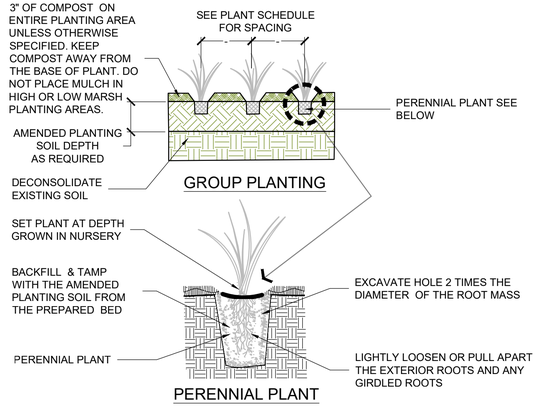
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
		SWM PLUG MIX **PLANT PLUGS IN GROUPINGS OF 23 TO 35 PLANTS**			2,879 SF
	AA	ACORUS AMERICANUS / SWEET FLAG	5" PLUG	9% @ 8" o.c.	606
	AS	ALISMA SUBCORDATUM / AMERICAN WATER PLANTAIN	5" PLUG	8% @ 8" o.c.	539
	CS	CAREX STRICTA / TUSSOCK SEDGE	5" PLUG	8% @ 8" o.c.	539
	HM	HIBISCUS MOSCHEUTOS / ROSE MALLOW	5" PLUG	12% @ 8" o.c.	808
	IV	IRIS VERSICOLOR / BLUE FLAG	5" PLUG	12% @ 8" o.c.	808
	JE	JUNCUS EFFUSUS / SOFT RUSH	5" PLUG	12% @ 8" o.c.	808
	PV	PELTANDRA VIRGINICA / ARROW ARUM	5" PLUG	12% @ 8" o.c.	808
	PC	PONTEDERIA CORDATA / PICKEREL WEED	5" PLUG	9% @ 8" o.c.	606
	SL	SAGITTARIA LATIFOLIA / BROADLEAF ARROWHEAD	5" PLUG	6% @ 8" o.c.	404
	SC	SAURURUS CERNUUS / LIZARD'S TAIL	5" PLUG	6% @ 8" o.c.	404
	SP	SCIRPUS PUNGENS / THREE SQUARE BULRUSH	5" PLUG	6% @ 8" o.c.	404
	NGM	NATIVE GRASS MIX ERNMX-111 BY ERNST SEED OR APPROVED EQUAL	SEED		11,300 SF
	SNM	SWM NATIVE MIX ERNMX-127 BY ERNST SEED OR APPROVED EQUAL	SEED		10,283 SF
	SEED	TURF SEED / DROUGHT TOLERANT FESCUE BLEND	SEED		3,067 SF
	TS	TURF SOD / DROUGHT TOLERANT FESCUE BLEND	SOD		7,172 SF



PLANT SPACING (NTS)

SPACING "D"	ROW "A"	PLANTS PER 10 SQ. FT.
8" O.C.	6.93"	26
12" O.C.	10.4"	11.5
18" O.C.	15.6"	5.12
20" O.C.	17.3"	2.42
24" O.C.	20.8"	2.9
36" O.C.	30.0"	1.28

NOTE:
QUANTITY OF PERENNIALS AND SPACING AS NOTED IN PLANT SCHEDULE



1 HERBACEOUS GRASS/PERENNIAL PLUG PLANTING DETAIL
NOT TO SCALE
329301-01

Channel Installation Instructions

Step 1 – Site Preparation
Prepare site to design profile and grade. Remove debris, rocks, clods, etc.. Ground surface should be smooth prior to installation to ensure blanket remains in contact with slope.

Step 2 – Seeding
Seeding of site should be conducted to design requirements or to follow local or state seeding requirements as necessary.

Step 3 – Staple Selection
At a minimum, 6" long by 1" crown, biodegradable staples are to be used to secure the blanket to the ground surface. Installation in rocky, sandy or other loose soil may require longer staples. Metal staples shall not be used. Only rot-able stakes and/or county approved synthetic stakes or staples shall be used.

Step 4 – Excavate Anchor Trench and Secure Blanket
Excavate a trench along the top of the channel side slopes and the upstream terminal end of the channel to secure the edges of the blanket. The trench should run along the length and width of the installation, be 6" wide and 6" deep. Staple blanket along bottom of trench, fill with compacted soil, overlap blanket towards toe of slope and secure with row of staples (shown in Figures A, E and F).

Step 5 – Secure Body of Blanket
Roll blanket down slope from anchor trench. Staple body of blanket following the pattern shown in Figure D. Leave end of blanket unstapled to allow for overlap shown in Figure B. Place downstream blanket underneath upstream blanket to form shingle pattern. Staple seam as shown in Figure E. Secure downstream blanket with stapling pattern shown in Figure D. Stapling pattern shown in Figure D reflects minimum staples to be used. More staples may be required to ensure blanket is sufficiently secured to resist mowers and foot traffic and to ensure blanket is in contact with soil surface over the entire area of blanket. Further, critical points require additional staples. Critical points are identified in Figure G.

Step 6 – Continue Along Slope – Complete Installation
Overlap adjacent blankets as shown in Figure C and repeat Step 5. Secure toe of slope using stapling pattern shown in Figure E. Secure edges of installation by stapling at 1.0' intervals along the terminal edge.

