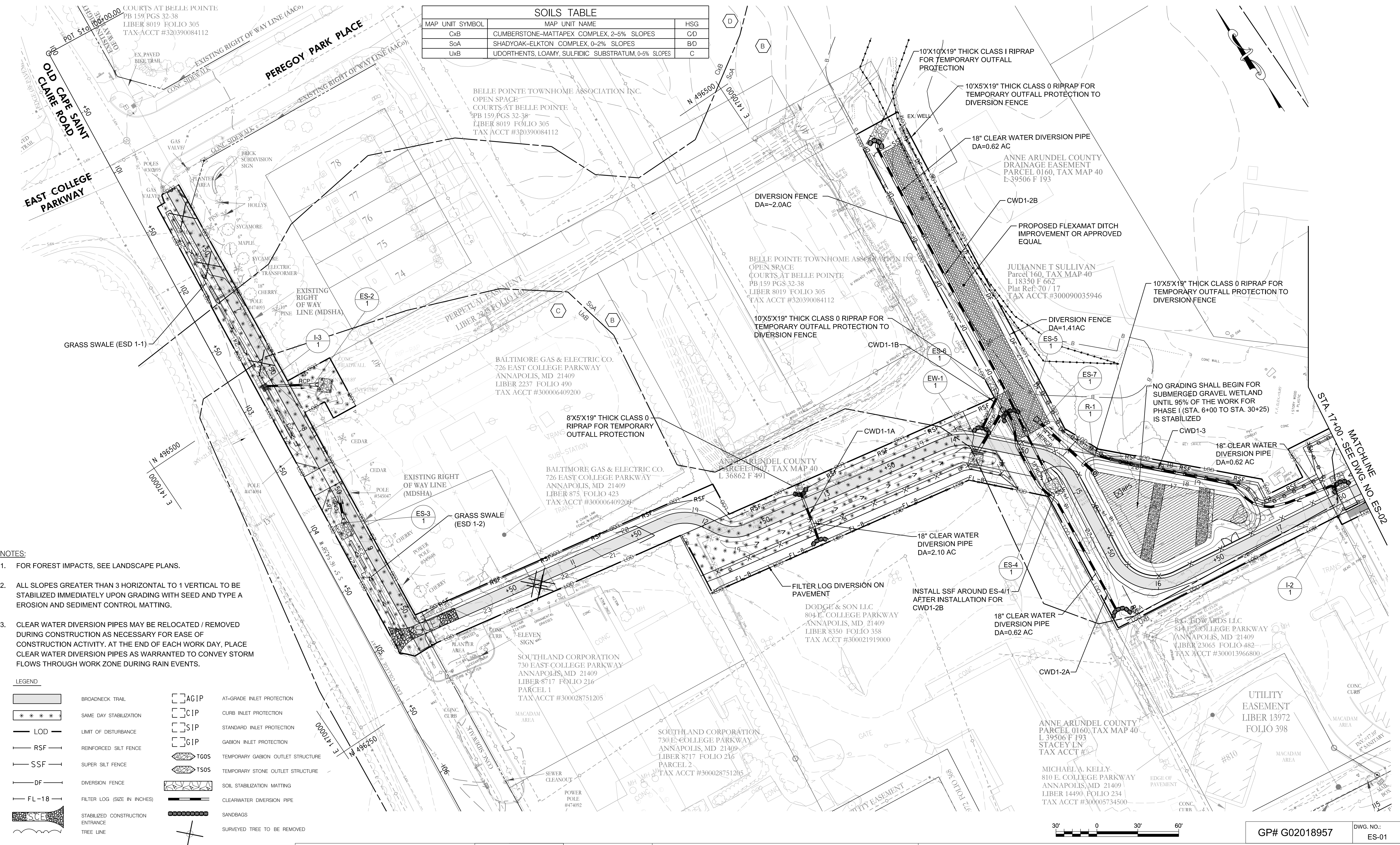


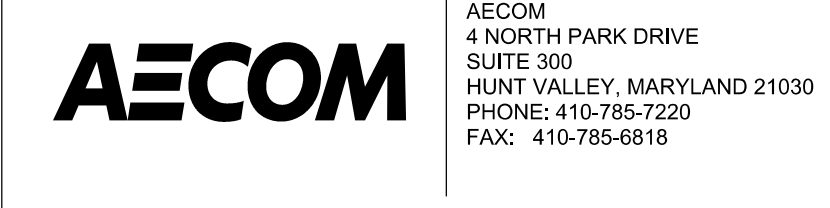
SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxB	CUMBERSTONE-MATTAPEX COMPLEX, 2-5% SLOPES	CD
SoA	SHADYOAK-ELKTON COMPLEX, 0-2% SLOPES	BD
UxB	UDORTENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C



- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.
  - CLEAR WATER DIVERSION PIPES MAY BE RELOCATED / REMOVED DURING CONSTRUCTION AS NECESSARY FOR EASE OF CONSTRUCTION ACTIVITY. AT THE END OF EACH WORK DAY, PLACE CLEAR WATER DIVERSION PIPES AS WARRANTED TO CONVEY STORM FLOWS THROUGH WORK ZONE DURING RAIN EVENTS.

**LEGEND**

	BROADNECK TRAIL		AT-GRADE INLET PROTECTION
	SAME DAY STABILIZATION		CURB INLET PROTECTION
	LIMIT OF DISTURBANCE		STANDARD INLET PROTECTION
	REINFORCED SILT FENCE		GABION INLET PROTECTION
	SUPER SILT FENCE		TEMPORARY GABION OUTLET STRUCTURE
	DIVERSION FENCE		TEMPORARY STONE OUTLET STRUCTURE
	FILTER LOG (SIZE IN INCHES)		SOIL STABILIZATION MATTING
	STABILIZED CONSTRUCTION ENTRANCE		CLEARWATER DIVERSION PIPE
	TREE LINE		SANDBAGS
	EXISTING CONTOUR		SURVEYED TREE TO BE REMOVED
	PROPOSED CONTOUR		FIELD DELINEATED WETLAND AND 25' BUFFER
	SPOT ELEVATION		



**PROFESSIONAL CERTIFICATION**  
 I 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.  
 MD LICENSE NUMBER: 53587  
 EXPIRATION DATE: 12-09-2024

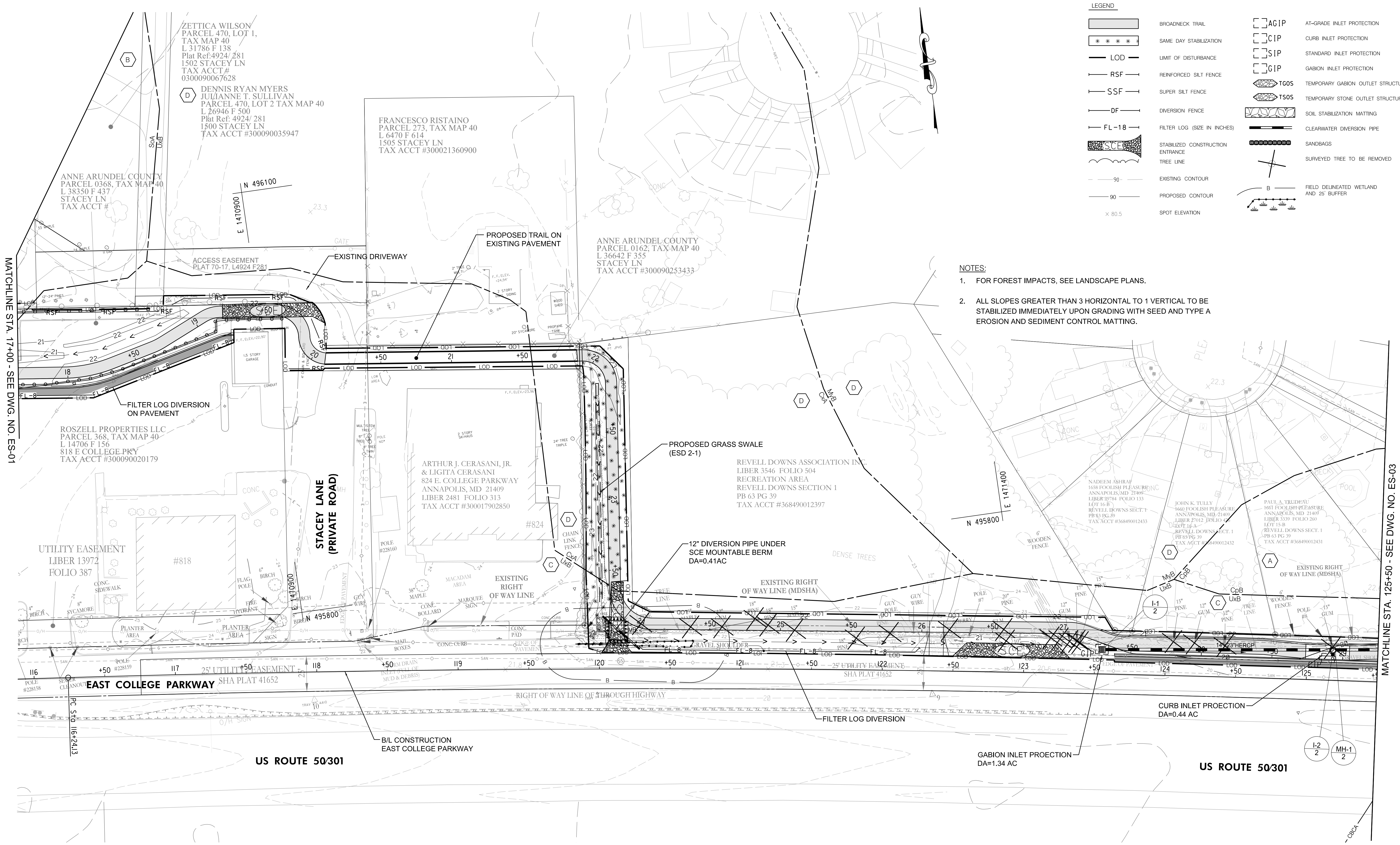


REVISIONS			
NO.	DESCRIPTION	BY	DATE

APPROVED				APPROVED			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
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CHIEF ENGINEER	PROJECT MANAGER	CHIEF ENGINEER	PROJECT MANAGER	CHIEF ENGINEER	PROJECT MANAGER	CHIEF ENGINEER	PROJECT MANAGER
11/17/2023	11:56 EST	11/17/2023	18:33 EST	11/17/2023	11:56 EST	11/17/2023	18:33 EST
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY

GP# G02018957 DWG. NO.: ES-01

ANNE ARUNDEL COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: AS NOTED  
 DRAWN BY: DMT  
 CHECKED BY: DMT  
 SHEET NO. 76 OF 116  
 PROJECT NO. P504100  
 CONTRACT NO. P504105  
**GRADING AND EROSION CONTROL PLAN**



**LEGEND**

	BROADNECK TRAIL		AT-GRADE INLET PROTECTION
	SAME DAY STABILIZATION		CURB INLET PROTECTION
	LIMIT OF DISTURBANCE		STANDARD INLET PROTECTION
	REINFORCED SILT FENCE		GABION INLET PROTECTION
	SUPER SILT FENCE		TEMPORARY GABION OUTLET STRUCTURE
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	FILTER LOG (SIZE IN INCHES)		SOIL STABILIZATION MATTING
	STABILIZED CONSTRUCTION ENTRANCE		CLEARWATER DIVERSION PIPE
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	SPOT ELEVATION		

- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

**SOILS TABLE**

MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CpB	COLLINGTON-WIST-URBAN LAND COMPLEX, 0-5% SLOPES	A
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
MyB	MATTAPEX-BUTLERTOWN-URBAN LAND COMPLEX, 0-5% SLOPES	D
SoA	SHADYOAK-ELKTON COMPLEX, 0-2% SLOPES	B/D
UxB	UDORTHENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C



AECOM  
4 NORTH PARK DRIVE  
SUITE 300  
HUNT VALLEY, MARYLAND 21030  
PHONE: 410-785-7220  
FAX: 410-785-6818

PROFESSIONAL CERTIFICATION  
"I 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."  
MD LICENSE NUMBER: S3587  
EXPIRATION DATE: 12-09-2024



**REVISIONS**

NO.	DESCRIPTION	BY	DATE

**APPROVED**

DATE	APPROVED	DATE	APPROVED
11/20/2023		11/17/2023	
11/17/2023		11/17/2023	

GP# G02018957      DWG. NO.: ES-02

ANNE ARUNDEL COUNTY  
DEPARTMENT OF PUBLIC WORKS

SCALE: AS NOTED  
DRAWN BY: DMT  
CHECKED BY: DMT  
SHEET NO. 77 OF 116  
PROJECT NO. P504100  
CONTRACT NO. P504105

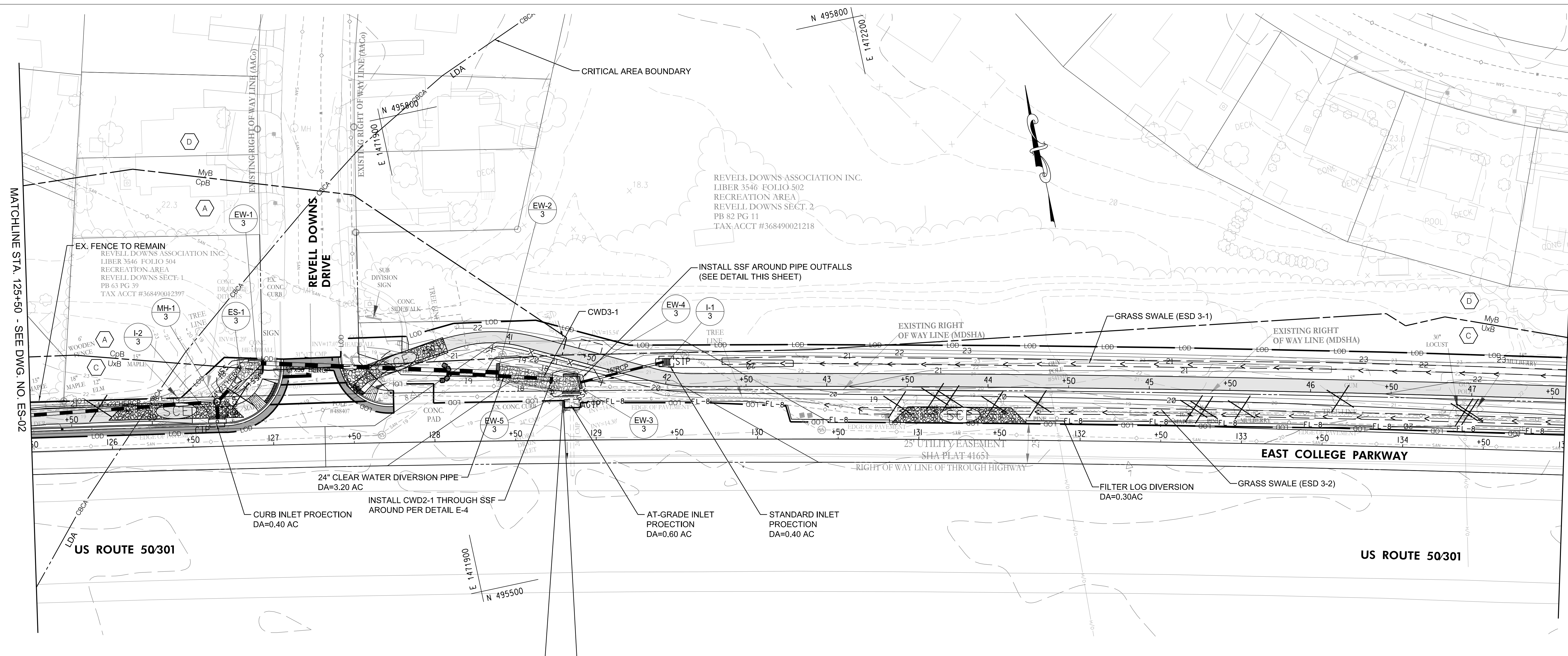
**BROADNECK PENINSULA TRAIL PHASE IB & V**

