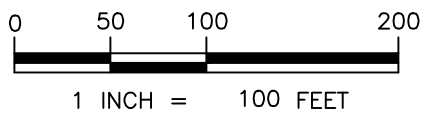




- NOTES:**
1. NO EQUIPMENT OR MATERIAL STORAGE IS ALLOWED OUTSIDE THE LIMITS OF DISTURBANCE (LOD).
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Hanover, Maryland 21076 Fax: (410) 694-9405
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BAYLAND JOB NO. 5_13802



REVISIONS				APPROVED				APPROVED				SCALE: 1" = 100'			
DATE	BY	REVISION	DATE	DATE	BY	REVISION	DATE	DATE	BY	REVISION	DATE	DESIGNED BY	DATE	CHECKED BY	DATE
				4/8/2025	09:18			4/7/2025	08:18			DESIGNED BY: AJ	4/7/25		
												DRAWN BY: EM/MJ	4/7/25		
												PROJECT MANAGER:		CHECKED BY: SB	4/7/25
												APPROVED	DATE		
												DESIGNED BY:	DATE		
				4/7/2025	13:59			4/7/2025	11:11			PROJECT NO. P468700			
												ASSISTANT CHIEF ENGINEER			
												CHIEF, "RIGHT OF WAY"			
												PROPOSAL NO. P468716			

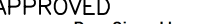

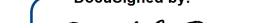
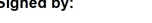
DOWN'S PARK SHORELINE IMPROVEMENTS

SITE ACCESS PLAN



MATCHLINE REFER TO SHEET 4

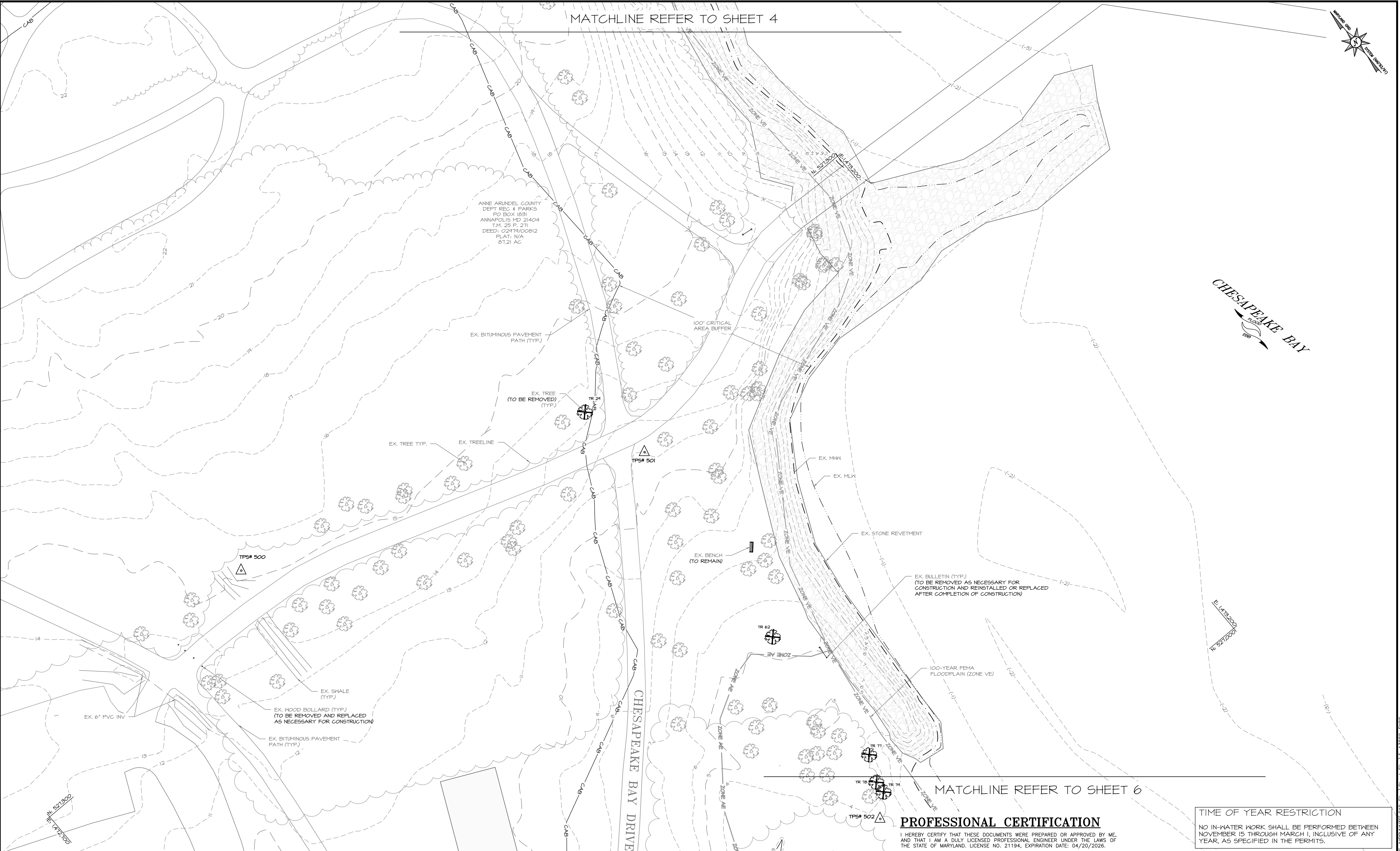
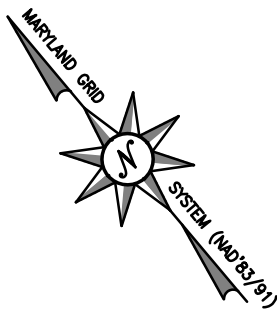
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND. LICENSE NO. 21194, EXPIRATION DATE: 04/20/2026.

ANNE ARUNDEL COUNTY							
DEPARTMENT OF PUBLIC WORKS							
REVISED		APPROVED		DATE		SCALE: 1" = 20'	
DATE	BY		DATE		DATE	DRAWN BY:	CHECKED BY:
		 Desig-nated by: CHIEF ENGINEER	4/8/2025 09:38 EDT	 Desig-nated by: PROJECT MANAGER	4/7/2025 08:35 EDT	AJ EM/MJ	SB
		 Desig-nated by: CHIEF ENGINEER	4/7/2025 13:59 EDT	 Desig-nated by: CHIEF, RIGHT OF WAY	4/7/2025 11:07 EDT	SHEET NO. PROJECT NO.	4 OF 18 P468700
		CGE3272KCM40 ASSISTANT CHIEF ENGINEER				PROPOSAL NO.	P468716

DOWN PARK SHORELINE IMPROVEMENTS

EXISTING CONDITIONS & DEMOLITION PLAN

MATCHLINE REFER TO SHEET 4



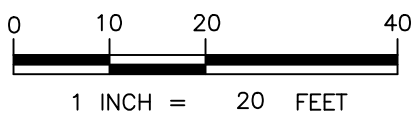
MATCHLINE REFER TO SHEET 6

PROFESSIONAL CERTIFICATION

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TIME OF YEAR RESTRICTION

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BAYLAND JOB NO. 5_13802



REVISED	DATE	BY

APPROVED	DATE	APPROVED	DATE
DocuSigned by: <i>Melissa Hartinski</i>	4/8/2025 09:18 EDT	DocuSigned by: <i>Melissa Hartinski</i>	4/7/2025 08:31 EDT
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
DocuSigned by: <i>David O. Braun</i>	4/7/2025 13:59 EDT	DocuSigned by: <i>Edom Burke</i>	4/7/2025 11:11 EDT
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

SCALE:	1" = 20'
DESIGNED BY:	AJ 4/7/25
DRAWN BY:	EM/MJ 4/7/25
CHECKED BY:	SB 4/7/25
SHEET NO.	5 OF 18
PROJECT NO.	P468700
PROPOSAL NO.	P468716

DOWN'S PARK SHORELINE IMPROVEMENTS
EXISTING CONDITIONS & DEMOLITION PLAN

CHESAPEAKE BAY
FLOOD
TERRACE

E: 1,473,400
N: 526,700

PROFESSIONAL CERTIFICATION

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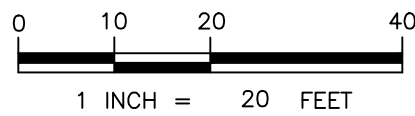
BAYLAND JOB NO. 5_13802

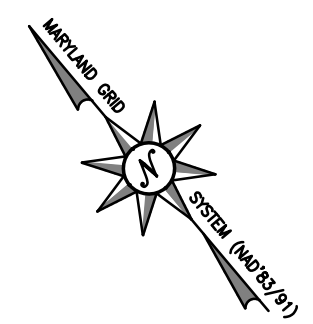


REVISED		APPROVED		DATE		APPROVED		DATE		SCALE: 1" = 20'	
DATE	BY	Discussed by:		4/8/2025 09:30		Discussed by:		4/7/2025 08:30		DESIGNED BY: AJ 4/7/25	
		CHIEF ENGINEER				PROJECT MANAGER				DRAWN BY: EM/MJ 4/7/25	
		APPROVED		DATE		APPROVED		DATE		CHECKED BY: SB 4/7/25	
		Discussed by:		4/7/2025 13:50		Discussed by:		4/7/2025 11:37		SHEET NO. 6 OF 18	
		CHIEF ENGINEER				CHIEF		RIGHT OF WAY		PROJECT NO. P468700	
		ASSISTANT CHIEF ENGINEER				CHIEF		RIGHT OF WAY		PROPOSAL NO. P468716	

DOWNNS PARK SHORELINE IMPROVEMENTS

EXISTING CONDITIONS & DEMOLITION PLAN



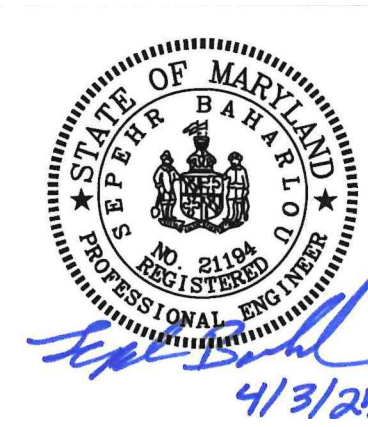


TIME OF YEAR RESTRICTION

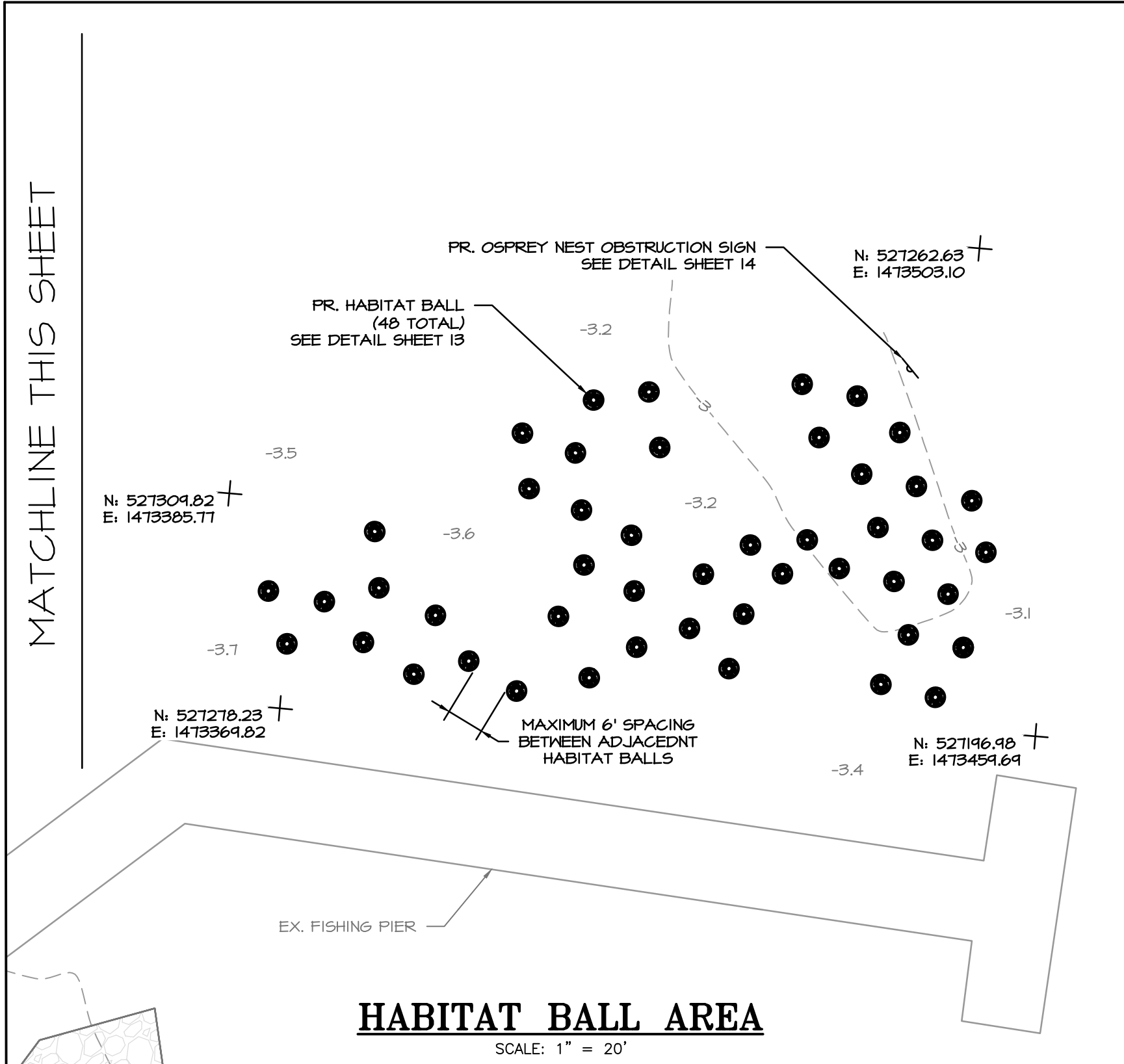
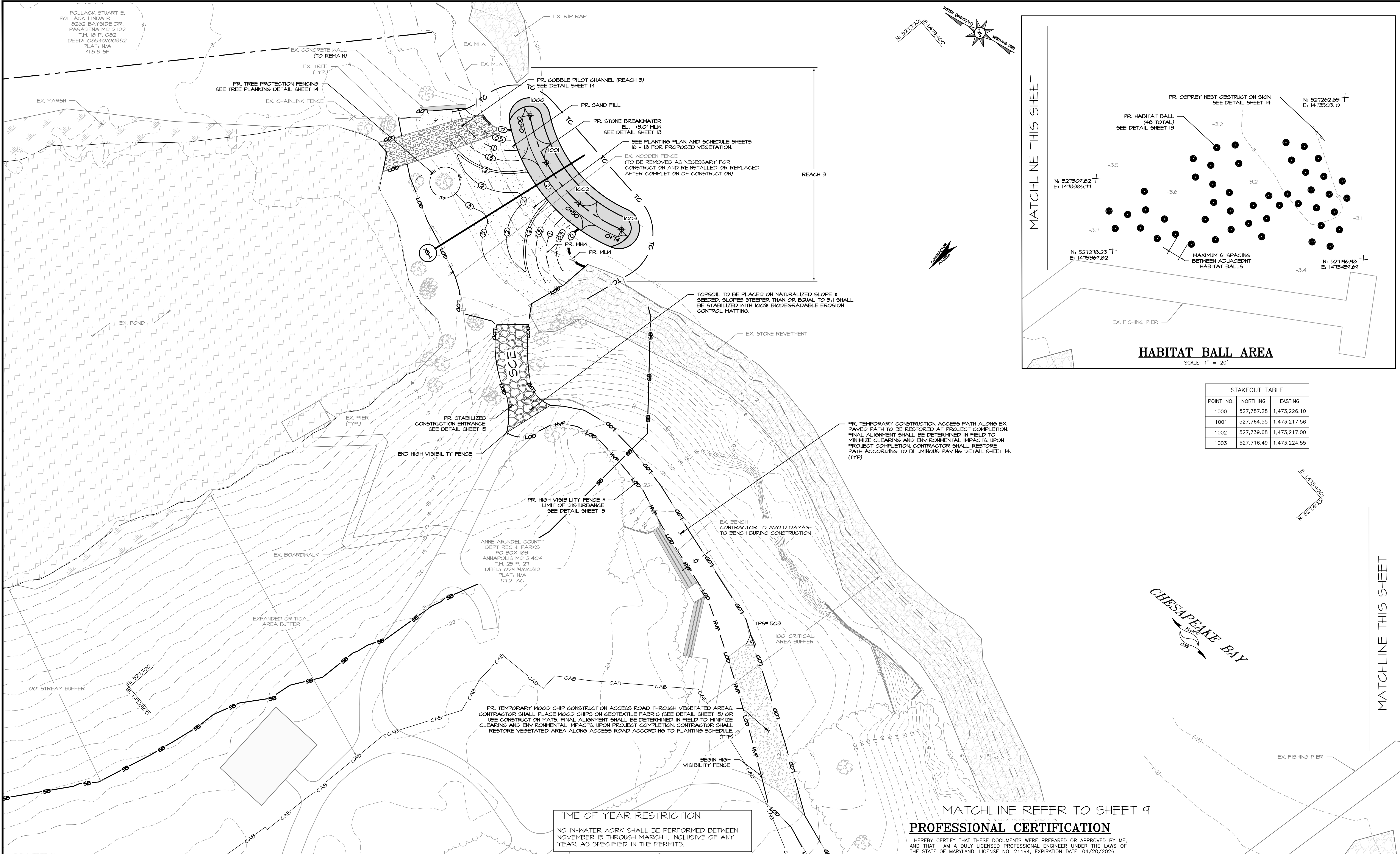
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BAYLAND JOB NO. 5_13802