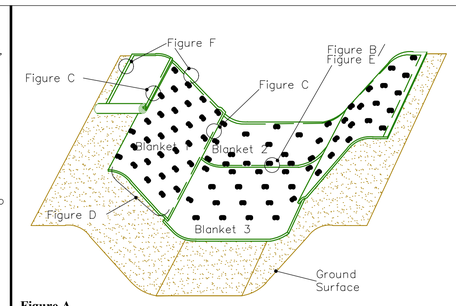


Figure A

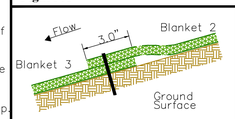


Figure B - Profile View

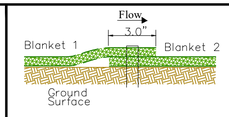


Figure C - Cross Section View

Product Application/Equivalency Specifications
Excelsior mat consists of a rapid degradable Rolled Erosion Control Product (RECP) comprised of an excelsior matrix mechanically (stitch) bound to a single, coirfiber or jute mesh net (top). The expected longevity of the mat shall be approximately 45 – 90 days (actual longevity dependent on field and climatic conditions). The mat shall be manufactured to include physical properties sufficient to provide the intended longevity and performance to include:

Verified Values:

1. Tensile strength:	5.0 md, 4.0 td lbs/in
2. Elongation:	20 md, 25 td percent
3. Mass per unit area:	11.5 oz/sq. yd
4. Light penetration:	50 percent open
5. Water absorption:	375 percent

NETTING:

1. Top net:	coirfiber or jute mesh
2. Top net opening:	1.00 in x 0.75 in nominal

GENERAL
1. Consist of machine produced, weed and debris free excelsior bound to a single, coirfiber or jute mesh net.
2. Sufficient tensile strength, thickness and coverage to maintain integrity during installation and ensure material performance.
3. Meet ECTC specification for category 1C products.

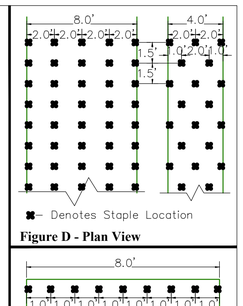


Figure D - Plan View

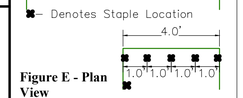


Figure E - Plan View

*Approximately 300 Staples per Roll (8' or 4' width) Required - Drawings Not to Scale 8' Wide Blanket Shown

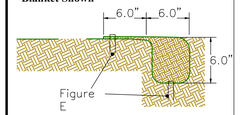


Figure F - Profile View

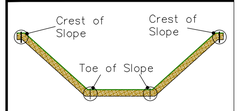


Figure G - Critical Points

2 EXCELSIOR MAT FOR 2:1 TO 4:1 SLOPED AREAS
NOT TO SCALE
329402-01

WETLAND POND PLANTING NOTES:

1. APPLY 3-INCH BLANKET OF SPECIFIED COMPOST OVER ALL SLOPES AND DISTURBED AREAS, WITHIN THE LIMITS OF DISTURBANCE AFTER FINISHING GRADING AND TREE/SHRUB PLANTINGS ARE INSTALLED.
   1.1. APPLY PRIOR TO OR DURING SEED APPLICATION
   1.2. FIRST MOW EXISTING TURF AS CLOSELY AS POSSIBLE
   1.3. LIGHTLY SCARIFY THE SOIL SURFACE
   1.4. COMPOST SHALL BE SOILMATE COMPOST OR AN APPROVED EQUAL. THE PAPER WORK, SAMPLES AND U.S. COMPOSTING COUNCIL'S SEAL OF TESTING ASSURANCE PROGRAM (STA) CERTIFICATIONS FOR ALL ALTERNATES SHALL BE SUBMITTED AND APPROVED PRIOR TO PURCHASE. ALTERNATES MUST BE STA COMPOST APPROVED BY THE U.S. COMPOSTING COUNCIL'S SEAL OF TESTING ASSURANCE PROGRAM.
2. APPLY SPECIFIED SEED MIX AT 1/2 LB./ 1000 SF AND ANNUAL RYE (LOLIUM MULTIFLORUM) AT 1 LB./1000 SF ON TOP OF APPLIED 3-INCH BLANKET OF SPECIFIED COMPOST. TO APPLY SEED MIX, INTEGRATE SEED INTO THE COMPOST AND BROADCAST, PUMP OR HAND SEED. SUBSTITUTE WINTER WHEAT FOR ANNUAL RYE IF SEEDING BETWEEN OCTOBER 1 AND MARCH 1. RESEED ALL AREAS WITH LESS THAN 80% GERMINATION.
3. SEED SHALL BE ERNST SEED OR APPROVED EQUIVALENT. THE PAPER WORK, SAMPLES AND CERTIFICATION FOR ALL SEED SHALL BE SUBMITTED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE.
4. WATER ALL PLANTS ON A BIWEEKLY BASIS FOR THE FIRST FULL GROWING SEASON

PLANTING SEQUENCE NOTES:

1. SMOOTH THE FINAL GRADES OVER THE ENTIRE SITE
2. INSTALL ALL PERENNIAL PLUGS
3. SEED ALL DISTURBED AREAS
4. INSTALL THE EROSION CONTROL FABRIC.