**GRADING AND EROSION CONTROL PLAN**



MATCHLINE STA. 17+00 - SEE DWG. NO. ES-01

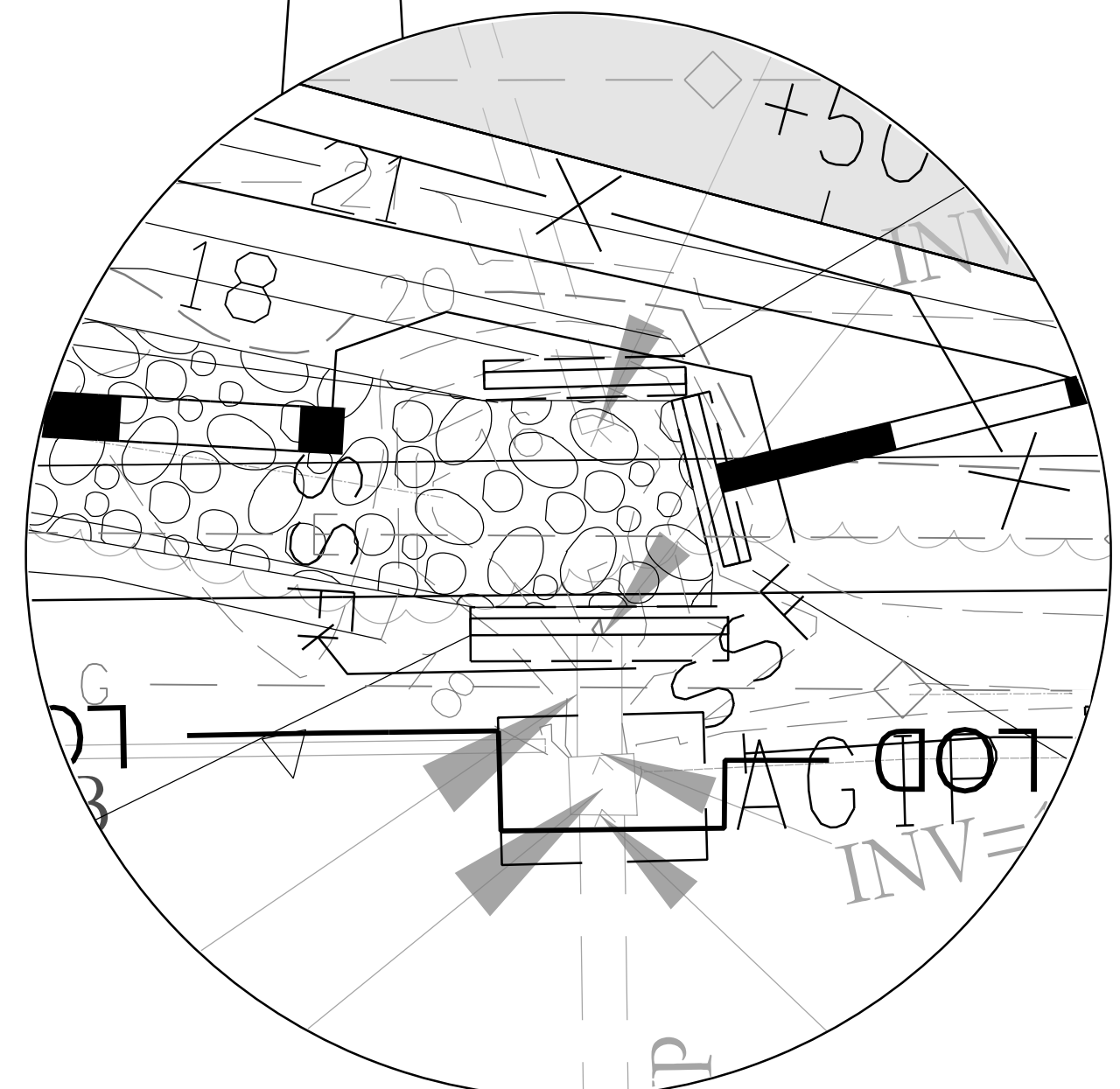
MATCHLINE STA. 125+50 - SEE DWG. NO. ES-03



MATCHLINE STA. 125+50 - SEE DWG. NO. ES-02

MATCHLINE STA. 135+00 - SEE DWG. NO. ES-04

SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CpB	COLLINGTON-WEST-URBAN LAND COMPLEX, 0-5% SLOPES	A
MyB	MATTAPEX-BUTLERTOWN-URBAN LAND COMPLEX, 0-5% SLOPES	D
UxB	UDORTHERENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C



SUPER SILT FENCE AROUND OUTFALL DETAIL  
NOT TO SCALE

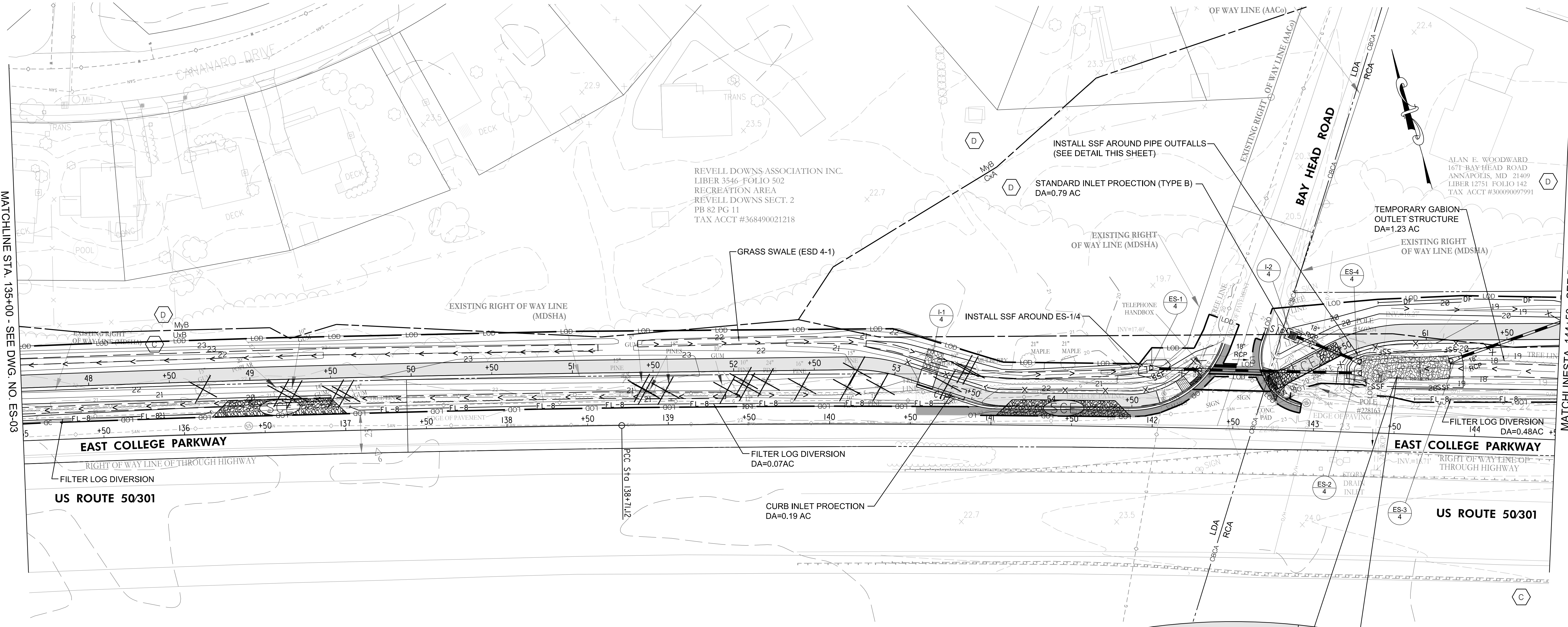
- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

LEGEND	
	BROADNECK TRAIL
	SAME DAY STABILIZATION
	LIMIT OF DISTURBANCE
	REINFORCED SILT FENCE
	SUPER SILT FENCE
	DIVERSION FENCE
	FILTER LOG (SIZE IN INCHES)
	STABILIZED CONSTRUCTION ENTRANCE
	TREE LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SPOT ELEVATION
	AT-GRADE INLET PROTECTION
	CURB INLET PROTECTION
	STANDARD INLET PROTECTION
	GABION INLET PROTECTION
	TEMPORARY GABION OUTLET STRUCTURE
	TEMPORARY STONE OUTLET STRUCTURE
	SOIL STABILIZATION MATTING
	CLEARWATER DIVERSION PIPE
	SANDBAGS
	SURVEYED TREE TO BE REMOVED
	FIELD DELINEATED WETLAND AND 25' BUFFER



GP# G02018957 DWG. NO.: ES-03

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I 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."</p> <p>MD LICENSE NUMBER: 53587</p> <p>EXPIRATION DATE: 12-09-2024</p>	<p>06/08/2023</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				NO.	DESCRIPTION	BY	DATE					<p>ANNE ARUNDEL COUNTY</p> <p>DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023   08:59 EST</td> <td></td> <td>11/17/2023   08:00 EST</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> </tr> <tr> <td>APPROVED</td> <td>DATE</td> <td>APPROVED</td> <td>DATE</td> </tr> <tr> <td></td> <td>11/17/2023   11:56 EST</td> <td></td> <td>11/17/2023   18:30 EST</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> </tr> </tbody> </table>				APPROVED	DATE	APPROVED	DATE		11/20/2023   08:59 EST		11/17/2023   08:00 EST	CHIEF ENGINEER		PROJECT MANAGER		APPROVED	DATE	APPROVED	DATE		11/17/2023   11:56 EST		11/17/2023   18:30 EST	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
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<p>SCALE: AS NOTED</p> <p>DRAWN BY: DMT</p> <p>CHECKED BY: DMT</p> <p>SHEET NO. 78 OF 116</p> <p>PROJECT NO. P504100</p> <p>CONTRACT NO. P504105</p>																																										
<p>BROADNECK PENINSULA TRAIL PHASE IB &amp; V</p> <p>GRADING AND EROSION CONTROL PLAN</p>																																										



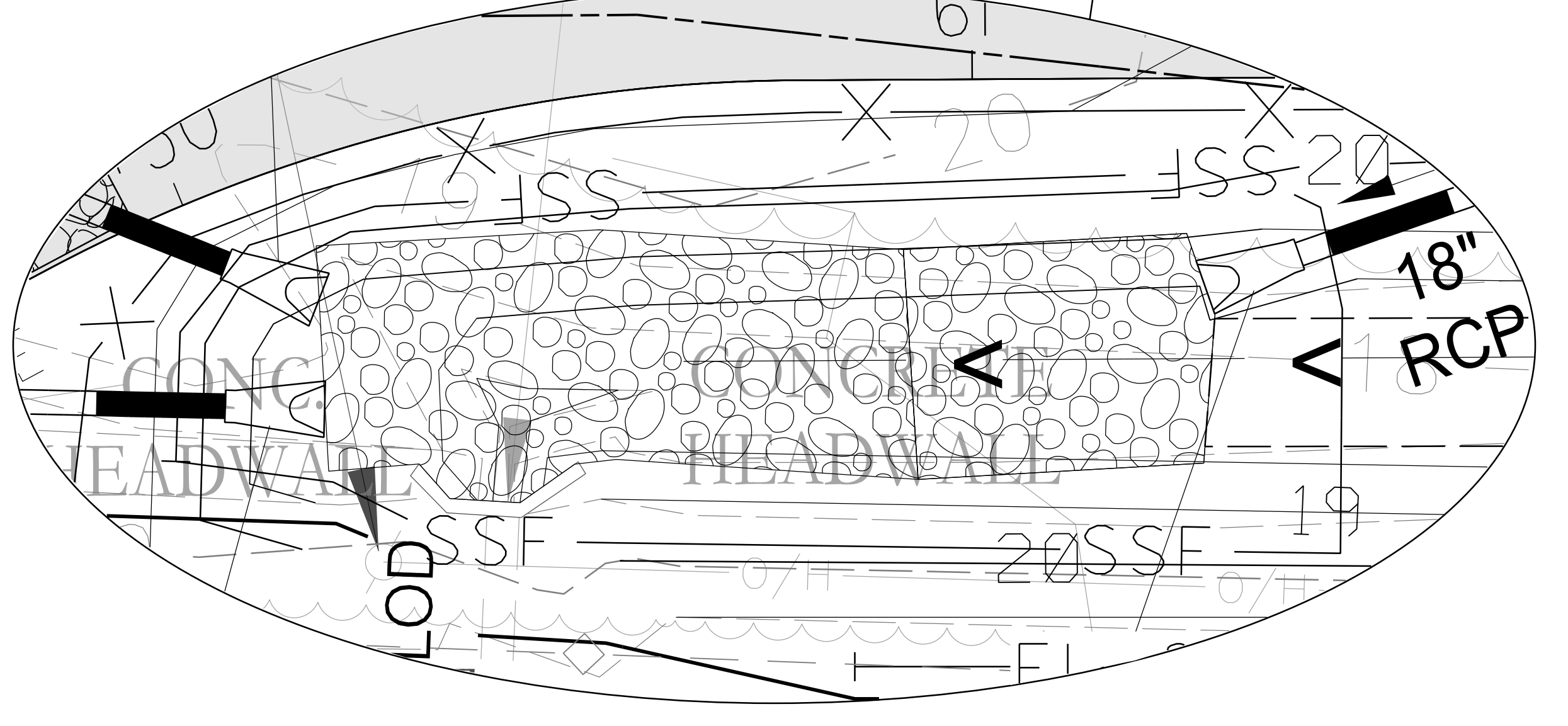
MATCHLINE STA. 135+00 - SEE DWG. NO. ES-03