DOWNS PARK SHORELINE IMPROVEMENTS EXISTING CONDITIONS & DEMOLITION PLAN



- NOTES:**
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TIME OF YEAR RESTRICTION

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PROFESSIONAL CERTIFICATION

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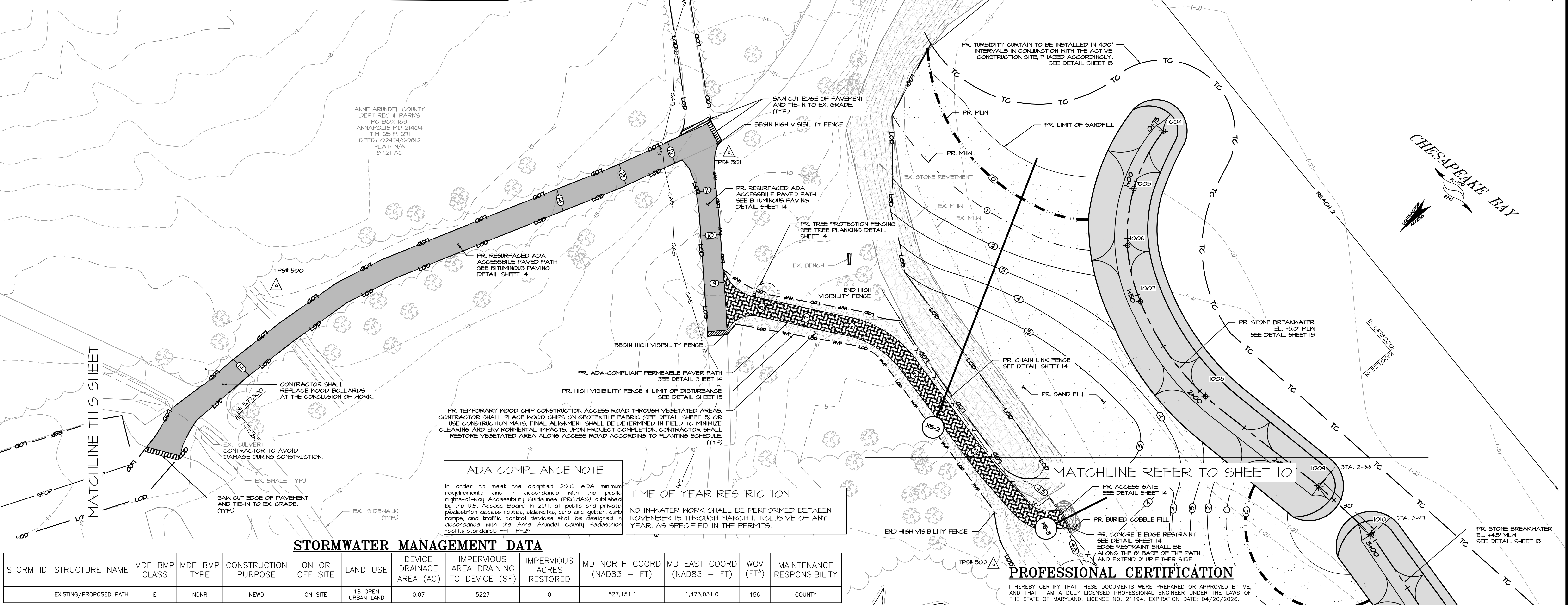
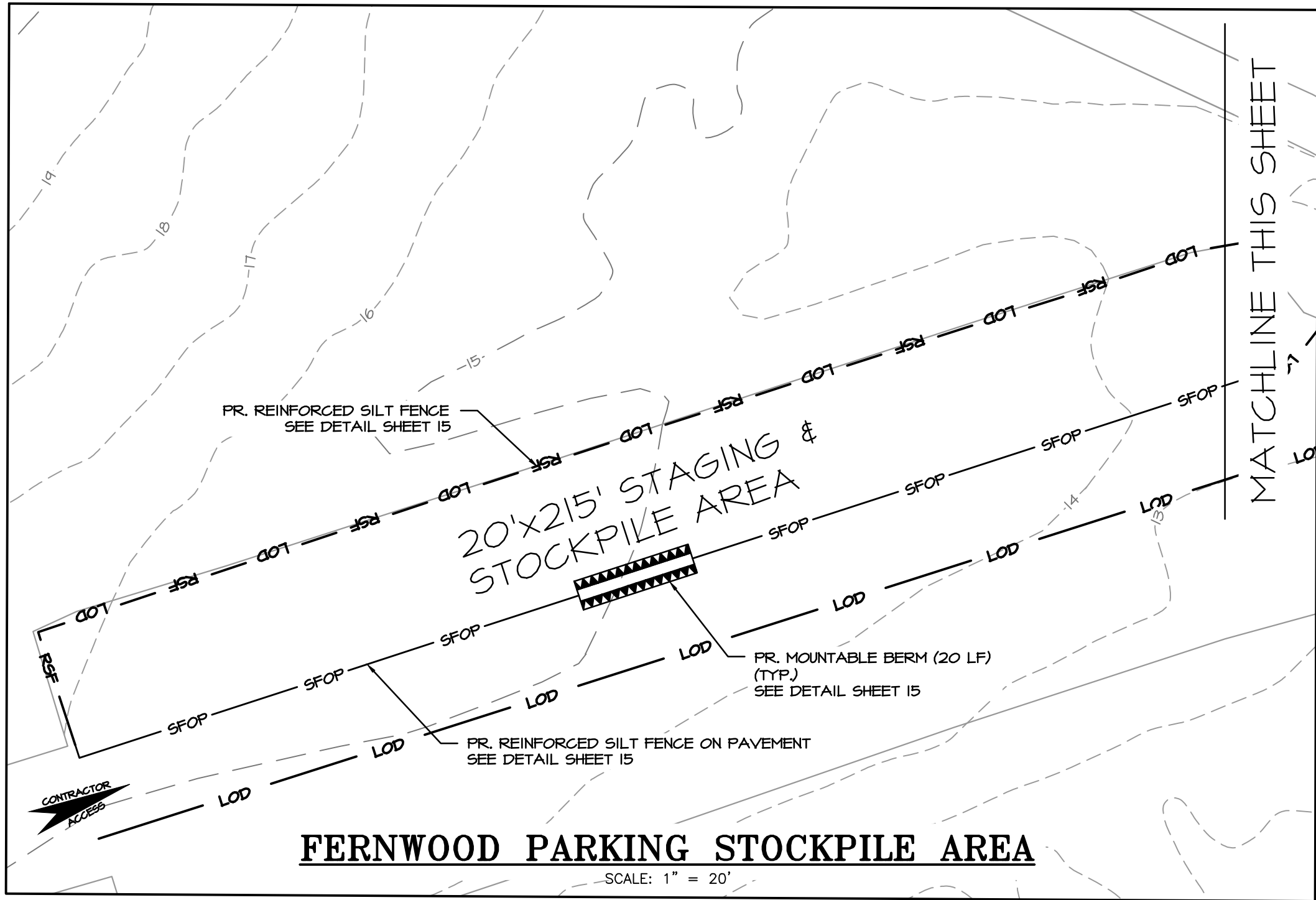
David C. Brown
4/7/2025

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
REVISED DATE	BY	APPROVED DATE	DATE
		David C. Brown 4/8/2025 09:18 CHIEF ENGINEER	Melissa Martinski 4/7/2025 08:30 PROJECT MANAGER
		David C. Brown 4/7/2025 13:59 ASSISTANT CHIEF ENGINEER	Don Burke 4/7/2025 11:05 CHIEF OF POLICE

SCALE: 1" = 20'
DESIGNED BY: AJ 4/7/25
DRAWN BY: EM/MJ 4/7/25
CHECKED BY: SB 4/7/25
SHEET NO. 8 OF 18
PROJECT NO. P468700
PROPOSAL NO. P468716

DOWNSPARK SHORELINE IMPROVEMENTS

EROSION SEDIMENT CONTROL & SITE PLAN (REACH 3)



PROJECT TABLE

PERMIT NUMBER	02020008
PROJECT NUMBER	P468700
PROJECT NAME	DOWN'S PARK SHORELINE IMPROVEMENTS
STRUCTURE ADDRESS	8311 JOHN DOWNS LOOP
STRUCTURE CITY	PASADENA
STATE	MD
STRUCTURE ZIP	21122
TOTAL DRAINAGE AREA	0.07 AC
RCN - PRE CONSTRUCTION	61
RCN - POST CONSTRUCTION	55
RCN - WOODS	55
TOTAL NUMBER OF BMPS	1
PE REQUIRED	1
PE ADDRESSED	1.22
MD 8-DIGIT HUC	2130902
USGS 12-DIGIT HUC	

STAKEOUT TABLE

POINT NO.	NORTHING	EASTING
1004	527,136.16	1,473,185.78
1005	527,125.31	1,473,159.98
1006	527,108.17	1,473,141.95
1007	527,086.00	1,473,130.65
1008	527,036.39	1,473,125.87
1009	526,975.11	1,473,138.52
1010	526,944.35	1,473,142.44
1011	526,888.98	1,473,136.79
1012	526,863.41	1,473,137.30
1013	526,839.96	1,473,144.41

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
	EXISTING/PROPOSED PATH	E	NDNR	NEWD	ON SITE	18 OPEN URBAN LAND	0.07	5227	0

NOTES:

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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 - PPF24

TIME OF YEAR RESTRICTION

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ANNE ARUNDEL COUNTY

DEPARTMENT OF PUBLIC WORKS

REVISED DATE	BY	APPROVED DATE	APPROVED	DATE	APPROVED DATE	APPROVED	SCALE: 1" = 20'
		4/8/2025 09:18	David C. Brown	4/7/2025 08:38	Melissa Martuski	DESIGNED BY: AJ 4/7/25	
			CHIEF ENGINEER		PROJECT MANAGER	DRAWN BY: EM/MJ 4/7/25	
		4/7/2025 13:19	David C. Brown	4/7/2025 11:19	Tom Burke	CHECKED BY: SB 4/7/25	
			ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	SHEET NO. 9 OF 18	
						PROJECT NO. P468700	
						PROPOSAL NO. P468716	

DOWN'S PARK SHORELINE IMPROVEMENTS

EROSION SEDIMENT CONTROL & SITE PLAN (REACH 2)