SC/SWM SHEET #20 OF 20

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

License No. 3381

Expiration Date 10/22/2024

Seal:

STATE OF MARYLAND · ANDREW EUGENE STREET · 3381 · LANDSCAPE ARCHITECT

2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: AS
DRN BY: AS
SUBMITTED BY: AMT
PLOT SCALE: 1
DATE: 09/21/23
TASK ORDER NO.:
CKD BY: RRT
CONTRACT NO.:
PLOT DATE: 8/27/2024
FILE NUMBER:
SIZE: ANSI D
FILE NAME: 1204-10901-LS02.DWG

AMT CONSULTING ENGINEERS
700 KING FARM BLVD
SUITE 300
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(301)881-2545

res
6958 AVIATION BLVD
SUITE C
GLEN BURNIE, MD 21061

MR. SAEYIN OH 240-777-7795
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
2425 REEDIE DRIVE, 4TH FLOOR
WHEATON, MD 20902

SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS

LANDSCAPE DETAILS

SHEET NO.
20 OF 23
LS-02

GENERAL REQUIREMENTS:

1. THE CONTRACTOR SHALL REFER TO THE MAINTENANCE OF TRAFFIC PLAN (MT) DRAWINGS TO SELECT THE APPROPRIATE WORK ZONE TEMPORARY TRAFFIC CONTROLS FOR EACH PHASE OF CONSTRUCTION. WORK ZONE SITUATIONS WHICH ARE NOT ADDRESSED IN THE MT SHALL CONFORM TO THE GUIDELINES SET FORTH IN THE LATEST EDITIONS OF PART 6 OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OF STREETS AND HIGHWAY (MDMUTCD) AND THE MONTGOMERY COUNTY WORK ZONE TRAFFIC CONTROL STANDARDS BOOK.
2. THE CONTRACTOR MUST HAVE A CERTIFIED MDOT SHA TEMPORARY TRAFFIC CONTROL MANAGER ON SITE DURING ALL PHASES OF CONSTRUCTION AT ALL TIMES.
3. EACH PHASE OF CONSTRUCTION, INCLUDING THE FOLLOW UP RESTORATION OPERATIONS SHALL BE PROVIDED WITH APPROPRIATE WORK ZONE TRAFFIC CONTROLS.
4. ROAD CLOSURES OF ANY DURATION SHALL REQUIRE THE SUBMITTAL OF A WRITTEN REQUEST TO THE TRAFFIC ENGINEERING DESIGN AND OPERATIONS SECTION WITH JUSTIFICATION AS TO WHY WORK ACTIVITY CANNOT OCCUR WHILE TRAFFIC IS BEING MAINTAINED. ROAD CLOSURE SHALL REQUIRE ADDITIONAL TEMPORARY TRAFFIC CONTROLS INCLUDING ADVANCE NOTIFICATION, APPROACH, AND DETOUR SIGNAGE, AS APPROVED BY TRAFFIC ENGINEERING DESIGN AND OPERATIONS SECTION.
5. ALL SIDEWALK CLOSURES SHALL REQUIRE THE APPROVAL OF THE TRAFFIC ENGINEERING DESIGN AND OPERATIONS SECTION. ANY SIDEWALK CLOSURE GREATER THAN TWO (2) WEEKS SHALL REQUIRE THE SUBMITTAL OF A WRITTEN REQUEST TO THE DIVISION OF TRAFFIC ENGINEERING AND OPERATIONS AND MAY REQUIRE ADDITIONAL TEMPORARY TRAFFIC CONTROLS AND/ OR TEMPORARY SIDEWALK BY-PASS. ANY WORK AFFECTING SIDEWALK SHALL BE SPECIFIED AND A PROPER PEDESTRIAN DETOUR SHALL BE SHOWN ON PLANS AND SUBMITTED FOR REVIEW. SIDEWALK CLOSURES SHALL BE LIMITED TO OCCUR ONLY DURING THE ACTUAL WORK ACTIVITY. DURING CLOSURE, SIDEWALKS SHALL BE BARRICADED TO PHYSICALLY PREVENT PEDESTRIAN PASSAGE AND APPROPRIATE PEDESTRIAN DETOURS SHALL BE POSTED. DURING ALL OTHER TIMES, PROVISIONS FOR SAFE PEDESTRIAN ACCESS THROUGH THE WORK AREA, VIA A TEMPORARY WALKWAY SHALL BE PROVIDED.
6. ANY WORK WITHIN THE TRAVELED PORTION OF ROADWAYS SHALL BE RESTRICTED TO THE HOURS OF 9:00 AM TO 3:00 PM, MONDAY THROUGH FRIDAY. WORK ON HOLIDAYS AND WEEKENDS SHALL NOT OCCUR UNLESS AN EXCEPTION IS GRANTED IN WRITING BY THE COUNTY'S DPS INSPECTOR.
7. CONSTRUCTION ACTIVITY, LOADING OR UNLOADING OF EQUIPMENT SHALL NOT BLOCK ANY TRAFFIC LANE OTHER THAN THOSE DELINEATED WITHIN THE WORK ZONE.
8. EXCLUSIVE OF EMERGENCY WORK, THE CONTRACTOR SHALL CONTACT OCCUPANTS OF ALL ADJOINING PROPERTIES AND INFORM THEM OF THE SCOPE AND THE TIMING OF CONSTRUCTION. A MINIMUM OF 24 HOURS NOTIFICATION SHALL BE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY ACTIVITY ON THE SITE.
9. ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS UNLESS PERMISSION FOR CLOSURE IS GRANTED BY THE PROPERTY OWNER/MANAGER. HOWEVER, ACCESSIBILITY FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.
10. PAVEMENT EXCAVATION SHALL BE LIMITED TO A MAXIMUM OF ONE TRAVEL LANE AT ANY TIME UNLESS OTHERWISE SPECIFIED ON THE TTCP.
11. IF ANY TEMPORARY TRAFFIC CONTROL SIGNS ARE TO BE PLACED ALONG A MDOT SHA ROADWAY OR WITHIN THE LIMITS OF AN INCORPORATED AREA, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AGENCY OF SIGNAGE TO BE INSTALLED.
12. NO HAZARDOUS MATERIALS SHALL BE STORED WITHIN PUBLIC RIGHT-OF-WAY. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON THE ROADWAY SURFACES OR SIDEWALK DURING NON-WORK HOURS.
