

BEFORE YOU DIG CALL
1-800-257-7777 OR DIAL 811



SPRIGGS FARM PARK SHORELINE IMPROVEMENTS

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

ANNE ARUNDEL COUNTY, MD

PROJECT NO. P468700

PROPOSAL NO. P468709

MAY 2024

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GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ANNE ARUNDEL COUNTY STANDARD SPECIFICATIONS AND/OR DETAILS FOR CONSTRUCTION AND THE STATE HIGHWAY ADMINISTRATION'S HIGHWAY DRAINAGE MANUAL STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777 A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION, BORING, PILE DRIVING AND/OR DIGGING FOR THE LOCATION OF GAS, ELECTRIC, TELEPHONE, WATER AND SEWER LINES. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS AND ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY AT HIS OWN EXPENSE.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- WORK IS TO BE CONFINED TO WITHIN THE LIMITS SHOWN ON THE SITE PLAN. DEBRIS ALONG THE SHORELINE AND IN THE NEAR SHORE AREA WILL BE REMOVED AND DISPOSED OF OFF-SITE. AFTER SHORELINE CLEANUP, MATERIALS ARE TO BE BROUGHT TO THE SITE BY WATER ACCESS OR LAND ACCESS ROUTES AS SHOWN ON THE PLANS. THE STONE SILL STRUCTURES SHALL BE BUILT IN THE LOCATION SHOWN ON THE SITE PLAN. CONSTRUCTION WILL BE COMPLETED BY CLEANING UP THE WORK AREA, RAKING, FERTILIZING, AND SEEDING AND MULCHING DISTURBED AREAS, AND PLANTING OF THE MARSH GRASSES.
- ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION.
- DISTURBANCES THAT DO NOT DRAIN TO A SEDIMENT CONTROL DEVICE SHALL BE STABILIZED BY THE END OF THE WORKDAY. NO MORE AREA SHALL BE DISTURBED THAN CAN BE STABILIZED BY THE END OF THE WORKDAY. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE. SLOPES SHALL BE STABILIZED IMMEDIATELY WITH TOPSOIL, SEED AND EROSION CONTROL MATTING (IF REQUIRED). SEE NOTE 12.
- ALL STONE USED FOR THE SILLS SHALL BE DURABLE QUARRIED STONE. THE STONE SHALL BE HARD AND ANGULAR, FREE FROM EITHER LAMINATIONS, WEAK CLEAVAGES, OR UNDESIRABLE WEATHERING, AND OF SUCH CHARACTER THAT IT WILL NOT DISINTEGRATE FROM THE ACTION OF AIR, SALT, WATER OR HANDLING. SEDIMENTARY STONE WILL GENERALLY BE UNACCEPTABLE. INDIVIDUAL STONES WILL BE FREE FROM THIN, SLABBY PIECES HAVING A MAXIMUM DIMENSION OF MORE THAN THREE AND ONE-HALF (3.5) TIMES THE LEAST DIMENSION.
- THE WORK INSTALLED AS A PART OF THE PROJECT WILL CONTAIN NO FAULTY MATERIALS, OR ANY CARELESS OR UNSKILLED WORKMANSHIP.
- THE CONTRACTOR SHALL CORRECT, REPAIR OR REMOVE AND REPLACE WITH PROPER WORK AT NO COST TO THE COUNTY ANY WORK FOUND NOT TO BE AS PER THE GUARANTEE. THE CONTRACTOR SHALL ALSO MAKE GOOD ALL DAMAGES CAUSED TO OTHER WORK OR MATERIALS IN THE PROCESS OF FULFILLING THE GUARANTEE.
- CONTRACTOR MUST STAY WITHIN THE LIMITS OF DISTURBANCE (LOD) WHEN STOCKPILING MATERIAL OR STORING EQUIPMENT.
- ALL DISTURBED AREAS SHALL HAVE PERMANENT OR TEMPORARY STABILIZATION COMPLETED WITHIN:
 - 11.1. END OF THE WORK DAY FOR AREAS WITHIN WATERWAYS.
 - 11.2. THREE CALENDAR DAYS ON SLOPES GREATER THAN 3:1 AND TO THE SURFACE OF ALL PERIMETER SEDIMENT CONTROL.
 - 11.3. SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS.
- ALL DISTURBED AREAS WITH SLOPES STEEPER THAN OR EQUAL TO 3:1 SHALL BE STABILIZED WITH 100% BIODEGRADABLE SOIL STABILIZATION MATTING THAT HAS A SUFFICIENT DESIGN SHEAR STRESS FOR THE APPLICATION OR AS SHOWN ON THE APPROVED SEDIMENT AND EROSION CONTROL PLANS.
- ALL TREES WITH A DIAMETER GREATER THAN 12 INCHES WITHIN THE LIMIT OF DISTURBANCE SHALL NOT BE REMOVED UNLESS PRIOR APPROVAL IS OBTAINED OR EXPLICITLY SHOWN ON THE PLANS TO BE REMOVED. ALL TREES WITHIN THE LIMIT OF DISTURBANCE THAT ARE NOT TO BE REMOVED SHALL BE PROTECTED WITH TREE PROTECTION FENCING OR TREE REINFORCED PLANKING.
- ALL ROADS SHALL BE CLEANED AND CLEARED BY THE END OF EACH WORK DAY. ANY MUD OR ROCKS TRACKED ON THE ROADWAYS SHALL BE SWEEPED OFF BEFORE THE END OF EACH WORK DAY.
- ALL STAKING, RESTAKING, AND CUT SHEETS SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR OR PROFESSIONAL ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL CONSTRUCTION TO BE PERFORMED IN ACCORDANCE WITH STATE OF MARYLAND OCCUPATIONAL SAFETY LAWS.
- CONTRACTOR MUST ENSURE THAT COPIES OF FEDERAL, STATE, AND COUNTY PERMITS ARE POSTED ON SITE PRIOR TO THE START OF ANY WORK.
- CONTRACTOR SHALL RESTORE ALL AREAS IMPACTED BY CONSTRUCTION ACTIVITY. THIS SHALL INCLUDE BUT IS NOT LIMITED TO GRASS AREAS, ROADS AND PAVED AREAS, ETC.

SEQUENCE OF CONSTRUCTION

- | | | |
|---------|---|----------|
| STEP 1 | - ESTABLISH ALL PERMITS HAVE BEEN OBTAINED. PERMITS SHALL BE DISPLAYED ON SITE AT ALL TIMES THROUGHOUT THE DURATION OF THE PROJECT. | 1 DAY |
| STEP 2 | - THE CONTRACTOR SHALL CALL "MISS UTILITY" (1-800-257-7777) A MINIMUM OF TWO WEEKS IN ADVANCE OF ANY EXCAVATION, BORING, PILE DRIVING AND/OR DIGGING FOR THE LOCATION OF GAS, ELECTRIC, TELEPHONE, WATER AND SEWER LINES. NOTIFY THE ANNE ARUNDEL COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS (410-222-7780) AT LEAST 48 HOURS BEFORE COMMENCING WORK, AND M.D.E. INSPECTIONS AND COMPLIANCE (410-537-3510) AT LEAST TEN (10) DAYS PRIOR TO COMMENCING TIDAL WORK. WORK MAY NOT COMMENCE UNTIL THE PERMITTEE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS. | 1 DAY |
| STEP 3 | - HOLD A PRE-CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES INCLUDING BUT NOT LIMITED TO AAO DPW, DRP REPRESENTATIVES, ENGINEER, CONTRACTORS, UTILITY REPRESENTATIVES, INSPECTOR, ETC. | 1 DAY |
| STEP 4 | - CLEAR MINIMUM AREA NECESSARY TO INSTALL ANY REQUIRED ACCESS AND EROSION AND SEDIMENT CONTROL MEASURES. THIS SHALL INCLUDE BUT NOT BE LIMITED TO STABILIZED CONSTRUCTION ENTRANCE, TURBIDITY CURTAIN, REINFORCED SILT FENCE (RSF), AND ANY OTHER SEDIMENT EROSION CONTROLS AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. | 5 DAYS |
| STEP 5 | - ONCE THE SEDIMENT CONTROLS HAVE BEEN INSTALLED, CONTACT THE INSPECTOR FOR APPROVAL OF SEDIMENT CONTROL INSTALLATION PRIOR TO COMMENCING WORK. INSPECTIONS AND PERMITS MAY REQUIRE THAT AN INSPECTION AND CERTIFICATION OF THE INSTALLATION OF SEDIMENT CONTROL ALSO BE PERFORMED BY A DESIGN PROFESSIONAL PRIOR TO CONSTRUCTION COMMENCING. | 1 DAY |
| STEP 6 | - PERFORM NECESSARY BEACH CLEARING, DEMO EXISTING STAIRS, CLEAR PROJECT AREA OF ANY TRASH AND DEBRIS. DISPOSE OFF-SITE TO AN APPROVED UPLAND DISPOSAL SITE. | 5 DAYS |
| STEP 7 | - INSTALL STONE STRUCTURES AS INDICATED ON THE PLANS. GRADE STEEP BANKS AND PLACE CUT MATERIAL IN DESIGNATED ON-SITE PLACEMENT AREA. PLACE SAND FILL AND COBBLE TOE AT LIVING SHORELINE AND GRADE AS SHOWN ON THE PLANS. NO MORE AREA SHALL BE DISTURBED BY GRADING/EXCAVATION THAN CAN BE PROTECTED BY THE STONE STRUCTURES AND/OR STABILIZED BY THE END OF EACH WORKING DAY. THE INTENTION OF THIS RESTRICTION IS TO ENSURE GRADING OPERATIONS DO NOT OUT-PLACE STABILIZATION EFFORTS. STOCKPILE ALL MATERIAL SUITABLE FOR REUSE AND/OR AS DIRECTED BY THE ENGINEER. | 70 DAYS |
| STEP 8 | - INSTALL MARSH PLANTINGS AND SHRUBS AS SHOWN ON THE PLANS. STABILIZE PLACEMENT AREA. INSTALL GOOSE AND DEER PROTECTION FENCING. | 15 DAYS |
| STEP 9 | - INSTALL ADA PERMEABLE ACCESS PATH AND PARKING. WORK CAN BE DONE CONCURRENTLY W/ STEPS 7 & 8. | 10 DAYS |
| STEP 10 | - ONCE THE AREA HAS BEEN 95% STABILIZED AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES. IMMEDIATELY STABILIZE ANY DISTURBED AREAS THAT RESULT FROM THE SEDIMENT CONTROL DEVICES. | 1 DAY |
| TOTAL: | | 110 DAYS |



LOCATION MAP SCALE: 1"=2000' LEGEND

APPROXIMATE PROPERTY LINE	---	PR. BORING	⊕
EX. PATH	---	PR. CONSTRUCTION BASELINE	0+00 + 0+50
EX. WOOD FENCE	⊞	PR. STABILIZED CONSTRUCTION ENTRANCE	SCF
EX. MAJOR CONTOUR	---	PR. CONSTRUCTION ACCESS ROAD	⊞
EX. MINOR CONTOUR	---	PR. WETLAND PROTECTION MATTING	⊞
EX. MLW	---	PR. BIODEGRADABLE STABILIZATION MATTING	⊞
EX. TOP OF BANK	TOB	PR. LIMIT OF DISTURBANCE	LOD
EX. BOTTOM OF BANK	BOB	PR. REINFORCED SILT FENCE & LIMIT OF DISTURBANCE	LOD RSF
CRITICAL AREA BUFFER	CAB	PR. TURBIDITY CURTAIN	TC
EX. FEMA FLOODPLAIN (ZONE AE)	ZONE AE	PR. A-2 BERM	A-2
EX. FEMA FLOODPLAIN (ZONE VE)	ZONE VE	PR. MLW	---
EX. 500-YEAR FEMA FLOODPLAIN	500-YR	PR. MHW	---
EX. MARSH	⊞	PR. MAJOR CONTOUR	⊞
EX. POND	⊞	PR. MINOR CONTOUR	⊞
EX. SAV	⊞	PR. SAND FILL	⊞
EX. STONE REVETMENT	⊞	PR. MARSH PLANTINGS	⊞
EX. TREE	⊞	PR. SHRUB PLANTINGS	⊞
EX. TREE (TO BE REMOVED)	⊞	PR. MITIGATION TREE PLANTINGS	⊞
EX. BENCH	⊞	PR. STONE SILL	⊞
EX. SIGN	⊞	PR. ADA ACCESSIBLE PERMEABLE PAVEMENT PATH	⊞
		PR. PARKING	⊞
		PR. MOBI-MAT	⊞

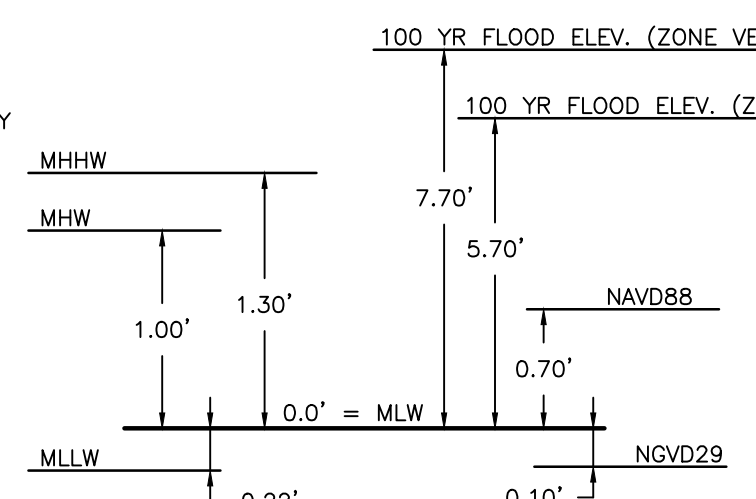
PROJECT INFORMATION

- OWNER/DEVELOPER: ANNE ARUNDEL COUNTY DPW
CONTACT: MELISSA HARLINSKI, 2662 RIVA ROAD - 3RD FLOOR ANNAPOLIS, MD 21401
- ENGINEER: BAYLAND CONSULTANTS AND DESIGNERS, INC. 7455 NEW RIDGE ROAD, SUITE T HANOVER, MARYLAND 21076 410-694-9401
- ENGINEER INFORMATION: 7455 NEW RIDGE ROAD, SUITE T HANOVER, MARYLAND 21076 410-694-9401
- TAX MAP: 33
- PARCEL: 27
- DEED REF: 23634/ 00103
- LOT: N/A
- DISTRICT: 03
- ZONING: OS
- USE: COUNTY PARK
- SUBWATERSHED: MAGOTHY RIVER TIDAL STREAM
- WATERSHED: MAGOTHY RIVER
- GRADING PERMIT: 002020037
- WETLAND LICENSE: 20-WL-0472

GENERAL SITE NOTES

- MEAN TIDE RANGE IS APPROXIMATELY 1.0 FEET BASED ON NOAA TIDE STATION 8575512 IN ANNAPOLIS, MD.
- HORIZONTAL AND VERTICAL CONTROL ESTABLISHED FROM REAL TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (GPS) CONTROL POINTS. COORDINATES AND BEARINGS SHOWN HEREON REFER TO THE MARYLAND COORDINATE SYSTEM (NAD83/91). ELEVATIONS SHOWN HEREON REFER TO MEAN LOW WATER (MLW). CONTROL POINTS SET BY BAYLAND CONSULTANTS & DESIGNERS, INC. ON 02/07/2023.

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
TPS# 1	507,890.66'	1,461,800.99'	21.81'	YELLOW PLASTIC CAP (YPC)
TPS# 2	508,068.35'	1,461,934.55'	15.38'	YELLOW PLASTIC CAP (YPC)
TPS# 3	508,151.68'	1,461,950.71'	16.06'	YELLOW PLASTIC CAP (YPC)
- TOPOGRAPHIC AND HYDROGRAPHIC SURVEYS WERE PERFORMED BY BAYLAND FEBRUARY 7, 2023 AND OCTOBER 11, 2023.
- CONTOURS SHOWN OUTSIDE OF LIMIT OF WORK ARE BASED ON ANNE ARUNDEL COUNTY 2020 LIDAR.
- PROPERTY LINES SHOWN ARE BASED ON ANNE ARUNDEL COUNTY CADASTRAL DATA.
- THE PROJECT SITE IS WITHIN FEMA FLOODPLAIN LIMITS (ZONE VE - 7 FT NAVD88) SHOWN ON FEMA FIRM 24003C0186F.
- THE PROJECT SITE IS WITHIN RESOURCE CONSERVATION AREA (RCA) OF CHESAPEAKE BAY CRITICAL AREA.
- THE PROJECT SITE IS WITHIN THE 100' CRITICAL AREA BUFFER.
- MARYLAND WETLAND LICENSE NO. 20-WL-0472. U.S. ARMY CORPS OF ENGINEERS PERMIT 202060736.



DATUM CONVERSIONS

NOTE: DATUM COMPARISON BASED ON NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) DATUM FROM SITE LOCATION -76°28'25", (LAT) 39°03'36".

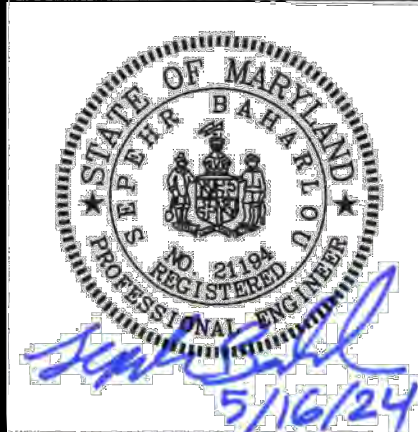
ADA COMPLIANCE NOTE

In order to meet the adopted 2010 ADA minimum requirements and in accordance with the public rights-of-way Accessibility Guidelines (PROWAG) published by the U.S. Access Board in 2011, all public and private pedestrian access routes, sidewalks, curb and gutter, curb ramps, and traffic control devices shall be designed in accordance with the Anne Arundel County Pedestrian facility standards PFI-PP24.

Bayland Consultants & Designers, Inc.
"Integrating Engineering and Environment"

7455 New Ridge Road, Suite T Phone: (410) 694-9401
Hanover, Maryland 21076 Fax: (410) 694-9105
www.baylandinc.com

BAYLAND JOB NO. 5-18802



AS-BUILT STORMWATER CERTIFICATION

"ALL GRADING, DRAINAGE, STRUCTURES, AND EROSION AND SEDIMENT CONTROL PRACTICES INCLUDING FACILITIES AND VEGETATIVE MEASURES HAVE BEEN COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AS REQUIRED BY COMAR 26.17.01.07B(3)(H)."

DEVIATIONS AND DIFFERENCES IN CONSTRUCTED FIELD CONDITIONS ARE SHOWN (REDLINED) ON THESE AS-BUILTS PRINTS.

STORMWATER MANAGEMENT SYSTEMS INDICATED ON THESE DRAWINGS HAVE BEEN INSTALLED IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS

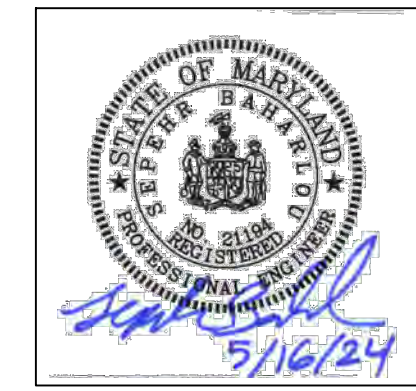
PROFESSIONAL ENGINEER _____ DATE 5/17/2024

SEPEHR BAHARLOU 21194
PRINTED NAME MD P.E. REGISTRATION NO.

CONSULTANT'S CERTIFICATION

THE DEVELOPER'S PLAN TO CONTROL SILT AND EROSION IS ADEQUATE TO CONTAIN THE SILT AND EROSION ON THE PROPERTY COVERED BY THE PLAN. I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THIS SITE, AND WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ASOCD PLAN SUBMITTAL GUIDELINES AND THE CURRENT MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER / DEVELOPER

MD P.E. LICENSE # 21194
NAME SEPEHR BAHARLOU
FIRM NAME BAYLAND CONSULTANTS & DESIGNERS, INC.
ADDRESS 7455 NEW RIDGE ROAD, SUITE T
CITY HANOVER, STATE MD, ZIP CODE 21076



SITE ANALYSIS

1. TOTAL SITE AREA:	53.79 ACRES
1.1. PROPOSED DISTURBED AREA:	1.68 ACRES
1.1.1. SHORELINE RESTORATION DISTURBED AREA:	1.44 ACRES
1.1.2. LANDSIDE IMPROVEMENTS DISTURBED AREA:	0.24 ACRES
2. TOTAL AREA TO BE STABILIZED:	1.68 ACRES
2.1. SHORELINE RESTORATION	
2.1.1. TOTAL EX. COMPACTED ACCESS ROAD TO REMAIN:	0.54 ACRES
2.1.2. TOTAL TO BE STABILIZED WITH VEGETATION:	0.90 ACRES
2.2. LANDSIDE IMPROVEMENTS	
2.2.1. TOTAL EX. COMPACTED ACCESS ROAD TO REMAIN:	0.03 ACRES
2.2.2. TOTAL PR. IMPERVIOUS AREA:	0.08 ACRES
2.2.3. TOTAL TO BE STABILIZED WITH VEGETATION:	0.13 ACRES
3. PROPOSED IMPERVIOUS AREA:	0.08 ACRES
4. ESTIMATED EARTH CUT:	1385 CY
5. ESTIMATED EARTH FILL:	1385 CY
6. ESTIMATED SAND FILL:	635 CY

NOTE: THE EARTHWORK QUANTITIES SHOWN HEREON ARE FOR INFORMATION PURPOSES ONLY. BAYLAND MAKES NO GUARANTEES OF ACCURACY OF QUANTITIES OR BALANCE OF SITE. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY OF ACTUAL EARTHWORK QUANTITIES ENCOUNTERED DURING CONSTRUCTION.

PROPOSED SHORELINE STABILIZATION MEASURES	SHORELINE LENGTH (LF)	POLLUTANT REDUCTION CREDITS			IMPERVIOUS AREA TREATED (ACRES)
		TN (LBS/YR)	TP (LBS/YR)	TSS (TONS/YR)	
LIVING SHORELINE - STONE BREAKWATER AND MARSH PLANTINGS	340	133.3	77.7	93.7	22.6

* RECOMMENDATIONS OF THE EXPERT PANEL TO DEFINE REMOVAL RATES FOR SHORELINE MANAGEMENT PROJECTS (VERSION AMENDED NOVEMBER 2021).
** ACCOUNTING FOR STORMWATER WASTELOAD ALLOCATIONS AND IMPERVIOUS ACRES TREATED (VERSION DATE IS 2021).

PROFESSIONAL CERTIFICATION

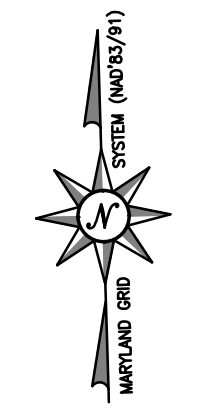
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 21194, EXPIRATION DATE: 04/20/2026.