MATCHLINE STA. 144+50 - SEE DWG. NO. ES-05

SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	C/D
MyB	MATTAPEX-BUTLERTOWN-URBAN LAND COMPLEX, 0-5% SLOPES	D
UxB	UDORTHERTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C

- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

LEGEND	
	BROADNECK TRAIL
	SAME DAY STABILIZATION
	LIMIT OF DISTURBANCE
	REINFORCED SILT FENCE
	SUPER SILT FENCE
	DIVERSION FENCE
	FILTER LOG (SIZE IN INCHES)
	STABILIZED CONSTRUCTION ENTRANCE
	TREE LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SPOT ELEVATION
	AT-GRADE INLET PROTECTION
	CURB INLET PROTECTION
	STANDARD INLET PROTECTION
	GABION INLET PROTECTION
	TEMPORARY GABION OUTLET STRUCTURE
	TEMPORARY STONE OUTLET STRUCTURE
	SOIL STABILIZATION MATTING
	CLEARWATER DIVERSION PIPE
	SANDBAGS
	SURVEYED TREE TO BE REMOVED
	FIELD DELINEATED WETLAND AND 25' BUFFER



SUPER SILT FENCE AROUND OUTFALL DETAIL  
NOT TO SCALE



GP# G02018957 DWG. NO.: ES-04



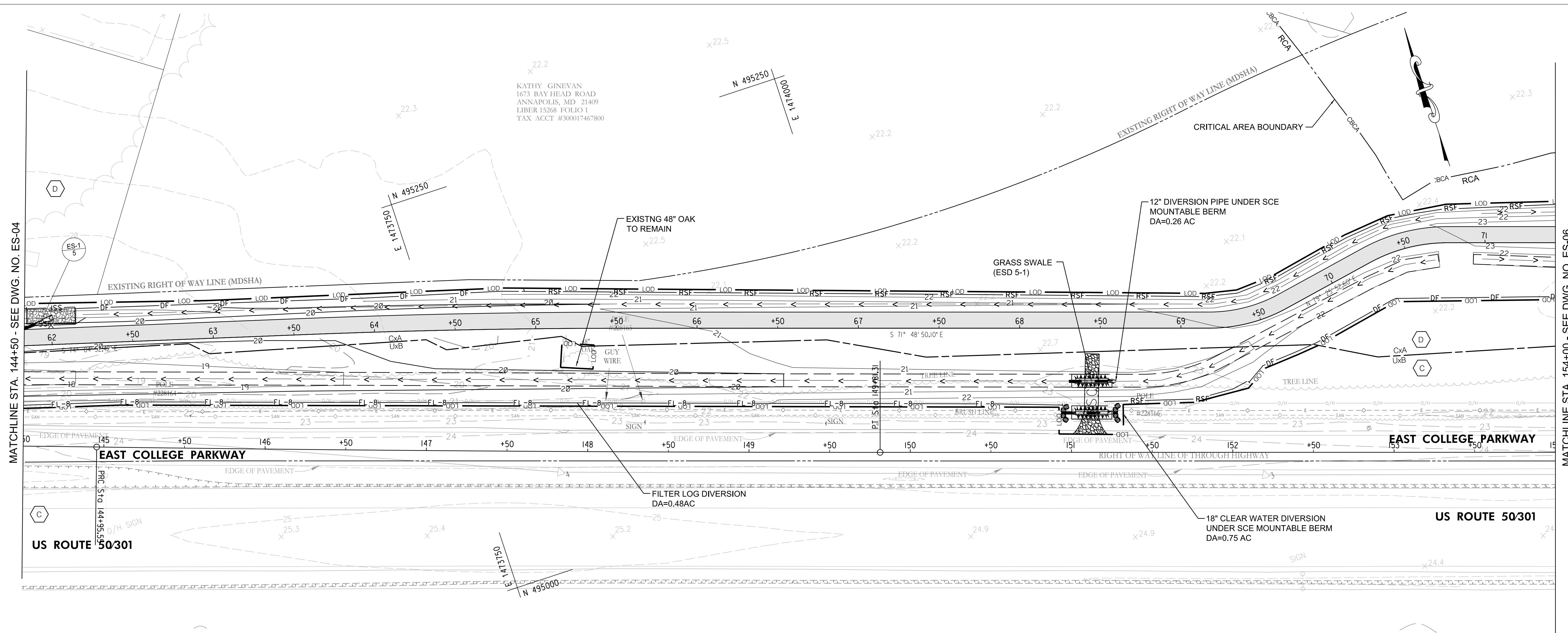
PROFESSIONAL CERTIFICATION  
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
MD LICENSE NUMBER: S3587  
EXPIRATION DATE: 12-09-2024



REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
APPROVED	DATE	APPROVED	DATE
	11/20/2023   08:59 EST		11/17/2023   08:00 EST
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
	11/17/2023   11:56 EST		11/17/2023   18:30 EST
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS NOTED  
DRAWN BY: DMT  
CHECKED BY: DMT  
SHEET NO. 79 OF 116  
PROJECT NO. P504100  
CONTRACT NO. P504105  
BROADNECK PENINSULA TRAIL PHASE IB & V  
GRADING AND EROSION CONTROL PLAN



MATCHLINE STA. 144+50 - SEE DWG. NO. ES-04

MATCHLINE STA. 154+00 - SEE DWG. NO. ES-06

SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
UxB	UDORTHENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C

**NOTES:**

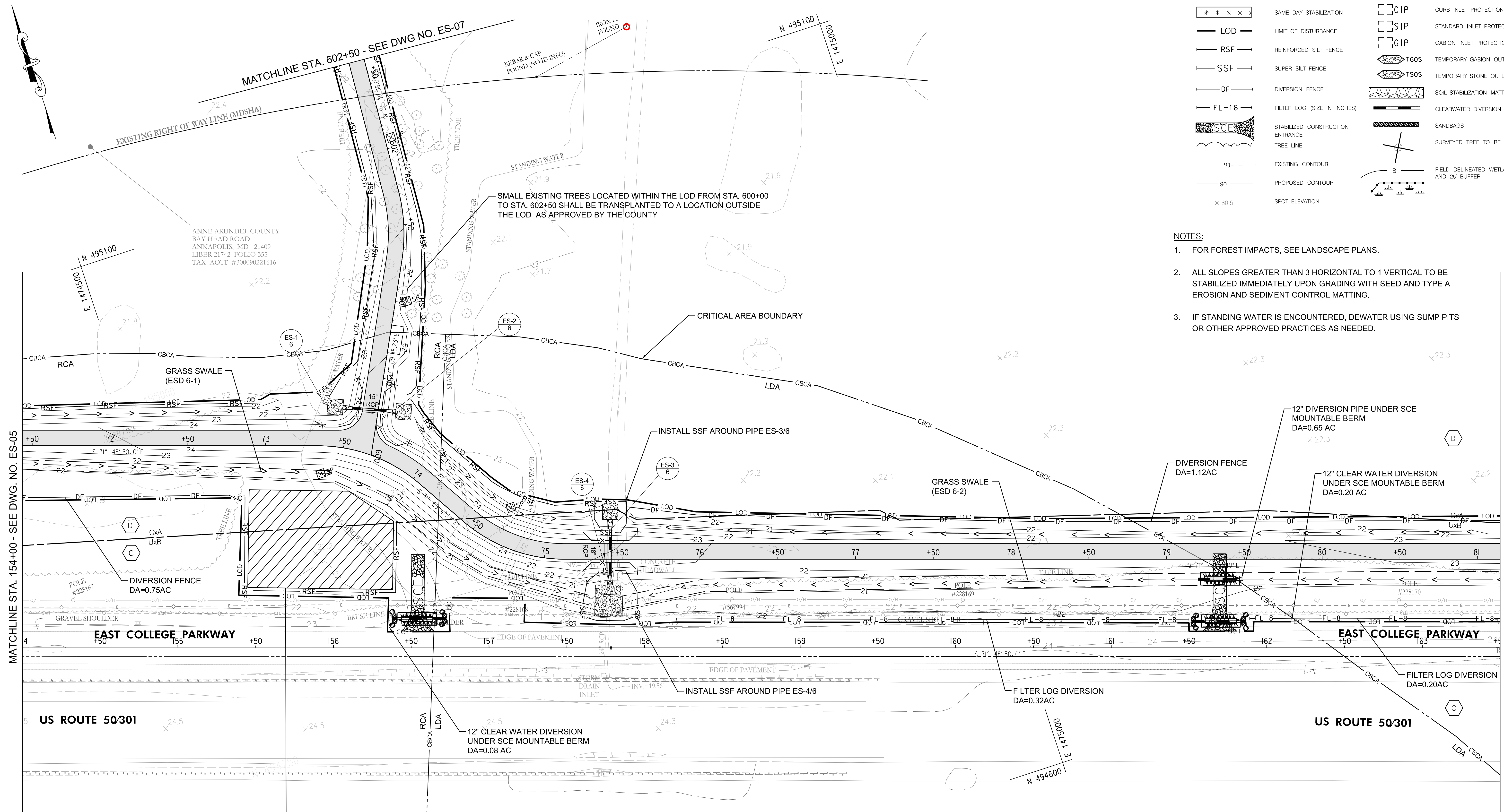
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
- ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

**LEGEND**

	BROADNECK TRAIL		AT-GRADE INLET PROTECTION
	SAME DAY STABILIZATION		CURB INLET PROTECTION
	LIMIT OF DISTURBANCE		STANDARD INLET PROTECTION
	REINFORCED SILT FENCE		GABION INLET PROTECTION
	SUPER SILT FENCE		TEMPORARY GABION OUTLET STRUCTURE
	DIVERSION FENCE		TEMPORARY STONE OUTLET STRUCTURE
	FILTER LOG (SIZE IN INCHES)		SOIL STABILIZATION MATTING
	STABILIZED CONSTRUCTION ENTRANCE		CLEARWATER DIVERSION PIPE
	TREE LINE		SANDBAGS
	EXISTING CONTOUR		SURVEYED TREE TO BE REMOVED
	PROPOSED CONTOUR		FIELD DELINEATED WETLAND AND 25' BUFFER
	SPOT ELEVATION		



	PROFESSIONAL CERTIFICATION *I 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. MD LICENSE NUMBER: 53587 EXPIRATION DATE: 12-09-2024		REVISIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	BY	DATE					ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS	APPROVED DATE: 11/20/2023   08:59 EST CHIEF ENGINEER:	APPROVED DATE: 11/17/2023   08:59 EST PROJECT MANAGER:	SCALE: AS NOTED DRAWN BY: DMT CHECKED BY: DMT SHEET NO. 80 OF 116 PROJECT NO. P504100 CONTRACT NO. P504105	BROADNECK PENINSULA TRAIL PHASE IB & V <b>GRADING AND EROSION CONTROL PLAN</b>
	NO.	DESCRIPTION	BY	DATE												
AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818		06/08/2023		APPROVED DATE: 11/20/2023   11:56 EST ASSISTANT CHIEF ENGINEER:		APPROVED DATE: 11/17/2023   18:30 EST CHIEF, RIGHT OF WAY:										



**LEGEND**

[Symbol]	BROADNECK TRAIL	[Symbol]	ACIP	AT-GRADE INLET PROTECTION
[Symbol]	SAME DAY STABILIZATION	[Symbol]	CIP	CURB INLET PROTECTION
[Symbol]	LOD	[Symbol]	SIP	STANDARD INLET PROTECTION
[Symbol]	RSF	[Symbol]	GIP	GABION INLET PROTECTION
[Symbol]	SSF	[Symbol]	TGOS	TEMPORARY GABION OUTLET STRUCTURE
[Symbol]	DF	[Symbol]	TSOS	TEMPORARY STONE OUTLET STRUCTURE
[Symbol]	FL-18	[Symbol]	[Symbol]	SOIL STABILIZATION MATTING
[Symbol]	SCE	[Symbol]	[Symbol]	CLEARWATER DIVERSION PIPE
[Symbol]	STABILIZED CONSTRUCTION ENTRANCE	[Symbol]	[Symbol]	SANDBAGS
[Symbol]	TREE LINE	[Symbol]	[Symbol]	SURVEYED TREE TO BE REMOVED
[Symbol]	EXISTING CONTOUR	[Symbol]	[Symbol]	FIELD DELINEATED WETLAND AND 25' BUFFER
[Symbol]	PROPOSED CONTOUR	[Symbol]	[Symbol]	
[Symbol]	SPOT ELEVATION			

- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.
  - IF STANDING WATER IS ENCOUNTERED, DEWATER USING SUMP PITS OR OTHER APPROVED PRACTICES AS NEEDED.

**STOCKPILE AREA**

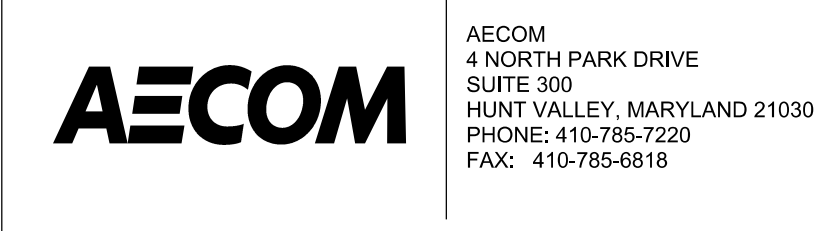
- REINFORCED SILT FENCE SHALL SURROUND STOCKPILE
- SCE SHALL BE INSTALLED FOR ACCESS TO THE STOCKPILE
- MAXIMUM HEIGHT OF STOCKPILE SHALL NOT EXCEED 15' HIGH
- STOCKPILE WILL BE COVERED WITH A 10 MIL PLASTIC
- STOCKPILE WILL HOLD SALVAGED TOPSOIL TO BE PLACED ON-SITE

**SOILS TABLE**

MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
UxB	UDORTHENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C



GP# G02018957 DWG. NO.: ES-06



**PROFESSIONAL CERTIFICATION**

I 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.