13. ALL EXISTING TRAFFIC CONTROL DEVICES (I.E. SIGNS, MARKING, ETC.) THAT MUST BE REMOVED SHALL BE REPLACED IN THEIR PROPER LOCATION PRIOR TO THE COMPLETION OF THE PROJECT. COST FOR THE REPLACEMENT AND/OR REPAIR OF DEVICES DAMAGED AS A RESULT OF THE PROJECT SHALL BE ASSESSED TO THE CONTRACTOR.
14. FOR MERGING, SHIFTING, SHOULDER TAPER, THE MAXIMUM SPACING BETWEEN DEVICES EQUALS THE POSTED SPEED IN FEET.
15. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MDMUTCD. ALL SIGNS, TRAFFIC DRUMS AND CONES SHALL BE FULLY REFLECTORIZED WITH HIGH INTENSITY, REFLECTIVE SHEETING AS PER THE MDMUTCD.
16. PROVISION SHALL BE MADE FOR SAFE MAINTENANCE OF PEDESTRIAN AND BICYCLE TRAFFIC, SUBJECT TO APPROVAL OF THE COUNTY'S DPS INSPECTOR. AT LEAST ONE 10-FOOT TRAVEL LANE SHALL BE AVAILABLE FOR TRAFFIC AT ALL TIMES.
17. SIGNAGE, TRAFFIC DRUMS, TRAFFIC CONES, AND ARROW PANELS SHALL BE PLACED IN ACCORDANCE WITH THE APPROPRIATE TYPICAL AND SPACING CHART. WORK AREA AHEAD (W20-1 MODIFIED) SIGNS MUST BE INSTALLED AT THE END OF EACH WORKDAY WHEN TEMPORARY AGGREGATE RAMPING IS IMPLEMENTED. CHANNELIZING DEVICES SHALL BE PLACED ALONG EXCAVATIONS AT TEN (10) FOOT INTERVALS. ARROW PANELS (FLASHING MODE ONLY) SHALL BE USED AT THE BEGINNING OF ANY LANE CLOSURE ON A MULTI-LANE ROADWAY.
18. APPROPRIATE DISTANCES FOR SIGN LEGENDS ARE “AHEAD”, “500 FT”, “1000 FT”, “1500 FT”, OR “1/2 MILE”. FOR DISTANCES LESS THAN 500 FEET, “AHEAD” SHALL BE USED.
19. ALL WARNING SIGNS, UNLESS OTHERWISE SPECIFIED, SHALL BE A MINIMUM OF 48" X 48", BLACK SYMBOL OR LEGEND ON ORANGE BACKGROUND AND DIAMOND SHAPED. ALL WARNING SIGNS NOT APPLICABLE TO THE ACTUAL SITUATION SHALL BE REMOVED OR COVERED DURING NON-APPLICABLE PERIODS. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF ONE (1) FOOT ABOVE THE LEVEL OF THE ROADWAY, WITH HIGHER MOUNTING HEIGHTS DESIRABLE.
20. DURING NIGHTTIME OPERATIONS REFLECTORIZED TRAFFIC DRUMS SHALL BE USED. HOWEVER, FOR EMERGENCY WORK ACTIVITIES WHERE TRAFFIC DRUMS ARE NOT READILY AVAILABLE, REFLECTORIZED TRAFFIC CONES THAT ARE A MINIMUM OF TWENTY EIGHT (28) INCHES IN HEIGHT AND HAVING SIX (6) INCH AND FOUR (4) INCH REFLECTIVE COLLARS WITHIN THE TOP SIXTEEN (16) INCHES OF THE CONE MAY BE USED. ALL WORK AREAS LEFT UNATTENDED AT NIGHT SHALL BE DELINEATED WITH REFLECTORIZED TRAFFIC DRUMS.
21. WHEN TEMPORARY CONCRETE BARRIER (TCB) IS USED, REFLECTORIZED MARKERS ARE REQUIRED AS PER TTCP 109.02. ALSO, A 12" X 36" OBJECT MARKER (VERTICAL PANEL AS PER TTCP 109.01) SHALL BE INSTALLED.
22. WHEN PAVEMENT MARKINGS HAVE BEEN OBLITERATED BY THE WORK ACTIVITY, THE CONTRACTOR SHALL INSTALL ANY CRITICAL INTERIM PAVEMENT MARKINGS PRIOR TO THE END OF THE WORKDAY AS SPECIFIED BY THE COUNTY'S DPS INSPECTOR AND/OR THE DIVISION OF TRAFFIC ENGINEERING AND OPERATIONS. ON ROAD SECTIONS THAT ARE NOT SCHEDULED TO BE OVERLAID, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE (REMOVABLE) DETOUR GRADE MARKING TAPE. ANY CONFLICTING MARKINGS, WHICH NEED TO BE TEMPORARILY REMOVED, ARE TO BE MASKED USING "3M REMOVABLE BLACK LANE MASK" OR AN APPROVED EQUAL. ON ROAD SECTIONS THAT ARE TO BE OVERLAID, TEMPORARY MARKINGS CAN BE EITHER TAPE OR PAINT. ANY CONFLICTING MARKINGS SHOULD BE REMOVED WITH A PAVEMENT GRINDER.
23. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL CRASHES AND/OR DAMAGE TO PERSONS AND/OR PROPERTY DAMAGE RESULTING FROM HIS OPERATIONS.
24. HAZARDOUS MATERIALS SHALL NOT BE STORED WITHIN PUBLIC RIGHT-OF-WAY. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON THE ROADWAY SURFACE OR SIDEWALK DURING NON-WORK PERIODS. ALL STORED MATERIALS AND EQUIPMENT SHALL BE SET BACK AT LEAST SIX (6) FEET BEHIND THE CURB ALONG A CLOSED SECTION ROADWAY AND AT LEAST TWELVE (12) FEET FROM THE EDGE OF AN OPEN SECTION ROADWAY.
25. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TTC DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
26. AT THE COMPLETION OF WORK ACTIVITIES, CONDITIONS WITHIN THE PUBLIC SPACE SHALL BE FULLY RESTORED TO THOSE THAT EXISTED PRIOR TO THE WORK ACTIVITY.
27. THE COUNTY'S DEPARTMENT OF PERMITTING SERVICES (DPS) INSPECTOR HAS THE AUTHORITY TO MODIFY THE TTCP AS DEEMED NECESSARY. THE INSPECTOR HAS THE AUTHORITY TO ORDER THE CONTRACTOR TO STOP WORK AND VACATE THE PUBLIC RIGHT-OF-WAY IF THE TTCP IS NOT COMPLIED WITH.
28. THE IMPLEMENTATION DATE AND CONTINUANCE OF WORK ACTIVITIES MAY BE ALTERED AT THE DISCRETION OF THE COUNTY'S DPS INSPECTOR IN THE EVENT OF CONFLICTS WITH PREVIOUSLY APPROVED OR EMERGENCY ACTIVITIES.