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

REVISOR	APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
DATE	BY		DATE		DESIGNED BY: AJ 5/17/24
					DRAWN BY: EM 5/17/24
	CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: SB 5/17/24
	APPROVED	DATE	APPROVED	DATE	SHEET NO. 1 OF 11
	ENGINEER ADMINISTRATOR		CHIEF, RIGHT OF WAY		PROJECT NO. P468700
					PROPOSAL NO. P468709

SPRIGGS FARM PARK SHORELINE IMPROVEMENTS

COVER SHEET

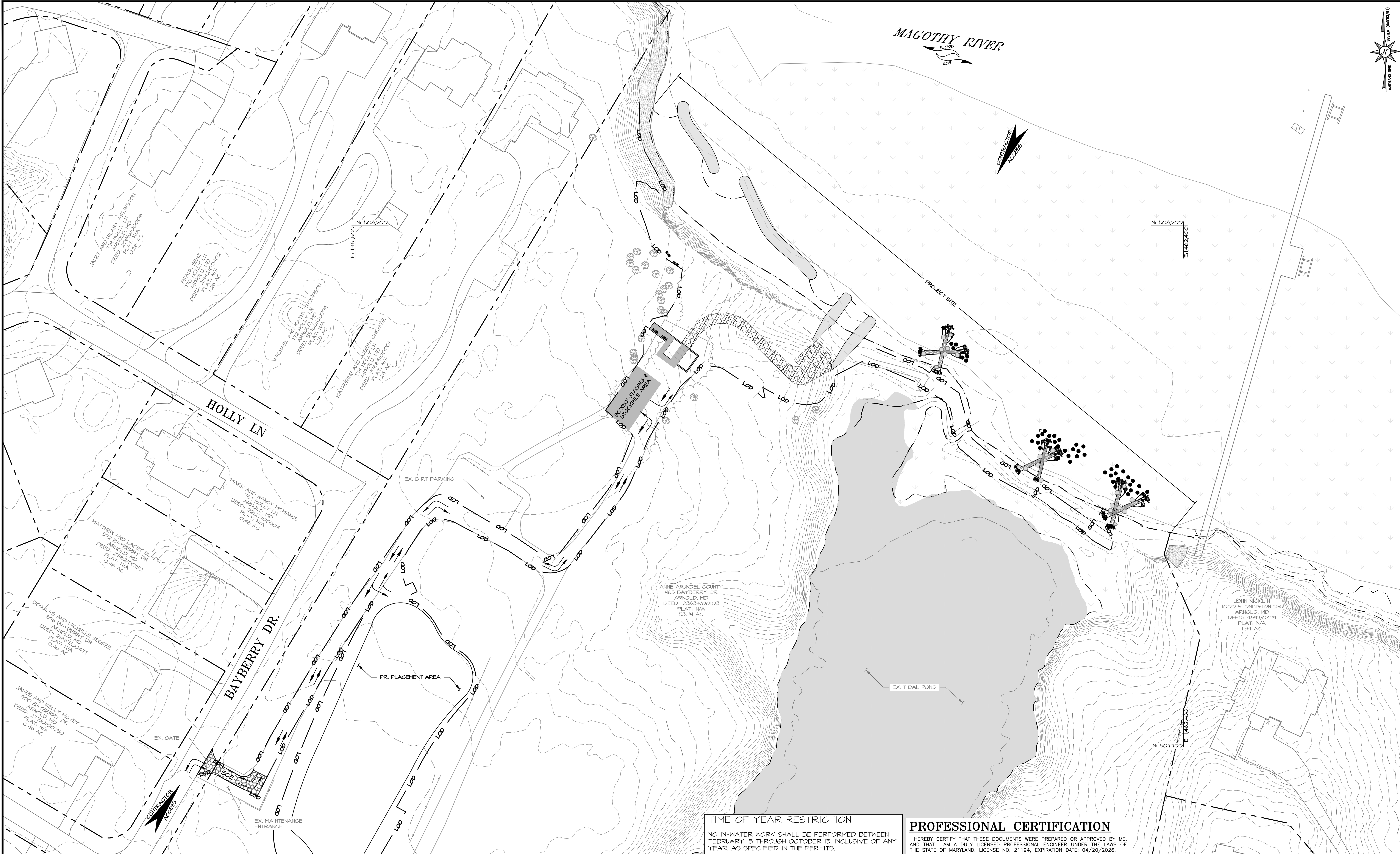


MAGDOY RIVER

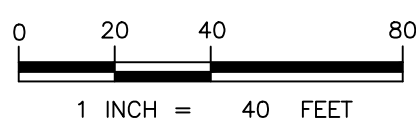
CONTRACTOR ACCESS

N. 508.200
E. 1462.700

N. 501.100
E. 1462.700



- NOTES:**
1. NO EQUIPMENT OR MATERIAL STORAGE IS ALLOWED OUTSIDE THE LIMITS OF DISTURBANCE (LOD).
 2. CONTRACTOR TO CLOSE AND SECURE GATE AT MAINTENANCE ENTRANCE AT THE END OF EACH WORK DAY.
 3. LOCATION OF ACCESS ROAD IS TO BE ADJUSTED IN THE FIELD AS NECESSARY TO MINIMIZE TREE REMOVAL. CONTRACTOR MAY LIMB AND TRIM ANY OVERHANGING BRANCHES THAT MAY BE DAMAGED AS A RESULT OF TRUCK TRAFFIC. TREE REMOVAL SHALL BE AT THE DISCRETION OF ANNE ARUNDEL COUNTY.
 4. CONTRACTOR TO CLEAR DEBRIS, OVERHANGING LIMBS, FALLEN TREES, AND TREES IN DANGER OF FALLING ALONG THE BEACH AT THE DISCRETION OF ANNE ARUNDEL COUNTY. ALL WOODY DEBRIS MAY BE SHREDDED AND MULCHED AND PLACED ON SITE WHERE DIRECTED BY THE COUNTY. NO MULCHED MATERIAL SHALL BE PLACED IN THE CRITICAL AREA EASEMENT OR BUFFER OR IN ANY WETLAND OR WETLAND BUFFER UNLESS OTHERWISE DENOTED IN THE CONTRACT DRAWINGS.

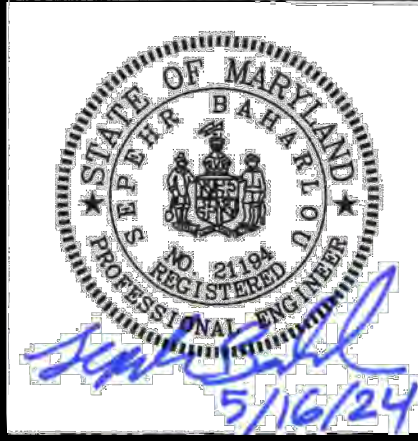


TIME OF YEAR RESTRICTION
 NO IN-WATER WORK SHALL BE PERFORMED BETWEEN FEBRUARY 15 THROUGH OCTOBER 15, INCLUSIVE OF ANY YEAR, AS SPECIFIED IN THE PERMITS.

PROFESSIONAL CERTIFICATION

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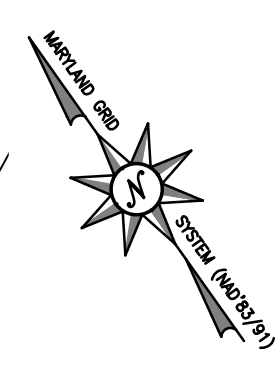
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 BAYLAND JOB NO. 5_18802



ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
REVISED DATE	BY	APPROVED DATE	APPROVED DATE
		CHIEF ENGINEER	PROJECT MANAGER
		APPROVED	APPROVED
		ENGINEER ADMINISTRATOR	CHIEF, RIGHT OF WAY
SCALE: 1" = 40'		DESIGNED BY: AJ 5/17/24	
		DRAWN BY: EM 5/17/24	
		CHECKED BY: SB 5/17/24	
		SHEET NO. 2 OF 11	
		PROJECT NO. P468700	
		PROPOSAL NO. P468709	

**SPRIGGS FARM PARK
SHORELINE IMPROVEMENTS**

SITE ACCESS PLAN



MAGOTHY RIVER
FLOOD

N. 508'500
E. 146'250

SHEET 5

SHEET 4

SHEET 6

PROFESSIONAL CERTIFICATION

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ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

SPRIGGS FARM PARK
SHORELINE IMPROVEMENTS

KEY SHEET

Bayland
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"Integrating Engineering and Environment"

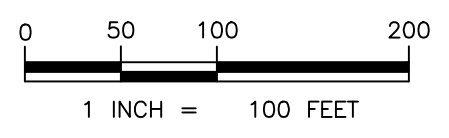
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BAYLAND JOB NO. 5_18802



REVISED DATE	BY	APPROVED DATE	APPROVED

DESIGNED BY	DATE	CHECKED BY	DATE
AJ	5/17/24	SB	5/17/24
EM	5/17/24		



PROJECT TABLE

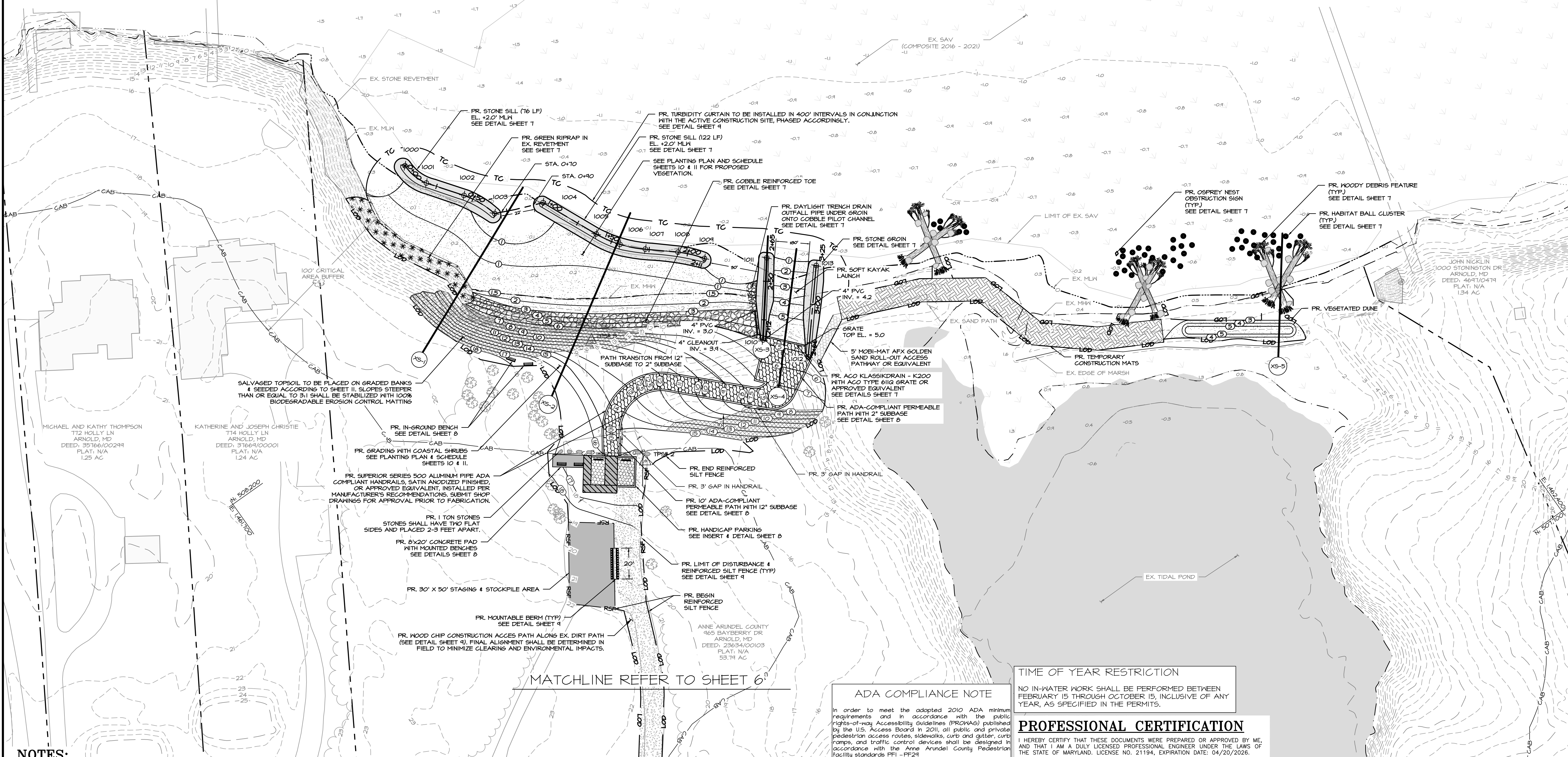
PERMIT NUMBER	02020037
PROJECT NUMBER	P468700
PROJECT NAME	SPRIGGS FARM PARK SHORELINE IMPROVEMENTS
STRUCTURE ADDRESS	965 BAYBERRY DRIVE
STRUCTURE CITY	ARNOLD
STATE	MD
STRUCTURE ZIP	21012
TOTAL DRAINAGE AREA	0.24
RCN - PRE CONSTRUCTION	39
RCN - POST CONSTRUCTION	56
RCN - WOODS	30
TOTAL NUMBER OF BMPs	1
PE REQUIRED	1
PE ADDRESSED	1.1
MD 8-DIGIT HUC	02131001
USGS 12-DIGIT HUC	

STORMWATER MANAGEMENT DATA

STORM ID	STRUCTURE NAME	MDE BMP CLASS	MDE BMP TYPE	CONSTRUCTION PURPOSE	ON OR OFF SITE	LAND USE	DEVICE DRAINAGE AREA (AC)	IMPERVIOUS AREA DRAINING TO DEVICE (SF)	IMPERVIOUS ACRES RESTORED	MD NORTH COORD (NAD83 - FT)	MD EAST COORD (NAD83 - FT)	WQV (FT ³)	MAINTENANCE RESPONSIBILITY
	PERMEABLE ADA PARKING AND PATH	E	APRP	REST	ON SITE	18 OPEN URBAN LAND	0.24	3290	0	508,084.22	1,461,993.08	309	COUNTY

STAKEOUT TABLE

POINT NO.	NORTHING	EASTING
1000	508,314.33	1,461,917.55
1001	508,297.18	1,461,922.37
1002	508,276.62	1,461,937.65
1003	508,255.58	1,461,947.08
1004	508,243.24	1,461,976.72
1005	508,206.77	1,461,993.15
1006	508,192.50	1,462,001.82
1007	508,180.49	1,462,013.46
1008	508,166.69	1,462,029.65
1009	508,153.45	1,462,041.24
1010	508,088.53	1,462,041.80
1011	508,130.49	1,462,074.42
1012	508,062.74	1,462,059.43
1013	508,107.96	1,462,097.65



- NOTES:**
- NO EQUIPMENT OR MATERIAL STORAGE IS ALLOWED OUTSIDE THE LIMITS OF DISTURBANCE (LOD).
 - LOCATION OF ACCESS ROAD IS TO BE ADJUSTED IN THE FIELD AS NECESSARY TO MINIMIZE TREE REMOVAL. CONTRACTOR MAY LIMB AND TRIM ANY OVERHANGING BRANCHES THAT MAY BE DAMAGED AS A RESULT OF TRUCK TRAFFIC. TREE REMOVAL SHALL BE AT THE DISCRETION OF ANNE ARUNDEL COUNTY.
 - CONTRACTOR TO USE TEMPORARY DELINEATED STOCKPILE AREA AS NECESSARY. MAXIMUM HEIGHT SHALL NOT EXCEED 15 FT AND MAXIMUM SLOPE SHALL NOT EXCEED 2:1. TEMPORARILY STABILIZE STOCKPILES AS PER THE STABILIZATION SPECIFICATIONS OR COVER THE STOCKPILE WITH PLASTIC TARP AND ANCHOR AT END OF EACH WORK DAY.
 - CONTRACTOR TO CLEAR DEBRIS, OVERHANGING LIMBS, FALLEN TREES, AND TREES IN DANGER OF FALLING ALONG THE BEACH AT THE DISCRETION OF ANNE ARUNDEL COUNTY. ALL WOODY DEBRIS MAY BE SHREDDED AND PLACED ON SITE WHERE DIRECTED BY THE COUNTY. NO MULCHED MATERIAL SHALL BE PLACED IN THE CRITICAL AREA EASEMENT OR BUFFER OR IN ANY WETLAND OR WETLAND BUFFER UNLESS OTHERWISE DENOTED IN THE CONTRACT DRAWINGS.
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 - TURBIDITY CURTAIN TO BE PLACED AND MAINTAINED AROUND THE PERIMETER OF THE ACTIVE WORK AREAS DURING SEDIMENT CAUSING ACTIVITIES AND UNTIL THE FILL HAS BECOME CONSOLIDATED.
 - WETLAND PROTECTION MATTING SHALL BE USED DURING CONSTRUCTION TO PROTECT PERMEABLE HANDICAP PARKING AREA AND PERMEABLE PATH AREA.

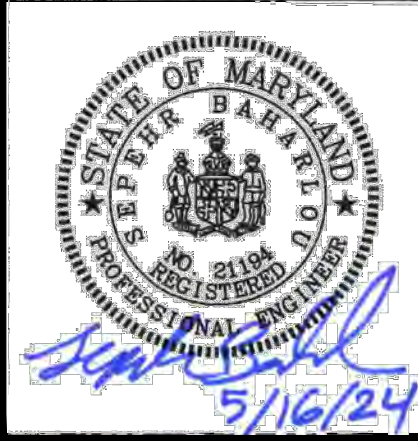
MATCHLINE REFER TO SHEET 6

ADA COMPLIANCE NOTE
 In order to meet the adopted 2010 ADA minimum requirements and in accordance with the public rights-of-way Accessibility Guidelines (PROWAG) published by the U.S. Access Board in 2011, all public and private pedestrian access routes, sidewalks, curb and gutter, curb ramps, and traffic control devices shall be designed in accordance with the Anne Arundel County Pedestrian facility standards PFI - PF24.

TIME OF YEAR RESTRICTION
 NO IN-WATER WORK SHALL BE PERFORMED BETWEEN FEBRUARY 15 THROUGH OCTOBER 15, INCLUSIVE OF ANY YEAR, AS SPECIFIED IN THE PERMITS.

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. 21194, EXPIRATION DATE: 04/20/2026.

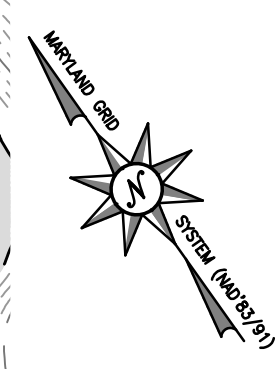
Bayland Consultants & Designers, Inc.
 "Integrating Engineering and Environment"
 7455 New Ridge Road, Suite T Phone: (410) 694-9401
 Hanover, Maryland 21076 Fax: (410) 694-9105
 www.baylandinc.com
 BAYLAND JOB NO. 5-18802



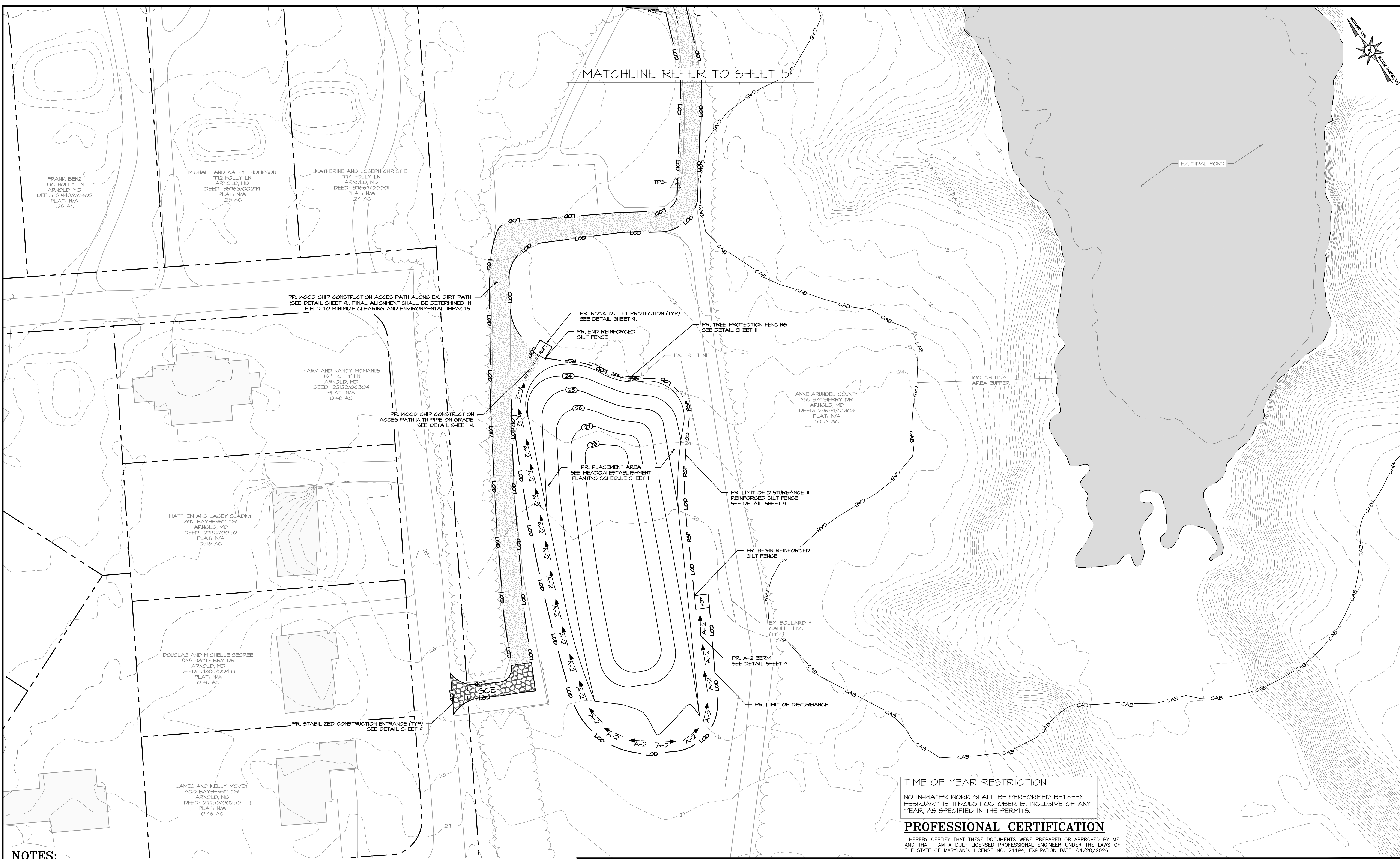
REVISED		APPROVED		DATE		APPROVED		DATE	
DATE	BY								
		CHIEF ENGINEER		PROJECT MANAGER					
		APPROVED		APPROVED					
		ENGINEER ADMINISTRATOR		CHIEF, RIGHT OF WAY					

ANNE ARUNDEL COUNTY
 DEPARTMENT OF PUBLIC WORKS
SPRIGGS FARM PARK SHORELINE IMPROVEMENTS
 EROSION SEDIMENT CONTROL & SITE PLAN

SCALE: 1" = 30'
 DESIGNED BY: AJ 5/17/24
 DRAWN BY: EM 5/17/24
 CHECKED BY: SB 5/17/24
 SHEET NO. 5 OF 11
 PROJECT NO. P468700
 PROPOSAL NO. P468709



MATCHLINE REFER TO SHEET 5'