MD LICENSE NUMBER: S3587  
EXPIRATION DATE: 12-09-2024



**REVISIONS**

NO.	DESCRIPTION	BY	DATE

**APPROVED**

DATE	APPROVED	DATE	APPROVED
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11/17/2023	[Signature]	11/17/2023	[Signature]

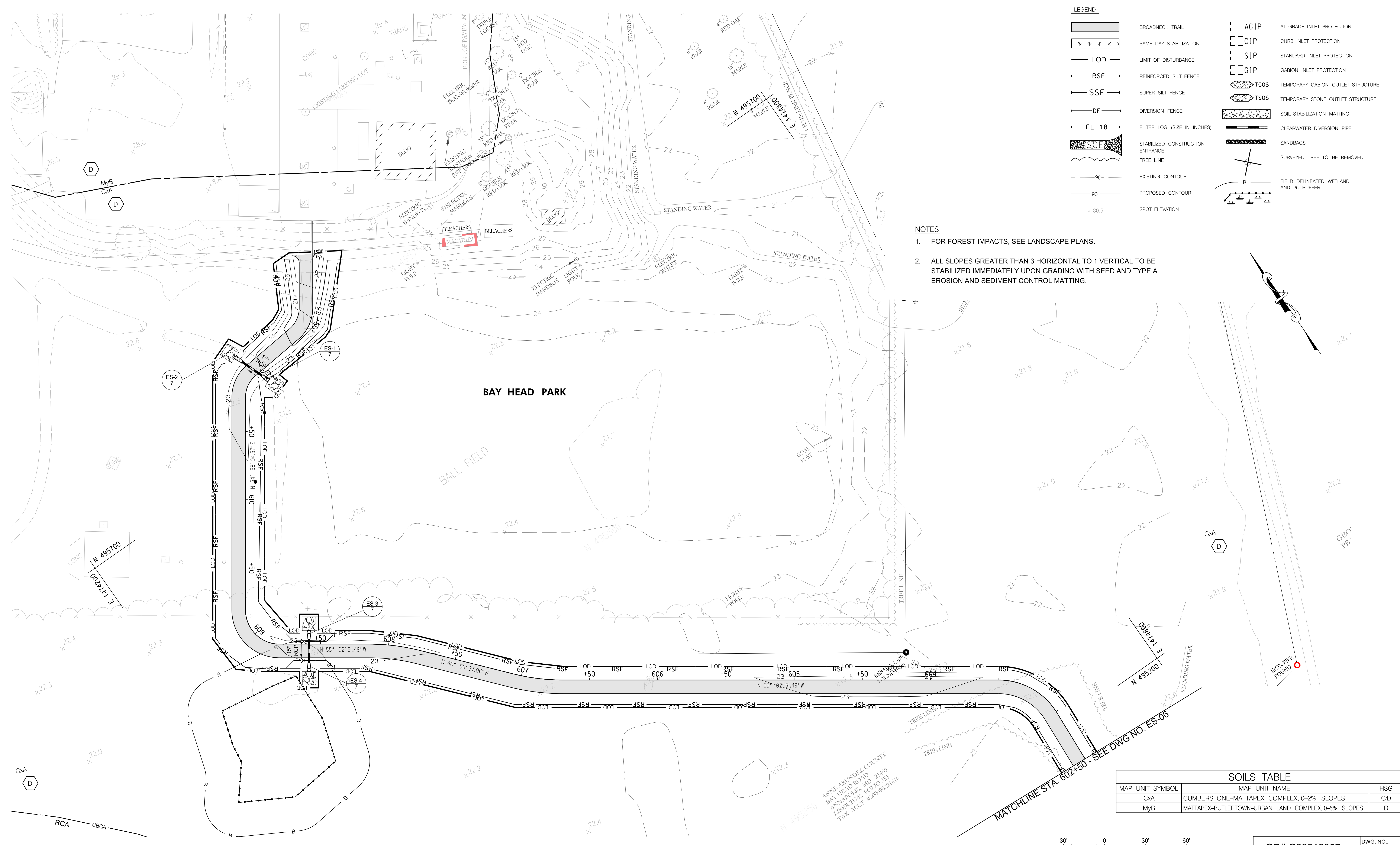
SCALE: AS NOTED

CHECKED BY: DMT  
SHEET NO. 81 OF 116

**BROADNECK PENINSULA TRAIL PHASE IB & V**

**GRADING AND EROSION CONTROL PLAN**

CONTRACT NO. P504105



- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

**LEGEND**

[Symbol]	BROADNECK TRAIL	[Symbol]	AGIP	AT-GRADE INLET PROTECTION
[Symbol]	SAME DAY STABILIZATION	[Symbol]	CIP	CURB INLET PROTECTION
[Symbol]	LOD	[Symbol]	SIP	STANDARD INLET PROTECTION
[Symbol]	LIMIT OF DISTURBANCE	[Symbol]	GIP	GABION INLET PROTECTION
[Symbol]	RSF	[Symbol]	TGOS	TEMPORARY GABION OUTLET STRUCTURE
[Symbol]	REINFORCED SILT FENCE	[Symbol]	TSOS	TEMPORARY STONE OUTLET STRUCTURE
[Symbol]	SSF	[Symbol]	SM	SOIL STABILIZATION MATTING
[Symbol]	SUPER SILT FENCE	[Symbol]	CDP	CLEARWATER DIVERSION PIPE
[Symbol]	DF	[Symbol]	SANDBAGS	SANDBAGS
[Symbol]	DIVERSION FENCE	[Symbol]	TR	SURVEYED TREE TO BE REMOVED
[Symbol]	FL-18	[Symbol]	W	FIELD DELINEATED WETLAND AND 25' BUFFER
[Symbol]	FILTER LOG (SIZE IN INCHES)	[Symbol]		
[Symbol]	STABILIZED CONSTRUCTION ENTRANCE	[Symbol]		
[Symbol]	TREE LINE	[Symbol]		
[Symbol]	EXISTING CONTOUR	[Symbol]		
[Symbol]	PROPOSED CONTOUR	[Symbol]		
[Symbol]	SPOT ELEVATION	[Symbol]		

**SOILS TABLE**

MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
MyB	MATTAPEX-BUTLERTOWN-URBAN LAND COMPLEX, 0-5% SLOPES	D

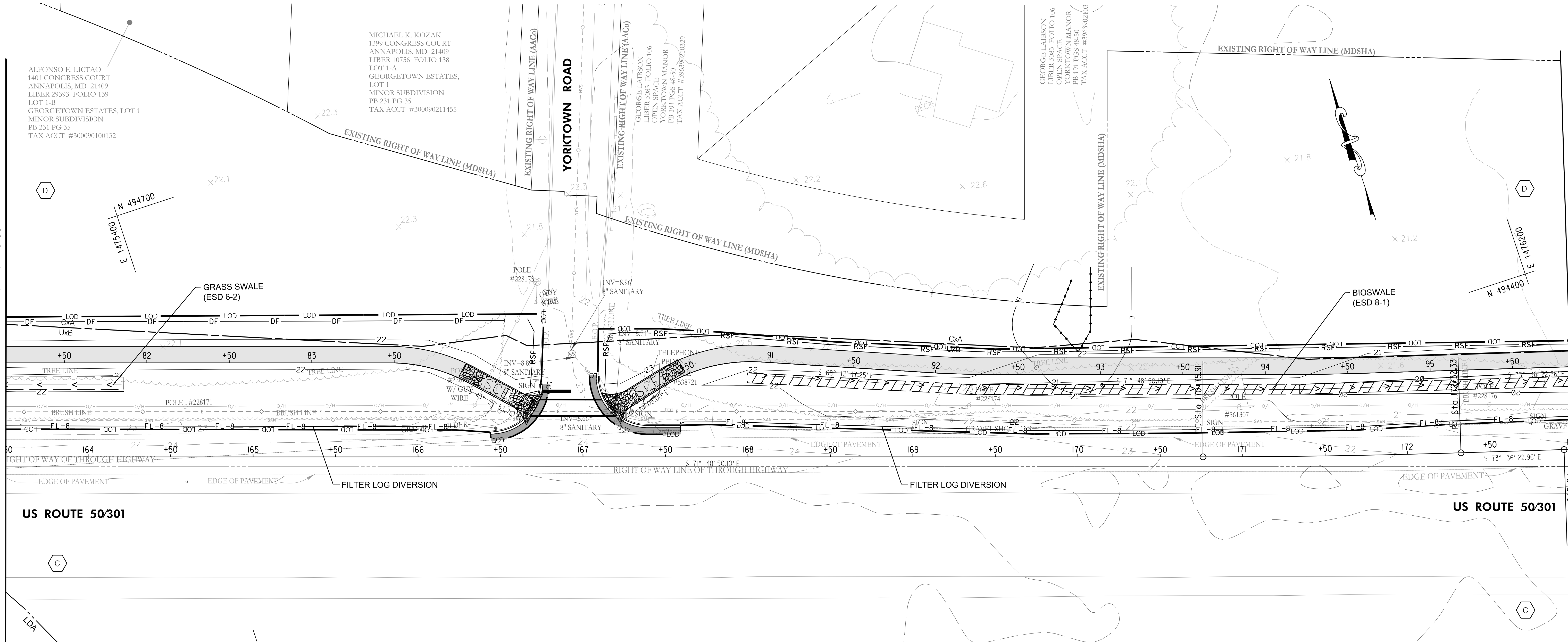


GP# G02018957 DWG. NO.: ES-07

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I 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."</p> <p>MD LICENSE NUMBER: 53587 EXPIRATION DATE: 12-09-2024</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> <th></th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				NO.	DESCRIPTION	BY	DATE																						<p>ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> <th>SCALE: AS NOTED</th> </tr> </thead> <tbody> <tr> <td>[Signature]</td> <td>11/20/2023</td> <td>[Signature]</td> <td>11/17/2023</td> <td>08:59 EST</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> <td>DRAWN BY: DMT</td> </tr> <tr> <td>APPROVED</td> <td>DATE</td> <td>APPROVED</td> <td>DATE</td> <td>CHECKED BY: DMT</td> </tr> <tr> <td>[Signature]</td> <td>11/17/2023</td> <td>[Signature]</td> <td>11/17/2023</td> <td>SHEET NO. 82 OF 116</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> <td>PROJECT NO. P504100</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>CONTRACT NO. P504105</td> </tr> </tbody> </table>				APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED	[Signature]	11/20/2023	[Signature]	11/17/2023	08:59 EST	CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: DMT	APPROVED	DATE	APPROVED	DATE	CHECKED BY: DMT	[Signature]	11/17/2023	[Signature]	11/17/2023	SHEET NO. 82 OF 116	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO. P504100					CONTRACT NO. P504105
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MATCHLINE STA. 163+50 - SEE DWG. NO. ES-06

MATCHLINE STA. 173+00 - SEE DWG. NO. ES-09



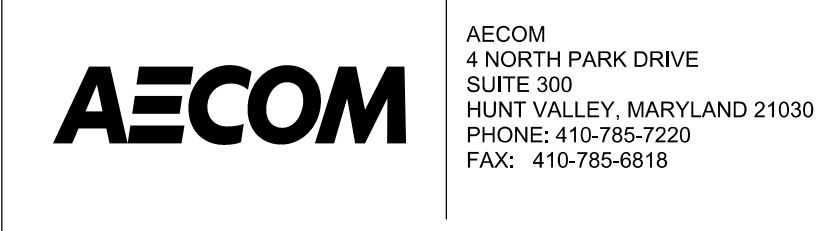
SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
UxB	UDORTHERENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C

- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

LEGEND	
	BROADNECK TRAIL
	SAME DAY STABILIZATION
	LIMIT OF DISTURBANCE
	REINFORCED SILT FENCE
	SUPER SILT FENCE
	DIVERSION FENCE
	FILTER LOG (SIZE IN INCHES)
	STABILIZED CONSTRUCTION ENTRANCE
	TREE LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SPOT ELEVATION
	AT-GRADE INLET PROTECTION
	CURB INLET PROTECTION
	STANDARD INLET PROTECTION
	GABION INLET PROTECTION
	TEMPORARY GABION OUTLET STRUCTURE
	TEMPORARY STONE OUTLET STRUCTURE
	SOIL STABILIZATION MATTING
	CLEARWATER DIVERSION PIPE
	SANDBAGS
	SURVEYED TREE TO BE REMOVED
	FIELD DELINEATED WETLAND AND 25' BUFFER



GP# G02018957 DWG. NO.: ES-08



**PROFESSIONAL CERTIFICATION**  
 I 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.  
 MD LICENSE NUMBER: 53587  
 EXPIRATION DATE: 12-09-2024