CONTACT INFORMATION:

1. THE CONTRACTOR SHALL CONTACT THE TRANSPORTATION SYSTEMS ENGINEERING MANAGER AT 240-777-8778 AT LEAST TWO WEEKS IN ADVANCE TO COORDINATE ANY MINOR TRAFFIC SIGNAL WORK. MAJOR TRAFFIC SIGNAL WORK SHALL BE COORDINATED A MINIMUM OF THIRTY (30) DAYS IN ADVANCE OF THE PROJECT. THE PERMITTEE SHALL CONTACT THE MONTGOMERY COUNTY TRANSPORTATION MANAGEMENT CENTER AT 240-777-2190 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK TO HAVE EXISTING TRAFFIC SIGNAL EQUIPMENT MARKED.
2. ROADWAY/LANE CLOSURES IMPACTING TRAFFIC SIGNALS REQUIRE CLOSE COORDINATION WITH THE MONTGOMERY COUNTY TRANSPORTATION MANAGEMENT CENTER (TMC) AT 240-777-2190.
3. FOR PROJECTS ALONG MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION (MDOT SHA) ROADWAYS, THE CONTRACTOR MUST DIRECTLY CONTACT MDOT SHA'S DISTRICT 3 TRAFFIC UNIT AT 301-513-7465.
4. MONTGOMERY COUNTY RIDE-ON TRANSIT BUS SYSTEM - STACY COLETTA (240)777-5836.
5. ROCKVILLE FIRE STATION 33 (11430 FALL RD.) - (301)299-7832.

TRAFFIC CONTROL NOTES:

1. ALL TEMPORARY TRAFFIC SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES USED FOR MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDMUTCD LATEST EDITION), AND FEDERAL AND STATE STANDARD HIGHWAY SIGN BOOKS.
2. MISS UTILITY SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
3. SIGN INSTALLATION SHALL NOT LAST ANY LONGER THAN 15 MINUTES PER LOCATION. IF LONGER THAN 15 MINUTES APPROPRIATE TRAFFIC CONTROL AND PERMITS SHALL BE USED.
4. ALL TRAFFIC CONTROL DEVICES ARE TO BE REMOVED FROM VIEW WHEN NOT IN USE.
5. WHEN CONSTRUCTION STAGING IS REQUIRED INSIDE THE LIMITS OF THE INTERSECTION, THE SIGNAL SHALL BE PUT INTO A FLASHING RED OPERATION BY LAW ENFORCEMENT. THE INTERSECTION SHALL BE CONTROLLED BY A FLAGGING OPERATION.
6. FLAGGING OPERATIONS:
   a. WHEN POSSIBLE, TWO-WAY TRAFFIC SHALL BE MAINTAINED, OTHERWISE, FLAGGERS SHALL BE USED TO CONTROL TRAFFIC.
   b. FLAGGERS SHALL BE MARYLAND STATE HIGHWAY ADMINISTRATION OR ATSSA APPROVED FLAGGERS AND SHALL BE USED AT THE DIRECTION OF THE COUNTY INSPECTOR. FLAGGERS SHALL USE STOP/SLOW PADDLES TO DIRECT TRAFFIC.
   c. RADIO COMMUNICATION SHALL BE REQUIRED BETWEEN FLAGGERS AT THE DISCRETION OF THE COUNTY INSPECTOR OR UNDER THE FOLLOWING CONDITIONS:
      i. IF THE FLAGGERS CANNOT SEE EACH OTHER.
      ii. IF THE LANE CLOSURE EXCEEDS 200 FEET.
7. PAVEMENT DROP-OFF
   a. ALL ROADWAY/SIDEWALK EXCAVATIONS SHALL BE BACKFILLED (PAVED) TO LEVEL GRADE OR PLATED AND THE ROADWAY/SIDEWALK SHALL BE REOPENED TO ITS FULL CROSS-SECTION PRIOR TO THE END OF THE WORKDAY, EXCEPT WHEN EXTENDED LANE/SIDEWALK CLOSURE IS PERMITTED. "STEEL PLATES" (W95-5(1) SIGNS SHALL BE PLACED APPROXIMATELY 250 FEET IN ADVANCE OF ANY STEEL PLATE IN THE ROADWAY.
   b. TRAFFIC SHALL NOT BE PERMITTED WITHIN TEN (10) FEET OF ANY EXCAVATION THAT RESULTS IN A VERTICAL DROP-OFF OF MORE THAN FIVE (5) INCHES IN THE LEVEL OF PAVEMENT DURING NON-WORKING HOURS UNLESS PROTECTED BY TEMPORARY CONCRETE BARRIERS OR RAMPED WITH AGGREGATE MATERIAL AT A 3:1 OR FLATTER SLOPE FROM THE EDGE OF PAVEMENT. WHEN RAMPING IS UTILIZED, TEMPORARY TRAFFIC CONTROL DRUMS SHALL BE POSITIONED ADJACENT TO THE EDGE OF THE WORK AREA ON THE TRAFFIC SIDE OF THE SLOPE.
   c. TRAFFIC SHALL NOT BE PERMITTED WITHIN TWO (2) FEET OF ANY EXCAVATION THAT RESULTS IN A VERTICAL DROP-OFF OF MORE THAN TWO (2) INCHES BUT NO MORE THAN FIVE (5) INCHES IN THE LEVEL OF PAVEMENT DURING NON-WORKING HOURS UNLESS EITHER RAMPED WITH AGGREGATE MATERIAL AT A 3:1 OR FLATTER SLOPE, PROVIDED WITH AN ABUTTING WEDGE OF BITUMINOUS MATERIAL AT A 3:1 OR FLATTER SLOPE OR PROTECTED BY TRAFFIC DRUMS.
   d. IN AREAS WHERE A DROP-OFF IN THE LEVEL OF PAVEMENT IS TWO (2) INCHES OR LESS, TRAFFIC MAY BE ALLOWED TO FREELY CROSS UNDER THE FOLLOWING CONDITIONS:
      i. WHERE LONGITUDINAL PAVING JOINTS OF TWO (2) INCHES OR LESS ARE EXPOSED TO TRAFFIC, WARNING SIGNS SHALL BE POSTED INDICATING "UNEVEN LANES" (W8-11). THESE SIGNS SHOULD BE PLACED 250 FEET IN ADVANCE OF THE UNEVEN JOINT AND BE SPACED AT APPROPRIATE INTERVALS THROUGHOUT THE AREA OF THE UNEVEN JOINT.
      ii. WHERE LATERAL PAVING JOINTS OF TWO (2) INCHES OR LESS ARE EXPOSED TO TRAFFIC, A "BUMP" (W8-1) SIGN SHALL BE POSTED 100 FEET IN ADVANCE OF THE JOINT.
      iii. WHEN MILLED PAVEMENT IS LEFT EXPOSED TO TRAFFIC A "ROUGH ROAD"(W8-8) OR "GROOVED PAVEMENT" (W8-8A) SIGN SHALL BE PLACED 250 FEET IN ADVANCE OF THE MILLED AREA.
8. PARKING RESTRICTIONS
   a. THE CONTRACTOR SHALL CONTACT THE MCDOT, DIVISION OF PARKING MANAGEMENT AT 240-777-8740 A MINIMUM OF 48 HOURS IN ADVANCE TO ARRANGE FOR PAYMENT AND THE BAGGING OF ALL PARKING METERS WITHIN THE WORK ZONE. METER NUMBERS AND LOCATION MUST BE SPECIFIED.
   b. BAGGING AGREEMENT SHALL BE KEPT AVAILABLE BY THE CONTRACTOR/PERMITTEE FOR INSPECTION BY THE DPS INSPECTOR AT ANY TIME. PROHIBITING THE USE OF METERED SPACES BY THE CONTRACTOR/PERMITTEE WITHOUT RECEIPT OF 'BAGGING AGREEMENT' IS SUBJECT TO FINES.
   c. CONTRACTOR/PERMITTEE SHALL COORDINATE WITH DIVISION OF PARKING MANAGEMENT TO MAKE PAYMENT FOR ADDITIONAL BAGGING AND REMOVAL WHENEVER MORE SPACES ARE TEMPORARY REQUIRED.
   d. ALL EXISTING MONTGOMERY COUNTY “PARKING” SIGNS SHALL BE COVERED OR BAGGED BY THE CONTRACTOR/PERMITTEE FOR THE DURATION OF WORK; AND A TEMPORARY “NO PARKING ANYTIME” (R7-4) SIGN SHALL BE INSTALLED IN THE AFFECTED PARKING SPACE(S). EXISTING MONTGOMERY COUNTY PARKING METER PIPES/POLES SHALL NOT BE USED FOR TEMPORARY INSTALLATION.
   e. WHEN IT IS NECESSARY TO RESTRICT PARKING IN A NON-METERED AREA TO FACILITATE WORK ACTIVITY, THE PERMITTEE SHALL CONTACT THE APPROPRIATE COUNTY POLICE STATION FOR TEMPORARY "NO PARKING" SIGNS.
   f. THE CONTRACTOR/PERMITTEE SHALL RESTORE ALL AFFECTED MONTGOMERY COUNTY PARKING SIGNAGE TO THEIR PREVIOUS CONDITION.