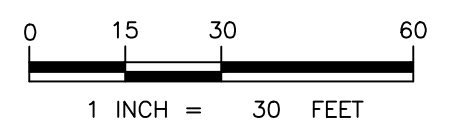


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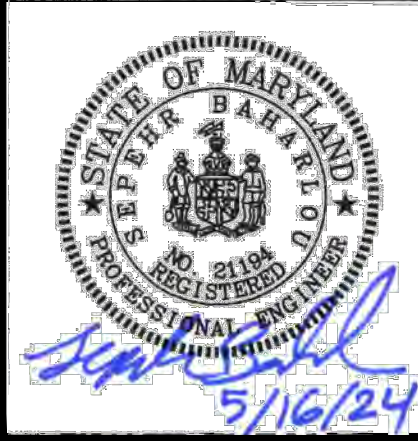
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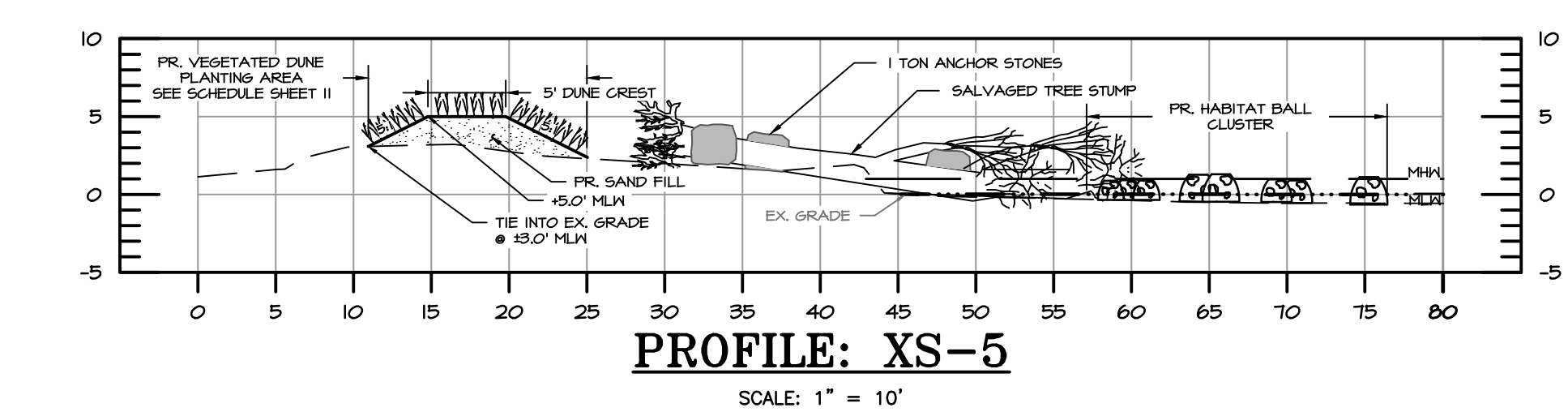
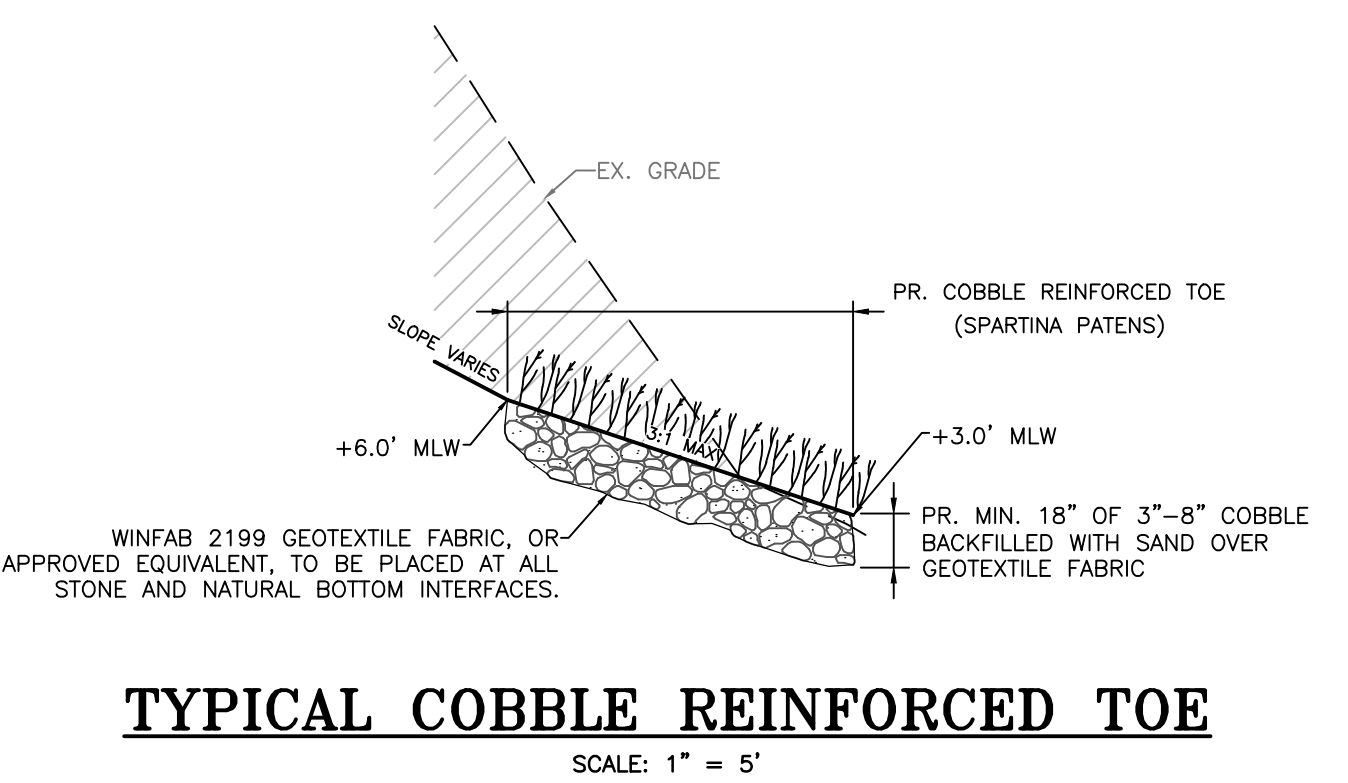
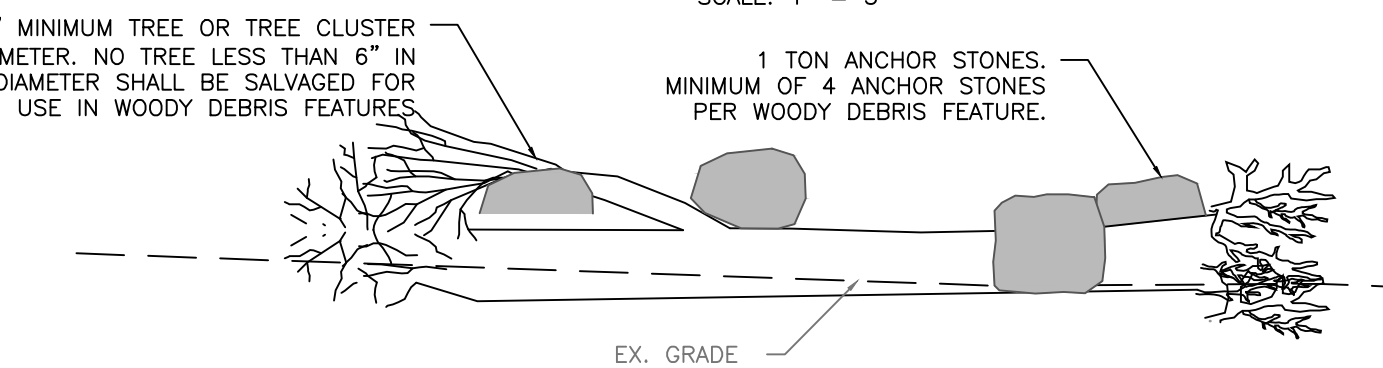
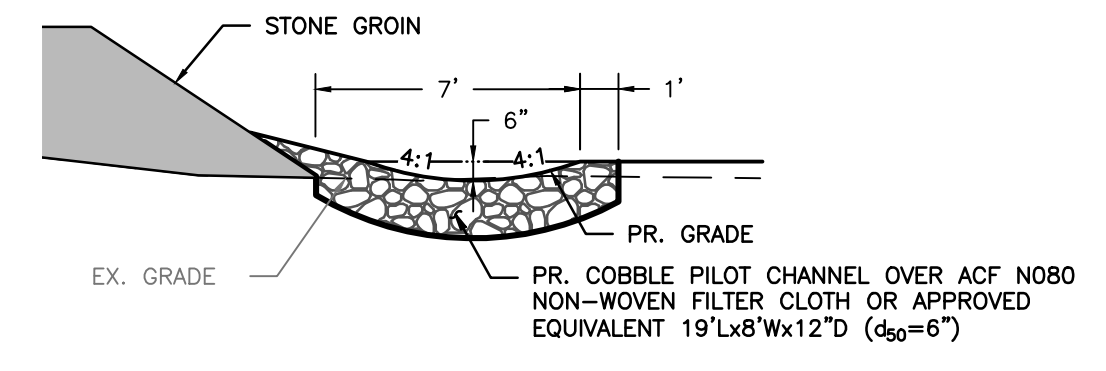
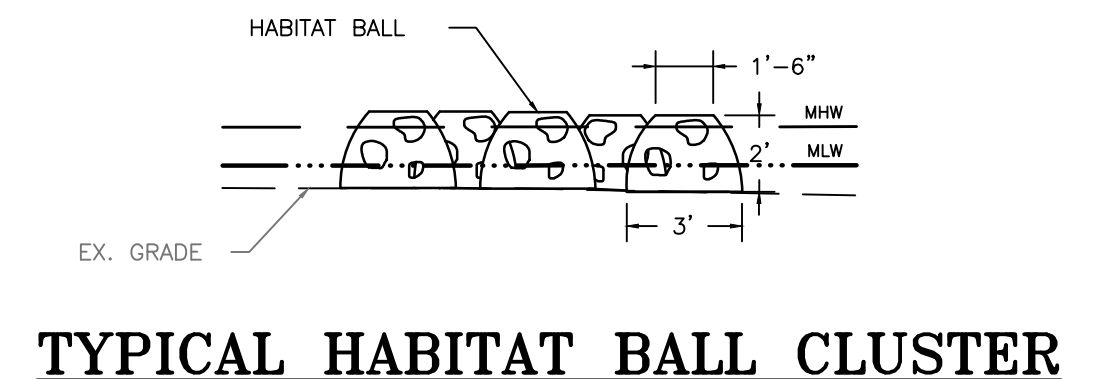
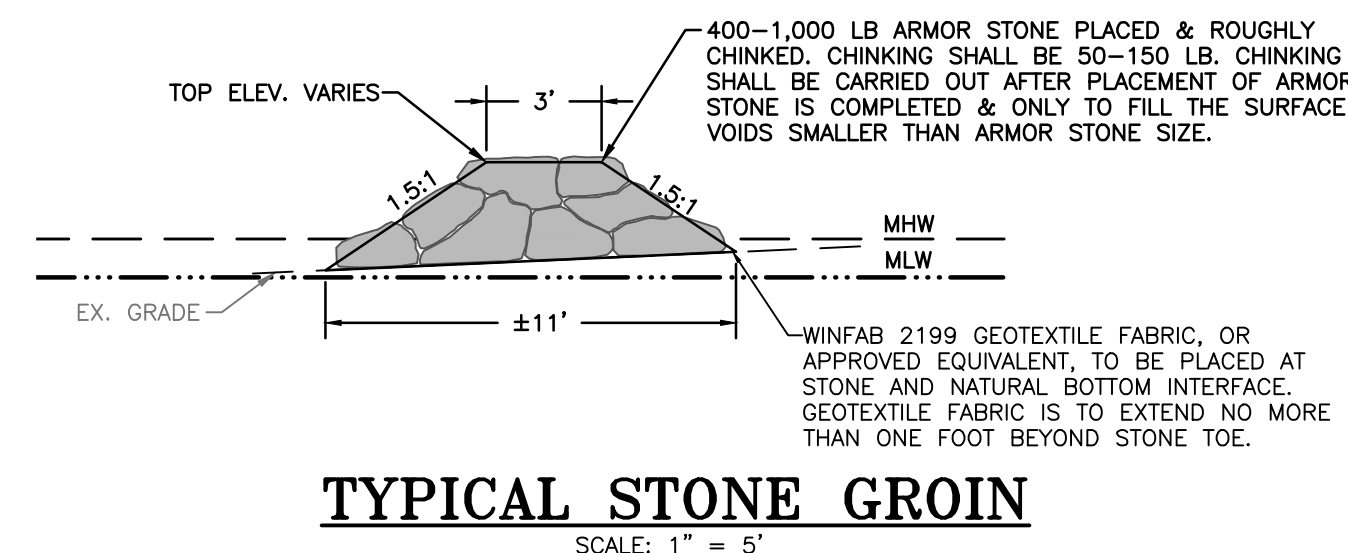
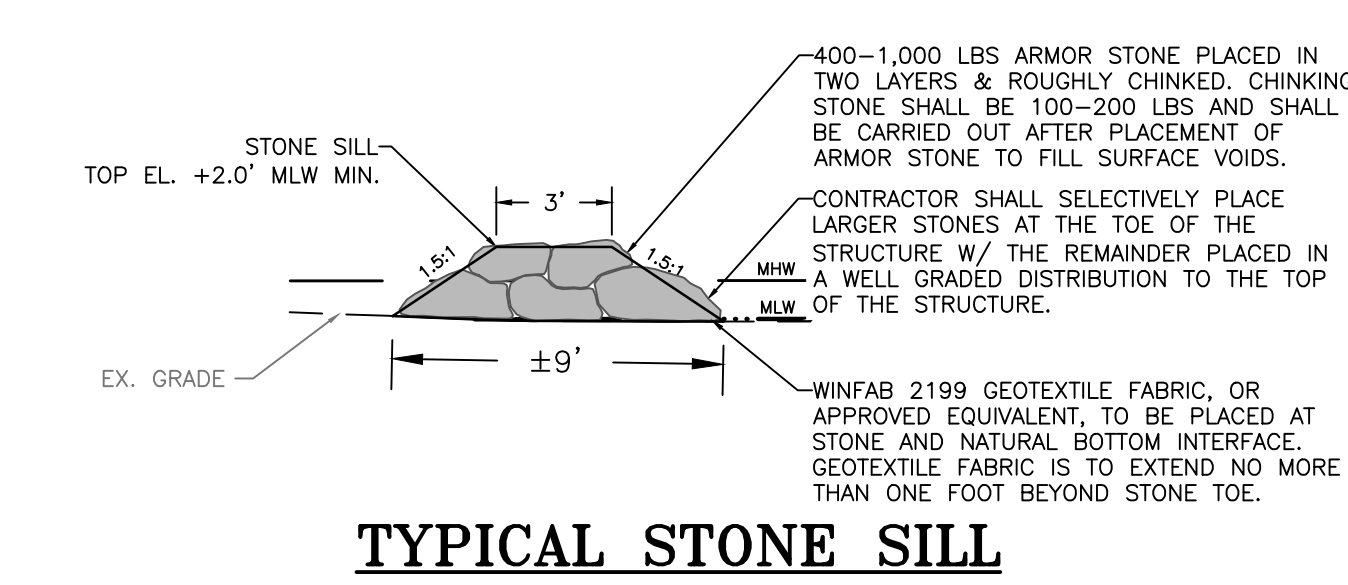
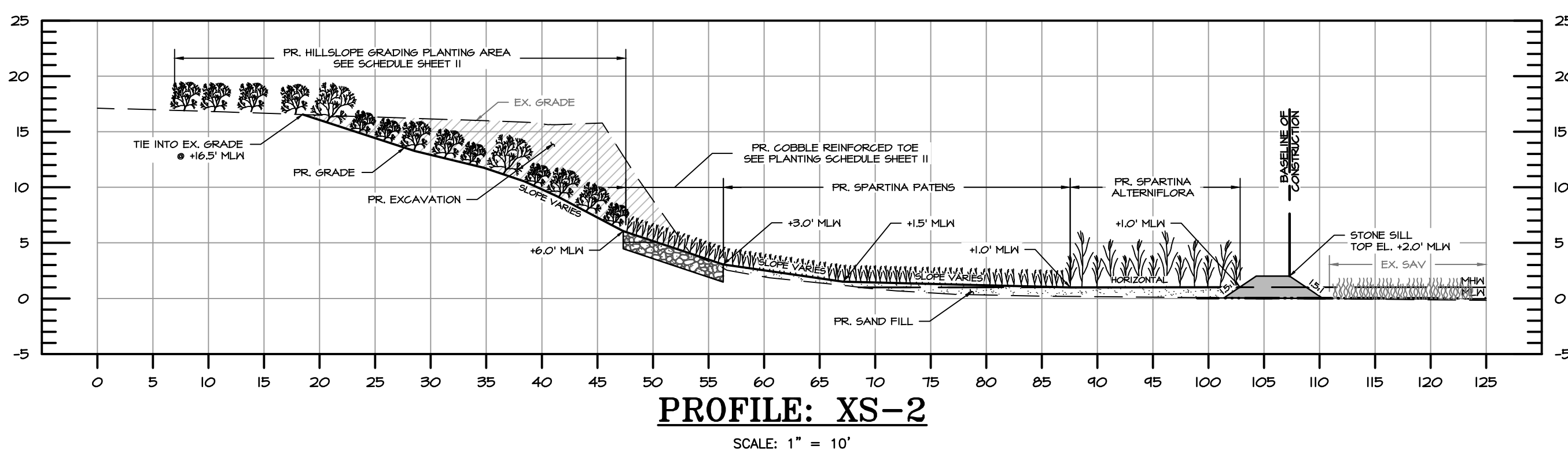
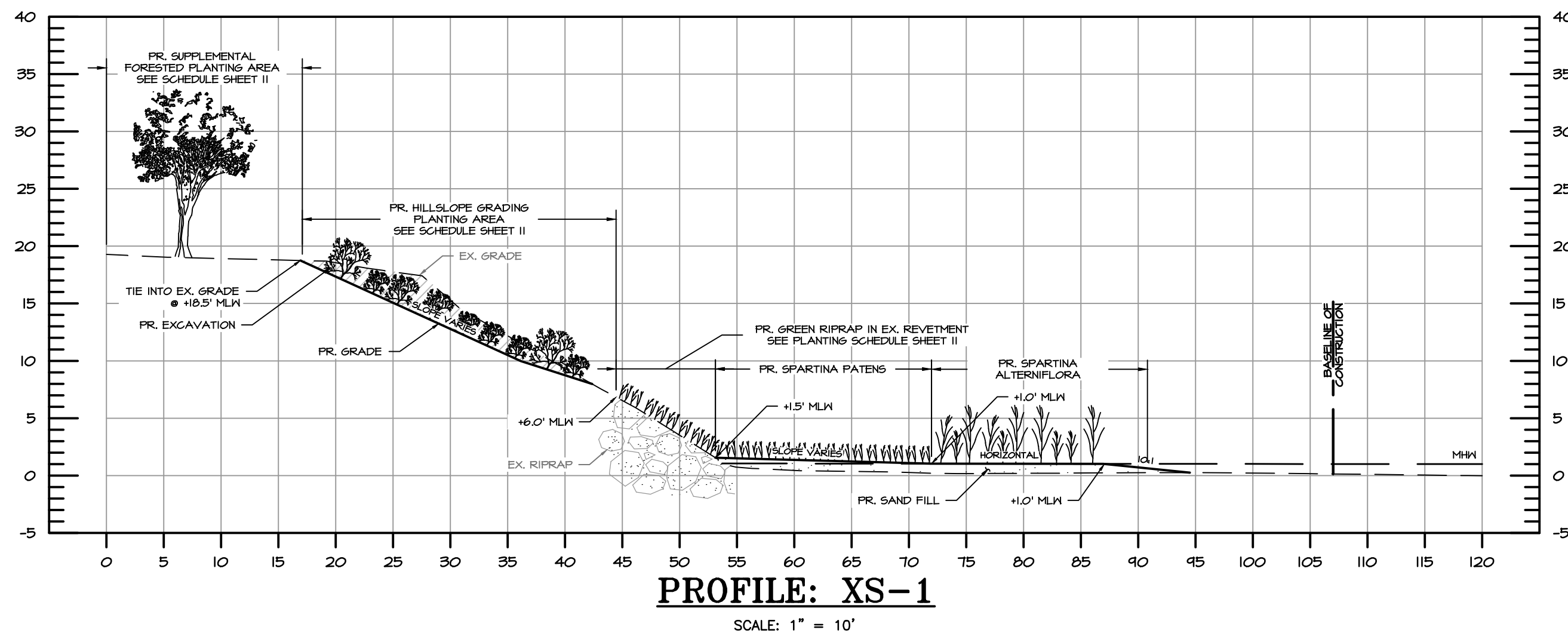
REVISED		APPROVED		DATE		APPROVED		DATE	
DATE	BY								
		CHIEF ENGINEER		PROJECT MANAGER					
		APPROVED		APPROVED					
		ENGINEER ADMINISTRATOR		CHIEF, RIGHT OF WAY					