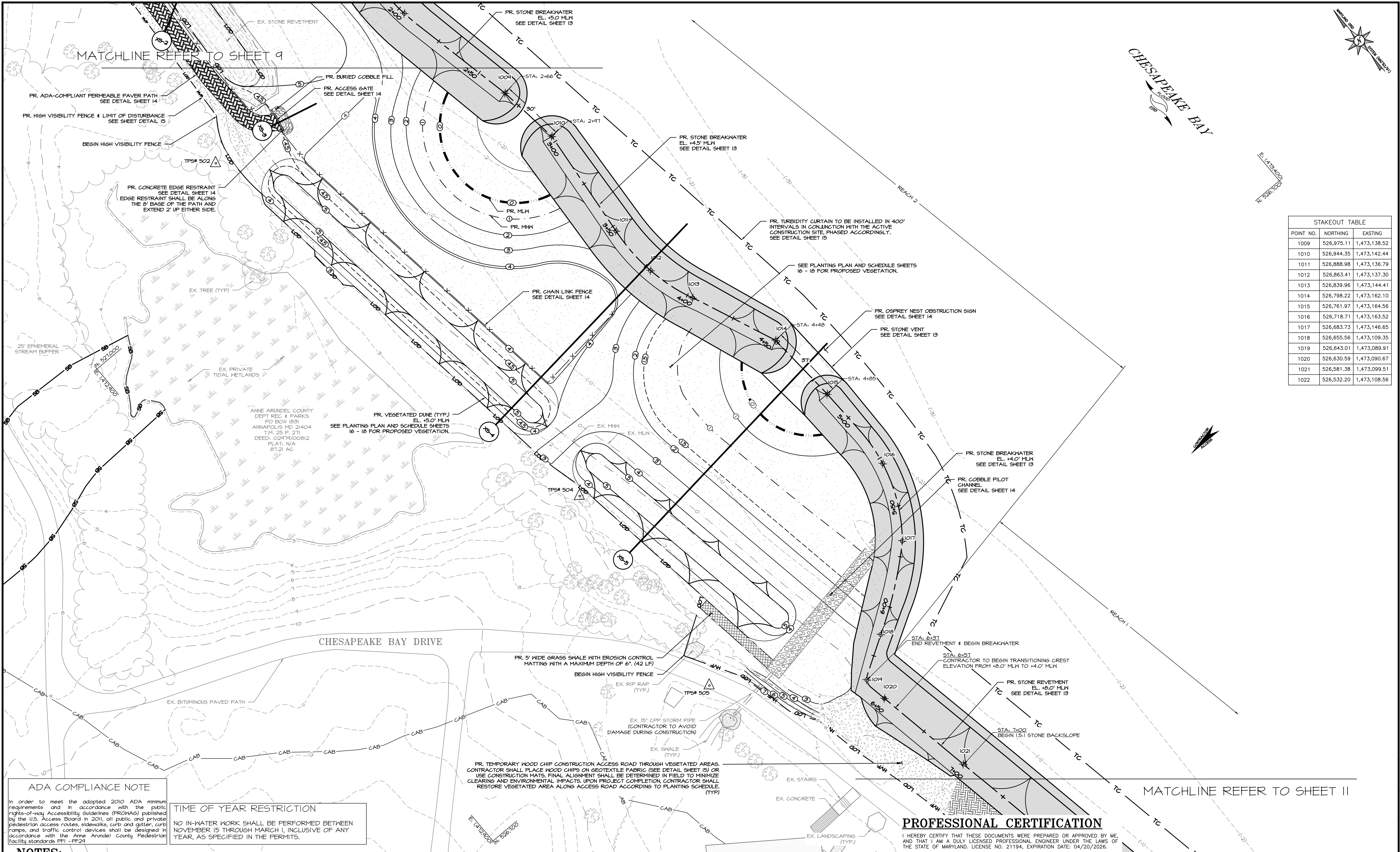
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BAYLAND JOB NO. 5_13802





STAKEOUT TABLE		
POINT NO.	NORTHING	EASTING
1009	526,975.11	1,473,138.52
1010	526,944.35	1,473,142.44
1011	526,888.98	1,473,136.79
1012	526,863.41	1,473,137.30
1013	526,839.96	1,473,144.41
1014	526,798.22	1,473,162.10
1015	526,761.97	1,473,164.56
1016	526,718.71	1,473,163.52
1017	526,683.73	1,473,146.65
1018	526,655.56	1,473,109.35
1019	526,643.01	1,473,089.91
1020	526,630.59	1,473,090.67
1021	526,581.38	1,473,099.51
1022	526,532.20	1,473,108.56

ADA COMPLIANCE NOTE

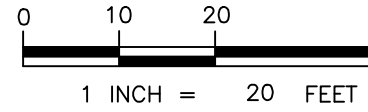
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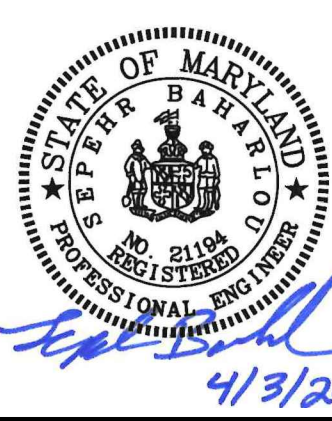


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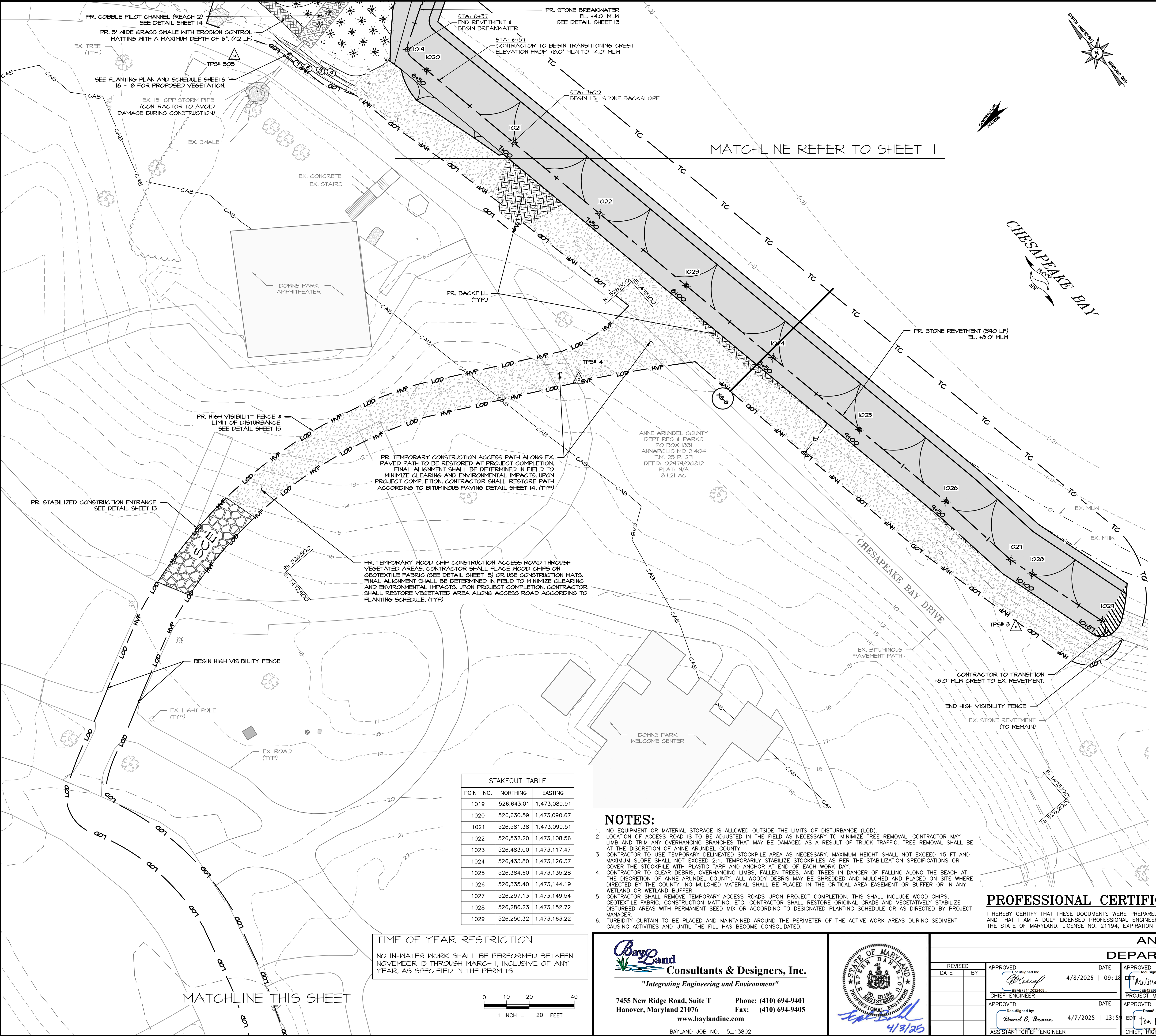
REVISED		APPROVED		DATE	
DATE	BY	DATE	BY	DATE	BY
		4/8/2025	David C. Brown	4/7/2025	Patricia Karwinski
		CHIEF ENGINEER	PROJECT MANAGER		
		4/7/2025	David C. Brown	4/7/2025	Patricia Karwinski
		ASSISTANT CHIEF ENGINEER	CHIEF ENGINEER		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

SCALE: 1" = 20'
DESIGNED BY: AJ 4/7/25
DRAWN BY: EM/MJ 4/7/25
CHECKED BY: SB 4/7/25
SHEET NO. 10 OF 18
PROJECT NO. P468700
PROPOSAL NO. P468716

DOWNSPARK SHORELINE IMPROVEMENTS

EROSION SEDIMENT CONTROL & SITE PLAN (REACHES 1 & 2)



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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.

PROFESSIONAL CERTIFICATION

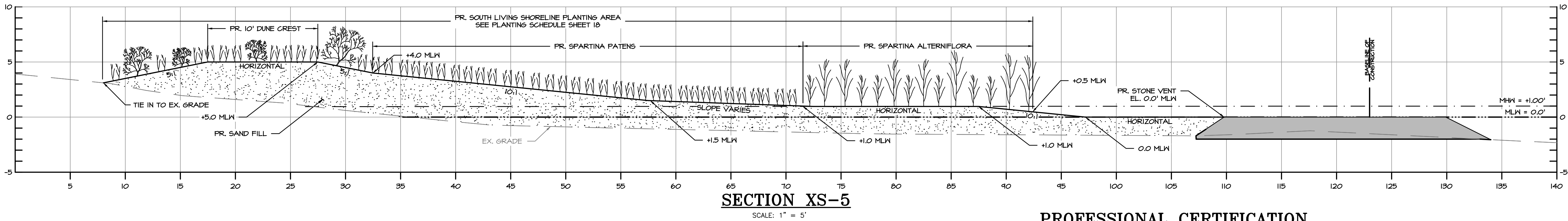
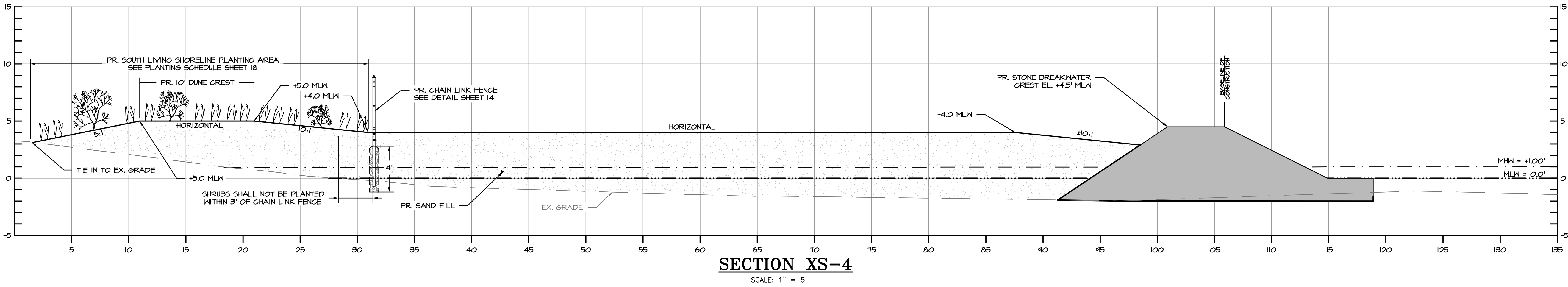
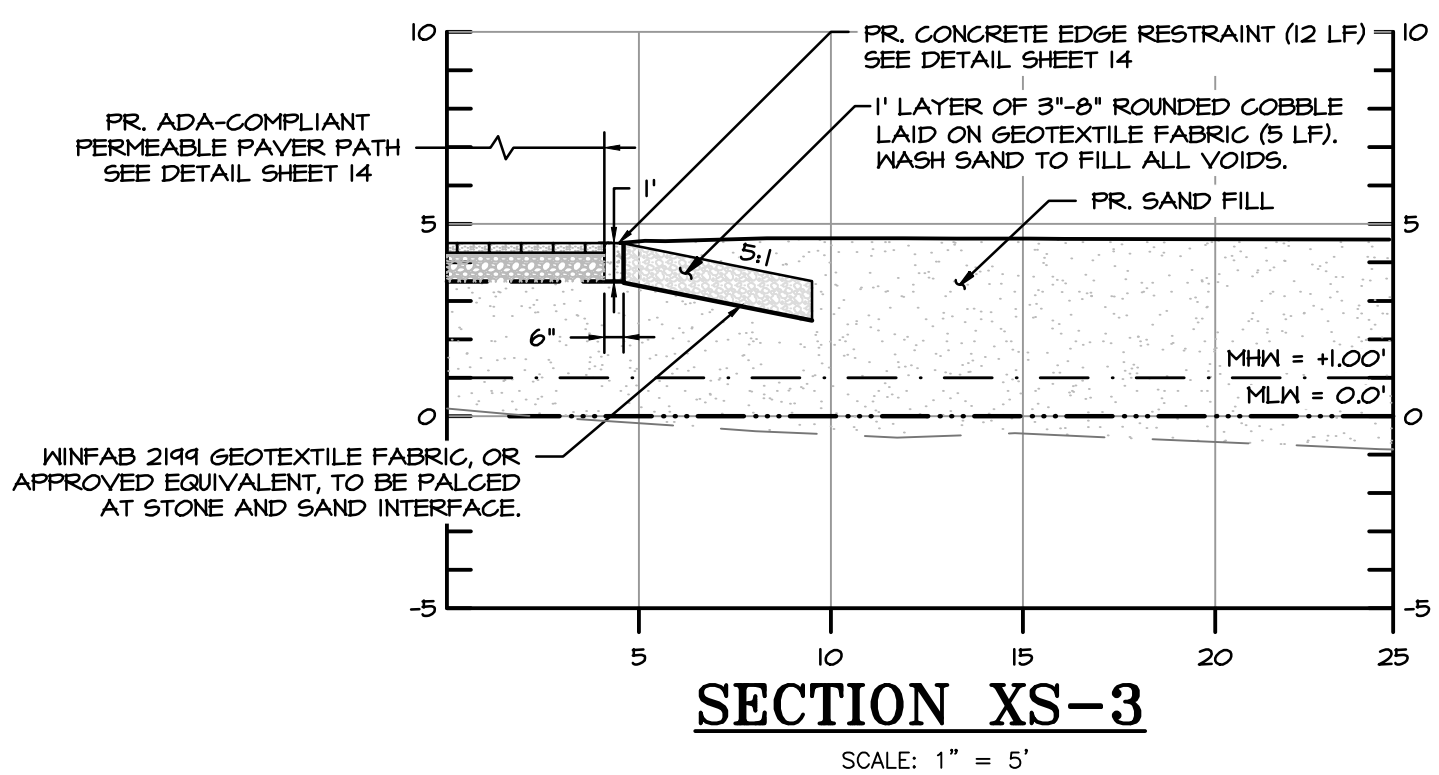
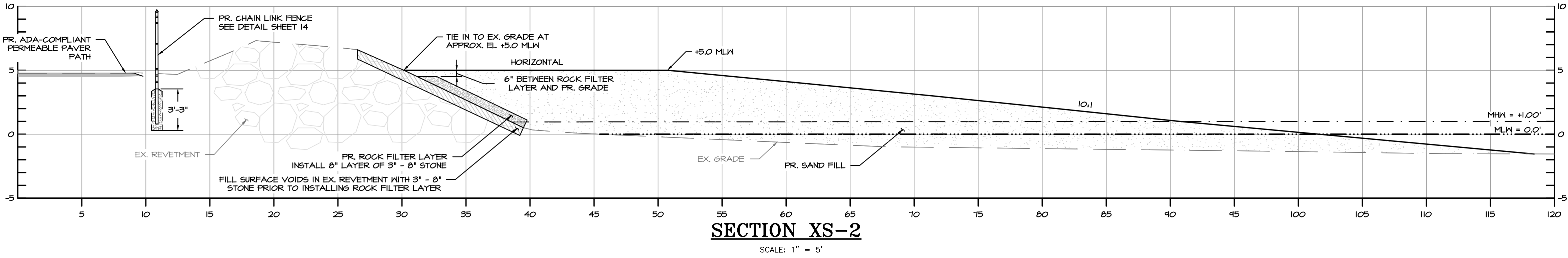
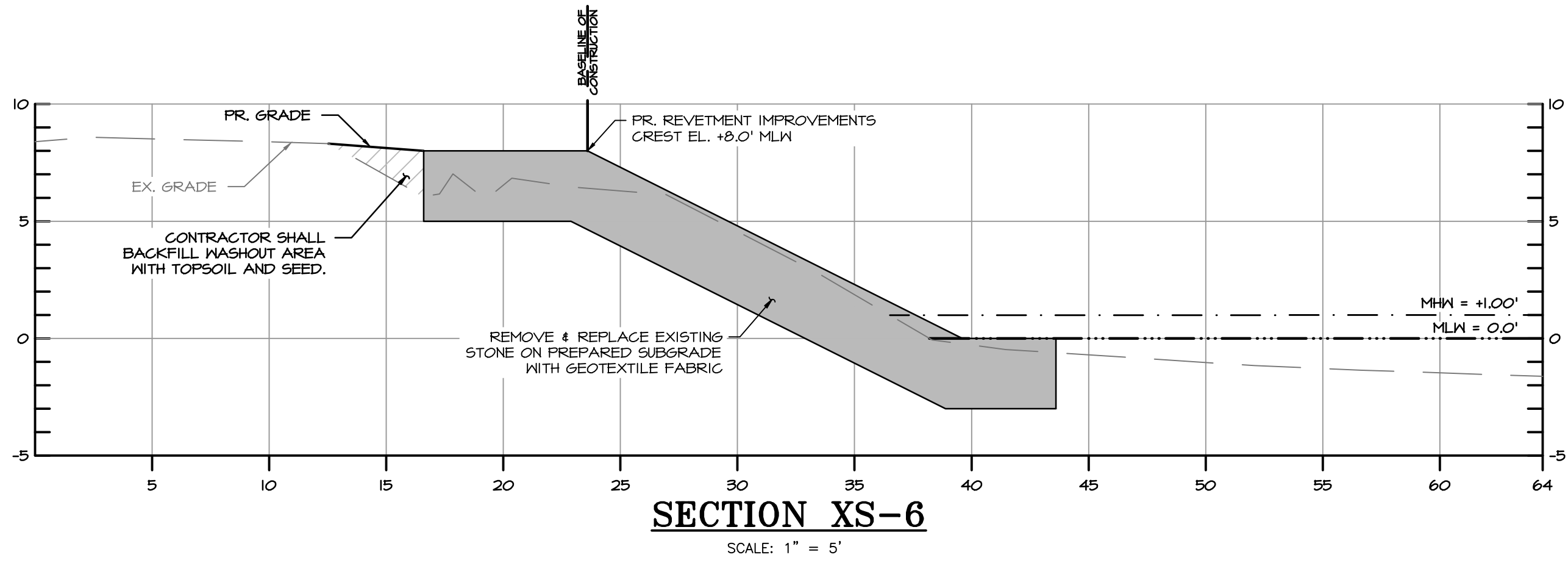
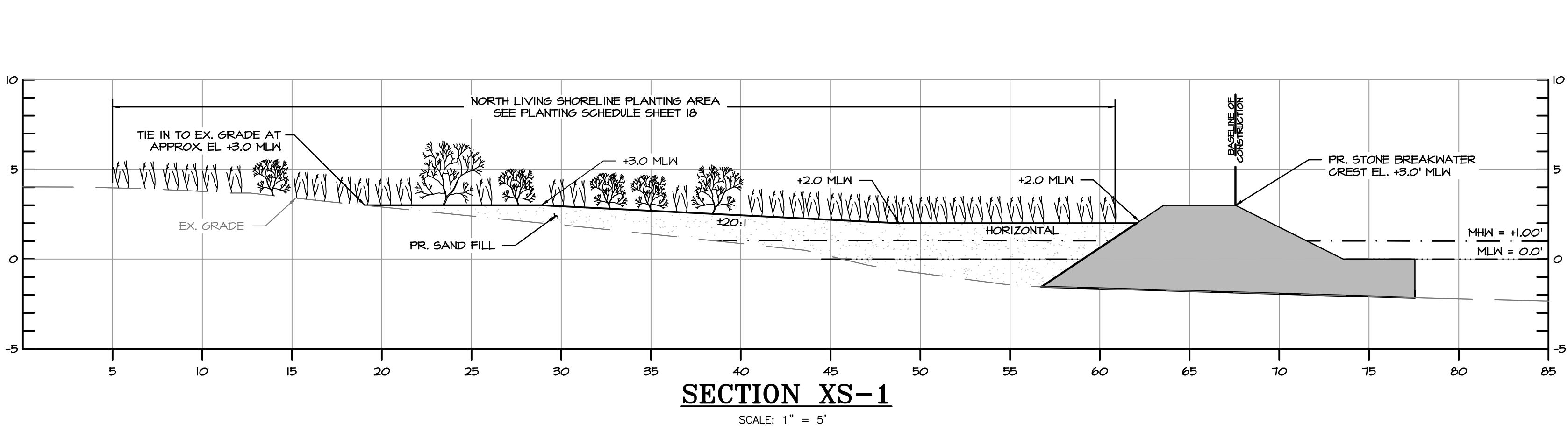
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 21194, EXPIRATION DATE: 04/20/2026.