TRAFFIC CONTROL SEQUENCE

	DESCRIPTION	DURATION
1.	INSTALL AND MAINTAIN MOT TEMPORARY TRAFFIC CONTROL DEVICES AND CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE PER SHEET MT-02.	1-2 DAYS
2.	INSTALL TEMPORARY TRAFFIC CONTROL SIGNAGE AND PEFORM POND RENOVATION PER SHEET MT-03.	100-120 DAYS
3.	REMOVE ALL MOT TEMPORARY TRAFFIC CONTROL DEVICES. RESTORE DISTURBED AREA.	1 DAY
	TOTAL ESTIMATED DURATION OF WORK	20-24 WKS

FALLS RIVER LANE

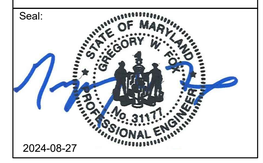
POSTED SPEED LIMIT = 25 MPH
DESIGN SPEED = 35 MPH

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. 31777

Expiration Date 02/01/2025

Seal:



2024-08-27

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: RRT | DRN BY: RRT | CKD BY: GWF | SUBMITTED BY: AMT | DATE: 09/21/23 | TASK ORDER NO.: | CONTRACT NO.: | PLOT SCALE: 1:1 | PLOT DATE: 8/27/2024 | FILE NUMBER: N/A | SIZE: ANSI D | FILE NAME: 1204-10901-MT01.DWG

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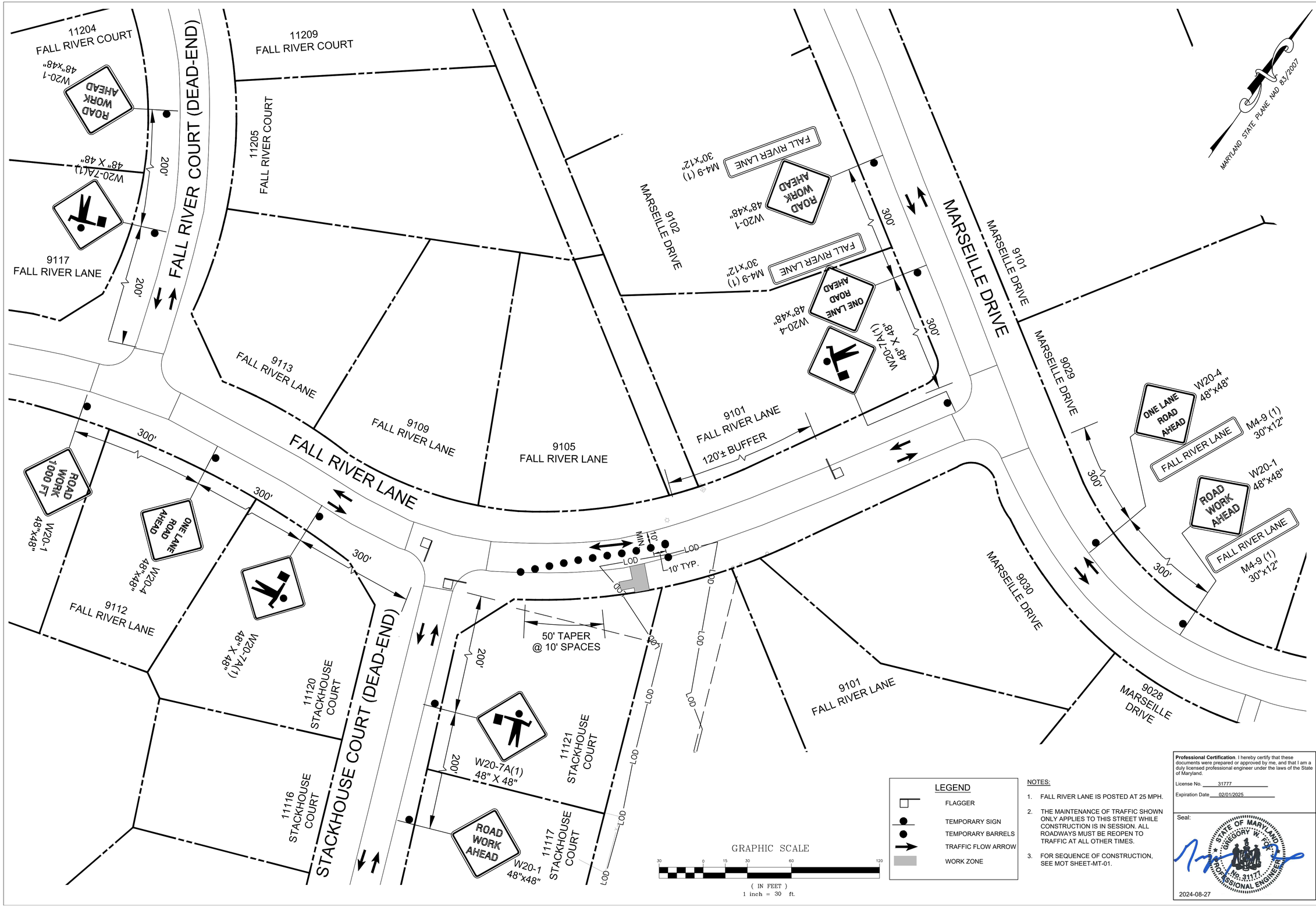
SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
MAINTENANCE OF TRAFFIC NOTES