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

SPRIGGS FARM PARK
SHORELINE IMPROVEMENTS

EROSION SEDIMENT
CONTROL & SITE PLAN

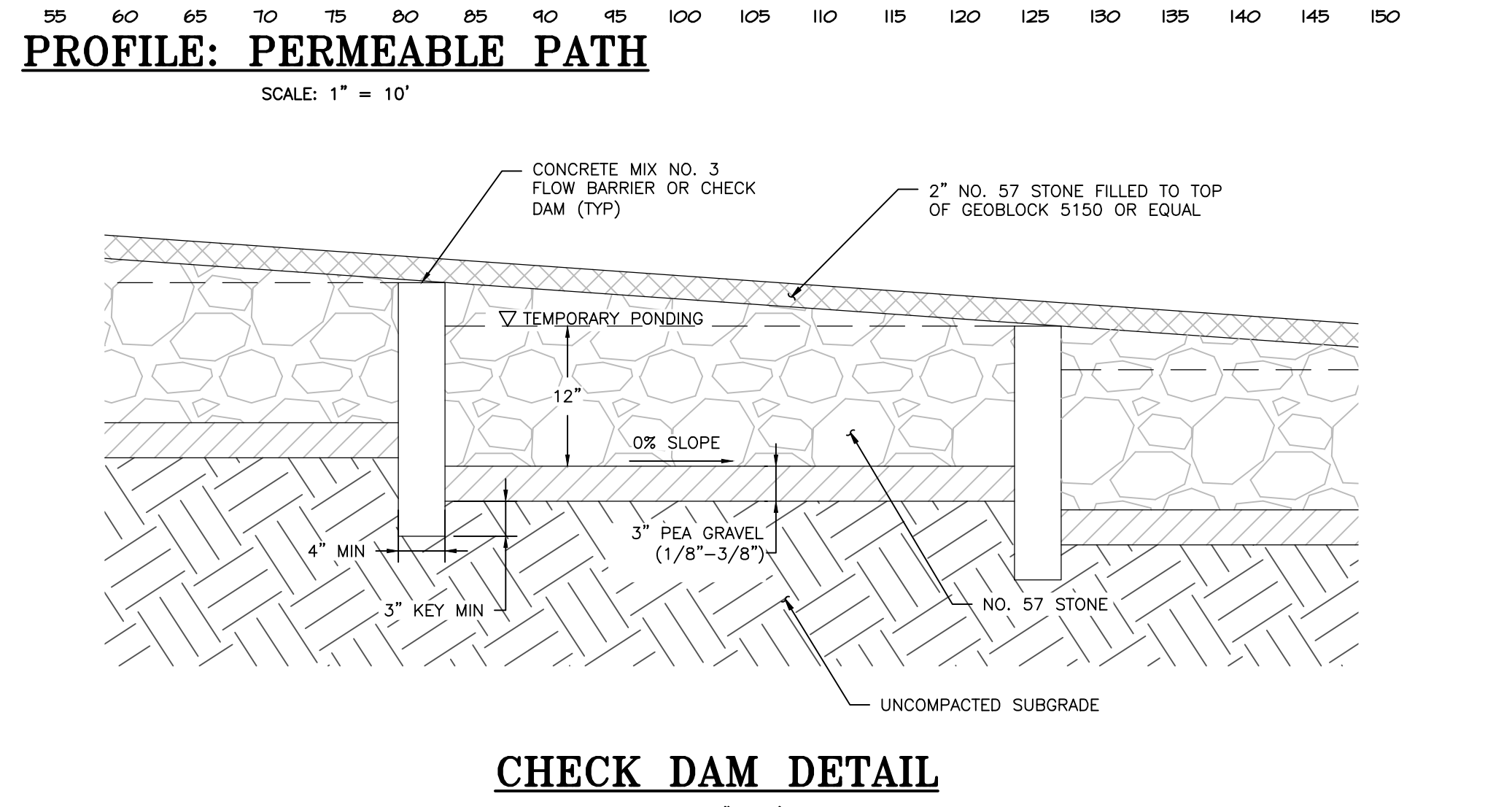
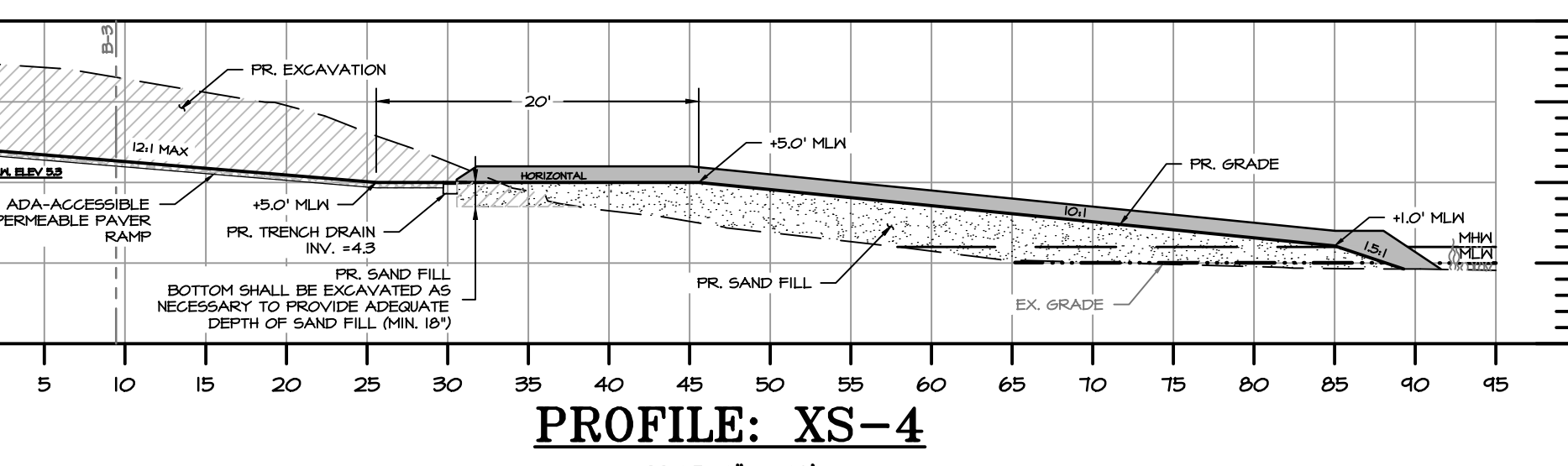
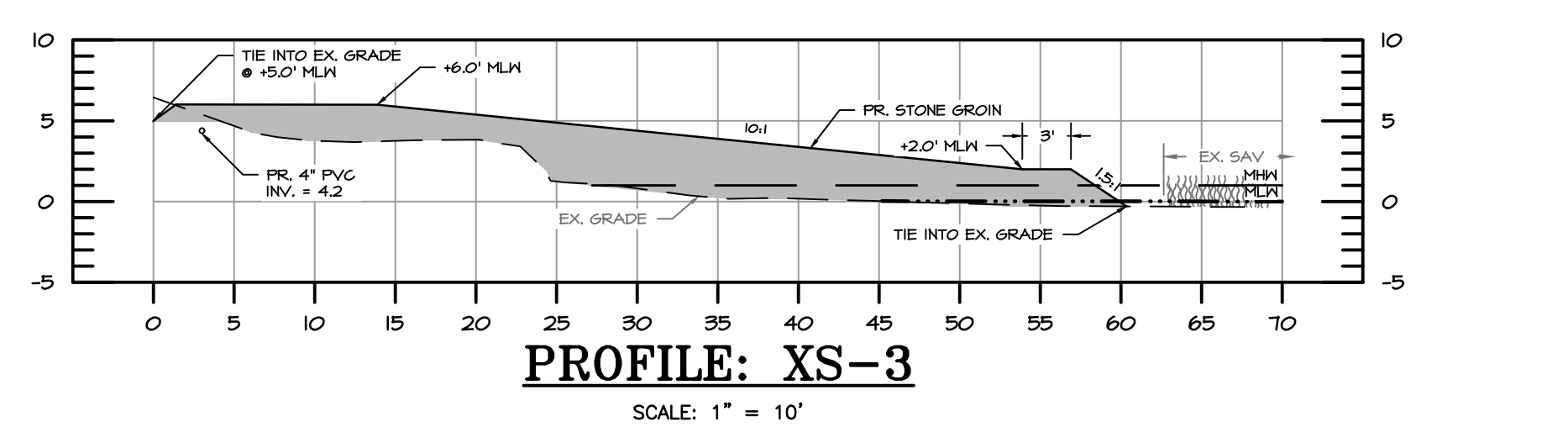
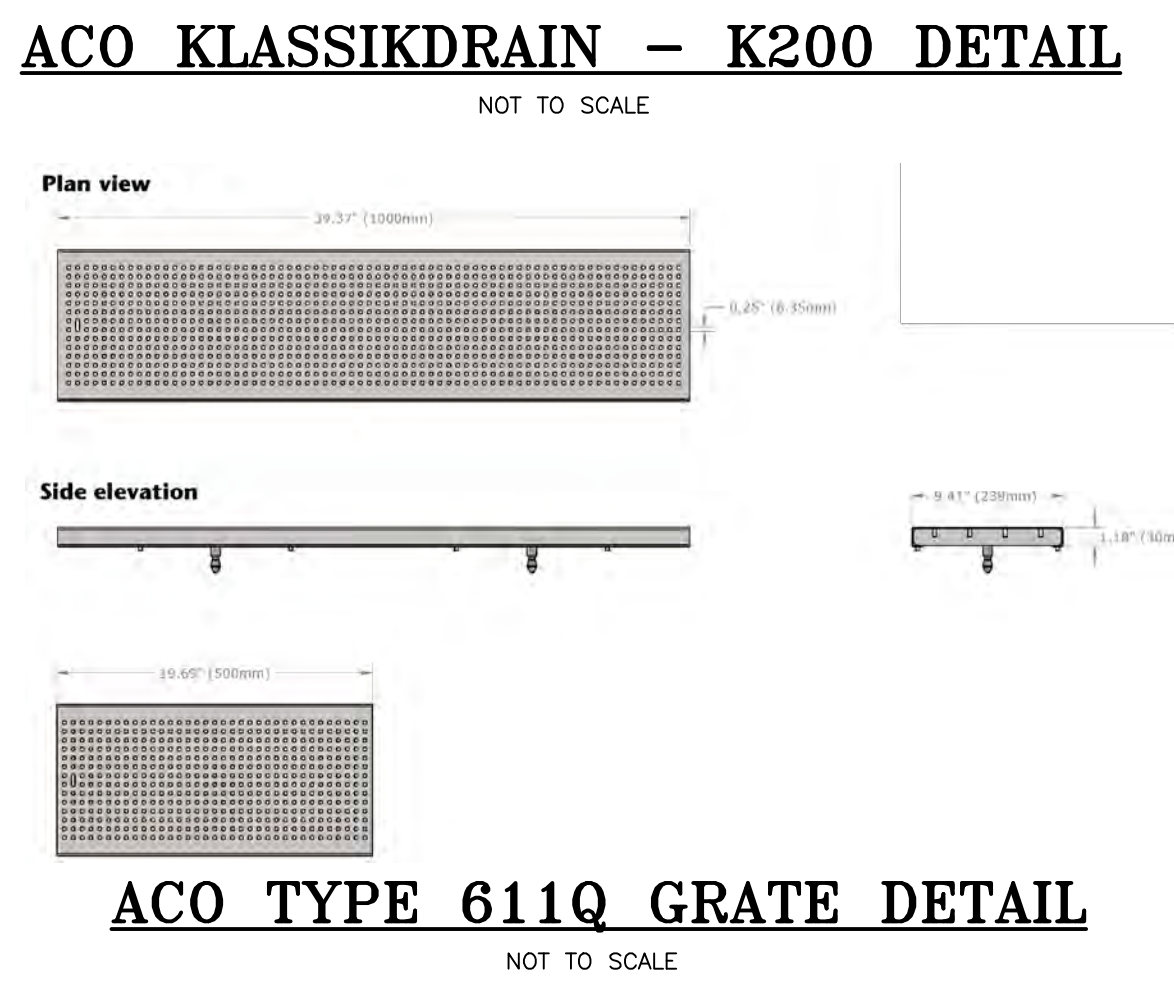
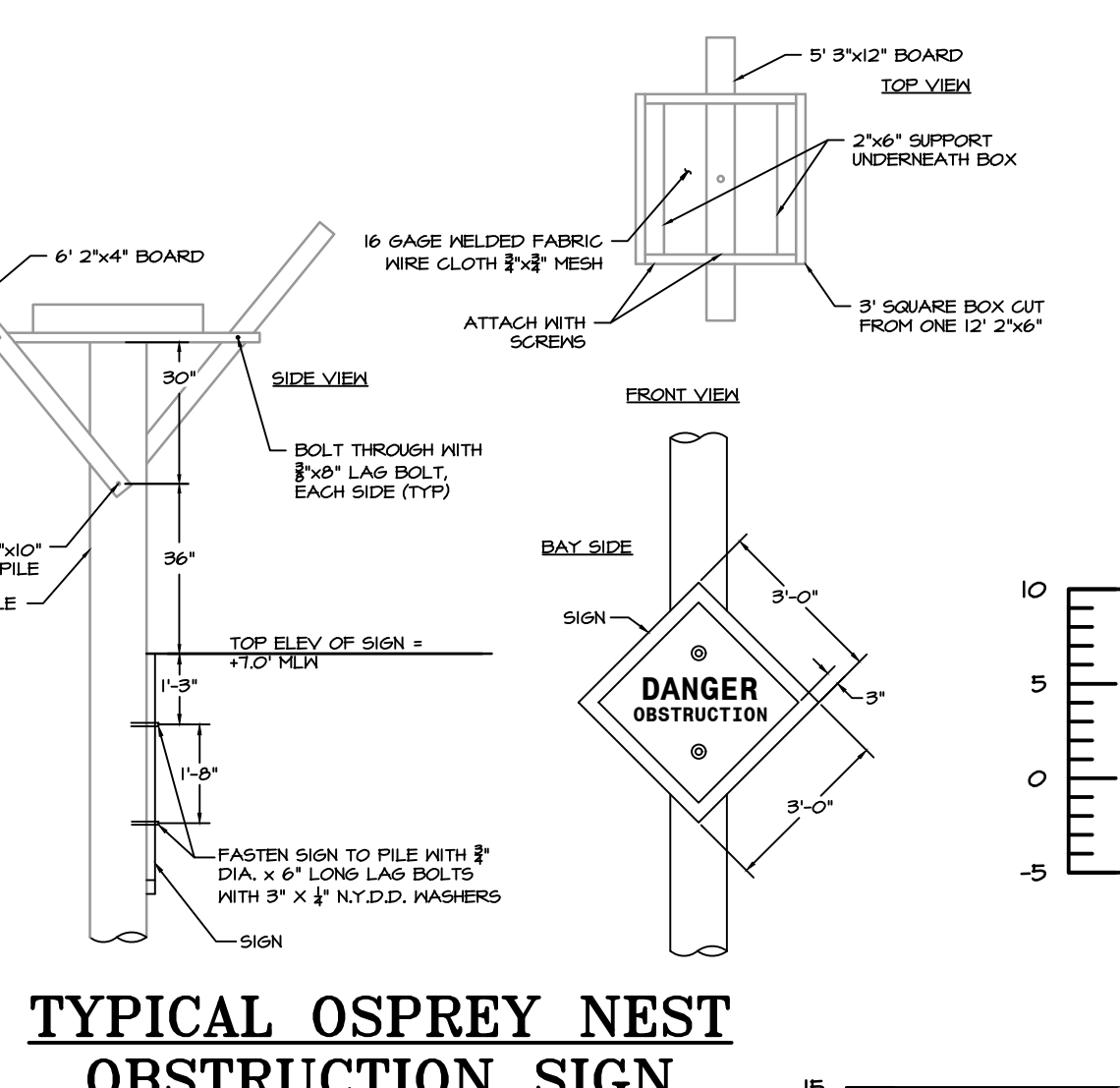
SCALE: 1" = 30'
DESIGNED BY: AJ 5/17/24
DRAWN BY: EM 5/17/24
CHECKED BY: SB 5/17/24
SHEET NO. 6 OF 11
PROJECT NO. P468700
PROPOSAL NO. P468709



ACO KLASSIKDRAIN - K200 DETAIL
NOT TO SCALE

Description	Part No.	Invert	Wgt.
		inches ²	mm ²
		Lbs.	
K2-00 Neutral channel - 39.37" (1m) ²	75041	7.87	200
K2-1 Sloped channel - 39.37" (1m)	75001	8.07	205
K2-2 Sloped channel - 39.37" (1m)	75002	8.27	210
K2-3 Sloped channel - 39.37" (1m)	75003	8.46	215
K2-4 Sloped channel - 39.37" (1m)	75004	8.66	220
K2-5 Sloped channel - 39.37" (1m)	75005	8.86	225
K2-6 Sloped channel - 39.37" (1m)	75006	9.06	230
K2-7 Sloped channel - 39.37" (1m)	75007	9.25	235

OUTLET SIZE (SCH. 40): 4" ROUND
INVERT DEPTH: 7.87"
OUTLET FLOW RATE: 0.29 CFS



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ANNE ARUNDEL COUNTY		DEPARTMENT OF PUBLIC WORKS	
REVISOR	APPROVED	DATE	APPROVED
DATE	BY	DATE	DATE
	CHIEF ENGINEER		PROJECT MANAGER
	APPROVED		APPROVED
	ENGINEER ADMINISTRATOR		CHIEF, RIGHT OF WAY

SCALE: 1" = 10'

DESIGNED BY: AJ 5/17/24
DRAWN BY: EM 5/17/24
CHECKED BY: SB 5/17/24
SHEET NO. 7 OF 11
PROJECT NO. P468700
PROPOSAL NO. P468709

SPRIGGS FARM PARK SHORELINE IMPROVEMENTS
CROSS SECTIONS & DETAILS

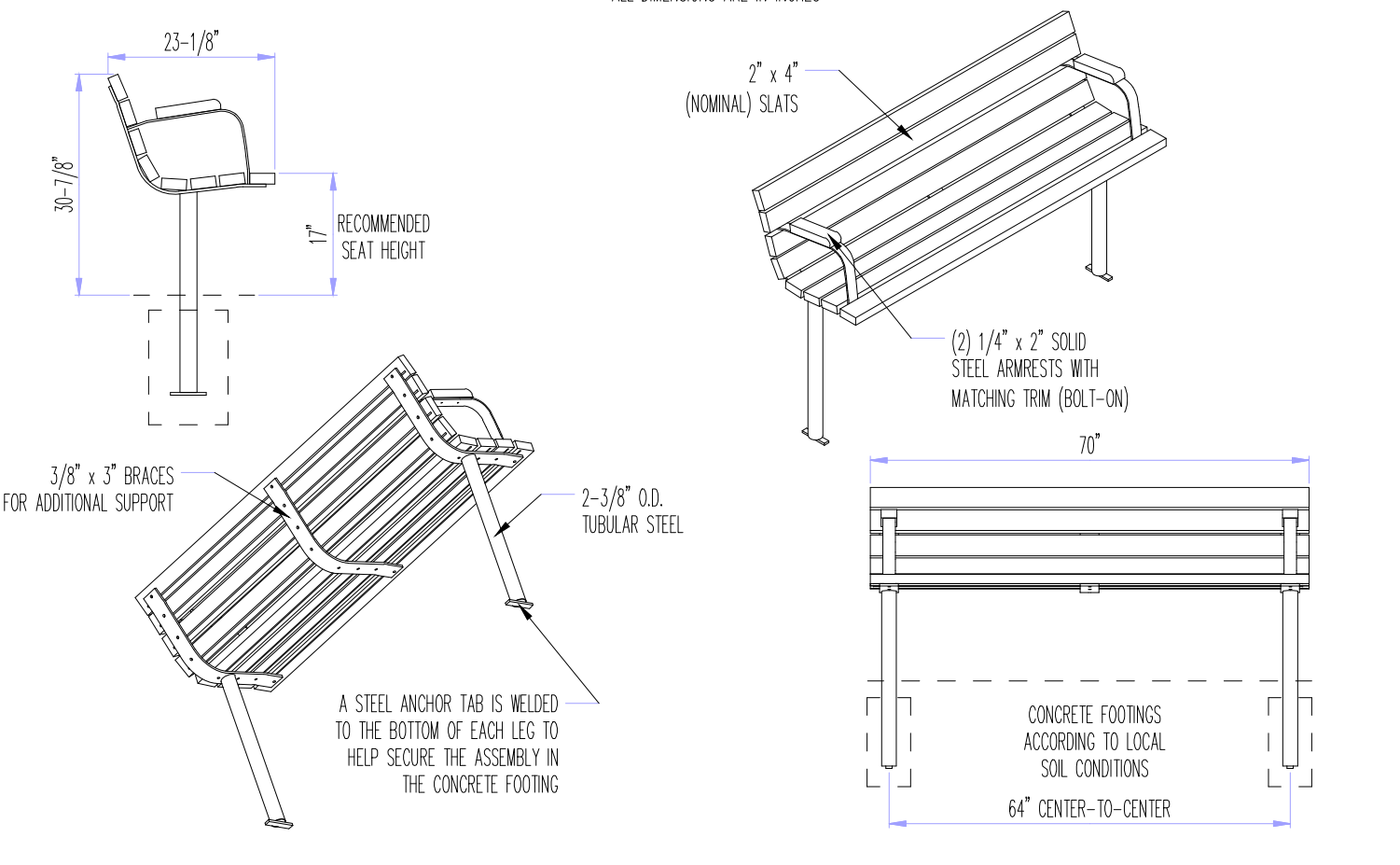
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BAYLAND JOB NO. 5_18802

STATE OF MARYLAND PROFESSIONAL ENGINEER SEAL

VICTOR STANLEY®
Create a timeless moment.™



ALL DIMENSIONS ARE IN INCHES. *
P.O. DRAWER 330 - DUNKIRK, MD 20754 USA
TOLL FREE: (800) 368-2573 (USA & CANADA)
TEL: (301) 855-8300 - FAX: (410) 257-7579
WEB SITE: HTTP://WWW.VICTORSTANLEY.COM

AVAILABLE OPTIONS:
POWDER COATING
10 STANDARD COLORS, 2 OPTIONAL METALLIC COLORS,
CUSTOM COLORS (INCLUDING THE RAL RANGE)
SLAT TYPES
PE WOOD OR 2nd SITE SYSTEMS/REINFORCED RECYCLED PLASTIC SLATS
2nd SITE SYSTEMS/COLORS: GRAY, MAPLE, CHERRY, AND WALNUT
(8-FOOT LENGTH WITH FULL CENTER LEG)
ARMRESTS (BOLT-ON)
4', 6', & 8' AVAILABLE WITH OPTIONAL ARMREST WITH MATCHING TRIM

NOTES:
1. DRAWINGS NOT TO SCALE. DO NOT SCALE DRAWINGS.
2. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FULL CURE AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH APPROXIMATES 8-10 MILS (200-250 MICRONS).
3. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
4. FOR HIGH SALT ABUSIVE CLIMATES, HOT-DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. HOT-DIP GALVANIZING INCLUDES AN AGGRESSIVE PRE-TREATMENT AND IMMERSION IN A TANK OF CHARGED LIQUID ZINC AT OR AROUND 800°F (430°C). THE RESULTING SURFACE IS RESISTANT TO RUST BUT HAS SOME UNEVENNESS RESULTING FROM THE BONDING OF THE ZINC TO THE STEEL SURFACE. AS A RESULT, THE POWDER-COATING SURFACE FINISH OVER THAT GALVANIZED SURFACE MAY EXHIBIT BUMPS, UNEVENNESS, AND MAY NOT BE AS SMOOTH AS THE STANDARD FINISH. THIS UNEVEN AND INCONSISTENT FINISH IS NORMAL FOR GALVANIZING. CONTACT MANUFACTURER FOR DETAILS.
5. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
6. THIS PRODUCT IS SHIPPED PARTIALLY UNASSEMBLED.

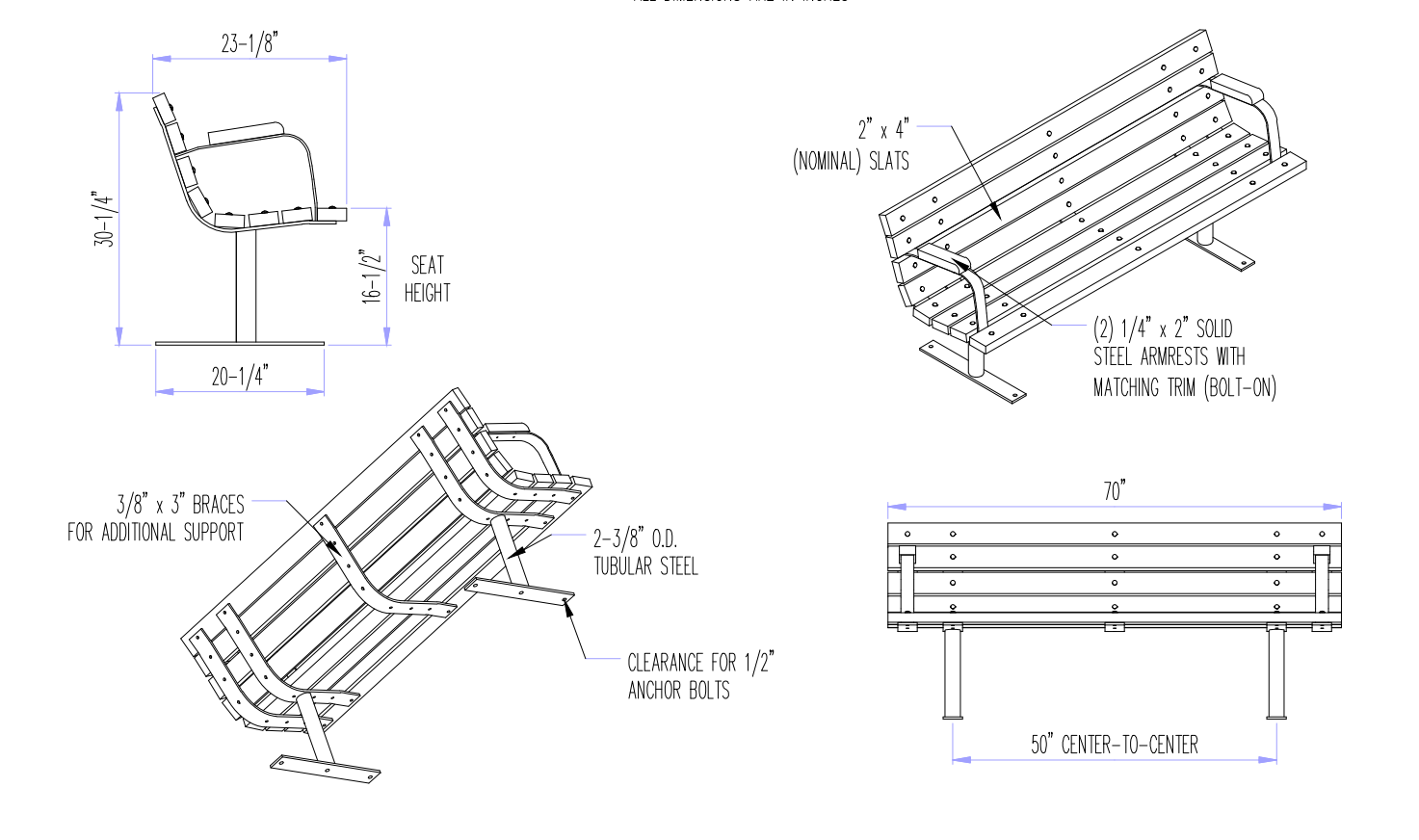
MODEL 8 HOMESTEAD
CONTOURED BENCH
SHOWN: STANDARD 6-FOOT LENGTH
STANDARD IN-GROUND MOUNT
STANDARD 2nd SITE SYSTEMS/SLATS
OPTIONAL (2) END ARMRESTS (BOLT-ON)

REVISIONS:
REV. 5/2/17 DRAWN V.E.L. 2017-508

IN-GROUND BENCH DETAIL

SCALE: NOT TO SCALE

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TEL: (301) 855-8300 - FAX: (410) 257-7579
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CUSTOM COLORS (INCLUDING THE RAL RANGE)
SLAT TYPES
PE WOOD OR 2nd SITE SYSTEMS/REINFORCED RECYCLED PLASTIC SLATS
2nd SITE SYSTEMS/COLORS: GRAY, MAPLE, CHERRY, AND WALNUT
(8-FOOT LENGTH WITH FULL CENTER LEG)
ARMRESTS (BOLT-ON)
4', 6', & 8' AVAILABLE WITH OPTIONAL ARMREST WITH MATCHING TRIM