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

REVISED DATE	BY	APPROVED DocuSigned by: 4/8/2025 09:18 CHIEF ENGINEER	DATE	APPROVED DocuSigned by: 4/7/2025 08:11 PROJECT MANAGER	DATE	SCALE: 1" = 20'
						DESIGNED BY: AJ 4/7/25
						DRAWN BY: EM/MJ 4/7/25
						CHECKED BY: SB 4/7/25
						SHEET NO. 11 OF 18
						PROJECT NO. P468700
						PROPOSAL NO. P468716

DOWN'S PARK SHORELINE
IMPROVEMENTS

EROSION SEDIMENT CONTROL &
SITE PLAN (REACH 1)



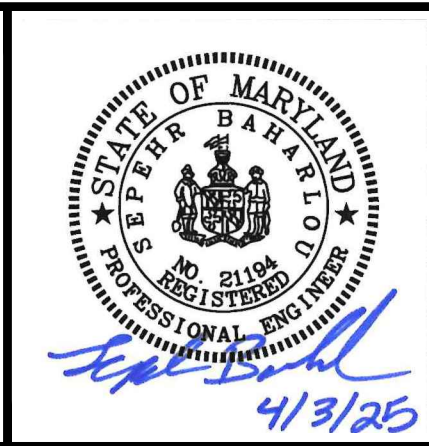
PROFESSIONAL CERTIFICATION





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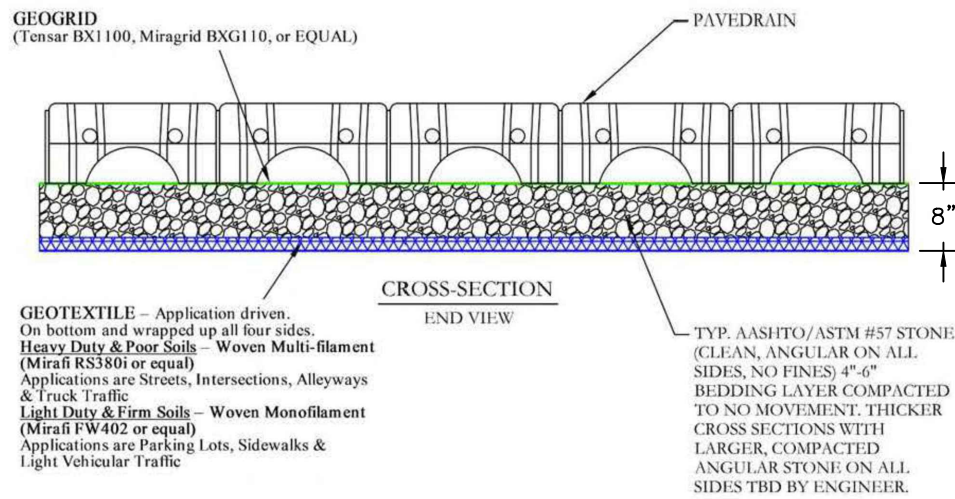
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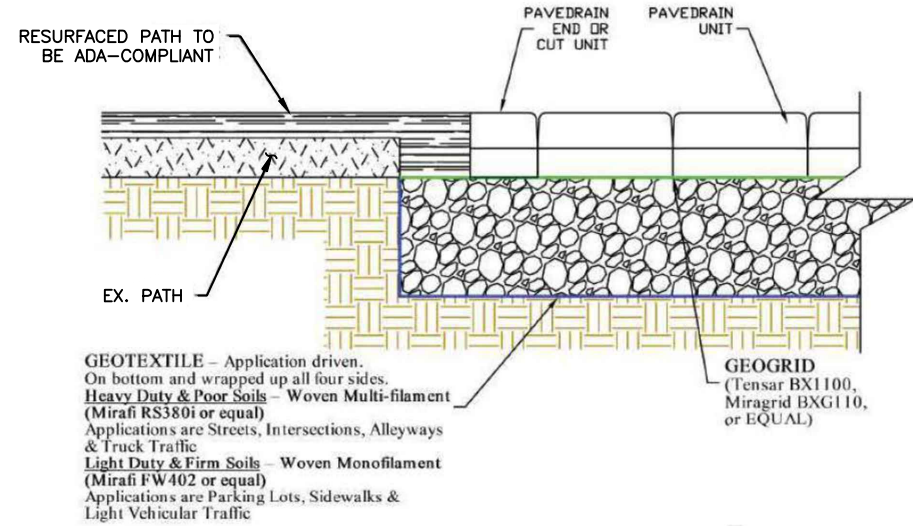
BAYLAND JOB NO. 5_13802



ANNE ARUNDEL COUNTY									
DEPARTMENT OF PUBLIC WORKS									
REVISED		APPROVED		APPROVED		DATE		SCALE: 1" = 5'	
DATE	BY	DocuSigned by:  4/8/2025 09:38		DocuSigned by:  4/7/2025 08:33		DESIGNED BY: AJ 4/7/25		DOWNS PARK SHORELINE IMPROVEMENTS	
		CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: EM/MJ 4/7/25			
		APPROVED		APPROVED		CHECKED BY: SB 4/7/25			
		DocuSigned by:  4/7/2025 13:19		DocuSigned by:  4/7/2025 11:17		SHEET NO. 12 OF 18		CROSS SECTIONS	
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT-OF-WAY		PROJECT NO. P468700			
						PROPOSAL NO. P468716			