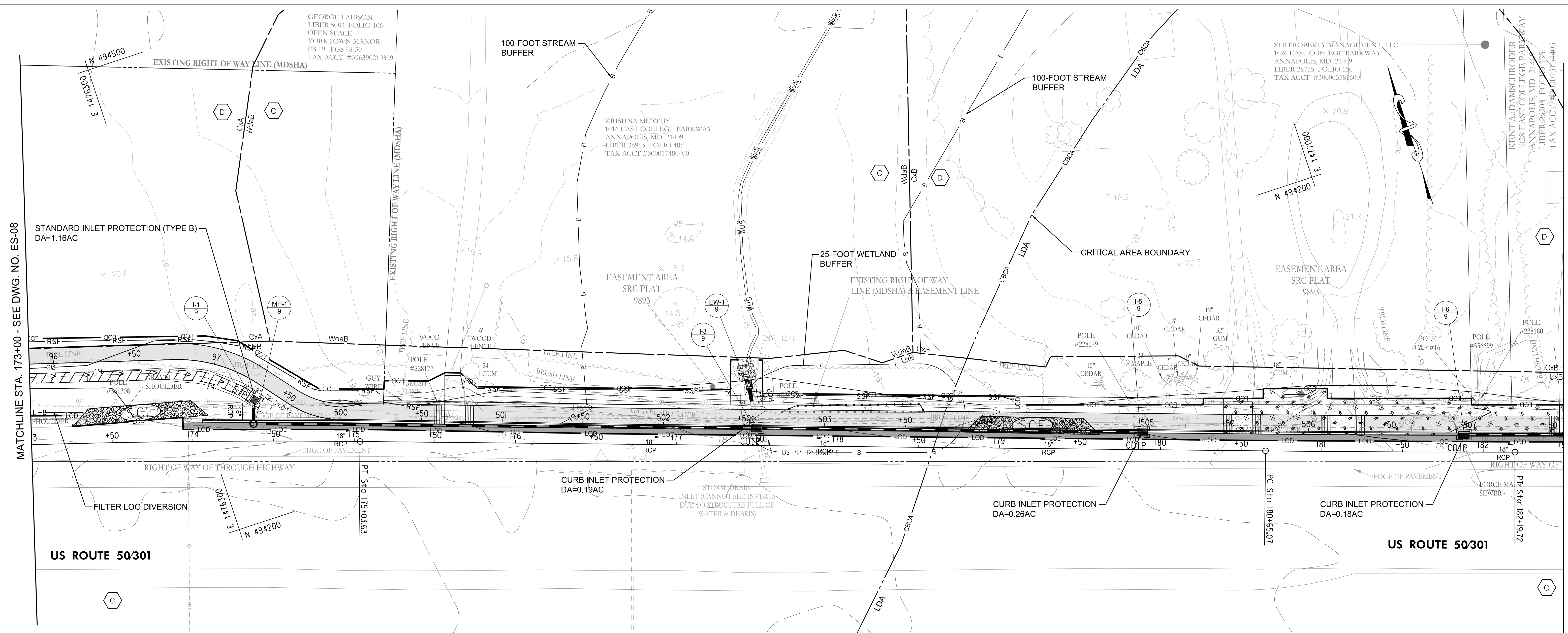


REVISIONS			
NO.	DESCRIPTION	BY	DATE

APPROVED				APPROVED			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
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CHIEF ENGINEER	PROJECT MANAGER	CHIEF ENGINEER	PROJECT MANAGER	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY

**ANNE ARUNDEL COUNTY**  
**DEPARTMENT OF PUBLIC WORKS**  
 SCALE: AS NOTED  
 DRAWN BY: DMT  
 CHECKED BY: DMT  
 SHEET NO. 83 OF 116  
 PROJECT NO. P504100  
 CONTRACT NO. P504105  
**BROADNECK PENINSULA TRAIL PHASE IB & V**  
**GRADING AND EROSION CONTROL PLAN**





MATCHLINE STA. 173+00 - SEE DWG. NO. ES-08

MATCHLINE STA. 182+50 - SEE DWG. NO. ES-10

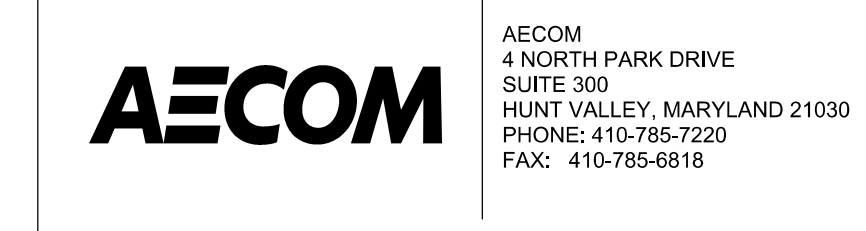
SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	C/D
CxB	CUMBERSTONE-MATTAPEX COMPLEX, 2-5% SLOPES	C/D
WdaB	WOODSTOWN SANDY LOAM, 2-5% SLOPES, NORTHERN COASTAL PLAIN	C
UxB	UDORTHERTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C

- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

LEGEND	
	BROADNECK TRAIL
	SAME DAY STABILIZATION
	LIMIT OF DISTURBANCE
	REINFORCED SILT FENCE
	SUPER SILT FENCE
	DIVERSION FENCE
	FILTER LOG (SIZE IN INCHES)
	STABILIZED CONSTRUCTION ENTRANCE
	TREE LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SPOT ELEVATION
	AT-GRADE INLET PROTECTION
	CURB INLET PROTECTION
	COMBINATION INLET PROTECTION
	STANDARD INLET PROTECTION
	GABION INLET PROTECTION
	TEMPORARY GABION OUTLET STRUCTURE
	TEMPORARY STONE OUTLET STRUCTURE
	SOIL STABILIZATION MATTING
	CLEARWATER DIVERSION PIPE
	SANDBAGS
	SURVEYED TREE TO BE REMOVED
	FIELD DELINEATED WETLAND AND 25' BUFFER



GP# G02018957 DWG. NO.: ES-09



**PROFESSIONAL CERTIFICATION**  
 I 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.  
 MD LICENSE NUMBER: 53587  
 EXPIRATION DATE: 12-09-2024

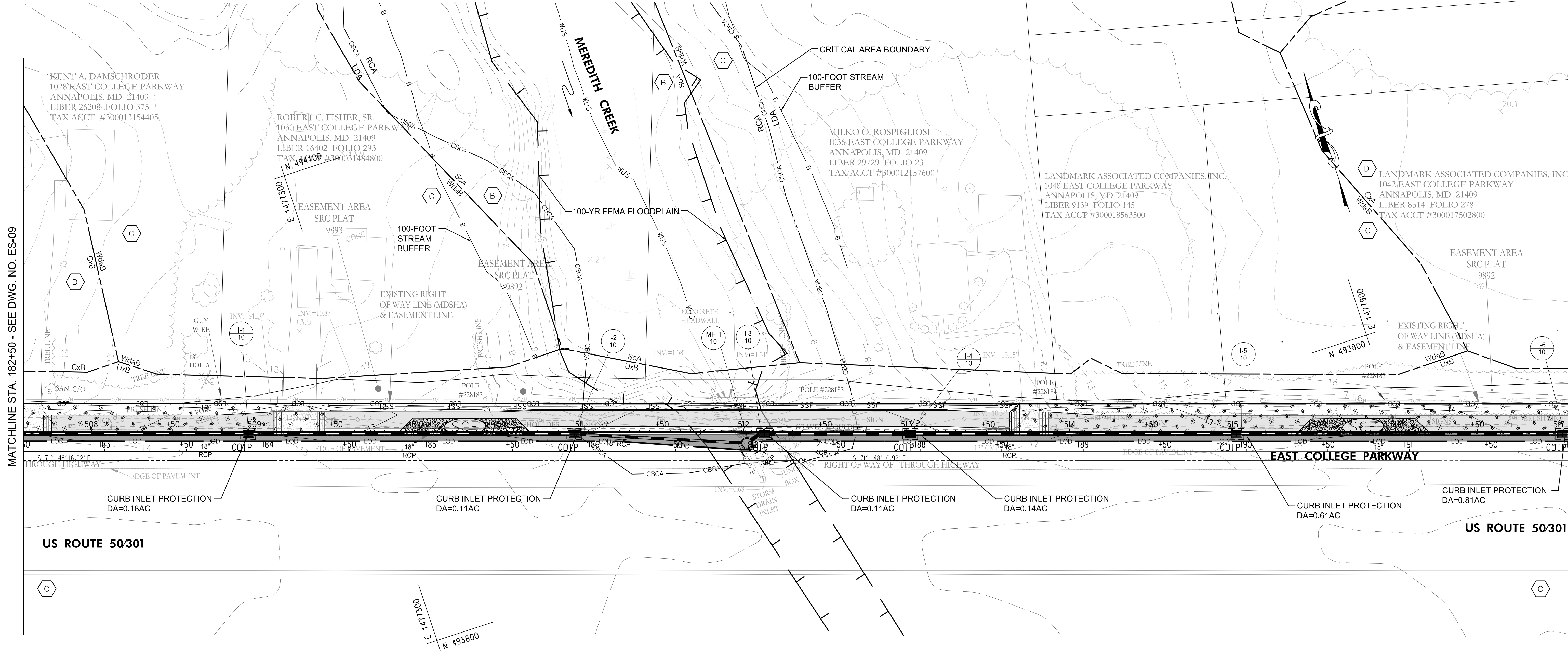


REVISIONS			
NO.	DESCRIPTION	BY	DATE

APPROVED			
DATE	DATE	DATE	DATE
11/20/2023	08:59 EST	11/17/2023	08:00 EST
11/17/2023	11:56 EST	11/17/2023	18:30 EST

ANNE ARUNDEL COUNTY	
DEPARTMENT OF PUBLIC WORKS	
SCALE: AS NOTED	DRAWN BY: DMT
CHECKED BY: DMT	SHEET NO. 84 OF 116
PROJECT NO. P504100	CONTRACT NO. P504105

**BROADNECK PENINSULA TRAIL PHASE IB & V**  
**GRADING AND EROSION CONTROL PLAN**



MATCHLINE STA. 182+50 - SEE DWG. NO. ES-09

MATCHLINE STA. 192+00 - SEE DWG. NO. ES-11

SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
CxB	CUMBERSTONE-MATTAPEX COMPLEX, 2-5% SLOPES	CD
WdaB	WOODSTOWN SANDY LOAM, 2-5% SLOPES NORTHERN COASTAL PLAIN	C
UxB	UDORTHERENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C

- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.

LEGEND	
	BROADNECK TRAIL
	SAME DAY STABILIZATION
	LIMIT OF DISTURBANCE
	REINFORCED SILT FENCE
	SUPER SILT FENCE
	DIVERSION FENCE
	FILTER LOG (SIZE IN INCHES)
	STABILIZED CONSTRUCTION ENTRANCE
	TREE LINE
	EXISTING CONTOUR
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	SPOT ELEVATION
	AT-GRADE INLET PROTECTION
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	SOIL STABILIZATION MATTING
	CLEARWATER DIVERSION PIPE
	SANDBAGS
	SURVEYED TREE TO BE REMOVED
	FIELD DELINEATED WETLAND AND 25' BUFFER

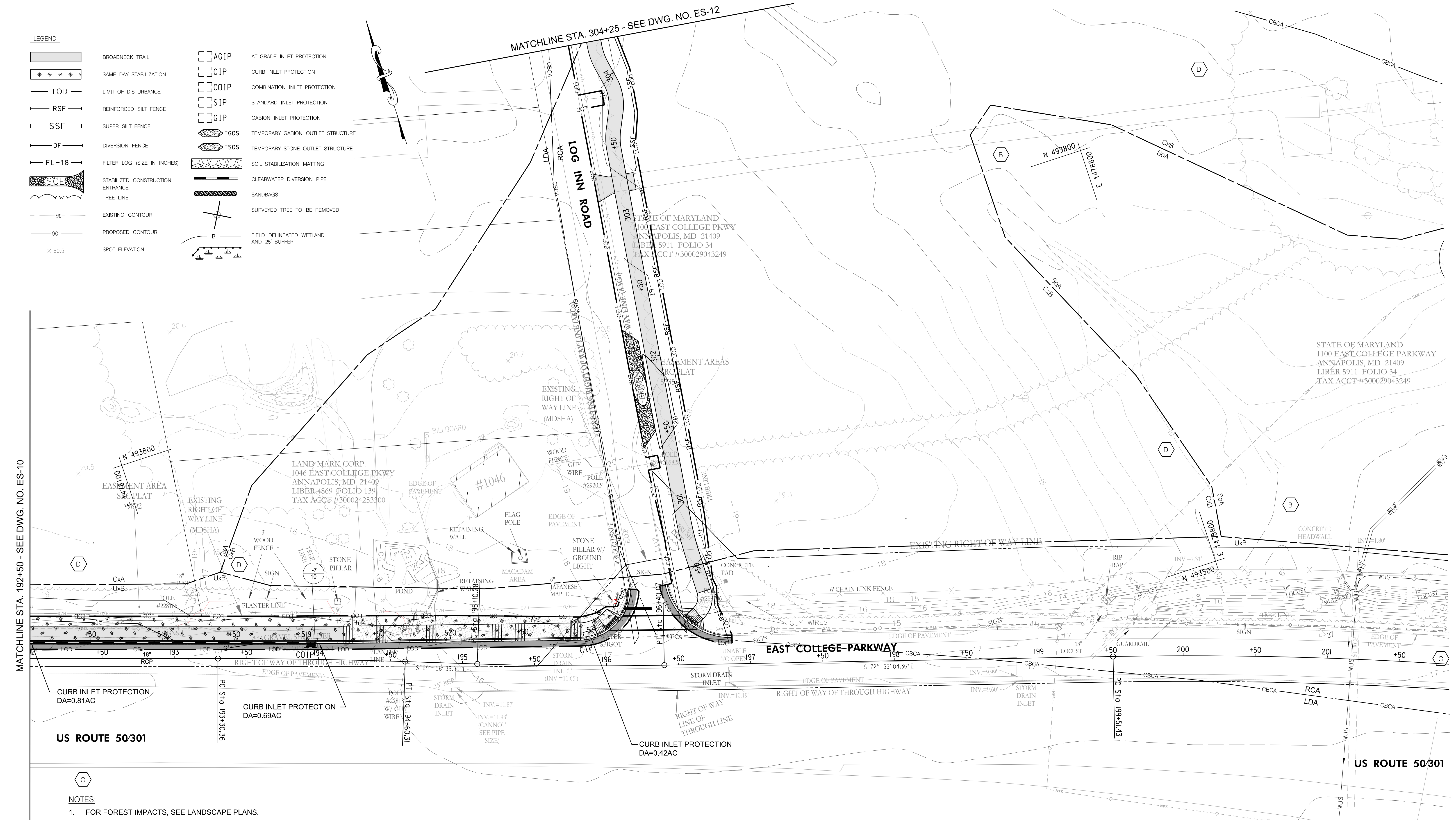


GP# G02018957      DWG. NO.: ES-10

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I 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."</p> <p>MD LICENSE NUMBER: 53587</p> <p>EXPIRATION DATE: 12-09-2024</p>	<p>06/08/2023</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				NO.	DESCRIPTION	BY	DATE					<p>ANNE ARUNDEL COUNTY</p> <p>DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023</td> <td></td> <td>11/17/2023</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> </tr> <tr> <td>APPROVED</td> <td>DATE</td> <td>APPROVED</td> <td>DATE</td> </tr> <tr> <td></td> <td>11/17/2023</td> <td></td> <td>11/17/2023</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> </tr> </tbody> </table>				APPROVED	DATE	APPROVED	DATE		11/20/2023		11/17/2023	CHIEF ENGINEER		PROJECT MANAGER		APPROVED	DATE	APPROVED	DATE		11/17/2023		11/17/2023	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
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<p>SCALE: AS NOTED</p> <p>DRAWN BY: DMT</p> <p>CHECKED BY: DMT</p> <p>SHEET NO. 85 OF 116</p> <p>PROJECT NO. P504100</p> <p>CONTRACT NO. P504105</p>				<p>BROADNECK PENINSULA TRAIL PHASE IB &amp; V</p> <p><b>GRADING AND EROSION CONTROL PLAN</b></p>																																						