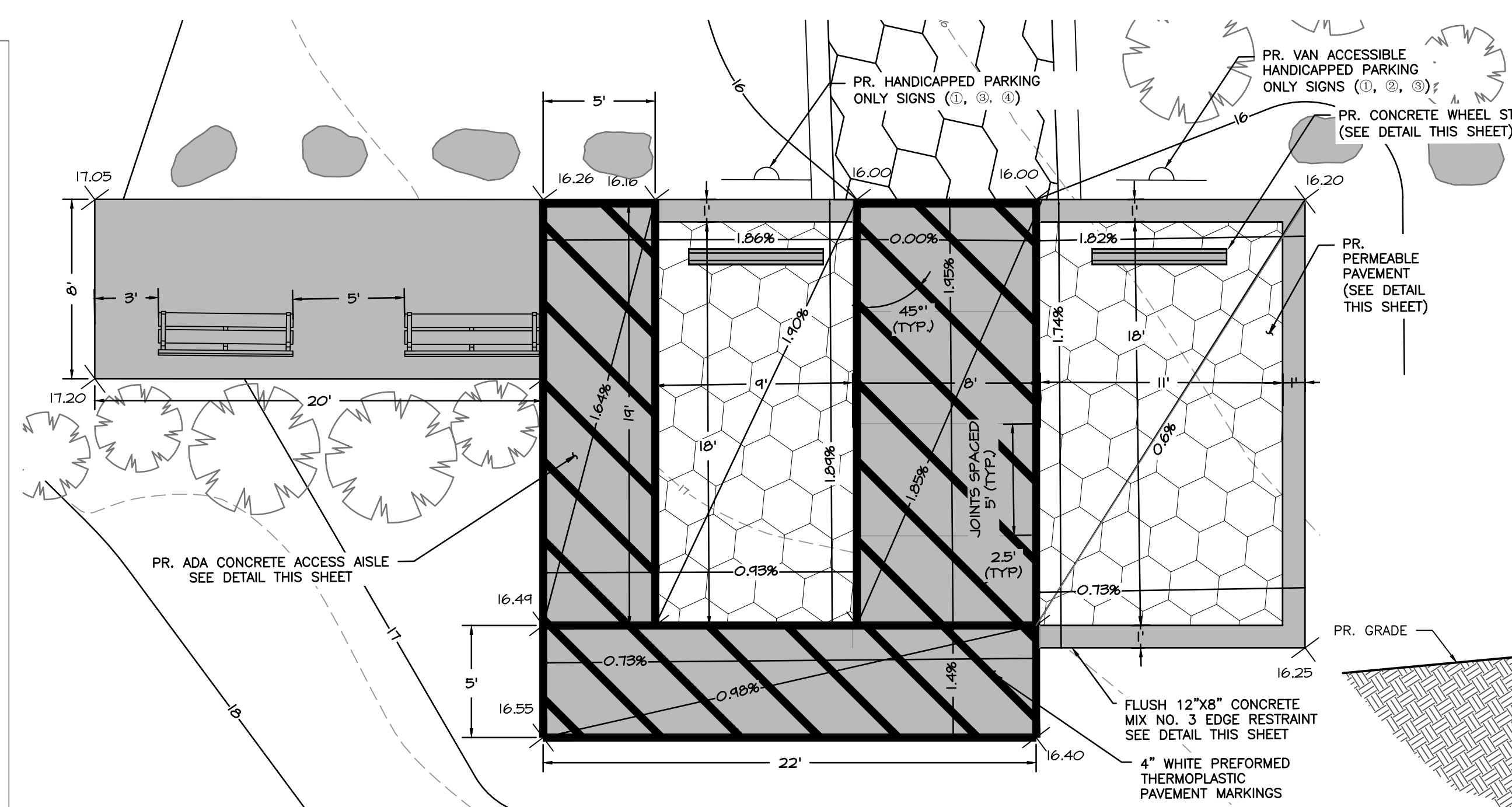
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3. IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
4. ANCHOR BOLTS NOT PROVIDED BY VICTOR STANLEY, INC.
5. FOR HIGH SALT ABUSIVE CLIMATES, HOT-DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. HOT-DIP GALVANIZING INCLUDES AN AGGRESSIVE PRE-TREATMENT AND IMMERSION IN A TANK OF CHARGED LIQUID ZINC AT OR AROUND 800°F (430°C). THE RESULTING SURFACE IS RESISTANT TO RUST BUT HAS SOME UNEVENNESS RESULTING FROM THE BONDING OF THE ZINC TO THE STEEL SURFACE. AS A RESULT, THE POWDER-COATING SURFACE FINISH OVER THAT GALVANIZED SURFACE MAY EXHIBIT BUMPS, UNEVENNESS, AND MAY NOT BE AS SMOOTH AS THE STANDARD FINISH. THIS UNEVEN AND INCONSISTENT FINISH IS NORMAL FOR GALVANIZING. CONTACT MANUFACTURER FOR DETAILS.
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MODEL 8 HOMESTEAD
CONTOURED BENCH
SHOWN: STANDARD 6-FOOT LENGTH
STANDARD IN-GROUND MOUNT
STANDARD 2nd SITE SYSTEMS/SLATS
OPTIONAL (2) END ARMRESTS (BOLT-ON)

REVISIONS:
REV. 5/2/17 DRAWN V.E.L. 2017-508

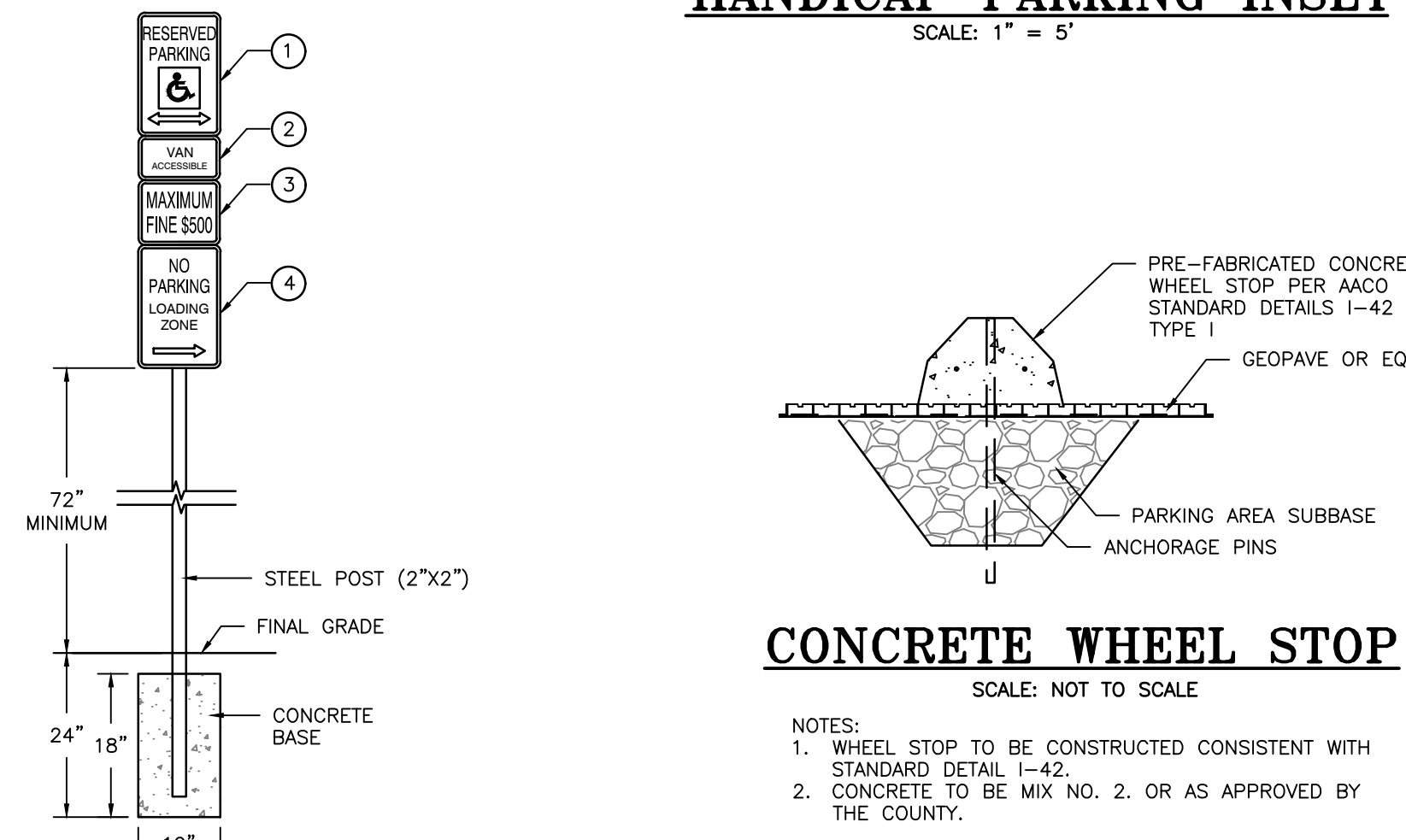
MOUNTED BENCH DETAIL

SCALE: NOT TO SCALE



HANDICAP PARKING INSET

SCALE: 1" = 5'

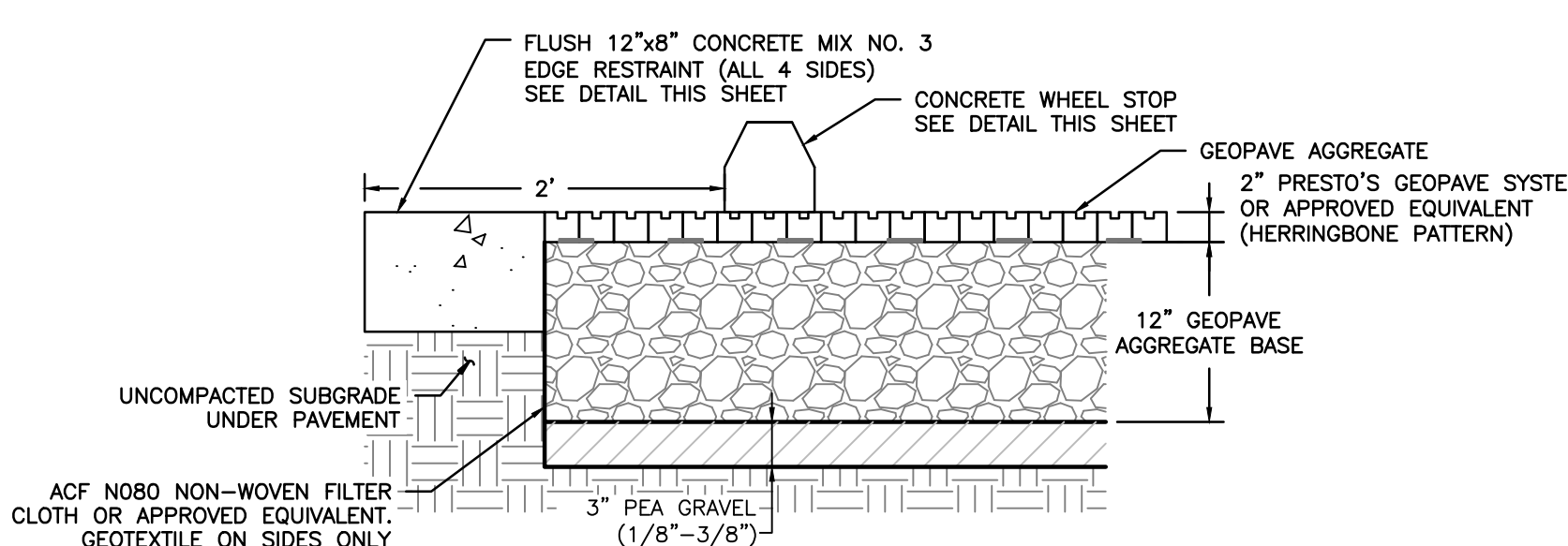


CONCRETE WHEEL STOP

SCALE: NOT TO SCALE

HANDICAP PARKING SIGN

SCALE: NOT TO SCALE



PERMEABLE PAVEMENT DETAIL

SCALE: 1" = 1'

NOTE:
GEOPAVE SYSTEM MANUFACTURED BY REYNOLDS PRESTO PRODUCTS, INC. PHONE: 920-738-1328 WEBSITE: WWW.PRESTO.GEO.COM FOR INSTALLATION GUIDELINES

MAINTENANCE AND INSPECTION NOTES FOR PERMEABLE PAVEMENT

- PAVEMENTS SHOULD BE USED ONLY WHERE REGULAR MAINTENANCE CAN BE PERFORMED. MAINTENANCE AGREEMENTS SHOULD CLEARLY SPECIFY HOW TO CONDUCT ROUTINE TASKS TO ENSURE LONG-TERM PERFORMANCE.
- PAVEMENT SURFACES SHOULD BE SWEEP AND VACUUMED TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING SYSTEMS AND COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
- DRAINAGE PIPES, INLETS, STONE EDGE DRAINS, AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE SHOULD BE CLEANED OUT AT REGULAR INTERVALS.
- TRUCKS AND OTHER HEAVY VEHICLES CAN GRIND DIRT AND GRIT INTO THE POROUS SURFACES, LEADING TO CLOGGING AND PREMATURE FAILURE. THESE VEHICLES SHOULD BE PREVENTED FROM TRACKING AND SPILLING MATERIAL ONTO THE PAVEMENT.
- DEICERS SHOULD BE USED IN MODERATION. WHEN USED, DEICERS SHOULD BE NON-TOXIC AND ORGANIC AND CAN BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT. SNOW PLOWING SHOULD BE DONE CAREFULLY WITH BLADES SET ONE-INCH HIGHER THAN NORMAL. PLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

ADA COMPLIANCE NOTE

In order to meet the adopted 2010 ADA minimum requirements and in accordance with the public rights-of-way Accessibility Guidelines (PROWAGs) published by the U.S. Access Board in 2001, all public and private pedestrian access routes, sidewalks, curb and gutter, curb ramps, and traffic control devices shall be designed in accordance with the Anne Arundel County Pedestrian Facility Standards PFI-1-PF21

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Hanover, Maryland 21076 Fax: (410) 694-9105
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BAYLAND JOB NO. 5-18802

STRIPING SPECIFICATIONS

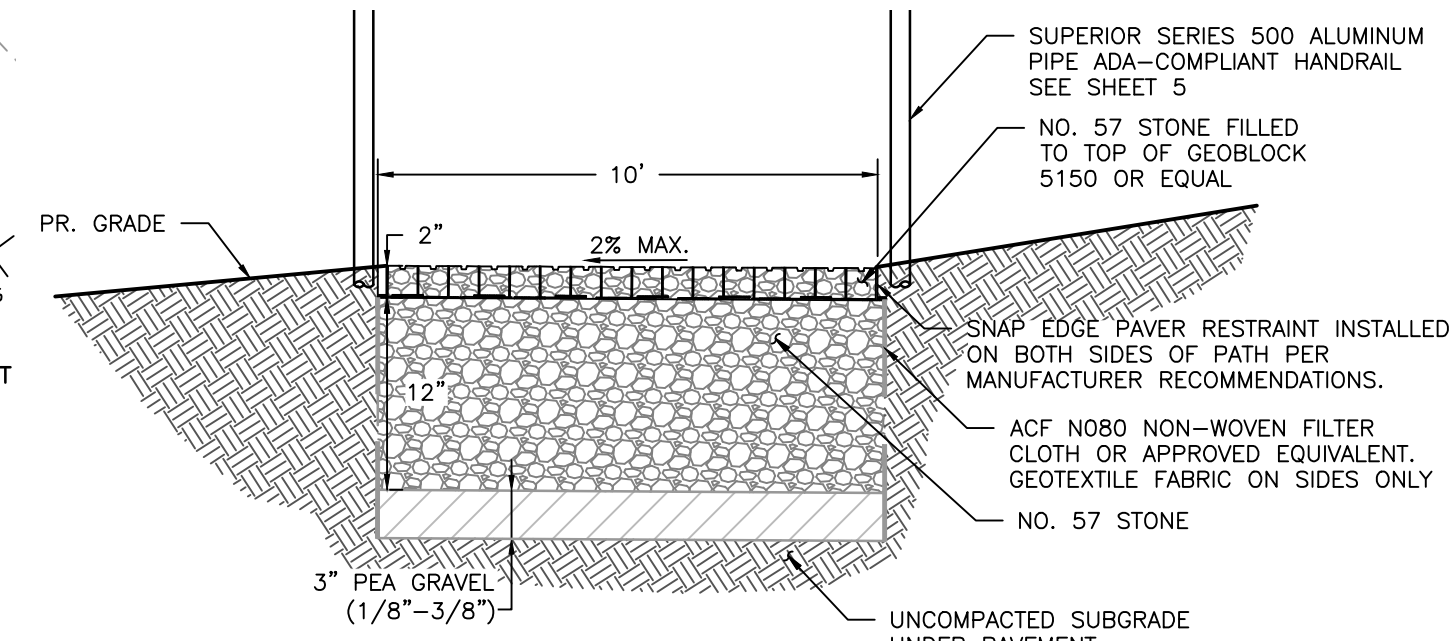
- WHITE (4" WIDE) THERMOPLASTIC DIAGONAL STRIPING AT ACCESS AISLES SHALL BE A MINIMUM EIGHT FEET (8') WIDE FOR PEDESTRIAN ACCESS IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REQUIREMENTS. THE DIAGONAL STRIPES SHALL BE SPACED 2.5 FEET ON CENTER.
- APPLY PAVEMENT MARKINGS TO CLEAN DRY PAVEMENT WHEN PAINT, AMBIENT AND SURFACE TEMPERATURE, AND RELATIVE HUMIDITY CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS.

HANDICAP PARKING NOTES

- PARKING SPACE SHALL BE 108 INCHES WIDE MINIMUM AND VAN SPACE SHALL BE 132 INCHES MINIMUM, MARKED TO DEFINE THE WIDTH, AND MAXIMUM SLOPE IN ALL DIRECTIONS IS 1:48 (2%).
- BOUNDARY OF THE UNLOADING/LOADING AREAS & ACCESS AISLE MUST BE CLEARLY MARKED SO AS TO DISCOURAGE PARKING IN IT. (STATE OR LOCAL LAWS MAY ADDRESS THE COLOR AND MANNER THAT PARKING SPACES AND ACCESS AISLES ARE MARKED.)

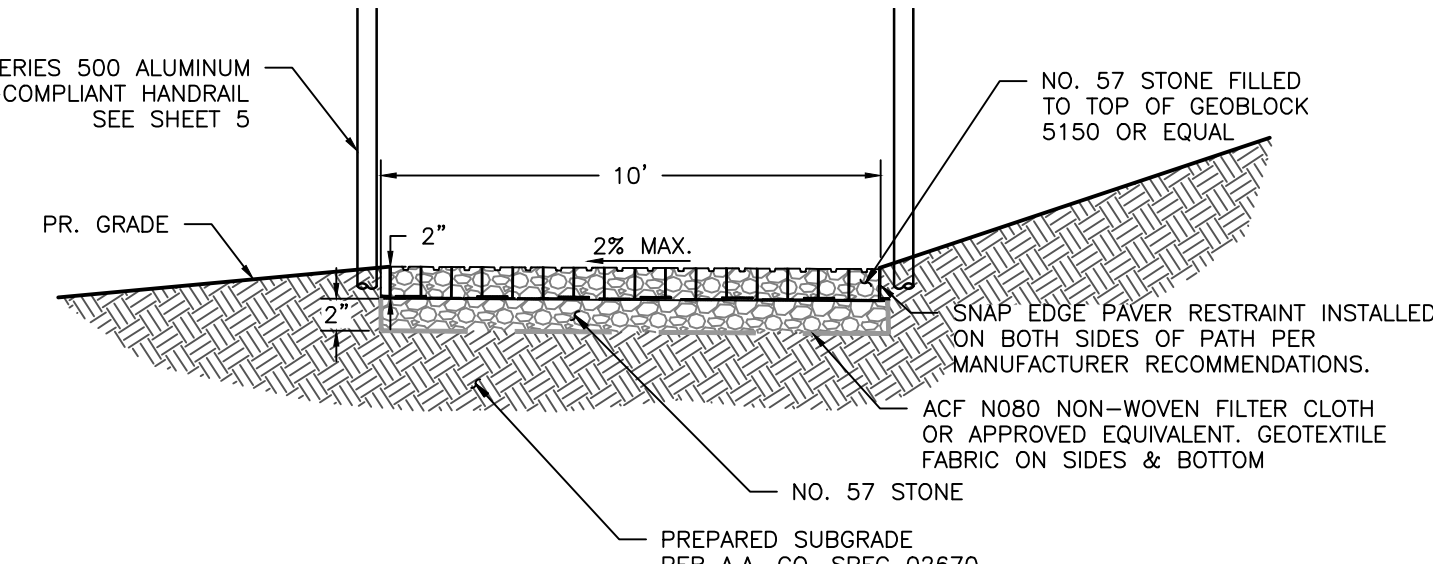
MOBI-MAT NOTES

- MOBI-MAT SHALL BE ADA ROLL OUT MAT 5' WIDE, GRADE AFX, & COLOR GOLDEN SAND.
- ORDERING INFORMATION & INSTALLATION GUIDELINES ARE AVAILABLE FOR DOWNLOAD FROM: WWW.MOBI-MAT-CHAIR-BEACH-ACCESS-DMS.COM



12" STORAGE PERMEABLE PATH DETAIL

SCALE: NOT TO SCALE



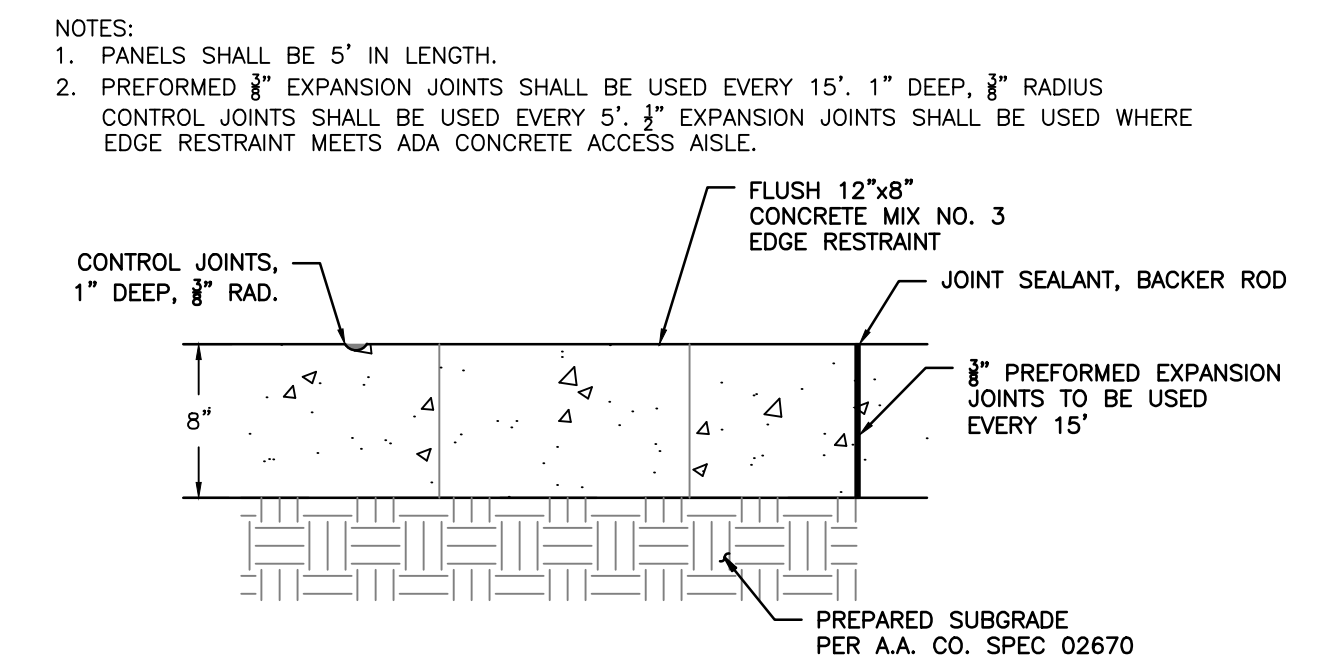
2" SUBBASE PERMEABLE PATH DETAIL

SCALE: NOT TO SCALE

NOTES:
1. PAVEMENT RESTRAINT TO BE SNAP EDGE OR APPROVED EQUIVALENT. <https://sek.us.com/products/sek-paver-restraints/snap-edge/>

ADA CONCRETE ACCESS AISLE AND PAD DETAIL

SCALE: NOT TO SCALE



CONCRETE EDGE RESTRAINT DETAIL

SCALE: NOT TO SCALE

- NOTES:
1. NO SECTION SHALL BE SHORTER THAN 4' IN LENGTH.
2. PREFORMED 3" EXPANSION JOINTS SHALL BE USED EVERY 15'. CONTROL JOINTS SHALL BE USED EVERY 5'. AND 1" EXPANSION JOINTS SHALL BE USED WHERE EDGE RESTRAINT MEETS ADA CONCRETE ACCESS AISLE.

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. 21194, EXPIRATION DATE: 04/20/2026.

ANNE ARUNDEL SOIL CONSERVATION DISTRICT DETAILS AND SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER CONTROL DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND SEVEN DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

- PERMANENT SEEDING:
A. SOIL TESTS: LIME AND FERTILIZER WILL BE APPLIED PER SOIL TESTS RESULTS FOR SITES GREATER THAN 5 ACRES. SOIL TESTS WILL BE DONE AT COMPLETION OF INITIAL ROUGH GRADING OR AS RECOMMENDED BY THE SEDIMENT CONTROL INSPECTOR. RATES AND ANALYSES WILL BE PROVIDED TO THE GRADING INSPECTOR AS WELL AS THE CONTRACTOR.