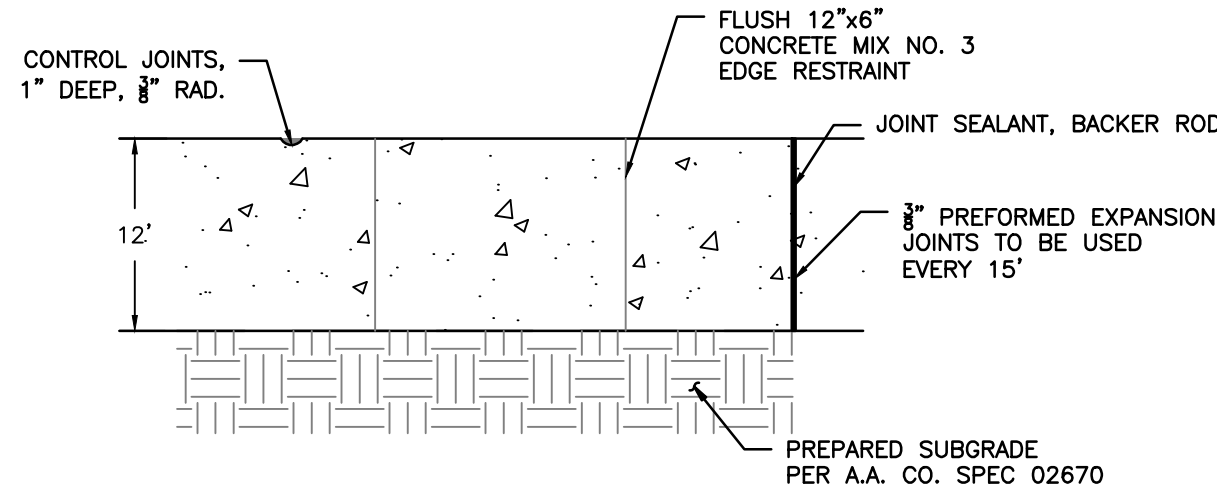
PERMEABLE PATH DETAIL



BITUMINOUS PAVEMENT AND PERMEABLE PAVER GAP DETAIL

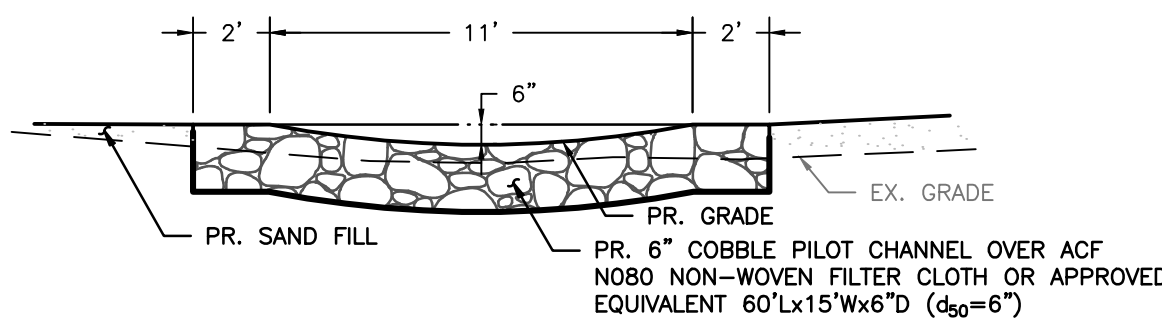
PAVERDRAIN SYSTEM DETAILS

SCALE: NOT TO SCALE



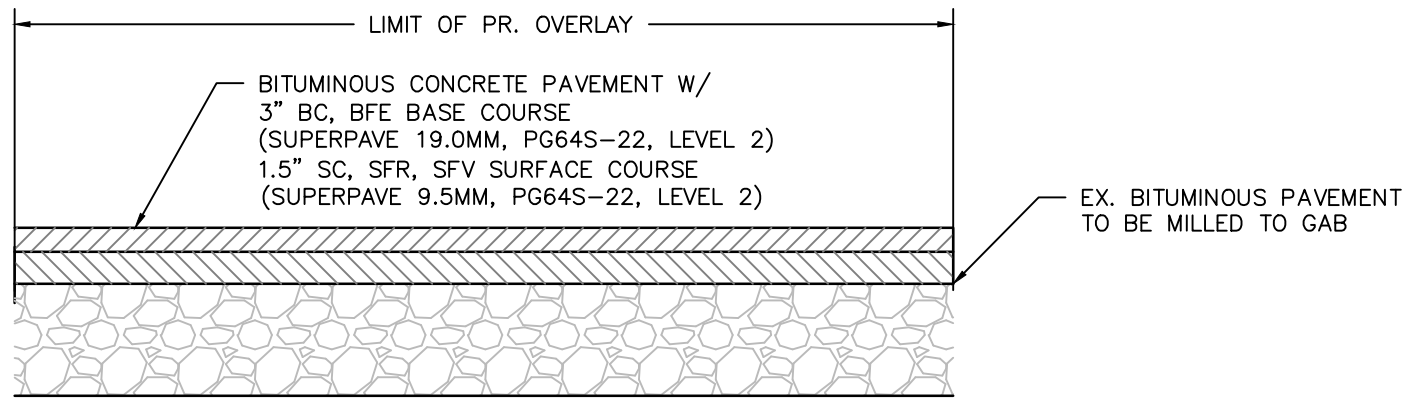
CONCRETE EDGE RESTRAINT DETAIL

SCALE: NOT TO SCALE



REACH 3 - COBBLE PILOT CHANNEL DETAIL

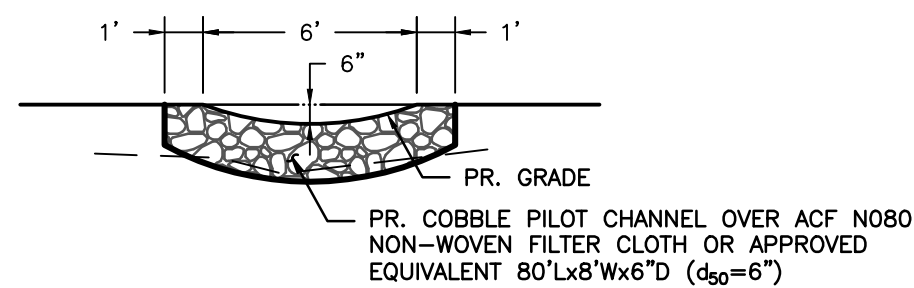
SCALE: 1" = 5'



BITUMINOUS PAVING DETAIL

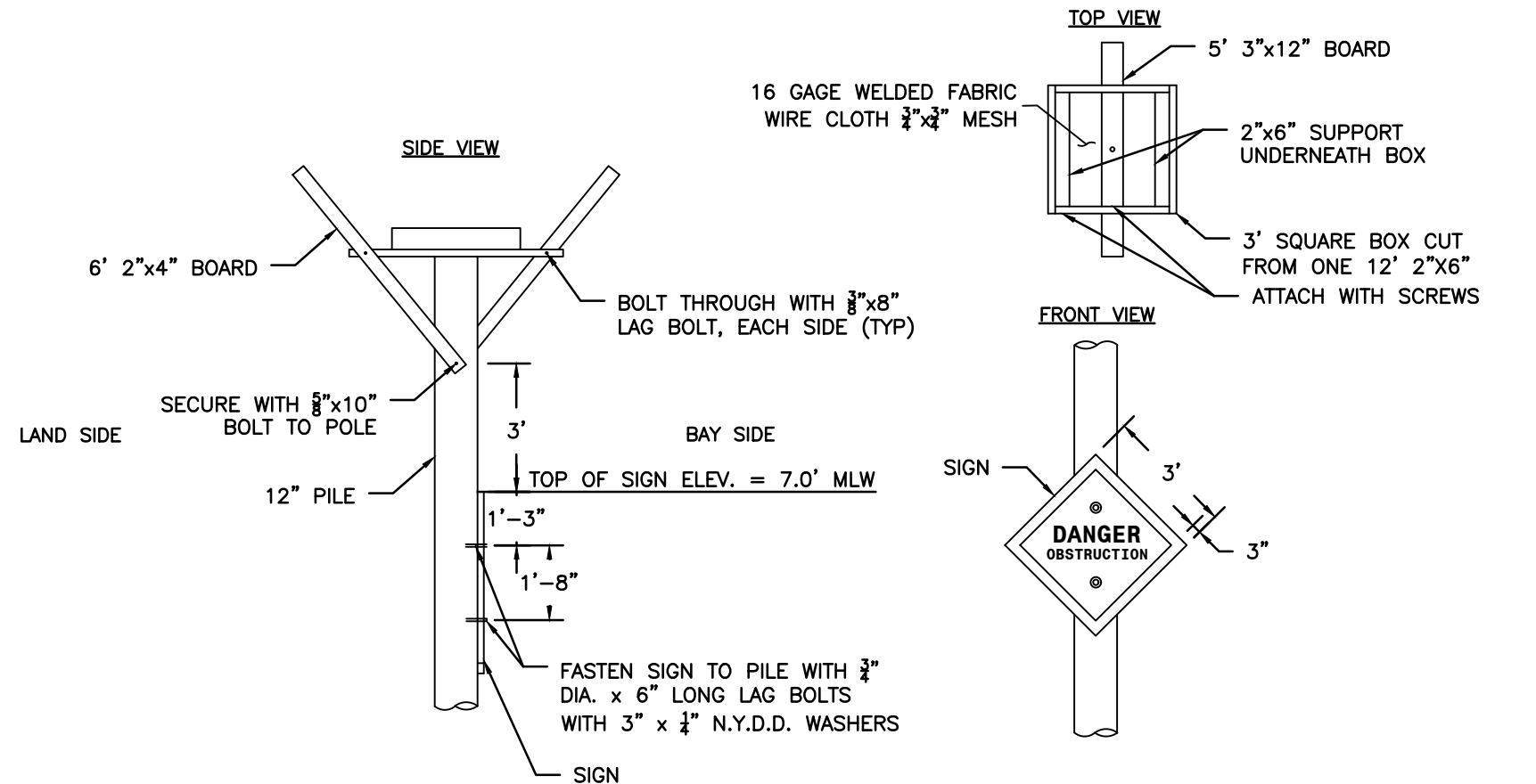
SCALE: NOT TO SCALE

NOTES:
1. CONTRACTOR SHALL FOLLOW THE ANNE ARUNDEL COUNTY STANDARD SPECIFICATION 02641 FOR RESURFACING



REACH 2 - COBBLE PILOT CHANNEL DETAIL

SCALE: 1" = 5'



OSPREY NEST OBSTRUCTION DETAIL

SCALE: NOT TO SCALE

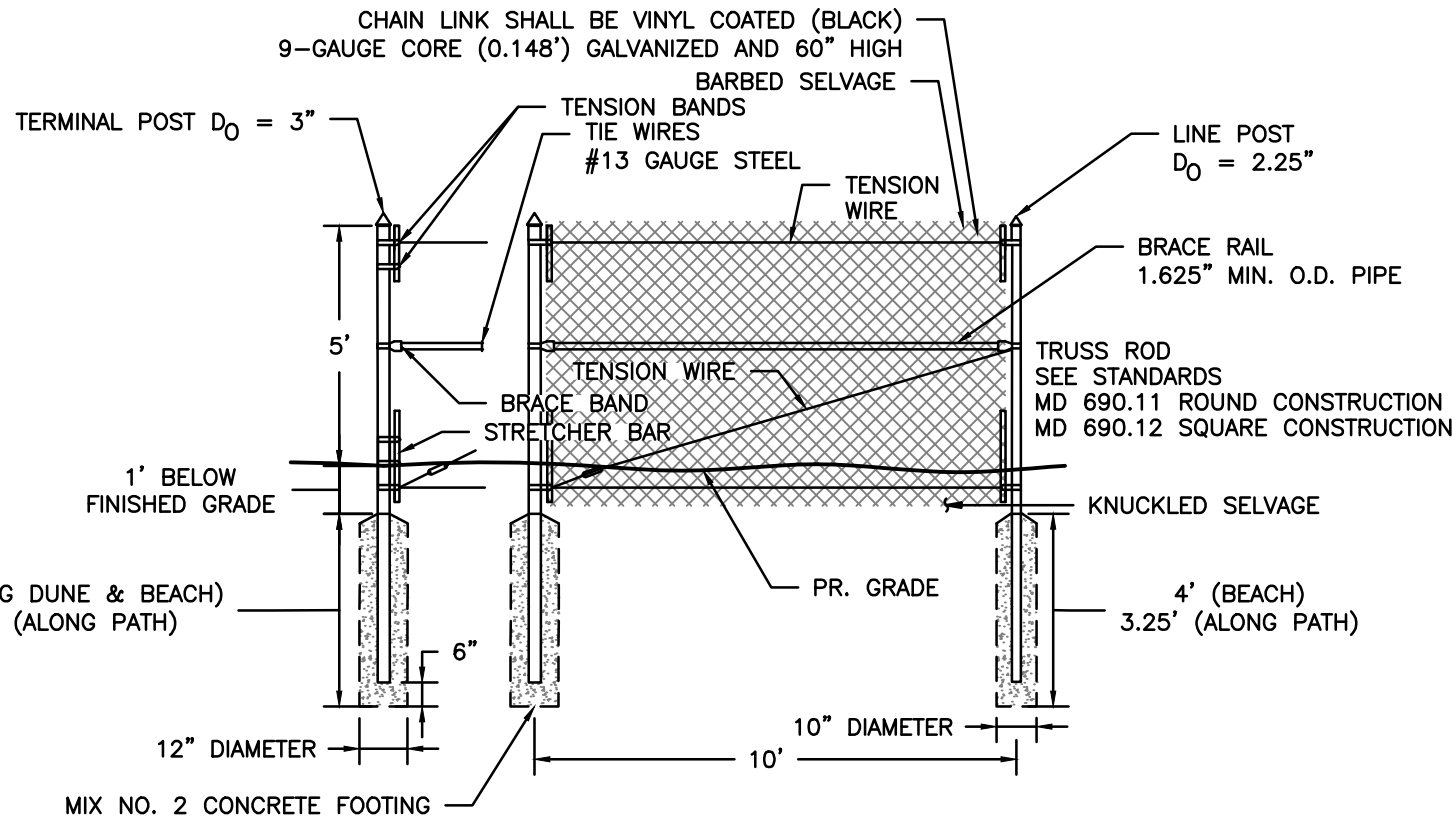
NOTES:
1. USE MARINE GRADE TREATED OR CEDAR LUMBER & GALVANIZED HARDWARE

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 SWEEPED 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.

STORMWATER MAINTENANCE SCHEDULE PERMEABLE PAVERS

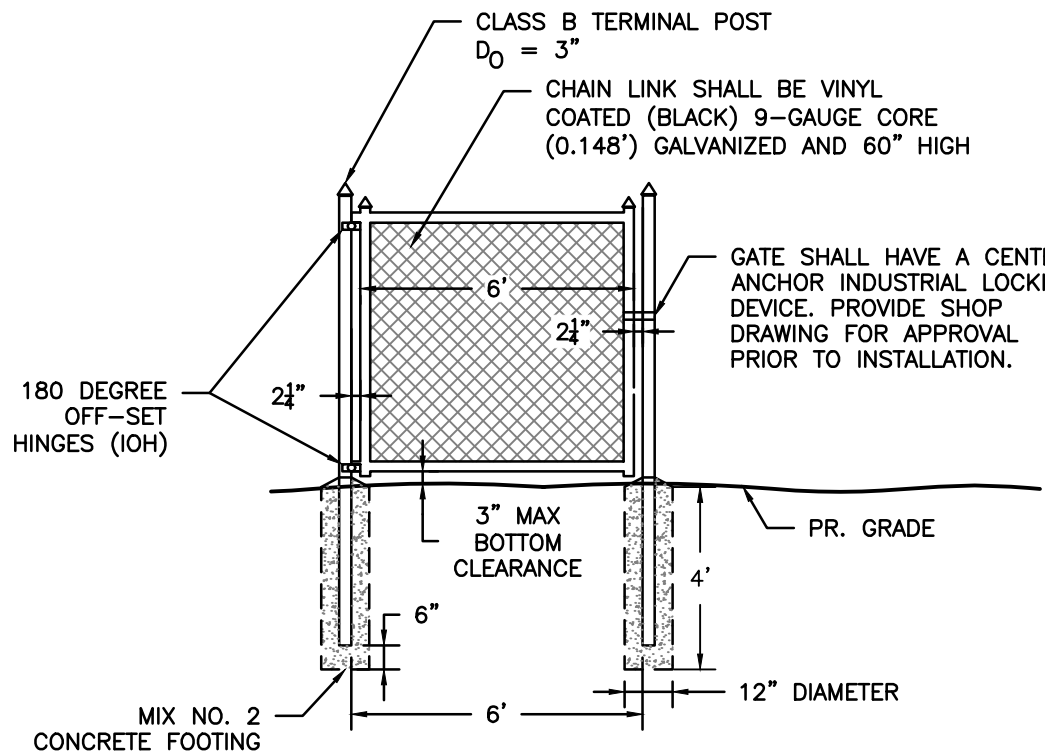
ON-GOING		
Item	Preventive Maintenance	
Trucks	Prevent trucks and other heavy vehicles from tracking, spilling, or grinding material onto pavers.	
Deicers	Use only non-toxic and organic deicers in moderation and apply as either calcium magnesium acetate or pretreated salt.	
Plowing	Plow snow carefully with blades set one-inch higher than normal. Do not direct plowed snow piles or snowmelt to pavers.	
Good Housekeeping	Never place soil piles on pavers.	
Cleaning	For pavers made of porous material, vacuum and power wash annually even if there is no visible sediment accumulation or clogging. Power wash after vacuuming. Do not use compressed air units for surface cleaning.	
MONTHLY INSPECTIONS		
Inspection Item	Inspection Requirements	Remedial Action
Debris and Trash	Check for trash and debris on surface, in conveyance system, and in surrounding area.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.
SEASONAL INSPECTION AND AFTER A MAJOR STORM		
Inspection Item	Inspection Requirements	Remedial Action
Sediment Accumulation	Check for clogged openings. Check for accumulated sediment on pavers.	Remove sediment from any clogged openings and dispose of in an acceptable location. Sweep and vacuum to reduce sediment accumulation and ensure surface porosity. <u>Do not use compressed air units for surface cleaning.</u>
Dewatering	Check surface for ponding. Facility must dewater within 48 hours of rainfall. Water on the pavers more than 6 hours after a rainfall is an indication of inadequate dewatering of the facility.	Vacuum and power wash entire surface area. Power wash after vacuuming. Do not use compressed air units for surface cleaning. Where applicable, replace lost aggregate between pavers. Clear drainage system. Confirm adequate dewatering with follow up inspections. If the facility does not function as intended after the above action, the entire pavement and drain system needs to be removed and replaced.
Blockages	Check overdrain, underdrain, and distribution piping for blockages.	Clear out any blockages.
ANNUAL INSPECTION		
Inspection Item	Inspection Requirements	Remedial Action
Flow Conveyance System	Check overdrain, underdrain, distribution piping, and bypasses for misalignments, breakage, and blockage.	Repair any broken or faulty piping. Clear out any blockages.
Overall Function of Facility	Check surface for deterioration or spalling.	Repair to good condition according to specifications on the approved plans. If the facility does not function as intended after the above action, the pavers need to be removed and replaced.