**LEGEND**

	BROADNECK TRAIL		AT-GRADE INLET PROTECTION
	SAME DAY STABILIZATION		CURB INLET PROTECTION
	LIMIT OF DISTURBANCE		COMBINATION INLET PROTECTION
	REINFORCED SILT FENCE		STANDARD INLET PROTECTION
	SUPER SILT FENCE		GABION INLET PROTECTION
	DIVERSION FENCE		TEMPORARY GABION OUTLET STRUCTURE
	FILTER LOG (SIZE IN INCHES)		TEMPORARY STONE OUTLET STRUCTURE
	STABILIZED CONSTRUCTION ENTRANCE		SOIL STABILIZATION MATTING
	TREE LINE		CLEARWATER DIVERSION PIPE
	EXISTING CONTOUR		SANDBAGS
	PROPOSED CONTOUR		SURVEYED TREE TO BE REMOVED
	SPOT ELEVATION		FIELD DELINEATED WETLAND AND 25' BUFFER



- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.
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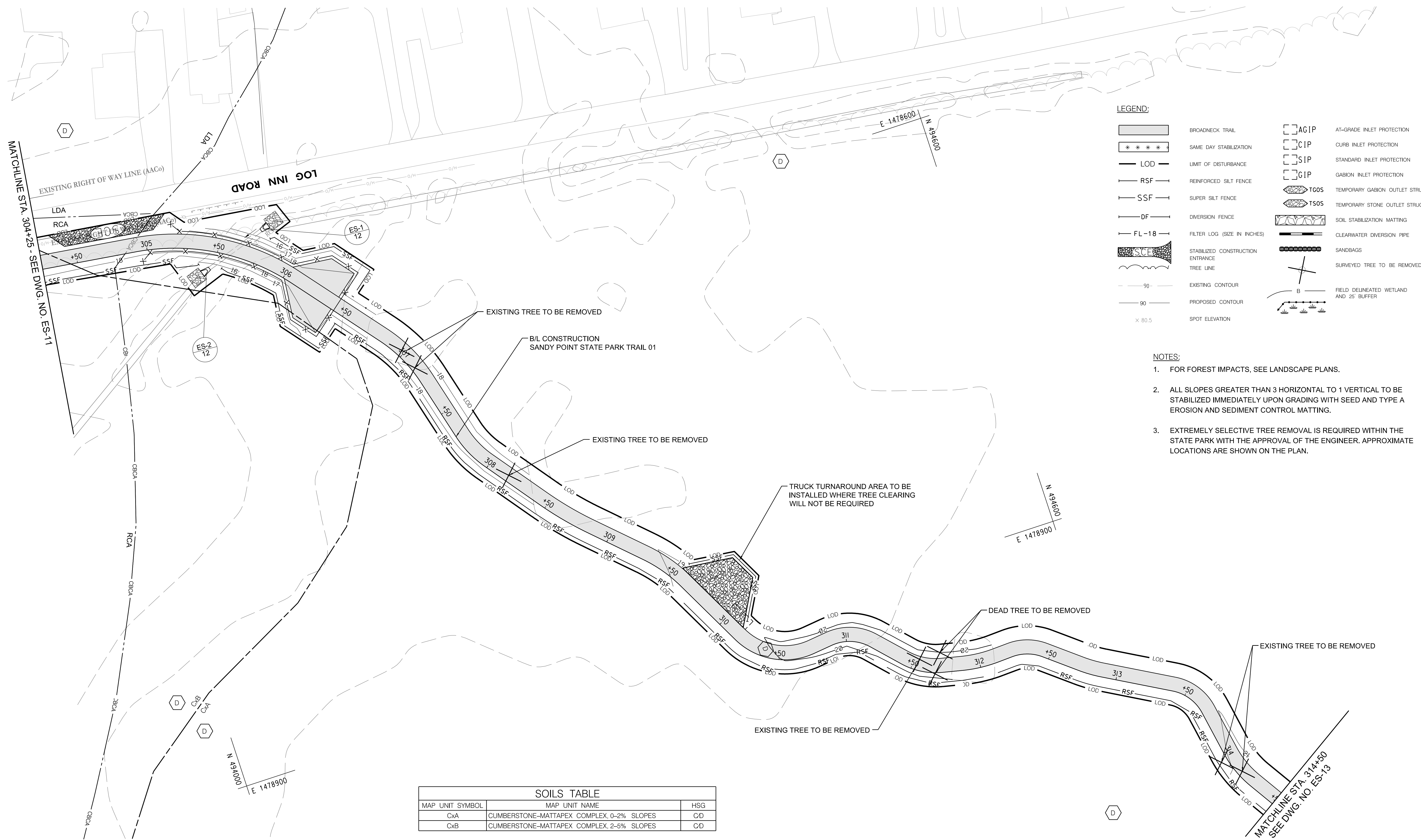
**SOILS TABLE**

MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
CxB	CUMBERSTONE-MATTAPEX COMPLEX, 2-5% SLOPES	CD
SoA	SHADYOAK-ELKTON COMPLEX, 0-2% SLOPES	BD
UxB	UDORTHENTS, LOAMY, SULFIDIC SUBSTRATUM, 0-5% SLOPES	C



GP# G02018957 DWG. NO.: ES-11

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I 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."</p> <p>MD LICENSE NUMBER: S3587 EXPIRATION DATE: 12-09-2024</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DESCRIPTION	BY	DATE					<p>ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023   08:59 EST</td> <td></td> <td>11/17/2023   08:10 EST</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> </tr> <tr> <td></td> <td>11/17/2023   11:56 EST</td> <td></td> <td>11/17/2023   18:30 EST</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> </tr> </tbody> </table>		APPROVED	DATE	APPROVED	DATE		11/20/2023   08:59 EST		11/17/2023   08:10 EST	CHIEF ENGINEER		PROJECT MANAGER			11/17/2023   11:56 EST		11/17/2023   18:30 EST	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
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<p>SCALE: AS NOTED</p> <p>DRAWN BY: DMT</p> <p>CHECKED BY: DMT</p> <p>SHEET NO. <u>86</u> OF 116</p> <p>PROJECT NO. P504100</p> <p>CONTRACT NO. P504105</p>		<p>BROADNECK PENINSULA TRAIL PHASE IB &amp; V</p> <p><b>GRADING AND EROSION CONTROL PLAN</b></p>																																



**LEGEND:**

	BROADNECK TRAIL		AT-GRADE INLET PROTECTION
	SAME DAY STABILIZATION		CURB INLET PROTECTION
	LIMIT OF DISTURBANCE		STANDARD INLET PROTECTION
	REINFORCED SILT FENCE		GABION INLET PROTECTION
	SUPER SILT FENCE		TEMPORARY GABION OUTLET STRUCTURE
	DIVERSION FENCE		TEMPORARY STONE OUTLET STRUCTURE
	FILTER LOG (SIZE IN INCHES)		SOIL STABILIZATION MATTING
	STABILIZED CONSTRUCTION ENTRANCE		CLEARWATER DIVERSION PIPE
	TREE LINE		SANDBAGS
	EXISTING CONTOUR		SURVEYED TREE TO BE REMOVED
	PROPOSED CONTOUR		FIELD DELINEATED WETLAND AND 25' BUFFER
	SPOT ELEVATION		

- NOTES:**
- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
  - ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.
  - EXTREMELY SELECTIVE TREE REMOVAL IS REQUIRED WITHIN THE STATE PARK WITH THE APPROVAL OF THE ENGINEER. APPROXIMATE LOCATIONS ARE SHOWN ON THE PLAN.

**SOILS TABLE**

MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
CxB	CUMBERSTONE-MATTAPEX COMPLEX, 2-5% SLOPES	CD



GP# G02018957      DWG. NO.: ES-12

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I 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."</p> <p>MD LICENSE NUMBER: 53587</p> <p>EXPIRATION DATE: 12-09-2024</p>	<p>06/08/2023</p>	<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS				NO.	DESCRIPTION	BY	DATE													<p align="center">ANNE ARUNDEL COUNTY</p> <p align="center">DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> <th>SCALE: AS NOTED</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023   08:59 EST</td> <td></td> <td>11/17/2023   08:00 EST</td> <td>DRAWN BY: DMT</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> <td>CHECKED BY: DMT</td> </tr> <tr> <td></td> <td>11/17/2023   11:56 EST</td> <td></td> <td>11/17/2023   18:30 EST</td> <td>SHEET NO. 87 OF 116</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> <td>PROJECT NO. P504100</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>CONTRACT NO. P504105</td> </tr> </tbody> </table>	APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED		11/20/2023   08:59 EST		11/17/2023   08:00 EST	DRAWN BY: DMT	CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: DMT		11/17/2023   11:56 EST		11/17/2023   18:30 EST	SHEET NO. 87 OF 116	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO. P504100					CONTRACT NO. P504105	<p align="center">BROADNECK PENINSULA TRAIL PHASE IB &amp; V</p> <p align="center"><b>GRADING AND EROSION CONTROL PLAN</b></p>
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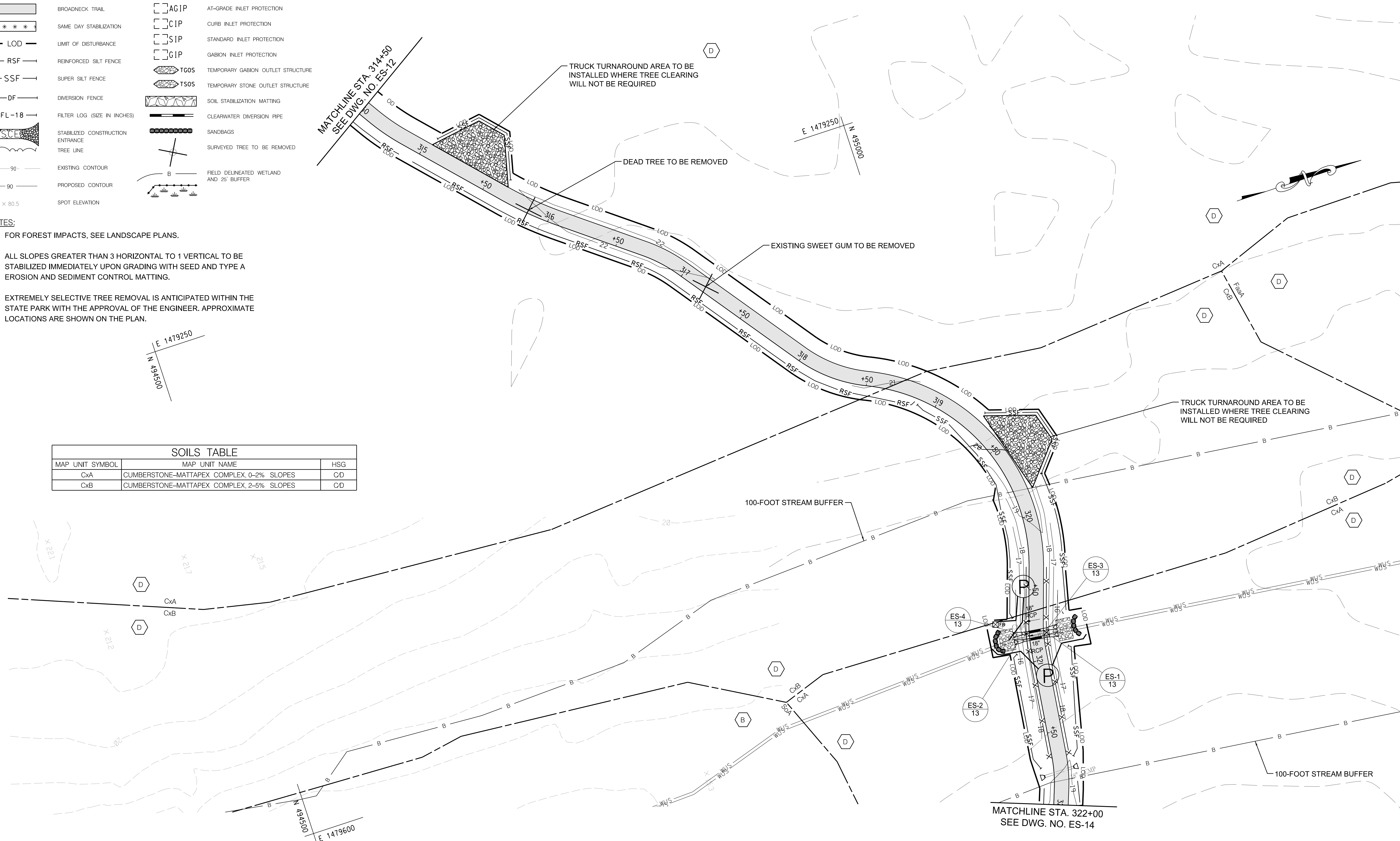
**LEGEND:**

	BROADNECK TRAIL		AT-GRADE INLET PROTECTION
	SAME DAY STABILIZATION		CURB INLET PROTECTION
	LIMIT OF DISTURBANCE		STANDARD INLET PROTECTION
	REINFORCED SILT FENCE		GABION INLET PROTECTION
	SUPER SILT FENCE		TEMPORARY GABION OUTLET STRUCTURE
	DIVERSION FENCE		TEMPORARY STONE OUTLET STRUCTURE
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	STABILIZED CONSTRUCTION ENTRANCE		CLEARWATER DIVERSION PIPE
	TREE LINE		SANDBAGS
	EXISTING CONTOUR		SURVEYED TREE TO BE REMOVED
	PROPOSED CONTOUR		FIELD DELINEATED WETLAND AND 25' BUFFER
	SPOT ELEVATION		

**NOTES:**

- FOR FOREST IMPACTS, SEE LANDSCAPE PLANS.
- ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL TO BE STABILIZED IMMEDIATELY UPON GRADING WITH SEED AND TYPE A EROSION AND SEDIMENT CONTROL MATTING.
- EXTREMELY SELECTIVE TREE REMOVAL IS ANTICIPATED WITHIN THE STATE PARK WITH THE APPROVAL OF THE ENGINEER. APPROXIMATE LOCATIONS ARE SHOWN ON THE PLAN.

SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
CxB	CUMBERSTONE-MATTAPEX COMPLEX, 2-5% SLOPES	CD



GP# G02018957 DWG. NO.: ES-13

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I 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."</p> <p>MD LICENSE NUMBER: 53587</p> <p>EXPIRATION DATE: 12-09-2024</p>	<p>06/08/2023</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				NO.	DESCRIPTION	BY	DATE													<p>ANNE ARUNDEL COUNTY</p> <p>DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023   08:59 EST</td> <td></td> <td>11/17/2023   08:00 EST</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> </tr> <tr> <td></td> <td>11/17/2023   11:56 EST</td> <td></td> <td>11/17/2023   18:30 EST</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> </tr> </tbody> </table>				APPROVED	DATE	APPROVED	DATE		11/20/2023   08:59 EST		11/17/2023   08:00 EST	CHIEF ENGINEER		PROJECT MANAGER			11/17/2023   11:56 EST		11/17/2023   18:30 EST	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
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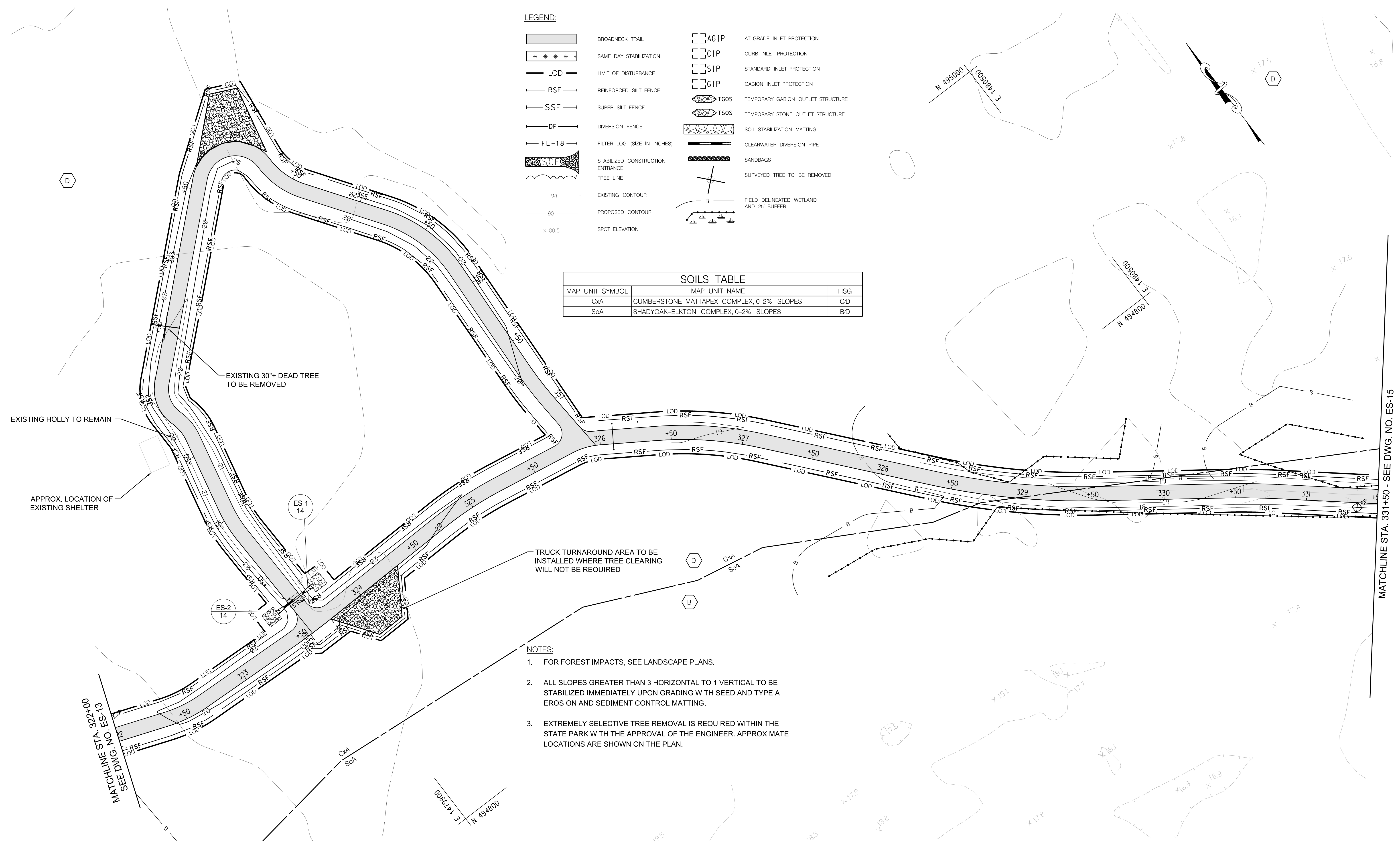
**LEGEND:**

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	SPOT ELEVATION		

SOILS TABLE		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG
CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
SoA	SHADYOAK-ELKTON COMPLEX, 0-2% SLOPES	BD

**NOTES:**

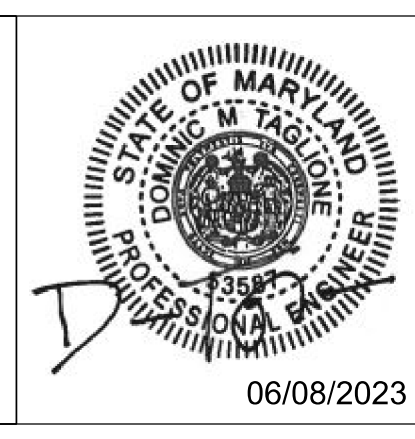
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GP# G02018957 DWG. NO.: ES-14

**AECOM**  
 4 NORTH PARK DRIVE  
 SUITE 300  
 HUNT VALLEY, MARYLAND 21030  
 PHONE: 410-785-7220  
 FAX: 410-785-6818

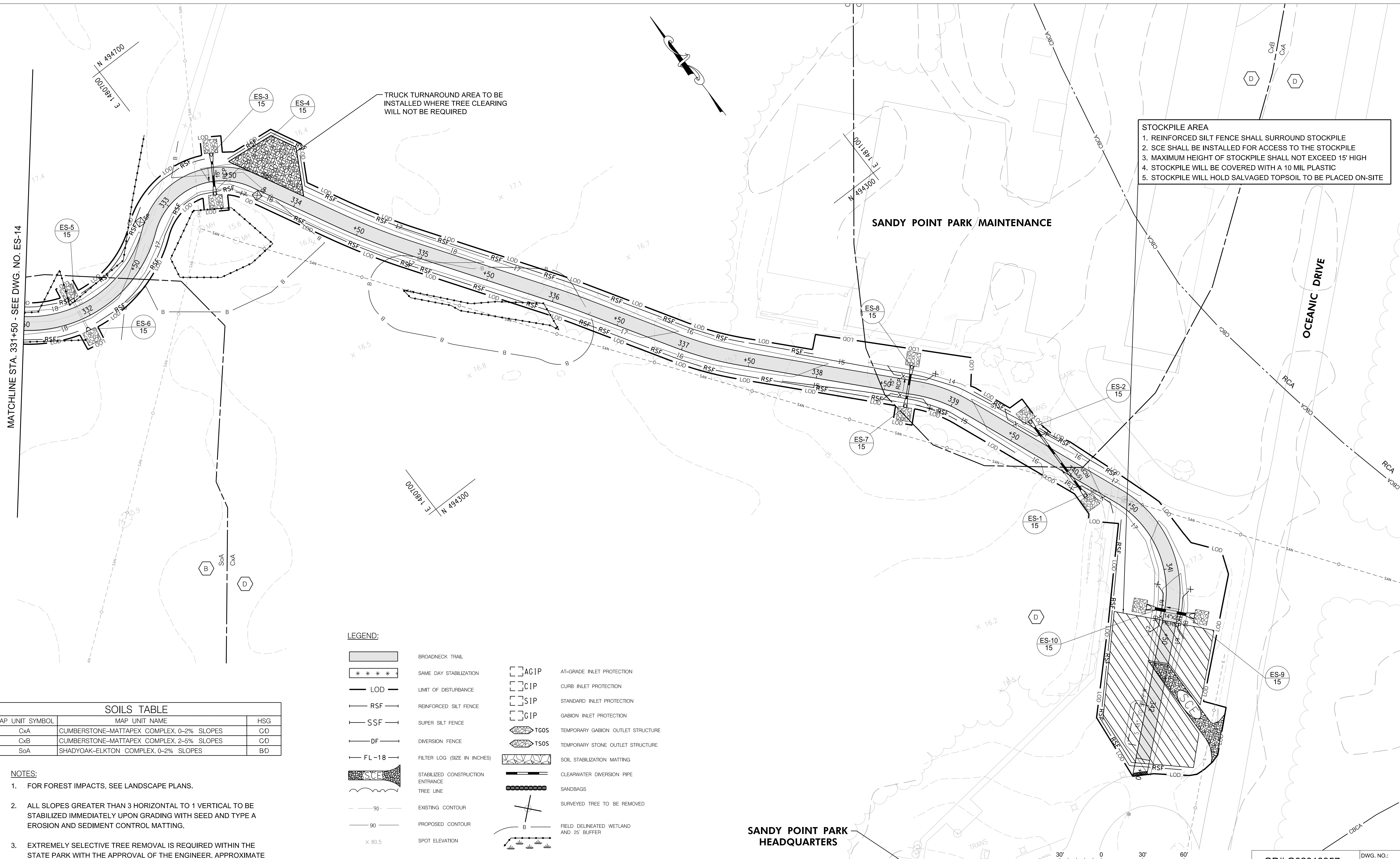
PROFESSIONAL CERTIFICATION  
 "I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."  
 MD LICENSE NUMBER: S3587  
 EXPIRATION DATE: 12-09-2024



REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
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 SHEET NO. 89 OF 116  
 PROJECT NO. P504100  
 CONTRACT NO. P504105  
**BROADNECK PENINSULA TRAIL PHASE IB & V**  
**GRADING AND EROSION CONTROL PLAN**



**STOCKPILE AREA**  
 1. REINFORCED SILT FENCE SHALL SURROUND STOCKPILE  
 2. SCE SHALL BE INSTALLED FOR ACCESS TO THE STOCKPILE  
 3. MAXIMUM HEIGHT OF STOCKPILE SHALL NOT EXCEED 15' HIGH  
 4. STOCKPILE WILL BE COVERED WITH A 10 MIL PLASTIC  
 5. STOCKPILE WILL HOLD SALVAGED TOPSOIL TO BE PLACED ON-SITE

TRUCK TURNAROUND AREA TO BE INSTALLED WHERE TREE CLEARING WILL NOT BE REQUIRED

MATCHLINE STA. 331+50 - SEE DWG. NO. ES-14

SANDY POINT PARK MAINTENANCE

OCEANIC DRIVE

SANDY POINT PARK HEADQUARTERS

SOILS TABLE		
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CxA	CUMBERSTONE-MATTAPEX COMPLEX, 0-2% SLOPES	CD
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GP# G02018957 DWG. NO.: ES-15

<p>AECOM                  4 NORTH PARK DRIVE                  SUITE 300                  HUNT VALLEY, MARYLAND 21030                  PHONE: 410-785-7220                  FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I 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."</p> <p>MD LICENSE NUMBER: S3587                  EXPIRATION DATE: 12-09-2024</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				NO.	DESCRIPTION	BY	DATE																	<p>ANNE ARUNDEL COUNTY                  DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> <th>SCALE: AS NOTED</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023   08:59 EST</td> <td></td> <td>11/17/2023   08:00 EST</td> <td>DRAWN BY: DMT</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> <td>CHECKED BY: DMT</td> </tr> <tr> <td>APPROVED</td> <td>DATE</td> <td>APPROVED</td> <td>DATE</td> <td>SHEET NO. 90 OF 116</td> </tr> <tr> <td></td> <td>11/17/2023   11:56 EST</td> <td></td> <td>11/17/2023   18:30 EST</td> <td>PROJECT NO. P504100</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> <td>CONTRACT NO. P504105</td> </tr> </tbody> </table>				APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED		11/20/2023   08:59 EST		11/17/2023   08:00 EST	DRAWN BY: DMT	CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: DMT	APPROVED	DATE	APPROVED	DATE	SHEET NO. 90 OF 116		11/17/2023   11:56 EST		11/17/2023   18:30 EST	PROJECT NO. P504100	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		CONTRACT NO. P504105
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SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

A. SOIL PREPARATION

1. TEMPORARY STABILIZATION

- A. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT... B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS. C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

2. PERMANENT STABILIZATION

- A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: I. SOIL PH BETWEEN 6.0 AND 7.0. II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM). III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL... IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT. V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. B. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS. C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN... D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST. E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

B. TOPSOILING

- 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION... 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS... 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH. B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS... 4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN. 5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND... B. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS... C. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL. 6. TOPSOIL APPLICATION A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL. B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES... C. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION...

C. SOIL AMENDMENTS ( FERTILIZER AND LIME SPECIFICATIONS)

- 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE... 2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT... 3. LIME MATERIALS MUST BE GROUND LIMESTONE ( HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING)... 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE ( 200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

2018 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 controls, 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.

1. 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 capping 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:

- a. Soil pH shall be between 6.0 and 7.0. b. Soluble salts shall be less than 500 parts per million (ppm). c. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture... B. Seedbed Preparation: Area to be seeded shall be loose and friable to a depth of at least 3-5 inches. The top layer shall be loosened by raking, disking or other acceptable means before seeding occurs... C. 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... D. Mulching: Mulch shall be applied to all seeded areas immediately after seeding... E. Securing Straw Mulch: Straw mulch shall be secured immediately following mulch application to minimize movement by wind or water... 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... ii. Wood cellulose fiber may be used for anchoring straw... iii. Liquid binders may be used... iv. ONLY BIODEGRADABLE NETTING AND ANCHORS MAY BE USED TO SECURE MULCH. PLASTIC NETTING IS NOT PERMITTED.