OCCURRENCE OF ACID SULFATE SOILS (GRAYISH BLACK COLOR) WILL REQUIRE COVERING WITH A MINIMUM OF 12 INCHES OF CLEAN SOIL WITH 6 INCHES MINIMUM CARPING OF TOP SOIL. NO STOCKPILING OF MATERIAL IS ALLOWED. IF NEEDED, SOIL TESTS SHOULD BE DONE BEFORE AND AFTER A 6-WEEK INCUBATION PERIOD TO ALLOW OXIDATION OF SULFATES.

THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:

- SOIL PH SHALL BE BETWEEN 6.0 AND 7.0.
- SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).
- THE SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIAL (> 20% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION IS LOVEGRASS OR SERICEA LESPEDEZA IS TO BE PLANTED, THEN A SANDY SOIL (< 30% SILT PLUS CLAY) WOULD BE ACCEPTABLE.
- SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
- SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
- IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS FROM THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL OR AMENDMENTS MADE AS RECOMMENDED BY A CERTIFIED AGRONOMIST.

- SEEDING: APPLY 5-6 POUNDS PER 1,000 SQUARE FEET OF TALL FESCUE BETWEEN FEBRUARY 1 AND APRIL 30 OR BETWEEN AUGUST 15 AND OCTOBER 31. APPLY SEED UNIFORMLY ON A MOIST FIRM SEEDBED WITH A CYCLONE SEEDER, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEEDS AND FERTILIZER, RECOMMENDED ON STEEP SLOPES ONLY). MAXIMUM SEED DEPTH SHOULD BE 1/4 INCH IN CLAYEY SOILS AND 1/2 INCH IN SANDY SOILS WHEN USING OTHER THAN THE HYDROSEEDER METHOD. IRRIGATE WHERE NECESSARY TO SUPPORT ADEQUATE GROWTH UNTIL ESTABLISHMENT IS FIRMLY ESTABLISHED. IF OTHER SEED MIXTURES ARE TO BE USED, SELECT FROM TABLE B3 AND B5 OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

- MULCHING: MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. DURING THE TIME PERIODS WHEN SEEDING IS NOT PERMITTED, MULCH SHALL BE APPLIED IMMEDIATELY AFTER GRADING. MULCH SHALL BE UNFROTTED, UNCHOPPED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE OR 90 POUNDS PER 1,000 SQUARE FEET (2 BALES). IF A MULCH-ANCHORING TOOL IS USED, APPLY 2.5 TONS PER ACRE. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE COMPLETELY FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY, MECHANICALLY OR BY HAND, TO A DEPTH OF 1-2 INCHES.
- SECURING STRAW MULCH: STRAW MULCH SHALL BE SECURED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE MOVEMENT BY WIND OR WATER. THE FOLLOWING METHODS ARE PERMITTED:
i. USE A MULCH-ANCHORING TOOL WHICH IS DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE TO A MINIMUM DEPTH OF 2 INCHES. THIS IS THE MOST EFFECTIVE METHOD FOR SECURING MULCH. HOWEVER, IT IS LIMITED TO RELATIVELY FLAT AREAS WHERE EQUIPMENT CAN OPERATE SAFELY.
ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. IF MIXED WITH WATER, USE 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
iii. LIQUID BINDERS MAY BE USED. APPLY AT HIGHER RATES AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF SLOPES. THE REMAINDER OF THE AREA SHOULD APPEAR UNIFORM AFTER BINDER APPLICATION. BINDERS LISTED IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL OR APPROVED EQUIVALENT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURERS.
iv. LIGHTWEIGHT PLASTIC NETTING MAY BE USED TO SECURE MULCH. THE NETTING WILL BE STAPLED TO THE GROUND ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

- TEMPORARY SEEDING:
LIME: 100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET.
FERTILIZER: 15 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET.
SEED: PERENNIAL RYE - 0.92 POUNDS PER 1,000 SQUARE FEET (FEBRUARY 1 THROUGH APRIL 30 OR AUGUST 15 THROUGH OCTOBER 31).
MILLET - 0.92 POUNDS PER 1,000 SQUARE FEET (MAY 1 THROUGH AUGUST 15).
MULCH: SAME AS 1 D AND E ABOVE.
- NO FILLS MAY BE PLACED ON FROZEN GROUND. ALL FILL IS TO BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS, EACH LAYER HAVING A LOOSE THICKNESS OF NOT MORE THAN 8 INCHES. ALL COMPACTION REQUIREMENTS ARE IN ACCORDANCE TO ANNE ARUNDEL COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AS WELL AS THE AA COUNTY DESIGN MANUAL AND STANDARD DETAILS. FILLS FOR POND EMBANKMENTS SHALL BE COMPACTED AS PER MD-378 CONSTRUCTION SPECIFICATIONS. ALL OTHER FILLS SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND PREVENT EROSION AND SLIPPAGE.

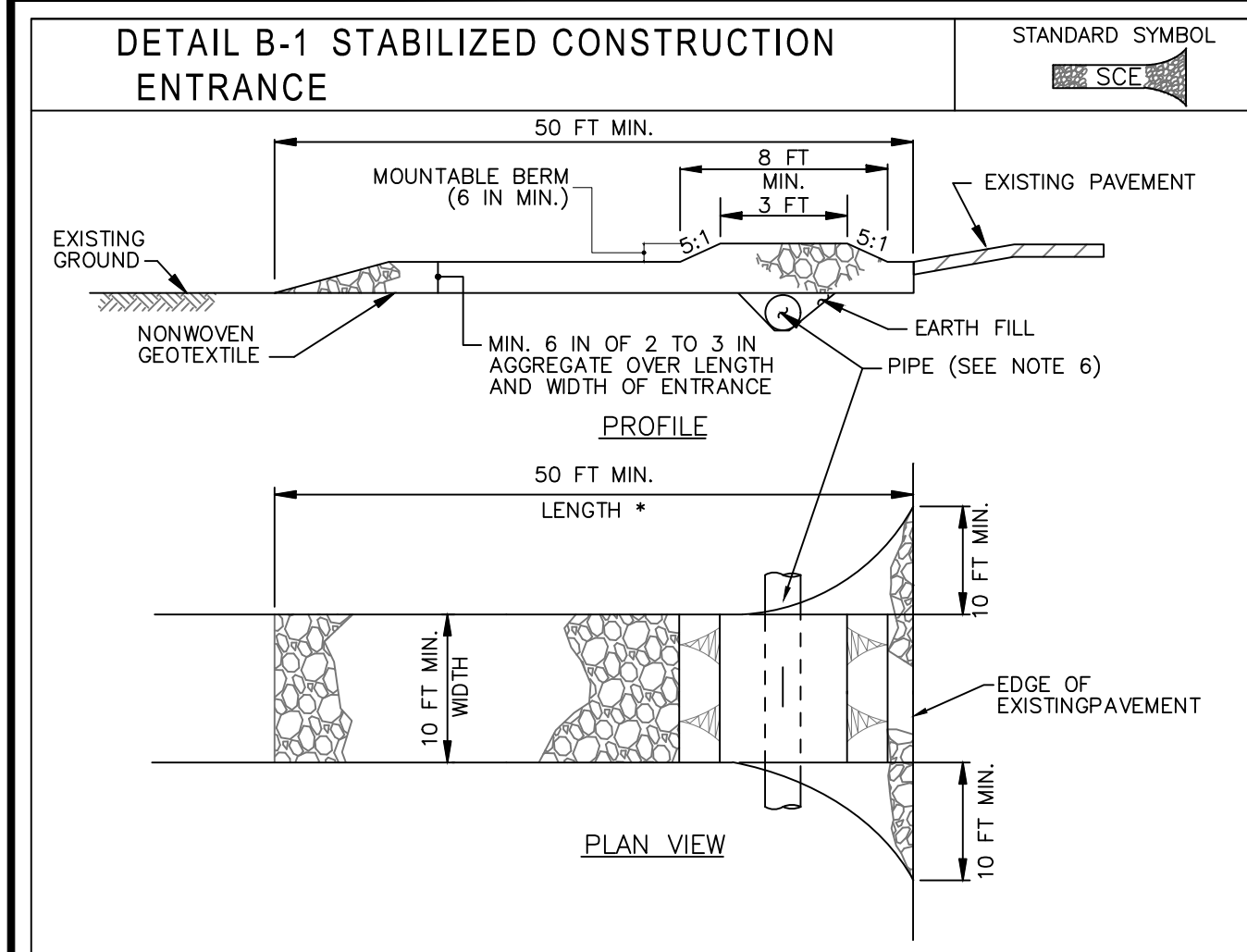
- PERMANENT SOD:
INSTALLATION OF SOD SHOULD FOLLOW PERMANENT SEEDING DATES. SEEDBED PREPARATION FOR SOD SHALL BE AS NOTED IN SECTION (B) ABOVE. PERMANENT SOD IS TO BE TALL FESCUE, STATE APPROVED SOD; LIME AND FERTILIZER PER PERMANENT SEEDING SPECIFICATIONS AND LIGHTLY IRRIGATE SOIL PRIOR TO LAYING SOD. SOD IS TO BE LAID ON THE CONTOUR WITH ALL ENDS TIGHTLY ABUTTING. JOINTS ARE TO BE STAGGERED BETWEEN ROWS. WATER AND ROLL OR TAMP SOD TO INSURE POSITIVE ROOT CONTACT WITH THE SOIL. ALL SLOPES STEEPER THAN 3:1, AS SHOWN, ARE TO BE PERMANENTLY SODDED OR PROTECTED WITH AN APPROVED EROSION CONTROL NETTING. ADDITIONAL WATERING FOR ESTABLISHMENT MAY BE REQUIRED. SOD IS NOT TO BE INSTALLED ON FROZEN GROUND. SOD SHALL NOT BE TRANSPLANTED WHEN MOISTURE CONTENT (DRY OR WET) AND/OR EXTREME TEMPERATURE MAY ADVERSELY AFFECT ITS SURVIVAL. IN THE ABSENCE OF ADEQUATE RAINFALL, IRRIGATION SHOULD BE PERFORMED TO ENSURE ESTABLISHMENT OF SOD.

- SEDIMENT CONTROL PLANS FOR MINING OPERATIONS MUST INCLUDE THE FOLLOWING SEEDING DATES AND MIXTURES:
FOR SEEDING DATES OF FEBRUARY 1 THROUGH APRIL 30 AND AUGUST 15 THROUGH OCTOBER 31, USE SEED MIXTURE OF TALL FESCUE AT THE RATE OF 2 POUNDS PER 1,000 SQUARE FEET AND SERICEA LESPEDEZA AT THE MINIMUM RATE OF 0.5 POUNDS PER 1,000 SQUARE FEET.

- TOPSOIL SHALL BE APPLIED AS PER THE STANDARD AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS FROM THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- USE OF THESE VEGETATIVE ESTABLISHMENT SPECIFICATIONS DOES NOT PRECLUDE THE PERMITEE OR CONTRACTOR FROM MEETING ALL OF THE REQUIREMENTS SET FORTH IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
REVISED DATE	APPROVED BY	DATE	APPROVED DATE
	CHIEF ENGINEER		PROJECT MANAGER
	APPROVED	DATE	APPROVED DATE
	ENGINEER ADMINISTRATOR		CHIEF, RIGHT OF WAY

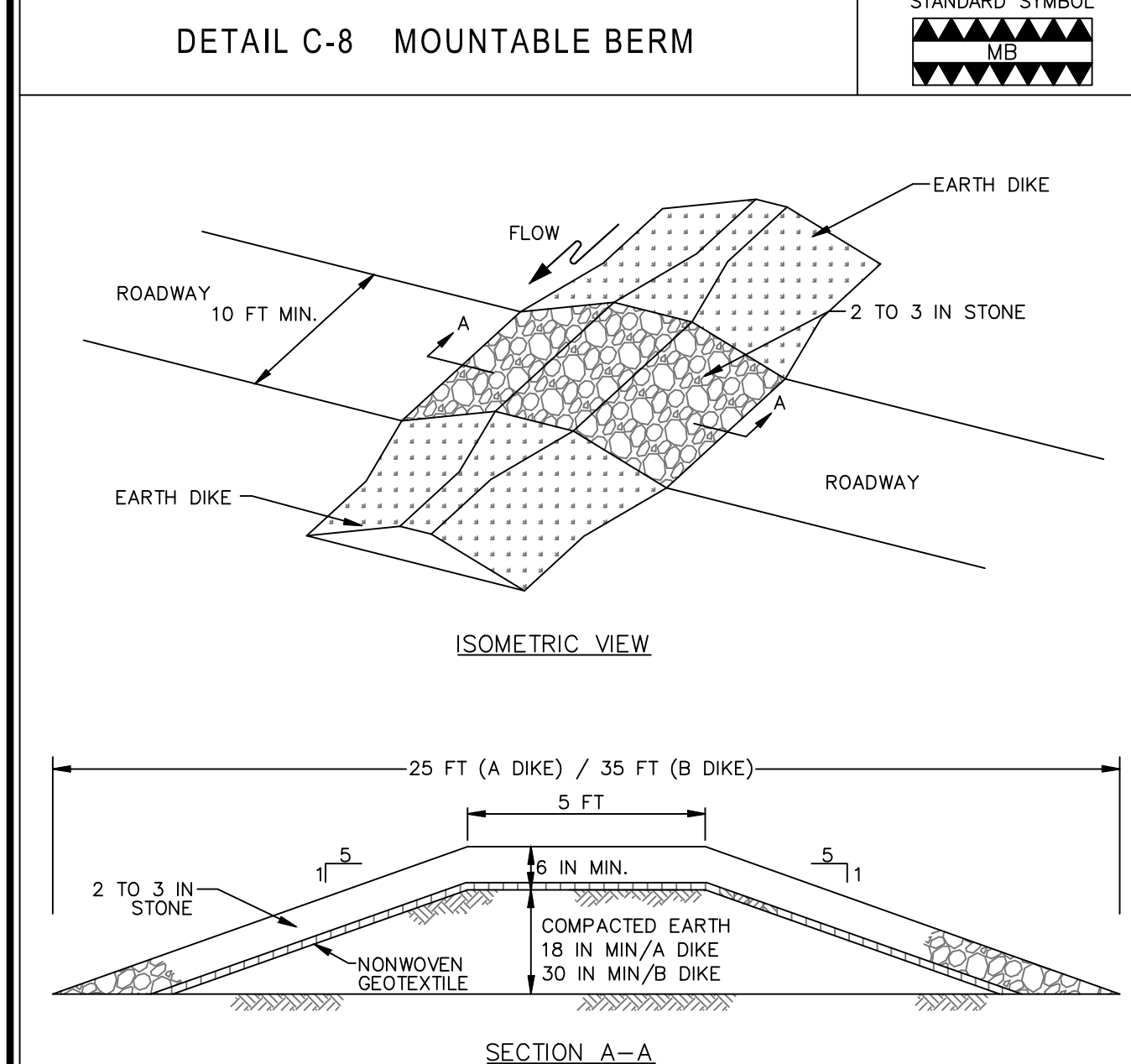
SCALE: AS NOTED	DESIGNED BY: AJ 5/17/24	SPRIGGS FARM PARK SHORELINE IMPROVEMENTS
DRAWN BY: EM 5/17/24	CHECKED BY: SB 5/17/24	
SHEET NO. 8 OF 11	PROJECT NO. P468700	
PROPOSAL NO. P468709	SITE DETAILS	



CONSTRUCTION SPECIFICATIONS

- 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 (430 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.
- 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.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 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.
- 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

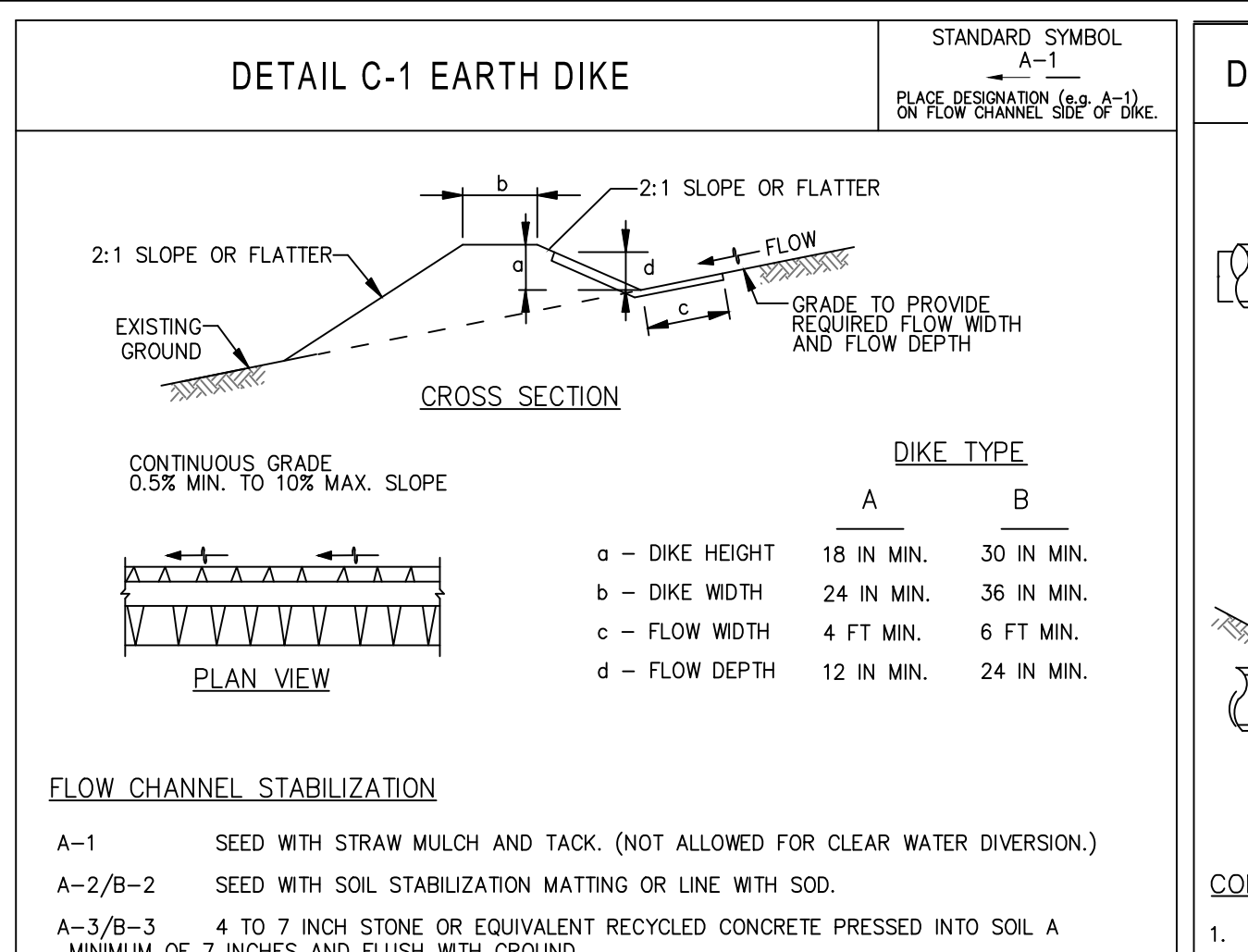


CONSTRUCTION SPECIFICATIONS

- USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
- PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
- PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

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

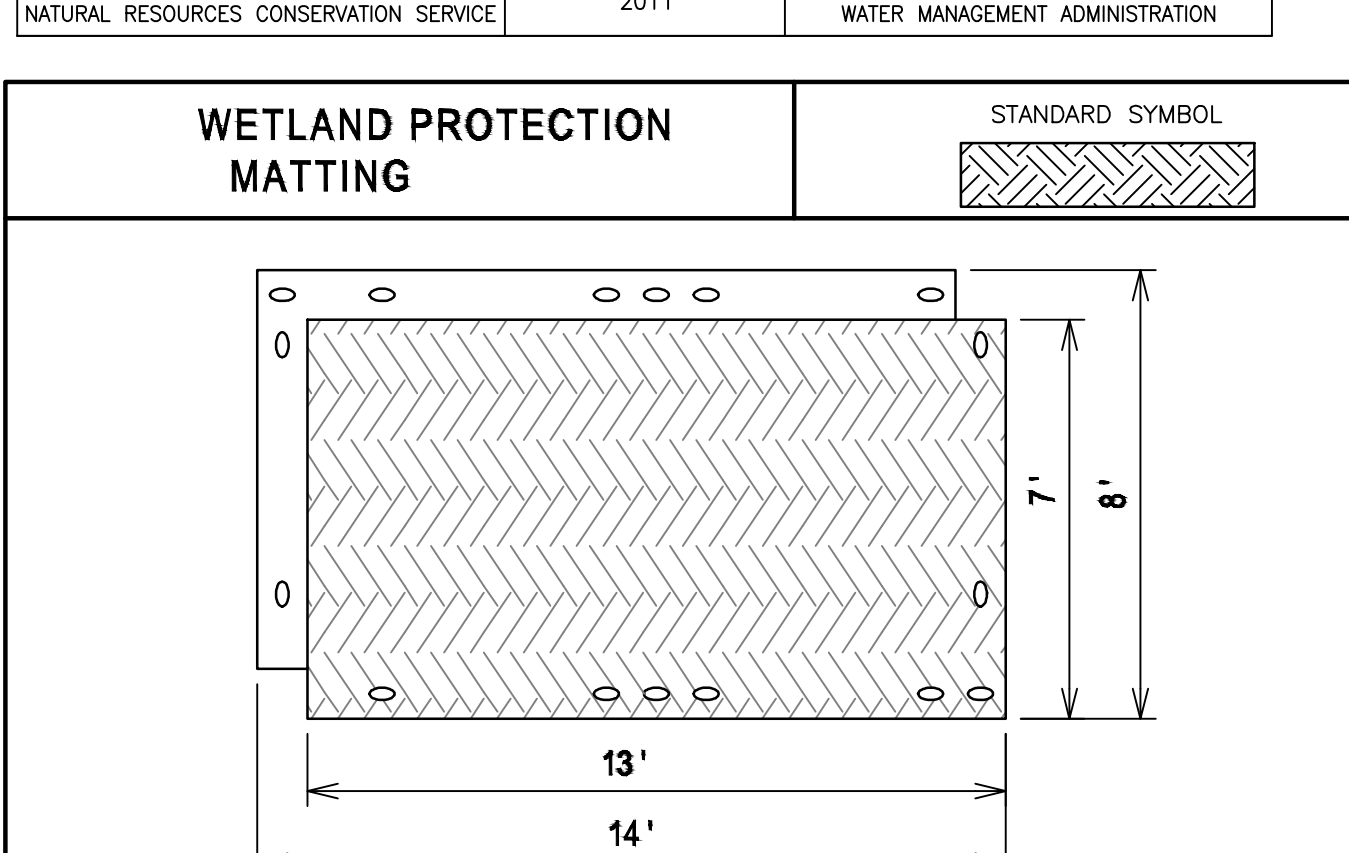
NOTES:
 1. TURBIDITY CURTAIN TO BE INSTALLED IN 400' INTERVALS PRIOR TO AND MAINTAINED DURING SAND PLACEMENT AND ANY OTHER SEDIMENT CAUSING ACTIVITY, PHASED ACCORDINGLY.
 2. NO EQUIPMENT OR MATERIAL STORAGE IS ALLOWED OUTSIDE OF THE LIMIT OF DISTURBANCE (LOD).



CONSTRUCTION SPECIFICATIONS

- REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
- EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
- COMPACT FILL.
- CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
- UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

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



GENERAL SPECIFICATIONS

LARGE MAT
 - OVERALL DIMENSIONS: 8' x 14'
 - SURFACE DIMENSIONS: 7' x 13'
 - WEIGHT: VARIABLE (SEE BELOW)

ALL MEASUREMENTS AND WEIGHTS ARE NOMINAL.