SHEET NO.
21 OF 23
MT-01



LEGEND

⌐	FLAGGER
●	TEMPORARY SIGN
●	TEMPORARY BARRELS
→	TRAFFIC FLOW ARROW
▨	WORK ZONE

NOTES:

1. FALL RIVER LANE IS POSTED AT 25 MPH.
2. THE MAINTENANCE OF TRAFFIC SHOWN ONLY APPLIES TO THIS STREET WHILE CONSTRUCTION IS IN SESSION. ALL ROADWAYS MUST BE REOPEN TO TRAFFIC AT ALL OTHER TIMES.
3. FOR SEQUENCE OF CONSTRUCTION, SEE MOT SHEET-MT-01.

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. 31777

Expiration Date 02/01/2025

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GREGORY W. FOX
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2024-08-27

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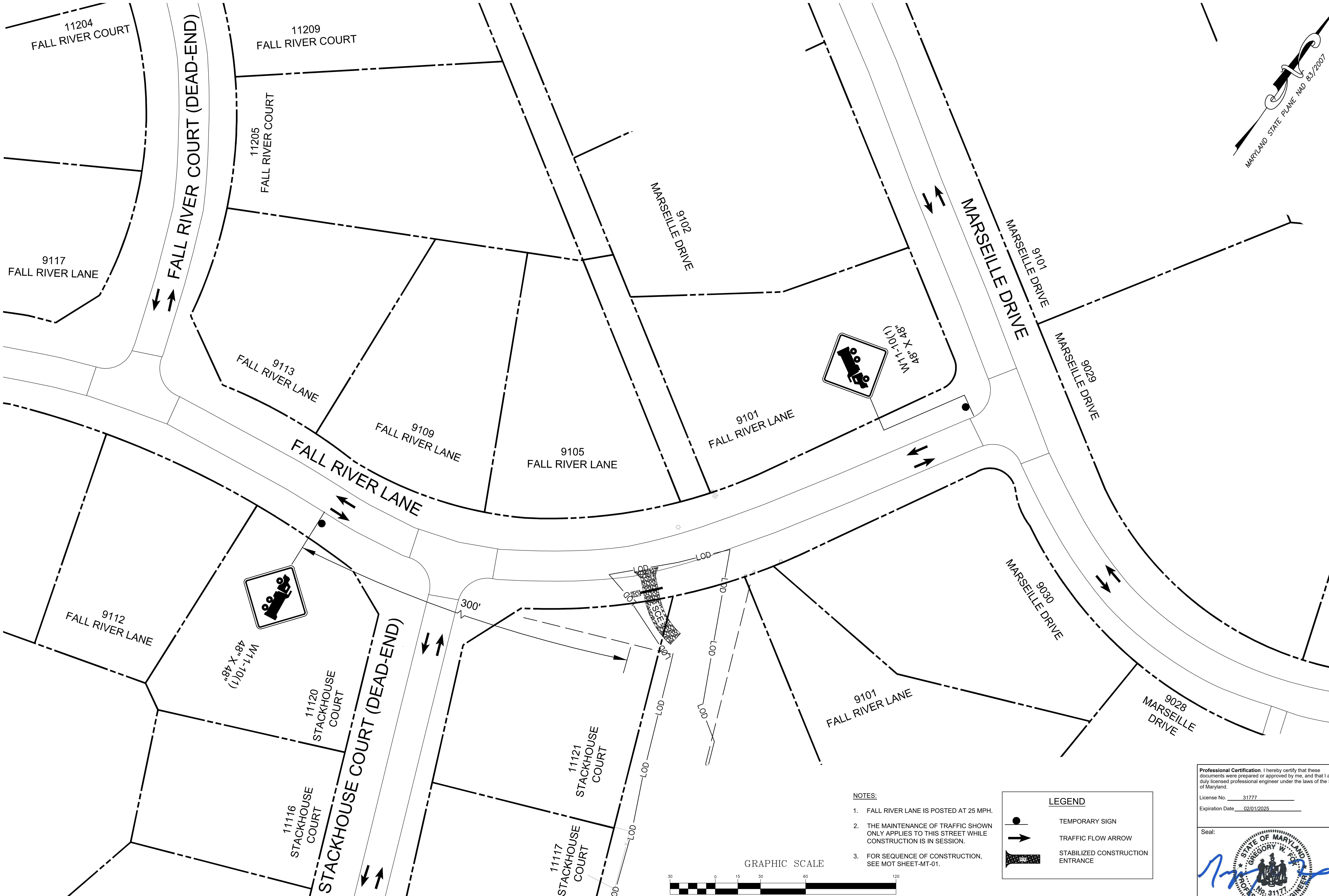
SWM FACILITY RETROFIT PROJECT
CABIN JOHN - POND 10901 PINE KNOLLS
MAINTENANCE OF TRAFFIC

SHEET NO.
22 OF 23
MT-02



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LEGEND

●	TEMPORARY SIGN
→	TRAFFIC FLOW ARROW
	STABILIZED CONSTRUCTION ENTRANCE

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.

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Expiration Date 02/01/2025

Seal:

STATE OF MARYLAND
GREGORY W. FOX
No. 31177
PROFESSIONAL ENGINEER

2024-08-27

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MONTGOMERY COUNTY • MARYLAND

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