CHAIN LINK FENCE DETAIL

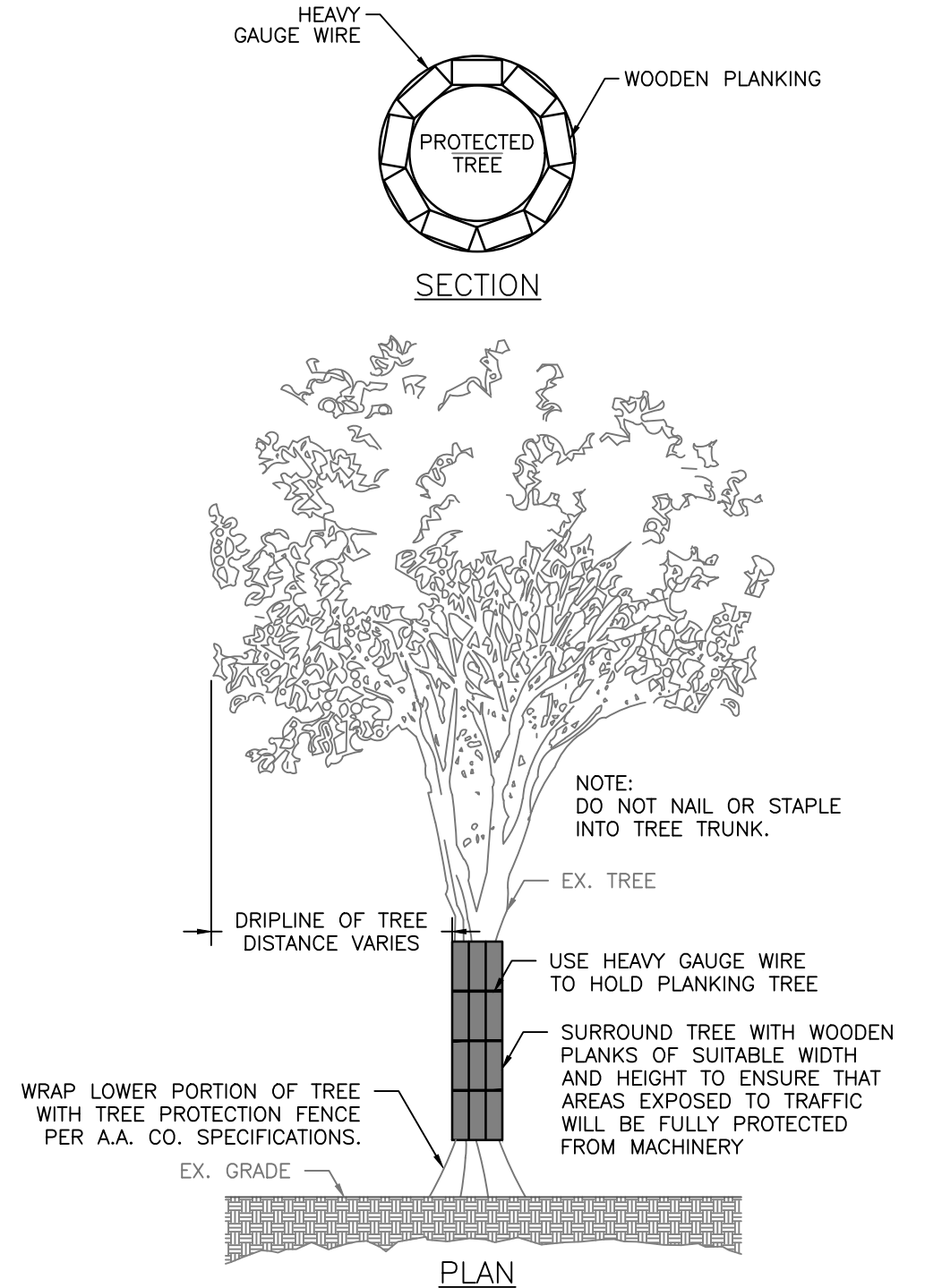
SCALE: 1" = 4'

NOTES:
1. ALL POSTS, RAILS, BRACES AND CHAIN LINK SHALL BE GALVANIZED COATED AND MEET SCHEDULE 40, CLASS A SPECIFICATION



ACCESS GATE DETAIL

SCALE: 1" = 4'



TREE PLANKING DETAIL

SCALE: NTS

PROFESSIONAL CERTIFICATION

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ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

REVISED		APPROVED		DATE		APPROVED		DATE		SCALE:		AS SHOWN	
DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DESIGNED BY:	4/7/25	4/7/25	4/7/25
				4/8/2025	08:18			4/7/2025	08:18	EM/MJ	4/7/25	4/7/25	4/7/25
										CHECKED BY:	SB	4/7/25	4/7/25
										SHEET NO.	14	OF 18	14
										PROJECT NO.	P468700	P468700	P468700
										PROPOSAL NO.	P468716	P468716	P468716

DOWNSPARK SHORELINE IMPROVEMENTS

SITE DETAILS

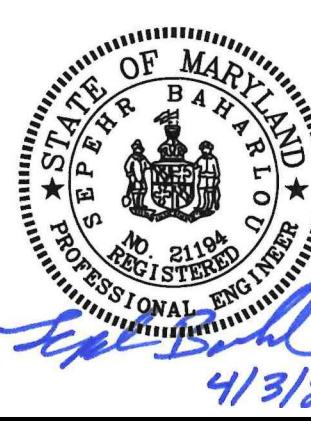
ADA COMPLIANCE NOTE

In order to meet the adopted 2010 ADA minimum requirements and in accordance with the public rights-of-way Accessibility Guidelines (PROVAGs) 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 - PF29



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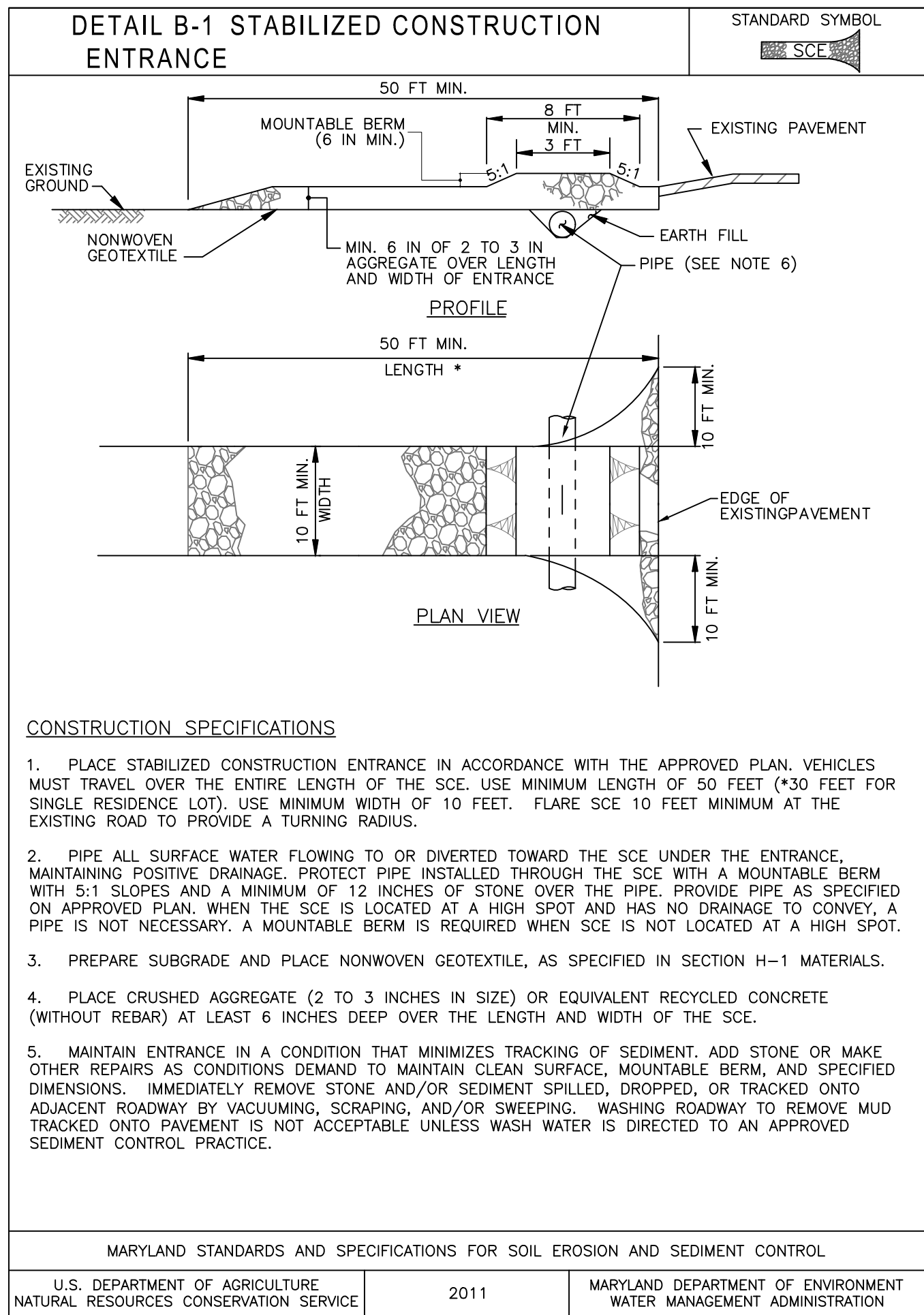
BAYLAND JOB NO. 5_13802



APPROVED
DocSigned by: David O. Braun
4/7/2025 | 13:59
ASSISTANT CHIEF ENGINEER

APPROVED
DocSigned by: Melissa Karvinski
4/7/2025 | 08:18
PROJECT MANAGER

APPROVED
DocSigned by: EM/MJ
4/7/25
PROJECT MANAGER


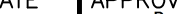




1. PLANTING PLAN AND QUANTITIES PRESENTED ON SHEETS 16 - 18 REPRESENT CONSTRUCTION QUANTITIES FOR CONSTRUCTION PURPOSES. PLANTINGS PROPOSED FOR MITIGATION CREDITS ARE PRESENTED IN THE SEPARATE BUFFER MANAGEMENT PLAN.

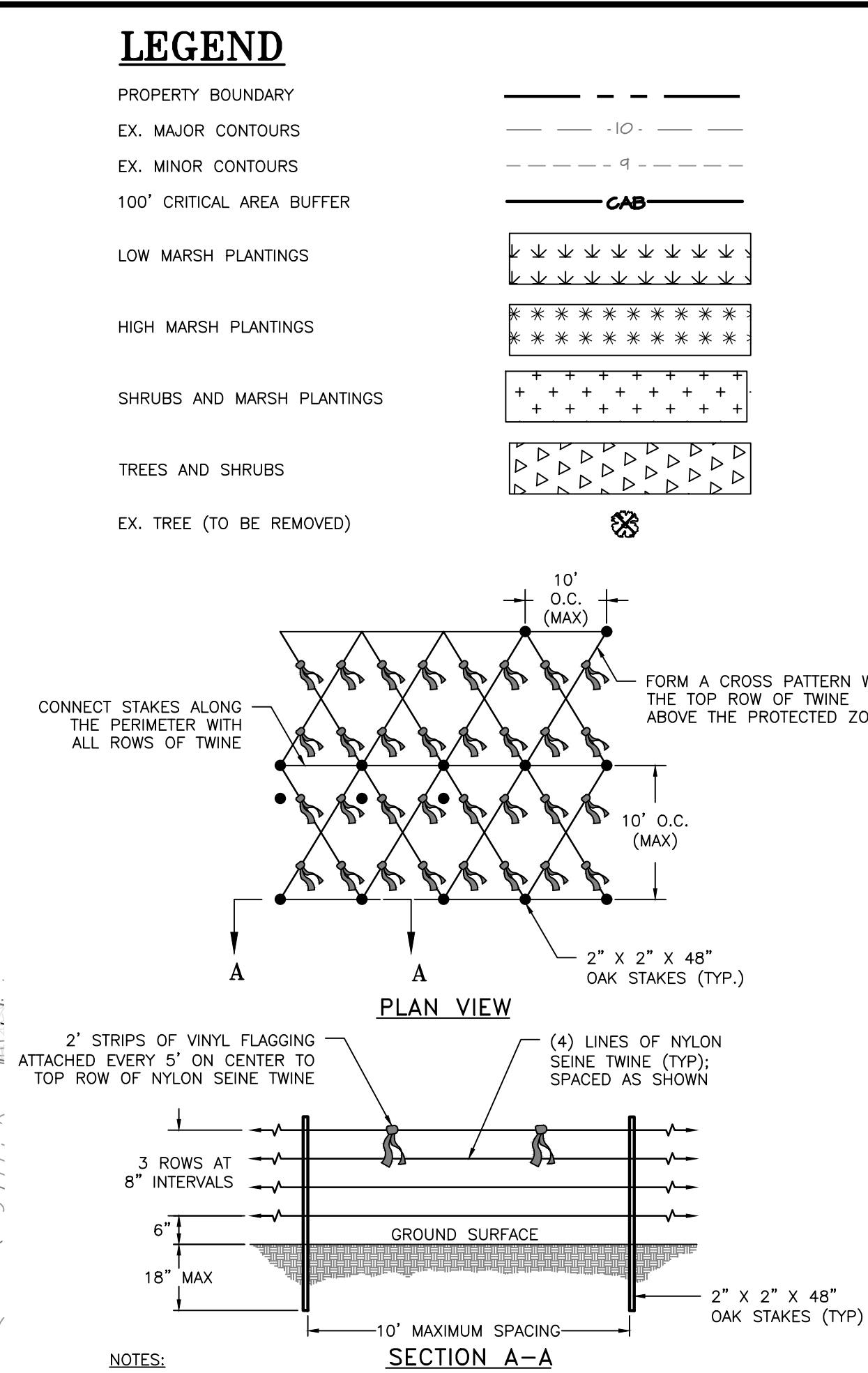
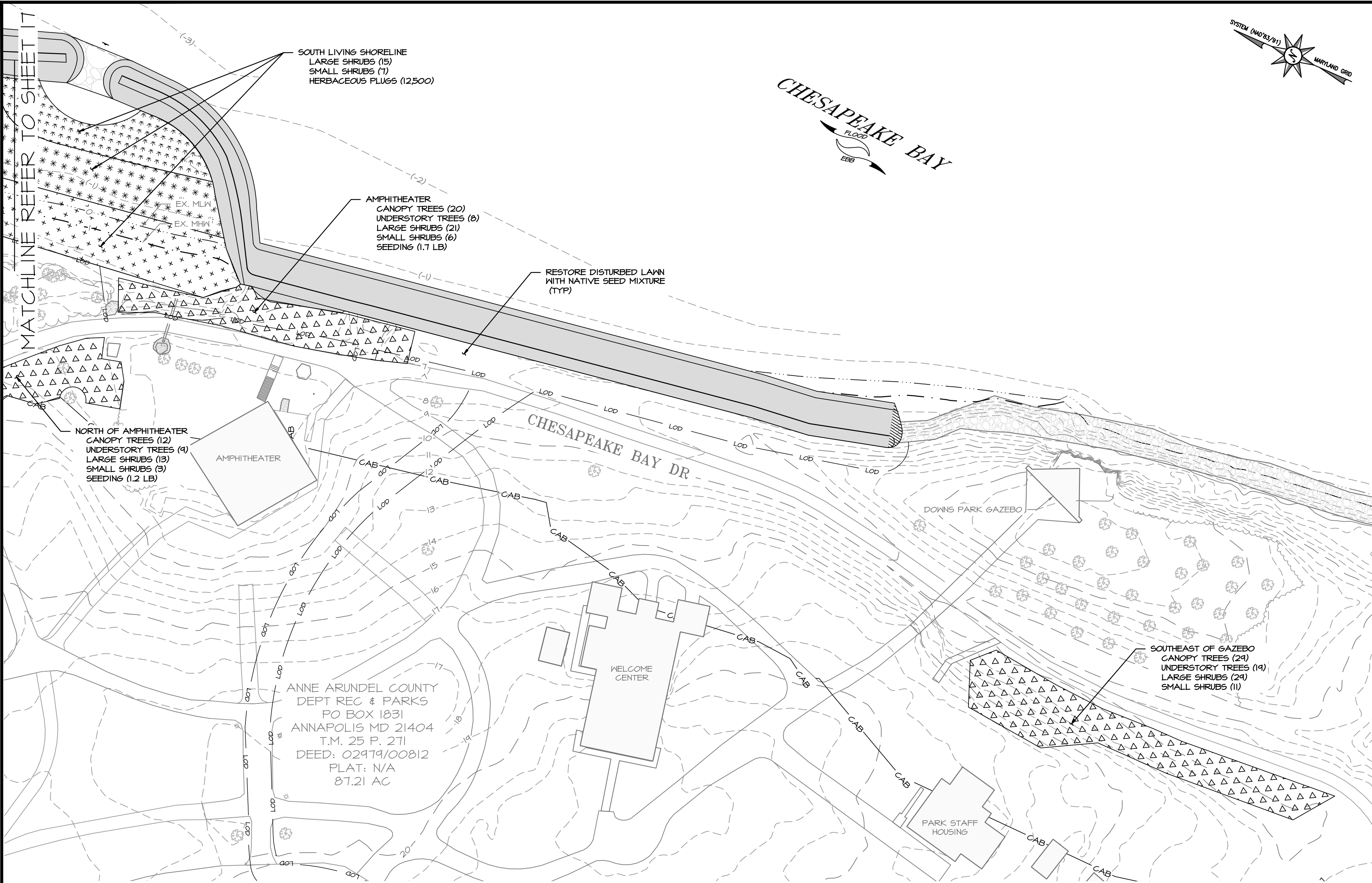