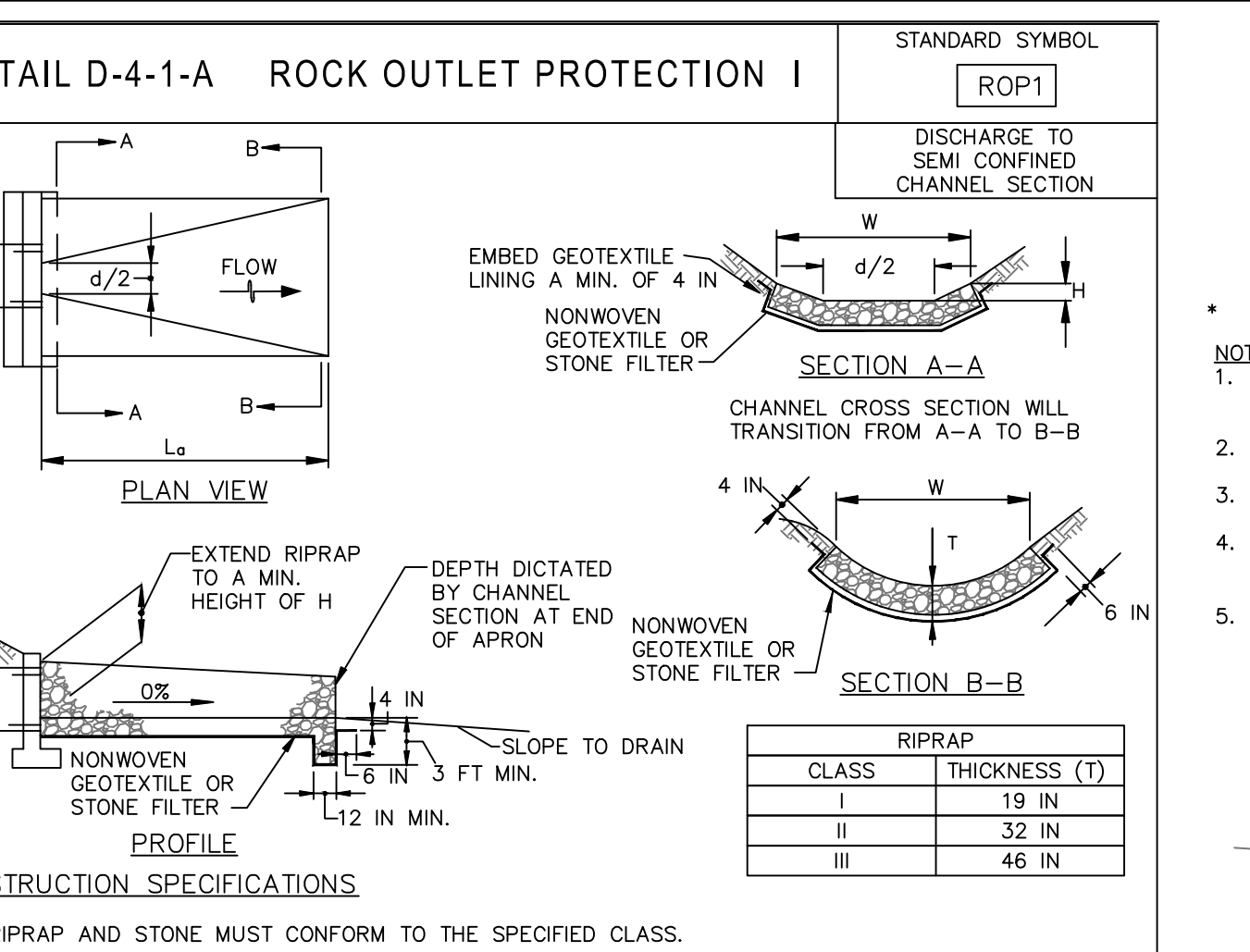
EACH MAT IS EQUIPPED WITH A LIP ON TWO SIDES THAT CREATE AN OVERLAPPING JOINT WITH AN ADJOINING MAT. EACH MAT IS ALSO EQUIPPED WITH 16 SLOTS INTO WHICH LOCKING PINS ARE INSERTED AND ENGAGED IN ORDER TO FASTEN MULTIPLE MATS TOGETHER. WETLAND PROTECTION MATTING MUST BE INSTALLED AT RIGHT ANGLES AND JOINED TOGETHER WITH PINS WHEN USED FOR WETLAND PROTECTION.

THE USE OF INTERLOCKING COMPOSITE MATTING IS THE PREFERRED CHOICE FOR ACCESSING WETLANDS. ALL MATTING INSTALLATIONS MUST ADHERE TO AVOIDANCE AND MINIMIZATION PRINCIPLES TO CREATE THE LEAST POTENTIAL IMPACT OF THE PROTECTED RESOURCE WHILE SAFELY ACCOMPLISHING THE NECESSARY WORK. THE TYPE OF MATTING, QUANTITY, SIZE AND DESIGN MUST TAKE INTO CONSIDERATION THE WEIGHT, SIZE AND MOVEMENT OF THE EQUIPMENT THAT WILL BE USING THE TEMPORARY ACCESS STRUCTURE. THE CONTRACTOR IS EXPECTED TO FOLLOW MANUFACTURER RECOMMENDATIONS, WHEN CONSIDERING DESIGN LOADING (EQUIPMENT WEIGHT). ONE MUST INCLUDE THE WEIGHT OF MATERIALS THAT THE EQUIPMENT WILL BE HANDLING SUCH AS PILES, STRUCTURES, LOADED CONCRETE TRUCKS, BUCKETS, CRANES AND OTHER APPARENT IMPACTS TO WEIGHT OR STRESSES. THIS GUIDANCE IS BASED UPON THE ENHANCED ABILITY TO OBTAIN PERMISSION FROM THE APPROPRIATE AGENCIES BY UTILIZING THIS TECHNOLOGY TO PERFORM WORK WITHIN ENVIRONMENTALLY SENSITIVE AREAS.

ALL CONSTRUCTION TRAFFIC AND WORK AREAS IN WETLANDS AND WETLAND BUFFERS TO USE COMPOSITE MATTING. APPROVED COMPOSITE MATTING SUPPLIERS INCLUDE:

- DURA BASE	1000 LBS	COMPOSITE CAM LOCKING SYSTEM	4IN HOLLOW REINFORCED CORE
- SURETRAK	800 LBS	ALUMINUM CAM LOCKING SYSTEM	1.5IN SOLID
- RUGGED ROAD	1050 LBS	ALUMINUM CAM LOCKING SYSTEM	4.25IN REINFORCED HOLLOW CORE
- MEGA DECK	1050 LBS	ALUMINUM CAM LOCKING SYSTEM	4.25IN REINFORCED HOLLOW CORE
- MEGA DECK SLP	800 LBS	ALUMINUM CAM LOCKING SYSTEM	1.5IN SOLID

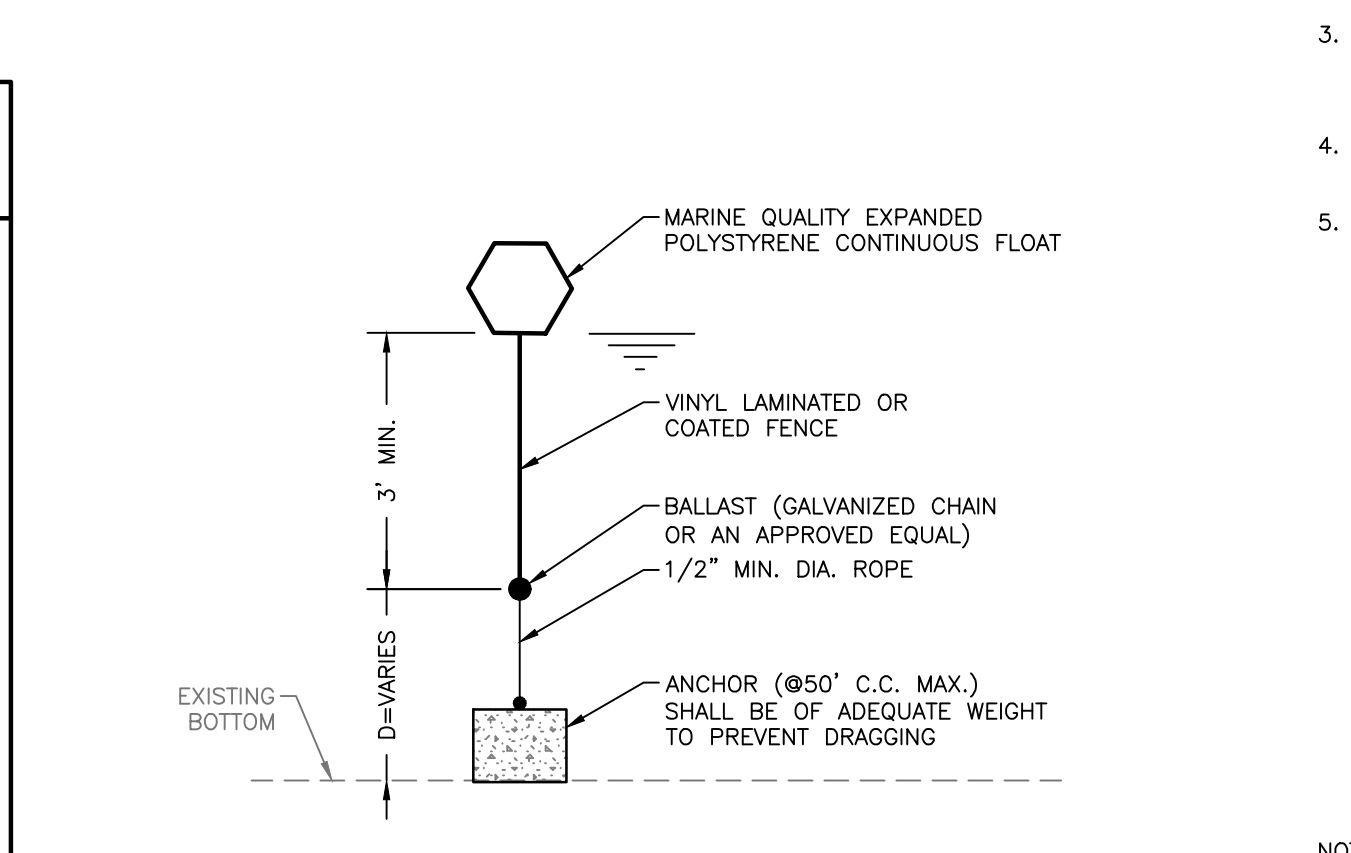
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS

- RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
- PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (3/8 TO 1/2 INCH STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF THE RIPRAP.
- CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE STONE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
- WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
- CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
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WOOD CHIP CONSTRUCTION ACCESS ROAD WITH DRAINAGE PIPE

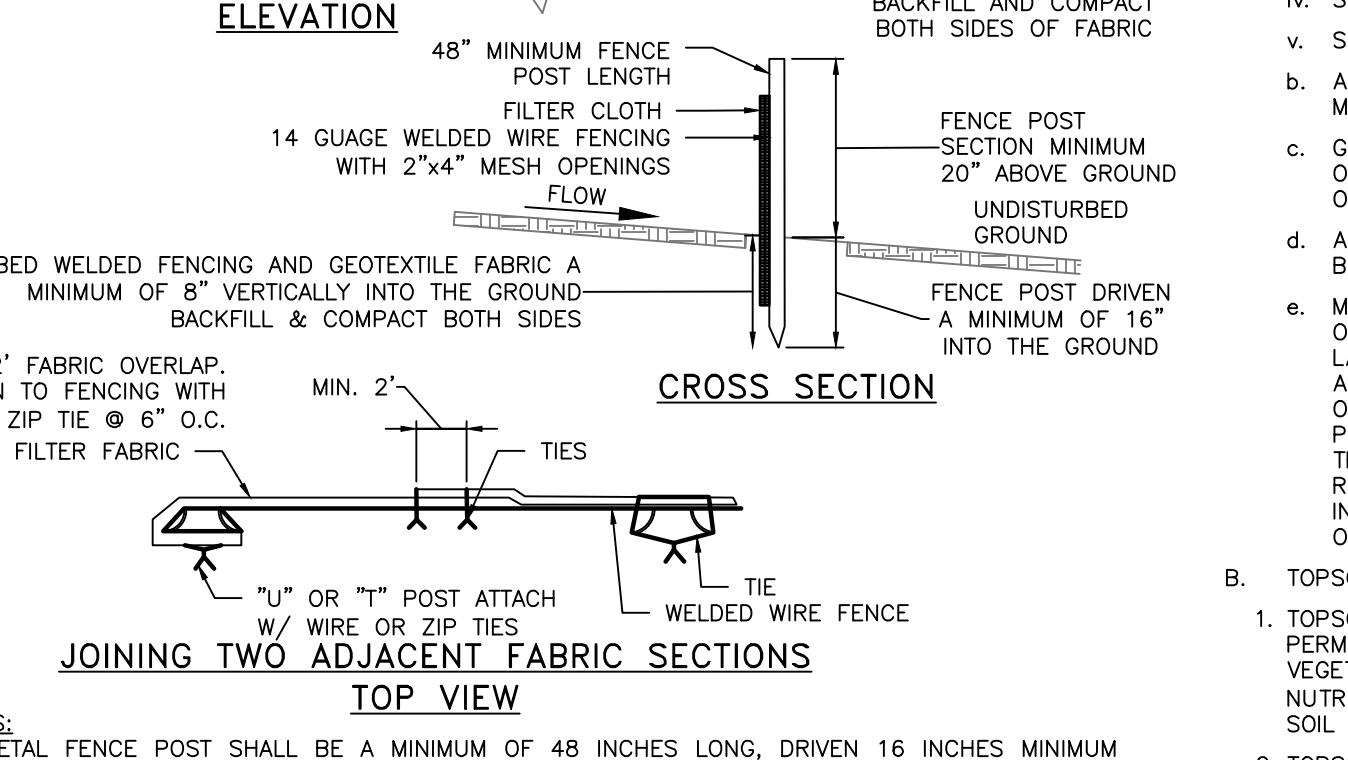
NOTE: TURBIDITY CURTAIN AS REQUIRED BY THE INSPECTOR TO PROTECT ACTIVE SHORELINE WORK AREA - LIMITED TO 400' AT ANY ONE TIME.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
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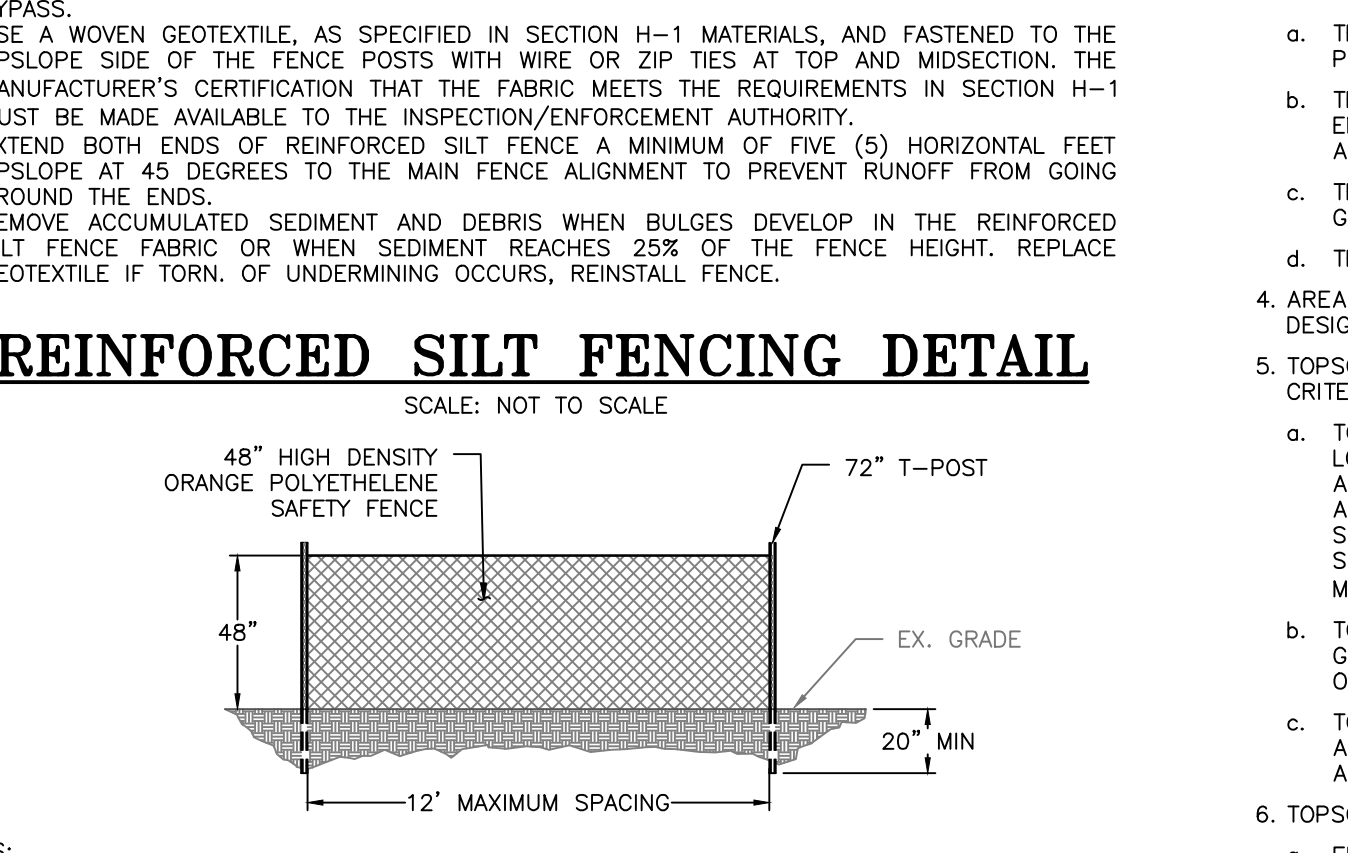
STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

AVERAGE SLOPE STEEPNESS	MAXIMUM SLOPE LENGTH	MAXIMUM SILT FENCE LENGTH
FLATTER THAN 50:1 (<2%)	300 FEET*	UNLIMITED
50:1 TO 10:1 (2-10%)	125 FEET	1,000 FEET
10:1 TO 5:1 (10-20%)	100 FEET	750 FEET
5:1 (>20%)	40 FEET	250 FEET

* MAXIMUM SLOPE LENGTH IS UNLIMITED ON THE HYDROLOGIC SOIL GROUP (HSG) "A" SOILS



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
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WOOD CHIP CONSTRUCTION ACCESS ROAD

NOTE: TURBIDITY CURTAIN AS REQUIRED BY THE INSPECTOR TO PROTECT ACTIVE SHORELINE WORK AREA - LIMITED TO 400' AT ANY ONE TIME.

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

STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

A. SOIL PREPARATION

- TEMPORARY STABILIZATION
 - 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 LOOSENEED, 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.
 - APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- PERMANENT STABILIZATION
 - A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - SOIL PH BETWEEN 6.0 AND 7.0.
 - SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 - 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 LOW-GRADE GRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES.
 - APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - 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 LAWOUE 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

- TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT SOIL MEDIUM. THE PURPOSE IS TO PROVIDE A SUITABLE 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.
- TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS 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.
- TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - 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.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
- TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 - 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, FLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
 - 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.
 - 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.
- TOPSOIL APPLICATION
 - EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 - 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.
 - 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.
- SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
 - SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR FERTILIZER AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
 - 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.
 - LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNED 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.
 - 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.
 - 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.

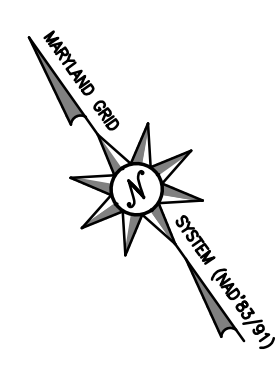
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 BAYLAND JOB NO. 5-18802



ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
REVISED DATE	APPROVED BY	DATE	APPROVED
	CHIEF ENGINEER		PROJECT MANAGER
	APPROVED	DATE	APPROVED DATE
	ENGINEER ADMINISTRATOR		CHIEF, RIGHT OF WAY

SCALE: AS NOTED
 DESIGNED BY: AJ 5/17/24
 DRAWN BY: EM 5/17/24
 CHECKED BY: SB 5/17/24
 SHEET NO. 9 OF 11
 PROJECT NO. P468700
 PROPOSAL NO. P468709

SPRIGGS FARM PARK SHORELINE IMPROVEMENTS
EROSION SEDIMENT CONTROL NOTES & DETAILS



MAGOTHY RIVER

N. 508'200' E. 142'2400'

EX. SAV
(COMPOSITE 2016 - 2021)

ZONE: GREEN RIPRAP/COBBLE TOE & LIVING SHORELINE PLANTING
GREEN INFRASTRUCTURE
HERBACEOUS QUARTS (15)
HERBACEOUS PLUGS (1,300)
LIVING SHORELINE
HERBACEOUS PLUGS (4,150)

ZONE: HILLSLOPE GRADING AREA
(OUTSIDE OF LOD - PLANTING ONLY, NO GRADING ON THIS SECTION OF HILLSLOPE)

PR. STONE SILL (TYP.)

PR. SOFT KAYAK LAUNCH

LIMIT OF EX. SAV

ZONE: VEGETATED DUNE PLANTING
HERBACEOUS PLUGS (550)

JOHN NICKLIN
1000 STONINGTON DR
ARNOLD, MD
DEED: 4641/0414
PLAT: N/A
1.34 AC

ZONE: SUPPLEMENTAL FOREST PLANTING
3/4" CALIFER CANOPY TREES (38)
3/4" CALIFER UNDERSTORY TREES (14)
36" CONTAINERIZED LARGE SHRUBS (7)
18" CONTAINERIZED SMALL SHRUBS (9)

MICHAEL AND KATHY THOMPSON
772 HOLLY LN
ARNOLD, MD
DEED: 35166/00244
PLAT: N/A
1.25 AC

KATHERINE AND JOSEPH CHRISTIE
774 HOLLY LN
ARNOLD, MD
DEED: 31664/00001
PLAT: N/A
1.24 AC

ZONE: HILLSLOPE GRADING AREA
36" CONTAINERIZED LARGE SHRUBS (16)
18" CONTAINERIZED SMALL SHRUBS (34)
HERBACEOUS SEEDING (2.5 LB)

ZONE: HILLSLOPE FOREST PLANTING
3/4" CALIFER CANOPY TREES (57)
3/4" CALIFER UNDERSTORY TREES (23)
36" CONTAINERIZED LARGE SHRUBS (22)
18" CONTAINERIZED SMALL SHRUBS (10)
HERBACEOUS SEEDING (4.5 LB)

ANNE ARUNDEL COUNTY
965 BAYBERRY DR
ARNOLD, MD
DEED: 23634/00103
PLAT: N/A
53.74 AC

EX. TIDAL POND

TIME OF YEAR RESTRICTION
NO IN-WATER WORK SHALL BE PERFORMED BETWEEN FEBRUARY 15 THROUGH OCTOBER 15, INCLUSIVE OF ANY YEAR, AS SPECIFIED IN THE PERMITS.

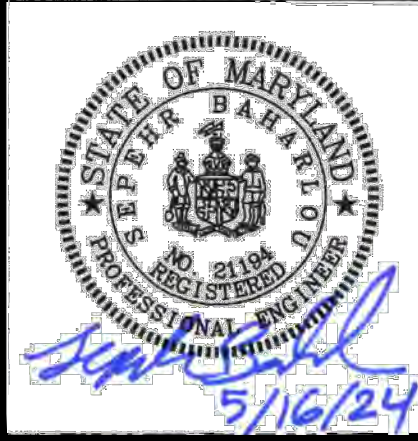
PROFESSIONAL CERTIFICATION

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. 21194, EXPIRATION DATE: 04/20/2026.