BAYLAND JOB NO. 5_13802

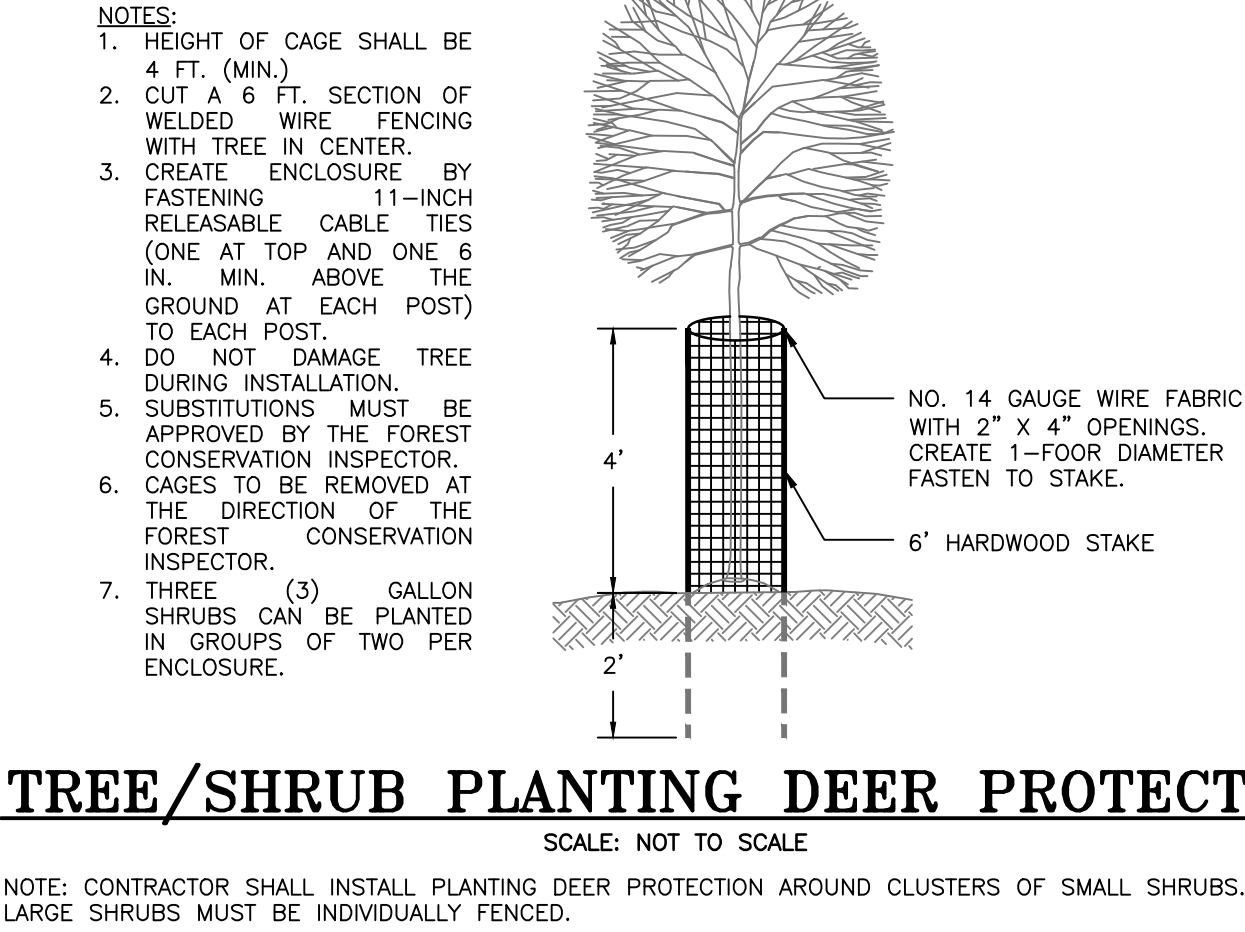
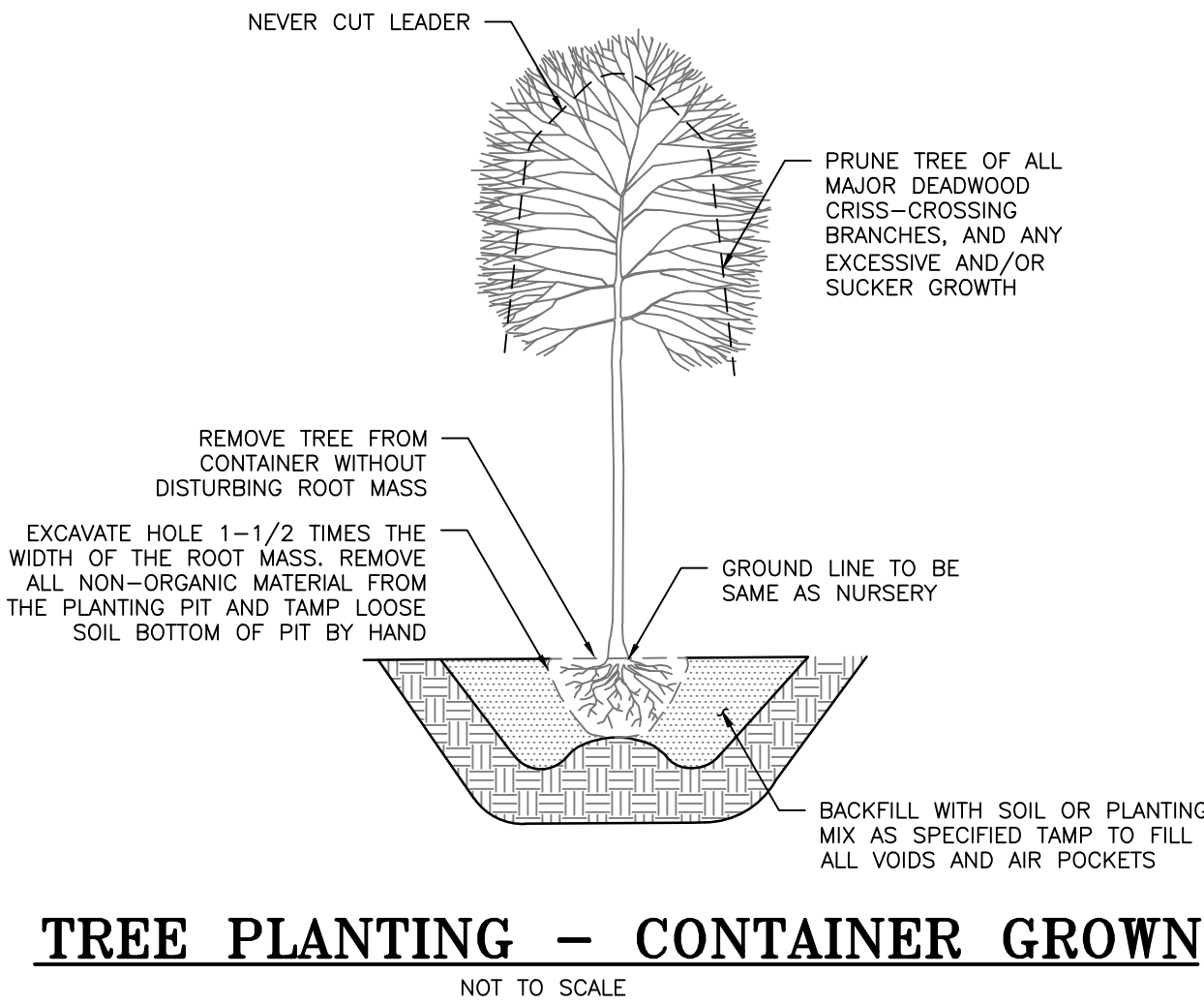
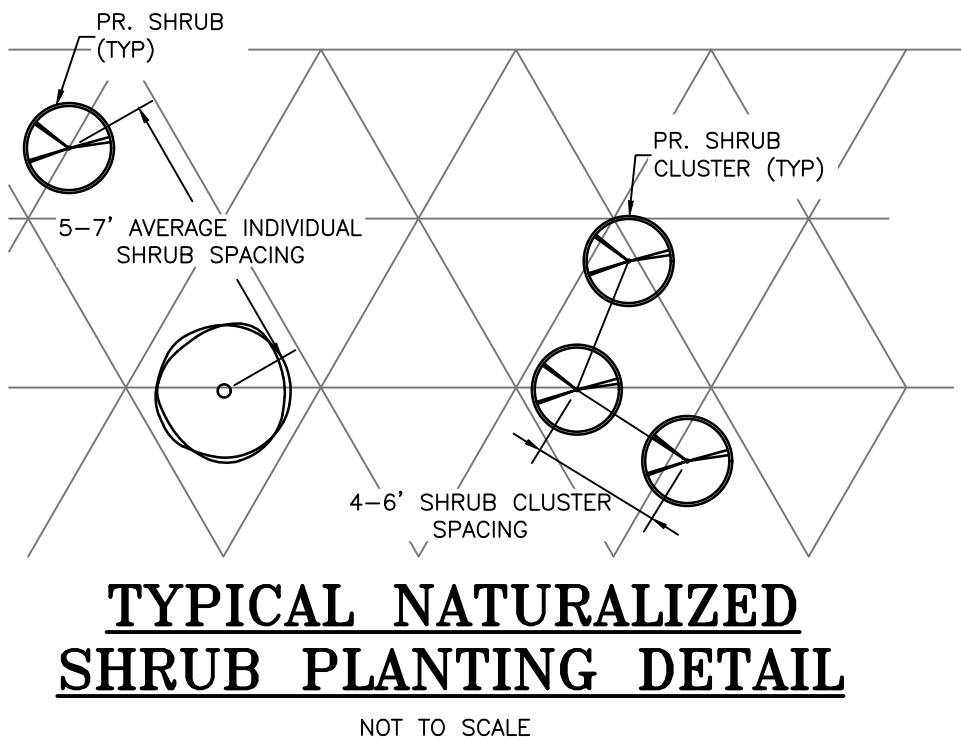
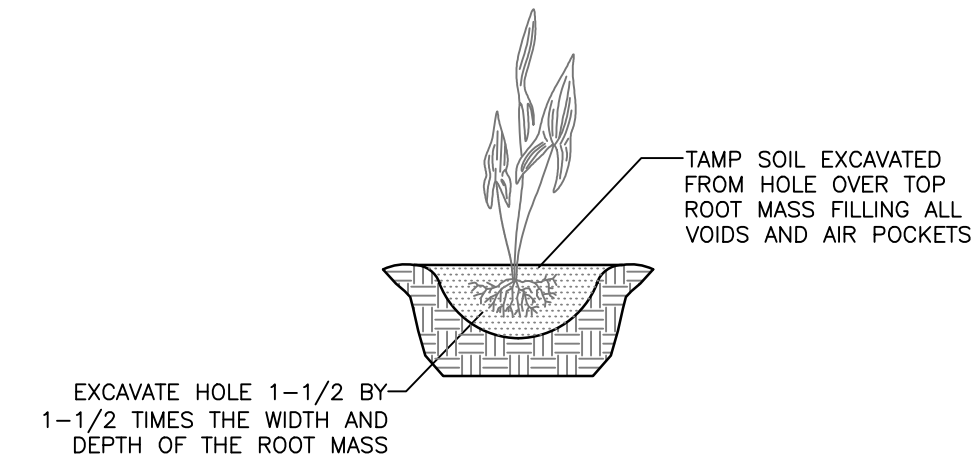


REVISED		APPROVED		DATE		APPROVED		DATE		SCALE: 1" = 40'	
DATE	BY	DeCognized by:  CHIEF ENGINEER		4/8/2025 09:18		DeCognized by:  PROJECT MANAGER		4/7/2025 08:11		DESIGNED BY: AJ 4/7/25 DRAWN BY: EM/MJ 4/7/25 CHECKED BY: SB 4/7/25	
		APPROVED		DATE		APPROVED		DATE		SHEET NO. 16 OF 18	
		DeCognized by:  David C. Binner ASSISTANT CHIEF ENGINEER		4/7/2025 13:59		DeCognized by:  Edmon Burke CHIEF RIGHT OF WAY		4/7/2025 11:33		PROJECT NO. P468700 PROPOSAL NO. P468716	

PLANTING PLAN



GOOSE EXCLUSION FENCE DETAIL
(TO BE INSTALLED ABOVE & AROUND SHORELINE PLANTINGS)
NOT TO SCALE



NOTES:

- PLANTING PLAN AND QUANTITIES PRESENTED ON SHEETS 16 - 18 REPRESENT CONSTRUCTION QUANTITIES FOR CONSTRUCTION PURPOSES. PLANTINGS PROPOSED FOR MITIGATION CREDITS ARE PRESENTED IN THE SEPARATE BUFFER MANAGEMENT PLAN.

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BAYLAND JOB NO. 5_13802



ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS					
REVISED DATE	BY	APPROVED DATE	APPROVED DATE	SCALE: 1" = 40'	
		4/8/2025 09:18	4/7/2025 08:	DESIGNED BY: AJ 4/7/25	
		CHIEF ENGINEER	PROJECT MANAGER	DRAWN BY: EM/MJ 4/7/25	
		APPROVED DATE	APPROVED DATE	CHECKED BY: SB 4/7/25	
		4/7/2025 13:59	4/7/2025 11:	SHEET NO. 17 OF 18	
		ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	PROPOSED NO. P468700	
				PROPOSAL NO. P468716	

DOWNS PARK SHORELINE IMPROVEMENTS

PLANTING PLAN

ZONE: NORTH LIVING SHORELINE – 5,035 SF TOTAL;
3,535 SF ABOVE EX. MHW

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	MAX SPACING/LOCATION	QUANTITY	CREDIT TOTAL, SF
LARGE SHRUBS – 36" CONTAINERIZED					
AMORPHA FRUTICOSA	FALSE INDIGO BUSH	FACW	NATURALIZED AT 7' OC	7	350
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	7	350
				LARGE SHRUB CREDIT	30.2%
SMALL SHRUBS –18" CONTAINERIZED					
				SF CREDIT PER UNIT =	25
PRUNUS MARITIMA	BEACH PLUM	NL	NATURALIZED AT 5' OC	13	325
				SMALL SHRUB CREDIT	14.0%
HERBACEOUS					
PLUGS					
				SF CREDIT BASED ON AREA COVERED	
SPARTINA PATENS**	SALT MEADOW CORDGRASS	FACW1	18" O.C.	1290	1,290
				HERBACEOUS CREDIT***	55.7%
TOTAL:				1290	2,315

* ALL PLANTINGS AREA BELOW EX. MHW AND ARE THEREFORE NOT INCLUDED AS CRITICAL AREA MITIGATION
** ONLY AREA PLANTED ABOVE EX. MHW IS INCLUDED AS CRITICAL AREA MITIGATION
¹ PLANT IN HIGHER ELEVATIONS OF LIVING SHORELINE

ZONE: STAIRS – 1,038 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	1	100
BETULA NIGRA	RIVER BIRCH	FACW	NATURALIZED AT 10' OC	1	100
QUERCUS BICOLOR	SWAMP WHITE OAK	FACW	NATURALIZED AT 10' OC	1	100
QUERCUS PALUSTRIS	PIN OAK	FACW	NATURALIZED AT 10' OC	1	100
QUERCUS PHELLOS	WILLOW OAK	FACW	NATURALIZED AT 10' OC	1	100
				CANOPY TREE CREDIT	41.8%
UNDERSTORY TREES – 3/4" CALIPER					
				SF CREDIT PER UNIT =	75
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	NATURALIZED AT 8.5' OC	1	75
AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	FACU	NATURALIZED AT 8.5' OC	1	75
MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	FACW	NATURALIZED AT 8.5' OC	1	75
				UNDERSTORY TREE CREDIT	18.8%
LARGE SHRUBS – 36" CONTAINERIZED					
				SF CREDIT PER UNIT =	50
CLETHRA ALNIFOLIA	COASTAL SWEETPEPPERBUSH	FACW	NATURALIZED AT 7' OC	1	50
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	1	50
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	NATURALIZED AT 7' OC	1	50
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	NATURALIZED AT 7' OC	2	100
				LARGE SHRUB CREDIT	20.9%
SMALL SHRUBS –18" CONTAINERIZED					
				SF CREDIT PER UNIT =	25
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	NATURALIZED AT 5' OC	2	50
ITEA VIRGINICA	VIRGINIA SWEETSPIRE	FACW	NATURALIZED AT 5' OC	2	50
				SMALL SHRUB CREDIT	8.4%
SEEDING					
HERBACEOUS					
NATIVE SEED MIX					
				ERNMX 140 OR EQUIVALENT	N/A
				N/A	N/A
				0.5 LB	120
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES				N/A	N/A
				SEED	0
				HERBACEOUS CREDIT	10.0%
TOTAL:				17	1,195

ZONE: SOUTH LIVING SHORELINE – 21,471 SF
TOTAL; 7,019 ABOVE EX. MHW

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	MAX SPACING/LOCATION	QUANTITY*	CREDIT TOTAL, SF**
LARGE SHRUBS – 36" CONTAINERIZED					
AMORPHA FRUTICOSA	FALSE INDIGO BUSH	FACW	RANDOM AT 7' OC ON DUNE	5	250
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	RANDOM AT 7' OC ON DUNE	10	500
				LARGE SHRUB CREDIT	11.3%
SMALL SHRUBS –18" CONTAINERIZED					
				SF CREDIT PER UNIT =	25
PRUNUS MARITIMA	BEACH PLUM	NL	RANDOM AT 5' OC ON DUNE	7	175
				SMALL SHRUB CREDIT	2.6%
HERBACEOUS					
PLUGS					
				SF CREDIT BASED ON AREA COVERED	
ONEOTHERA BIENNIS	COMMON EVENING PRIMROSE	FACU	18" O.C.	100	68
PANICUM VIRGATUM	SWITCHGRASS	FAC	18" O.C.	100	68
SOLIDAGO SEMPERVIRENS	SEASIDE GOLDENROD	FACW	18" O.C.	100	68
SPARTINA ALTERNIFLORA*	SMOOTH CORDGRASS	OBL2	18" O.C.	2700	0
SPARTINA PATENS**	SALT MEADOW CORDGRASS	FACW1	18" O.C.	9500	5,480
				HERBACEOUS CREDIT***	86.0%
TOTAL:				12522	6,609

* ALL PLANTINGS AREA BELOW EX. MHW AND ARE THEREFORE NOT INCLUDED AS CRITICAL AREA MITIGATION
** ONLY AREA PLANTED ABOVE EX. MHW IS INCLUDED AS CRITICAL AREA MITIGATION
¹ PLANT IN HIGHER ELEVATIONS OF LIVING SHORELINE ² PLANT IN LOWER ELEVATIONS OF LIVING SHORELINE

NOTE: CONTRACTOR SHALL INSTALL TREE/SHRUB PLANTING PROTECTION AROUND PERIMETER OF DUNE WITH GOOSE EXCLUSION FENCE WOVEN OVER THE DUNE.

ZONE: NORTH OF AMPHITHEATER – 2,430 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	4	400
BETULA NIGRA	RIVER BIRCH	FACW	NATURALIZED AT 10' OC	1	100
QUERCUS BICOLOR	SWAMP WHITE OAK	FACW	NATURALIZED AT 10' OC	2	200
QUERCUS PALUSTRIS	PIN OAK	FACW	NATURALIZED AT 10' OC	3	300
QUERCUS PHELLOS	WILLOW OAK	FACW	NATURALIZED AT 10' OC	2	200
				CANOPY TREE CREDIT	41.5%
UNDERSTORY TREES – 3/4" CALIPER					
				SF CREDIT PER UNIT =	75
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	NATURALIZED AT 8.5' OC	3	225
AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	FACU	NATURALIZED AT 8.5' OC	3	225
MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	FACW	NATURALIZED AT 8.5' OC	3	225
				UNDERSTORY TREE CREDIT	23.4%
LARGE SHRUBS – 36" CONTAINERIZED					
				SF CREDIT PER UNIT =	50
ARONIA ARBUTIFOLIA	RED CHOKEBERRY	FACW	NATURALIZED AT 7' OC	2	100
CLETHRA ALNIFOLIA	COASTAL SWEETPEPPERBUSH	FACW	NATURALIZED AT 7' OC	2	100
CORNUS AMOMUM	SILKY DOGWOOD	FACW	NATURALIZED AT 7' OC	2	100
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	2	100
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	NATURALIZED AT 7' OC	3	150
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	NATURALIZED AT 7' OC	2	100
				LARGE SHRUB CREDIT	22.5%
SMALL SHRUBS –18" CONTAINERIZED					
				SF CREDIT PER UNIT =	25
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	NATURALIZED AT 5' OC	1	25
ITEA VIRGINICA	VIRGINIA SWEETSPIRE	FACW	NATURALIZED AT 5' OC	2	50
				SMALL SHRUB CREDIT	2.6%
SEEDING					
HERBACEOUS					
NATIVE SEED MIX					
				ERNMX 140 OR EQUIVALENT	N/A
				N/A	N/A
				1.2 LB	290
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES				N/A	N/A
				SEED	0
				HERBACEOUS CREDIT	10.0%
TOTAL:				37	2,890

ZONE: AMPHITHEATER – 3,817 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	4	400
BETULA NIGRA	RIVER BIRCH	FACW	NATURALIZED AT 10' OC	4	400
QUERCUS BICOLOR	SWAMP WHITE OAK	FACW	NATURALIZED AT 10' OC	4	400
QUERCUS PALUSTRIS	PIN OAK	FACW	NATURALIZED AT 10' OC	4	400
QUERCUS PHELLOS	WILLOW OAK	FACW	NATURALIZED AT 10' OC	4	400
				CANOPY TREE CREDIT	47.4%
UNDERSTORY TREES – 3/4" CALIPER					
				SF CREDIT PER UNIT =	75
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	NATURALIZED AT 8.5' OC	3	225
AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	FACU	NATURALIZED AT 8.5' OC	3	225
MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	FACW	NATURALIZED AT 8.5' OC	2	150
				UNDERSTORY TREE CREDIT	14.2%
LARGE SHRUBS – 36" CONTAINERIZED					
				SF CREDIT PER UNIT =	50
ARONIA ARBUTIFOLIA	RED CHOKEBERRY	FACW	NATURALIZED AT 7' OC	3	150
CLETHRA ALNIFOLIA	COASTAL SWEETPEPPERBUSH	FACW	NATURALIZED AT 7' OC	3	150
CORNUS AMOMUM	SILKY DOGWOOD	FACW	NATURALIZED AT 7' OC	4	200
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	4	200
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	NATURALIZED AT 7' OC	4	200
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	NATURALIZED AT 7' OC	3	150
				LARGE SHRUB CREDIT	24.9%
SMALL SHRUBS –18" CONTAINERIZED					
				SF CREDIT PER UNIT =	25
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	NATURALIZED AT 5' OC	4	100
ITEA VIRGINICA	VIRGINIA SWEETSPIRE	FACW	NATURALIZED AT 5' OC	2	50
				SMALL SHRUB CREDIT	3.6%
SEEDING					
HERBACEOUS					
NATIVE SEED MIX					
				ERNMX 140 OR EQUIVALENT	N/A
				N/A	N/A
				1.7 LB	420
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES				N/A	N/A
				SEED	0
				HERBACEOUS CREDIT	10.0%
TOTAL:				55	4,220

ZONE: SOUTHEAST OF GAZEBO – 5,900 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	10	1,000
DIOSPYROS VIRGINIANA	AMERICAN PERSIMMON	FAC	NATURALIZED AT 10' OC	10	1,000
QUERCUS BICOLOR*	SWAMP WHITE OAK	FACW	NATURALIZED AT 10' OC	1	100
QUERCUS PALUSTRIS	PIN OAK	FACW	NATURALIZED AT 10' OC	3	300
QUERCUS PHELLOS*	WILLOW OAK	FACW	NATURALIZED AT 10' OC	5	500
				CANOPY TREE CREDIT	47.9%
UNDERSTORY TREES – 3/4" CALIPER					
				SF CREDIT PER UNIT =	75
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	NATURALIZED AT 8.5' OC	7	525
AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	FACU	NATURALIZED AT 8.5' OC	7	525
MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	FACW	NATURALIZED AT 8.5' OC	5	375
				UNDERSTORY TREE CREDIT	23.6%
LARGE SHRUBS – 36" CONTAINERIZED					
				SF CREDIT PER UNIT =	50
ARONIA ARBUTIFOLIA	RED CHOKEBERRY	FACW	NATURALIZED AT 7' OC	5	250
CORNUS AMOMUM	SILKY DOGWOOD	FACW	NATURALIZED AT 7' OC	5	250
MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	FAC	NATURALIZED AT 7' OC	5	250
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	NATURALIZED AT 7' OC	7	350
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	NATURALIZED AT 7' OC	7	350
				LARGE SHRUB CREDIT	24.0%
SMALL SHRUBS –18" CONTAINERIZED					
				SF CREDIT PER UNIT =	25
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	NATURALIZED AT 5' OC	11	275
				SMALL SHRUB CREDIT	4.5%
TOTAL:				88	6,050

NATIVE SEED MIX COMPOSITION

COMPOSITION	BOTANICAL NAME	COMMON NAME
49.4%	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
20.5%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
9.5%	ECHINACEA PURPUREA	PURPLE CONEFLOWER
6.5%	ELYMUS HYSTRIX	BOTTLEBRUSH GRASS
3.0%	RUDBECKIA HIRTA	BLACKEYED SUSAN
1.8%	HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1.3%	Zizia AUREA	GOLDEN ALEXANDERS
1.0%	PENSTEMON DIGITALIS	TALL WHITE BEARDTONGUE
0.7%	LIATRIS SPICATA	MARSH BLAZING STAR
0.6%	ASTER MACROPHYLLUS	BIGLEAF ASTER
0.6%	BAPTISIA AUSTRALIS	BLUE FALSE INDIGO
0.5%	ANEMONE CANADENSIS	CANADIAN ANEMONE
0.5%	GAURA BIENNIS	BIENN