Bayland
Consultants & Designers, Inc.
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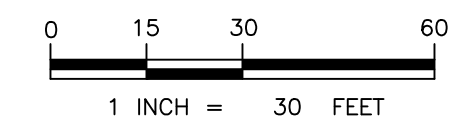
ANNE ARUNDEL COUNTY				DEPARTMENT OF PUBLIC WORKS			
REVISOR	DATE	BY	APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
							DESIGNED BY: AJ 5/17/24
							DRAWN BY: EM 5/17/24
							CHECKED BY: SB 5/17/24
							SHEET NO. 10 OF 11
							PROJECT NO. P468700
							PROPOSAL NO. P468709

SPRIGGS FARM PARK SHORELINE IMPROVEMENTS

PLANTING PLAN

LEGEND

- 100' CRITICAL AREA BUFFER
- <15 SLOPES
- HILLSLOPE FOREST PLANTING (SEE PLANT SCHEDULE)
- HILLSLOPE GRADING AREA (SEE PLANT SCHEDULE)
- SUPPLEMENTAL FOREST PLANTING (SEE PLANT SCHEDULE)
- EX. TREE (TO BE REMOVED)



**ZONE: HILLSLOPE FOREST PLANTING
SCHEDULE - 8,179 SF**

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SPACING	QUANTITY	CREDIT TOTAL, SF
CANOPY TREES - 3/4" CALIPER					
SF CREDIT PER UNIT = 100					
ACER RUBRUM	RED MAPLE	FAC	NATURALIZED AT 10' OC	7	700
DIOSPYROS VIRGINIANA	COMMON PERSIMMON	FAC	NATURALIZED AT 10' OC	10	1,000
NYSSA SYLVATICA	BLACK GUM	FAC	NATURALIZED AT 10' OC	8	800
QUERCUS ALBA	WHITE OAK	FACU	NATURALIZED AT 10' OC	8	800
QUERCUS FALCATA	SOUTHERN RED OAK	FACU	NATURALIZED AT 10' OC	7	700
QUERCUS RUBRA	NORTHERN RED OAK	FACU	NATURALIZED AT 10' OC	10	1,000
SASSAFRAS ALBIDUM	SASSAFRAS	FACU	NATURALIZED AT 10' OC	7	700
CANOPY TREE CREDIT 58.4%					
UNDERSTORY TREES - 3/4" CALIPER					
SF CREDIT PER UNIT = 75					
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	NATURALIZED AT 8.5' OC	8	600
AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	FACU	NATURALIZED AT 8.5' OC	8	600
ILEX OPACA	AMERICAN HOLLY	FAC	NATURALIZED AT 8.5' OC	7	525
UNDERSTORY TREE CREDIT 17.7%					
LARGE SHRUBS - 36" CONTAINERIZED					
SF CREDIT PER UNIT = 50					
BACCHARIS HALIMIFOLIA	GROUNDSEL BUSH	FAC	NATURALIZED AT 7' OC	6	300
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	6	300
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	NATURALIZED AT 7' OC	5	250
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	NATURALIZED AT 7' OC	5	250
LARGE SHRUB CREDIT 11.3%					
SMALL SHRUBS - 18" CONTAINERIZED					
SF CREDIT PER UNIT = 25					
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	NATURALIZED AT 5' OC	5	125
ILEX GLABRA	INKBERRY HOLLY	FAC	NATURALIZED AT 5' OC	5	125
SMALL SHRUB CREDIT 2.6%					
SEEDING					
SF CREDIT BASED ON AREA COVERED					
HERBACEOUS					
ERNMX-172 MIX OR EQUIVALENT	NATIVE UPLAND SEED MIX	N/A	N/A	4.5 LB	980
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES					
SEE TABLE FOR RATES 0					
HERBACEOUS CREDIT 10.0%					
TOTAL: 112 9,755					

**ZONE: HILLSLOPE GRADING AREA PLANTING
SCHEDULE - 6,926 SF TOTAL; 4,761 SF IN LOD**

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SPACING	QUANTITY	CREDIT TOTAL, SF
LARGE SHRUBS - 36" CONTAINERIZED					
SF CREDIT PER UNIT = 50					
AMORPHA FRUTICOSA	FALSE INDIGO BUSH	FAC	NATURALIZED AT 7' OC	22	1,100
ARONIA ARBUTIFOLIA	RED CHOKEBERRY	FAC	NATURALIZED AT 7' OC	18	900
BACCHARIS HALIMIFOLIA	GROUNDSEL BUSH	FAC	NATURALIZED AT 7' OC	16	800
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	16	800
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	NATURALIZED AT 7' OC	22	1,100
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	NATURALIZED AT 7' OC	22	1,100
LARGE SHRUB CREDIT 50.5%					
SMALL SHRUBS - 18" CONTAINERIZED					
SF CREDIT PER UNIT = 25					
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	NATURALIZED AT 5' OC	22	550
PRUNUS MARITIMA	BEACH PLUM	NL	NATURALIZED AT 5' OC	17	425
SMALL SHRUB CREDIT 13.0%					
SEEDING					
SF CREDIT BASED ON AREA COVERED					
HERBACEOUS					
ERNMX-172 MIX OR EQUIVALENT	NATIVE UPLAND SEED MIX	N/A	N/A	2.5 LB	750
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES					
SEE TABLE FOR RATES 0					
HERBACEOUS CREDIT 10.0%					
TOTAL: 155 7,525					

ZONE: GREEN RIPRAP/COBBLE TOE & LIVING SHORELINE PLANTING SCHEDULE - 12,141 SF TOTAL; 4,621 SF ABOVE EX. MHW

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	MAX SPACING/LOCATION	QUANTITY	CREDIT TOTAL, SF
GREEN INFRASTRUCTURE					
QUARTS					
SF CREDIT PER UNIT = 2					
BAPTISIA TINCTORIA	YELLOW INDIGO	NL	RANDOM @ 3' O.C.	15	30
PLUGS					
SF CREDIT BASED ON AREA COVERED					
OENOTHERA BIENNIS	COMMON EVENING PRIMROSE	FACU	RANDOM @ 18" O.C.	50	113
MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	FAC	RANDOM @ 18" O.C.	50	113
PANICUM VIRGATUM	SWITCHGRASS	FAC	RANDOM @ 18" O.C.	150	338
SOLIDAGO SEMPERVIRENS	SEASIDE GOLDENROD	FACW	RANDOM @ 18" O.C.	100	225
SPARTINA PATENS**	SALT MEADOW CORDGRASS	FACW	RANDOM @ 18" O.C.	950	2085
LIVING SHORELINE					
HERBACEOUS					
PLUGS					
SF CREDIT BASED ON AREA COVERED					
SPARTINA ALTERNIFLORA*	SMOOTH CORDGRASS	OBL ²	18" O.C. IN LOW MARSH	1650	0
SPARTINA PATENS**	SALT MEADOW CORDGRASS	FACW ¹	18" O.C. IN HIGH MARSH	2500	1,714
HERBACEOUS CREDIT 100.0%					
TOTAL: 5465 4,617					

* ALL PLANTINGS AREA BELOW EX. MHW, NOT INCLUDED AS CRITICAL AREA MITIGATION
 ** ONLY AREA PLANTED ABOVE EX. MHW IS INCLUDED AS CRITICAL AREA MITIGATION
 * PLANT IN HIGHER ELEVATIONS OF LIVING SHORELINE
 ** PLANT IN LOWER ELEVATIONS OF LIVING SHORELINE

**ZONE: VEGETATED DUNE PLANTING
SCHEDULE - 1,058 SF**

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	MAX SPACING/LOCATION	QUANTITY*	CREDIT TOTAL, SF**
HERBACEOUS					
PLUGS					
SF CREDIT BASED ON AREA COVERED					
OENOTHERA BIENNIS	COMMON EVENING PRIMROSE	FACU	RANDOM @ 18" O.C.	50	56
PANICUM VIRGATUM	SWITCHGRASS	FAC	RANDOM @ 18" O.C.	50	56
SOLIDAGO SEMPERVIRENS	SEASIDE GOLDENROD	FACW	RANDOM @ 18" O.C.	50	56
SPARTINA PATENS**	SALT MEADOW CORDGRASS	FACW	RANDOM @ 18" O.C.	400	892
HERBACEOUS CREDIT 100.0%					
TOTAL: 550 1,060					

** ONLY AREA PLANTED ABOVE EX. MHW IS INCLUDED AS CRITICAL AREA MITIGATION

**ZONE: MEADOW ESTABLISHMENT PLANTING
SCHEDULE - 31,823 SF**

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SPACING	QUANTITY	CREDIT TOTAL, SF
SEEDING					
SF CREDIT BASED ON AREA COVERED					
HERBACEOUS					
ERNMX-172 MIX OR EQUIVALENT	NATIVE UPLAND SEED MIX	N/A	N/A	20 LB	0
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES					
SEE TABLE FOR RATES 0					
HERBACEOUS CREDIT 0.0%					
TOTAL: - 0					

**ZONE: SUPPLEMENTAL FOREST PLANTING
SCHEDULE - 5,033 SF**

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SPACING	QUANTITY	CREDIT TOTAL, SF
ZONE: SUPPLEMENTAL FOREST PLANTING SCHEDULE - 5,033 SF					
CANOPY TREES - 3/4" CALIPER					
SF CREDIT PER UNIT = 100					
DIOSPYROS VIRGINIANA	COMMON PERSIMMON	FAC	NATURALIZED AT 10' OC	8	800
NYSSA SYLVATICA	BLACK GUM	FAC	NATURALIZED AT 10' OC	6	600
QUERCUS ALBA	WHITE OAK	FACU	NATURALIZED AT 10' OC	6	600
QUERCUS FALCATA	SOUTHERN RED OAK	FACU	NATURALIZED AT 10' OC	4	400
QUERCUS RUBRA	NORTHERN RED OAK	FACU	NATURALIZED AT 10' OC	8	800
SASSAFRAS ALBIDUM	SASSAFRAS	FACU	NATURALIZED AT 10' OC	6	600
CANOPY TREE CREDIT 72.0%					
UNDERSTORY TREES - 3/4" CALIPER					
SF CREDIT PER UNIT = 75					
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	NATURALIZED AT 8.5' OC	5	375
AMELANCHIER ARBOREA*	DOWNY SERVICEBERRY	FACU	NATURALIZED AT 8.5' OC	4	300
ILEX OPACA	AMERICAN HOLLY	FAC	NATURALIZED AT 8.5' OC	5	375
UNDERSTORY TREE CREDIT 19.9%					
LARGE SHRUBS - 36" CONTAINERIZED					
SF CREDIT PER UNIT = 50					
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	2	100
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	NATURALIZED AT 7' OC	2	100
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	NATURALIZED AT 7' OC	3	150
LARGE SHRUB CREDIT 6.6%					
SMALL SHRUBS - 18" CONTAINERIZED					
SF CREDIT PER UNIT = 25					
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	NATURALIZED AT 5' OC	3	75
SMALL SHRUB CREDIT 1.4%					
TOTAL: 62 5,275					

SEQUENCE OF IMPLEMENTATION

- CONTRACTOR SHALL ARRANGE PRE-PLANTING MEETINGS WITH COUNTY PLANNING & ZONING DEPARTMENT STAFF AT LEAST 5 DAYS IN ADVANCE OF DISTURBANCES OF ANY LAND ON SITE.
- REMOVE/ELIMINATE TURF GRASS AND TILL AREAS UNFORESTED AREAS TO BE PLANTED TO A DEPTH OF 12 INCHES.
- USE TREE SHELTER TUBES WITH MESH TOPS FOR SEEDLINGS PLANTING TO REDUCE ANIMAL DAMAGE.
- MULCH AROUND LANDSCAPING STOCK TO REDUCE COMPETITION FROM INVASIVE SPECIES.
- MONITOR THE PLANTINGS OFTEN TO REDUCE PLANT STRESS SUCH AS WATER DEFICIENCY, NUTRIENT DEFICIENCY, INVASIVE SPECIES COMPETITION, PEST DAMAGE, AND DISEASE.
- THE CONTRACTOR SHALL OBSERVE: MINIMAL SITE PREPARATION/DISTURBANCE, PROTECTION OF PLANTS AFTER DELIVERY UNTIL THEY ARE PLANTED, PROPER DIGGING AND HANDLING OF PLANT MATERIALS, PROPER EXCAVATION OF PLANTING AREAS, PLANTING OPERATIONS, STABILIZATION OF THE PLANTING AREAS WITH MULCH AFTER PLANTING, STAKING AND PRUNING, AND INSTALLATION OF BUFFER PROTECTION SIGNAGE.

BUFFER MANAGEMENT & PROTECTION STANDARDS

- REMOVAL OF VEGETATION WITHIN THE 100-FOOT BUFFER AND EXPANDED BUFFER IS PROHIBITED, CUTTING AND CLEARING OF NATURAL VEGETATION WITHIN THE BUFFER AND EXPANDED BUFFER SHALL BE AS SHOWN ON THIS BUFFER MANAGEMENT PLAN AS SUBMITTED AND OR AS SUBSEQUENTLY AMENDED, SUBJECT TO APPROVAL BY THE COUNTY PLANNING AND ZONING OFFICE. ADDITIONAL INFORMATION CAN BE OBTAINED BY CONTACTING THE PLANNING AND ZONING OFFICE AT 2664 RIVA ROAD, ANNAPOLIS MARYLAND 21401.
- THE BUFFER ON THIS PARCEL SHALL BE PLANTED IN ACCORDANCE WITH THIS PLAN. ALL EXISTING AND PLANTED VEGETATION WITHIN THE BUFFER SHALL BE MAINTAINED AND SURVIVAL OF PLANTED AND NATURALLY OCCURRING REGENERATED AREAS OF THE BUFFER SHALL BE AS DESCRIBED IN THIS PLAN.
- NEW LAWN AREAS SHALL NOT BE CREATED WITHIN THE BUFFER OR EXPANDED BUFFER UNLESS SPECIFICALLY ADDRESSED IN THIS BUFFER MANAGEMENT PLAN.
- THE CONTRACTOR SHALL OBSERVE: MINIMAL SITE PREPARATION/DISTURBANCE, PROTECTION OF PLANTS AFTER DELIVERY UNTIL THEY ARE PLANTED, PROPER DIGGING AND HANDLING OF PLANT MATERIALS, PROPER EXCAVATION OF PLANTING AREAS, PLANTING OPERATIONS, STABILIZATION OF THE PLANTING AREAS WITH MULCH AFTER PLANTING, STAKING, PRUNING, AND INSTALLATION OF BUFFER PROTECTION SIGNAGE.

LANDSCAPE NOTES

- ALL PLANT SPECIES SHALL BE NATIVE TO THE CHESAPEAKE AND ATLANTIC COASTAL BAYS REGION BASED ON THE U.S. FISH AND WILDLIFE SERVICE PUBLICATION, NATIVE PLANTS FOR WILDLIFE HABITAT AND CONSERVATION LANDSCAPING.
- SPECIES CLASSIFICATION (CANOPY TREE, UNDERSTORY TREE, ETC.) IS IN ACCORDANCE WITH MATURE HEIGHTS AS SET FORTH IN THE U.S. FISH AND WILDLIFE SERVICE PUBLICATION, NATIVE PLANTS FOR WILDLIFE HABITAT AND CONSERVATION LANDSCAPING.
- SPECIES HAVE BEEN SELECTED BASED ON AN ANALYSIS OF SURROUNDING NATIVE FOREST AND DEVELOPED WOODLAND COVER.
- UNLESS SPECIFIC PLANTING LOCATIONS ARE SHOWN, ALL WOODY PLANTINGS SHALL BE INSTALLED IN A NATURALIZED LAYOUT TO SIMULATE NATURAL PATTERNS OF DISTRIBUTION AND GROWTH.
- THE QUANTITY OF ANY SINGLE SPECIES DOES NOT EXCEED 20 PERCENT OF THE OVERALL PLANTING.

MONITORING & SURVIVAL REQUIREMENTS

- PLANTINGS SHALL BE MONITORED TWICE A YEAR FOR A PERIOD OF TWO YEARS AFTER PLANT INSTALLATION.
- MONITORING SHALL BE PERFORMED ONCE DURING APRIL/MAY AND ONCE AUGUST/SEPTEMBER DURING EACH MONITORING YEAR.
- MONITORING SHALL INCLUDE AN ASSESSMENT OF PLANT SURVIVAL, GENERAL CONDITION OF PLANTED VEGETATION, INVASIVE SPECIES PRESENCE, EVIDENCE OF PESTS OR PREDATION, AND RECOMMENDATIONS TO IMPROVE PLANT CONDITION.
- AT THE END OF THE 2-YEAR MONITORING PERIOD, PLANT SURVIVAL SHALL BE 100% IN ACCORDANCE WITH ANNE ARUNDEL COUNTY CODE AND COMAR 27.01.09.01-20. ANY SURVIVAL DEFICIENCY SHALL BE REQUIRED TO BE REPLACED TO MEET THE MINIMUM REQUIREMENT.
- THE REQUIREMENT FOR REPLACEMENT PLANTINGS MAY EXTEND THE MONITORING PERIOD BEYOND 2-YEARS.

MAINTENANCE REQUIREMENTS

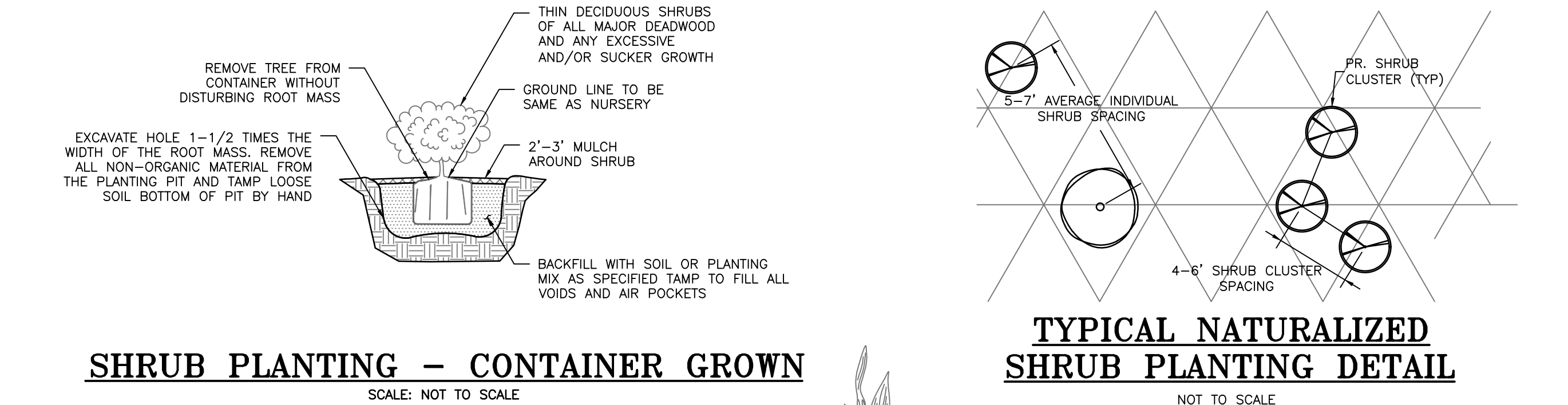
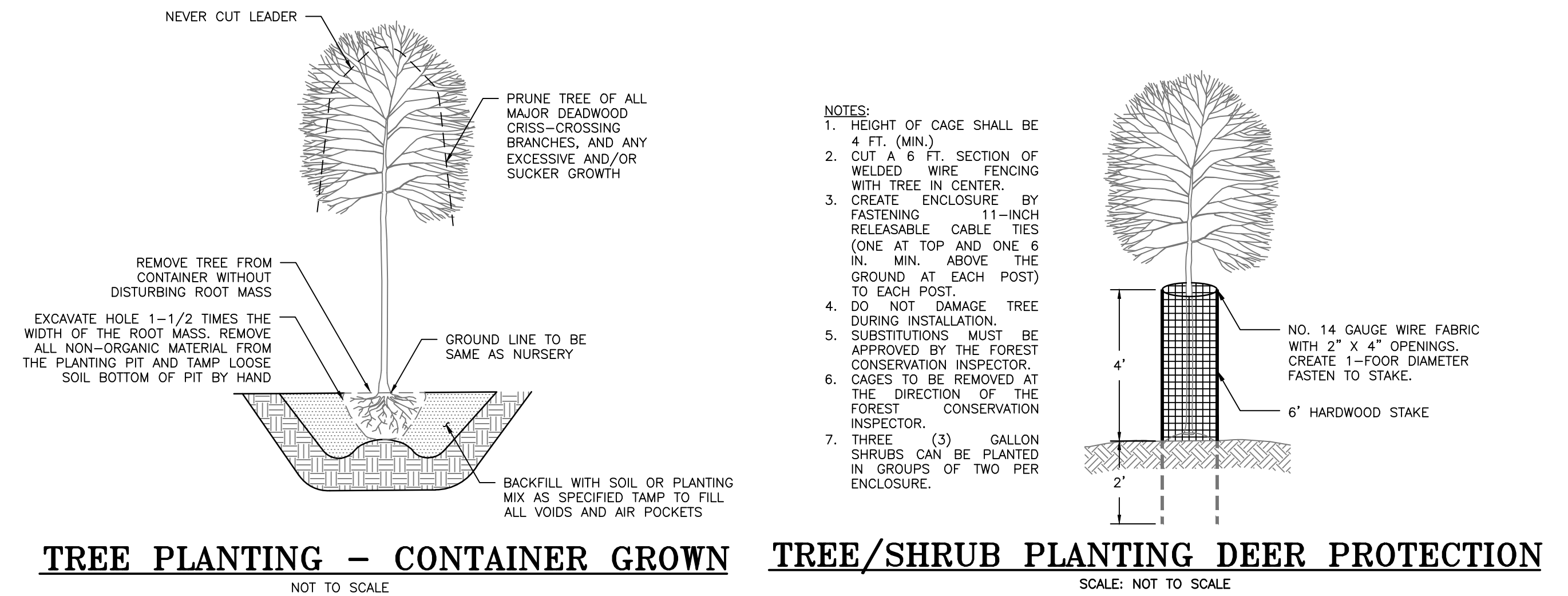
- CONTRACTOR SHALL MONITOR PLANTINGS OFTEN TO REDUCE STRESS SUCH AS WATER AND/OR NUTRIENT DEFICIENCY, INVASIVE SPECIES, PEST DAMAGE, AND DISEASE.
- WATER ONLY AS NECESSARY BUT AT LEAST ONCE EVERY 5 DAYS WITHOUT RAINFALL FROM MAY THROUGH SEPTEMBER FOR THE FIRST GROWING SEASON AFTER PLANTING.
- USE OF LOW NITROGEN AND SLOW RELEASE FERTILIZER MAY BE UTILIZED. APPLICATION SHALL BE COMPLETED IN EARLY SPRING OR LATE FALL.
- INSPECTIONS FOR SURVIVAL SHALL BE PERFORMED IN ACCORDANCE WITH MONITORING AND SURVIVAL REQUIREMENTS.
- DEER PROTECTION SHALL BE REMOVED AT THE CLOSE OF THE REQUIRED MONITORING PERIOD.

NATIVE UPLAND SEED MIX COMPOSITION

% COMPOSITION	BOTANICAL NAME	COMMON NAME
48.00%	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
28.60%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
4.30%	RUBECKIA HIRTA	BLACKKEYED SUSAN
2.90%	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWED
2.10%	CHAMAECRISTA FASCICULATA	PARTIRIDGE PEA
2.10%	ERAGROSTIS SPECTABILIS	PURPLE LOVEGRASS
2.10%	LESPEDEZA VIRGINICA	SLENDER LESPEDEZA
2.10%	SENNA HEBECARPA	WLD SENNA
1.80%	PENSTEMON DIGITALIS	TALL WHITE BEARDTONGUE
1.10%	ASTER NOVAE-ANGIAE	NEW ENGLAND ASTER
1.10%	ASTER PILOSUS	HEATH ASTER
0.70%	CHAMAECRISTA NICTITANS	SENSITIVE PEA
0.60%	MONARDA FISTULOSA	WILD BERGAMOT
0.60%	PHYCNANTHEMUM TENUIFOLIUM	NARROWLEAF MOUNTAINMINT
0.50%	SOLIDAGO BICOLOR	WHITE GOLDENROD
0.50%	SOLIDAGO NEMORALIS	GRAY GOLDENROD
0.40%	PENSTEMON LAEVIGATUS	APPALACHIAN BEARDTONGUE
0.30%	PHYCNANTHEMUM INCANUM	HOARY MOUNTAINMINT
0.20%	PENSTEMON HIRSUTUS	HAIRY BEARDTONGUE

COVER/NURSE CROP SEEDING TABLE

SEEDING RATE	BOTANICAL NAME	COMMON NAME	SEEDING DATE
30 LB/AC	SECALE CEREALE	CEREAL RYE	11/1-2/28
30 LB/AC	AVENA SATIVA	GRAIN OATS	3/1-4/30
10 LB/AC	SETARIA ITALICA	FOXTAIL MILLET	5/1-8/31
ZONE:	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS	9/1-10/31



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. 21194, EXPIRATION DATE: 04/20/2026.

**ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS**

REVISED DATE	BY	APPROVED DATE	DATE	APPROVED DATE	DATE	SCALE:	AS SHOWN
						DESIGNED BY:	AJ 5/17/24
						DRAWN BY:	EM 5/17/24
						CHECKED BY:	SB 5/17/24
						SHEET NO.	11 OF 11
						PROJECT NO.	P468700
						PROPOSAL NO.	P468709

**SPRIGGS FARM PARK
SHORELINE IMPROVEMENTS**

PLANTING PLAN

Bayland Consultants & Designers, Inc.
"Integrating Engineering and Environment"

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Hanover, Maryland 21076 Fax: (410) 694-9105
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