2. 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.

- 3. 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.

4. 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.

5. Mining Operations:

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.

6. 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.

7. Use of these Vegetative Establishment Specifications does not preclude the permittee or contractor from meeting all of the requirements set forth in the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

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

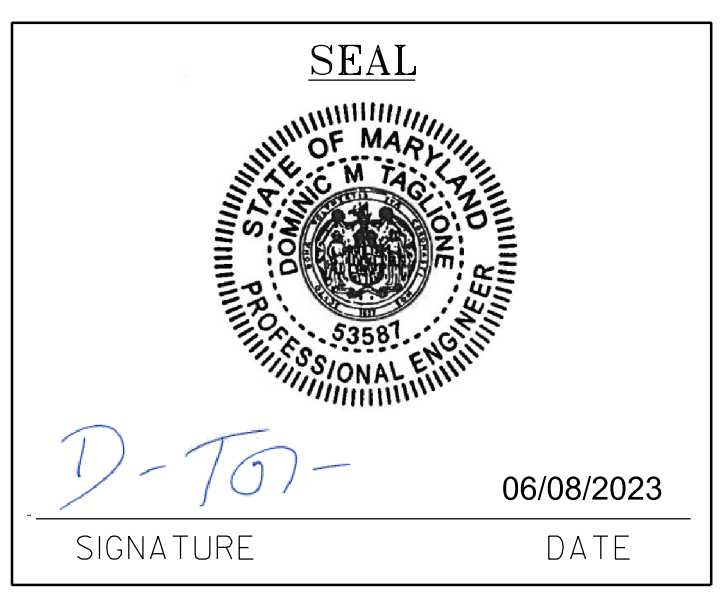
- 1. NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN. 2. PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN. 3. DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE... 4. PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN. 5. REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS... 6. RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100-YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION. 7. ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLA SP.) AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES... 8. AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS. 9. TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM: A. USE I WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE DURING ANY YEAR. B. USE III WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD OCTOBER 1 THOROUGH APRIL 30, INCLUSIVE, DURING ANY YEAR. C. USE IV WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR. 10. STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY. 11. CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

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 ANNE ARUNDEL SOIL CONSERVATION DISTRICT PLAN SUBMITTAL GUIDELINES AND THE CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

MD P.E. LICENSE # 53587 NAME DOMINIC M. TAGLIONE FIRM NAME AECOM STREET ADDRESS 4 NORTH PARK DR., SUITE 300 HUNT VALLEY, MD 21030 (410) 785-7220



GP# G02018957 DWG. NO.: ESN-01

Table with columns for REVISIONS (NO., DESCRIPTION, BY, DATE), ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS (APPROVED DATE, PROJECT MANAGER, CHECKED BY, SHEET NO., PROJECT NO., CONTRACT NO.), and BROADNECK PENINSULA TRAIL PHASE IB & V (EROSION AND SEDIMENT CONTROL NOTES & DETAILS).

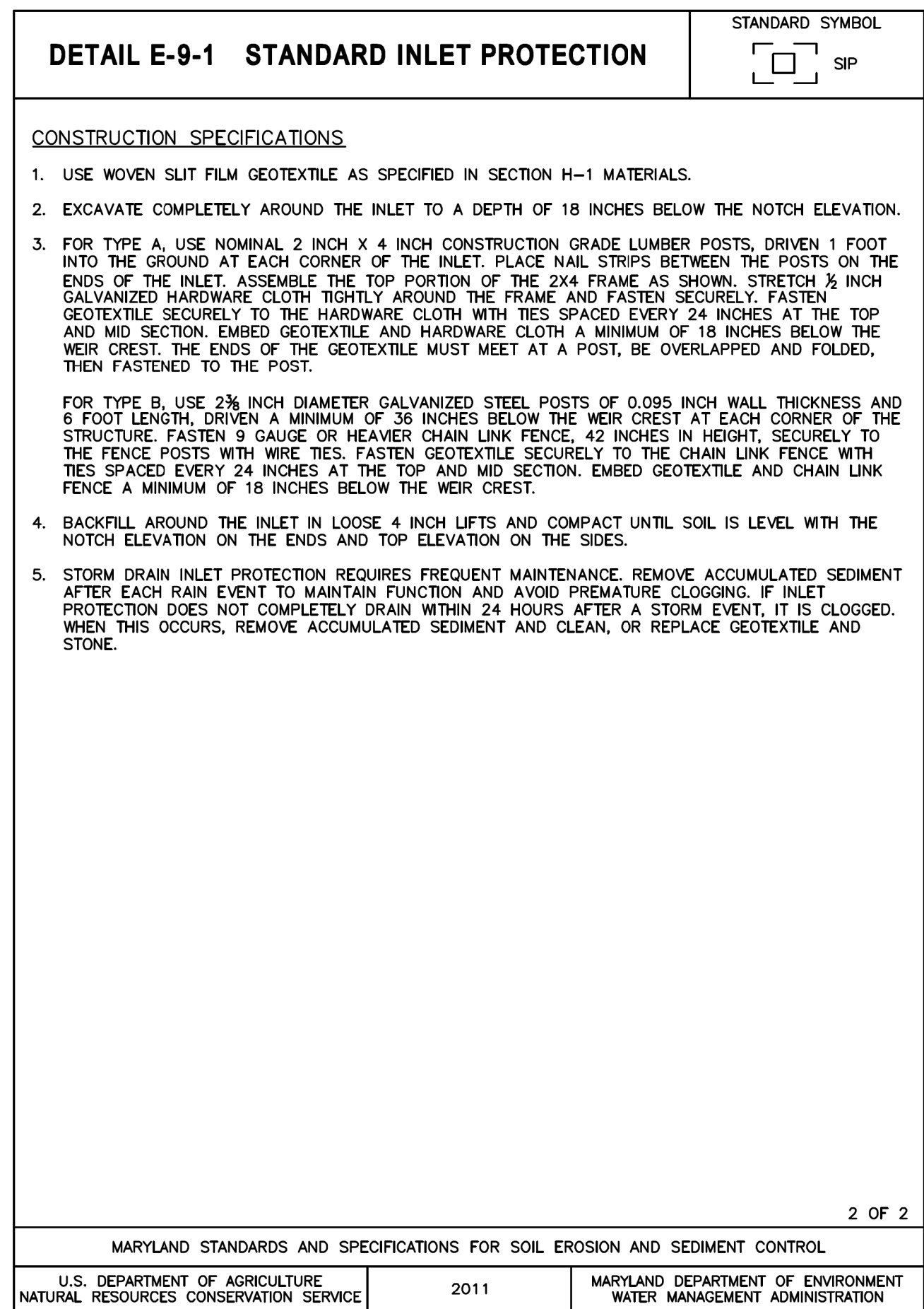
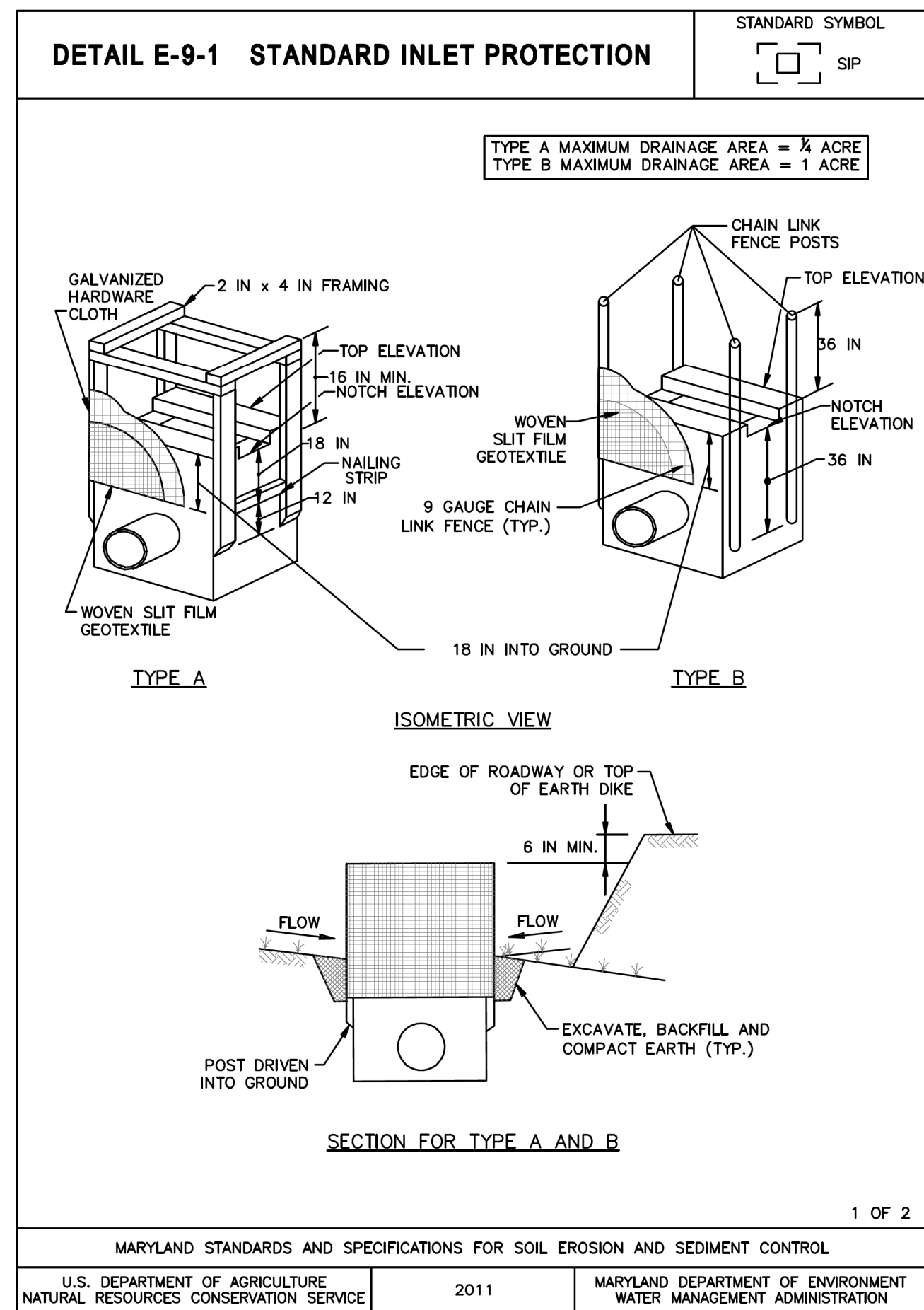
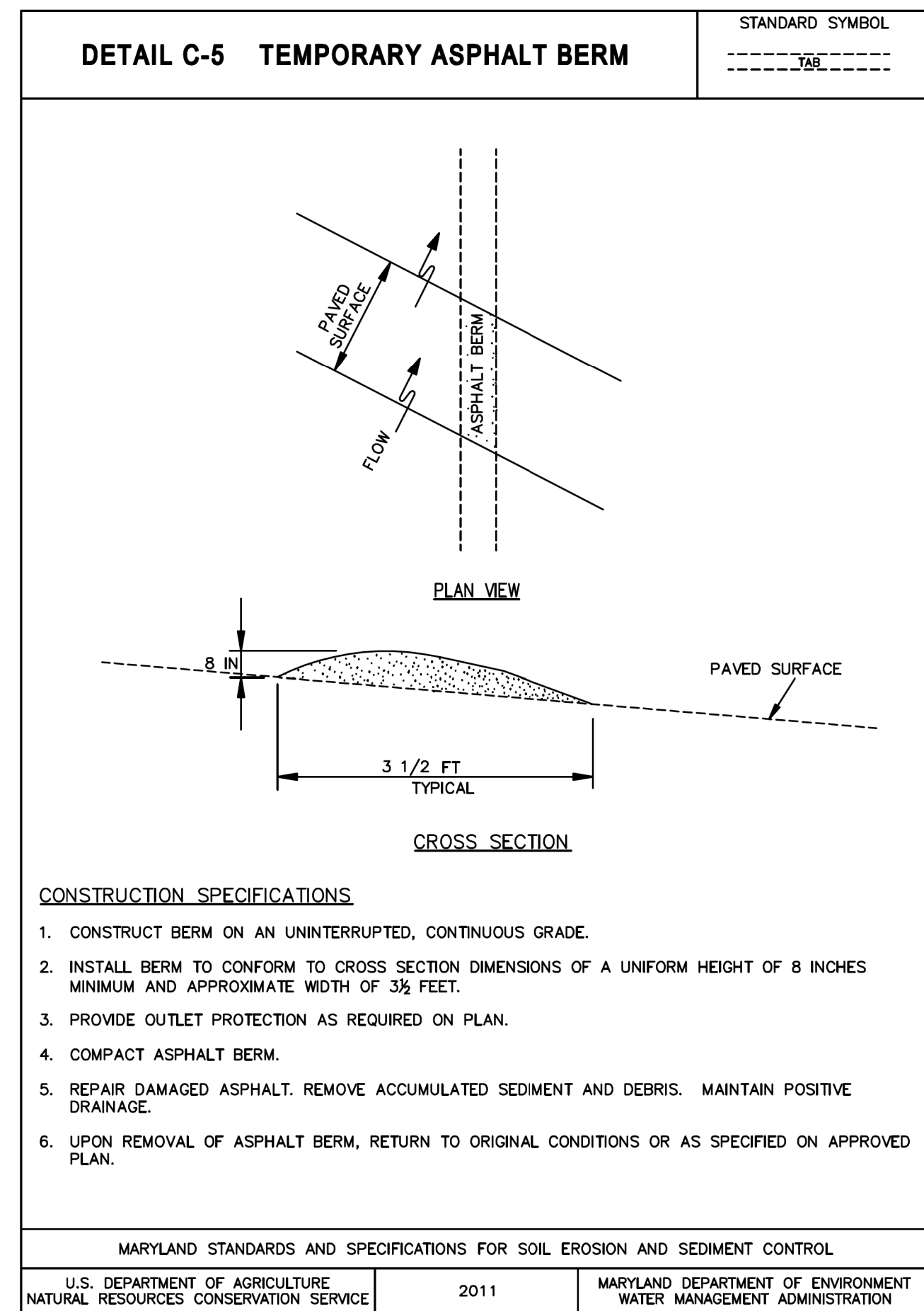
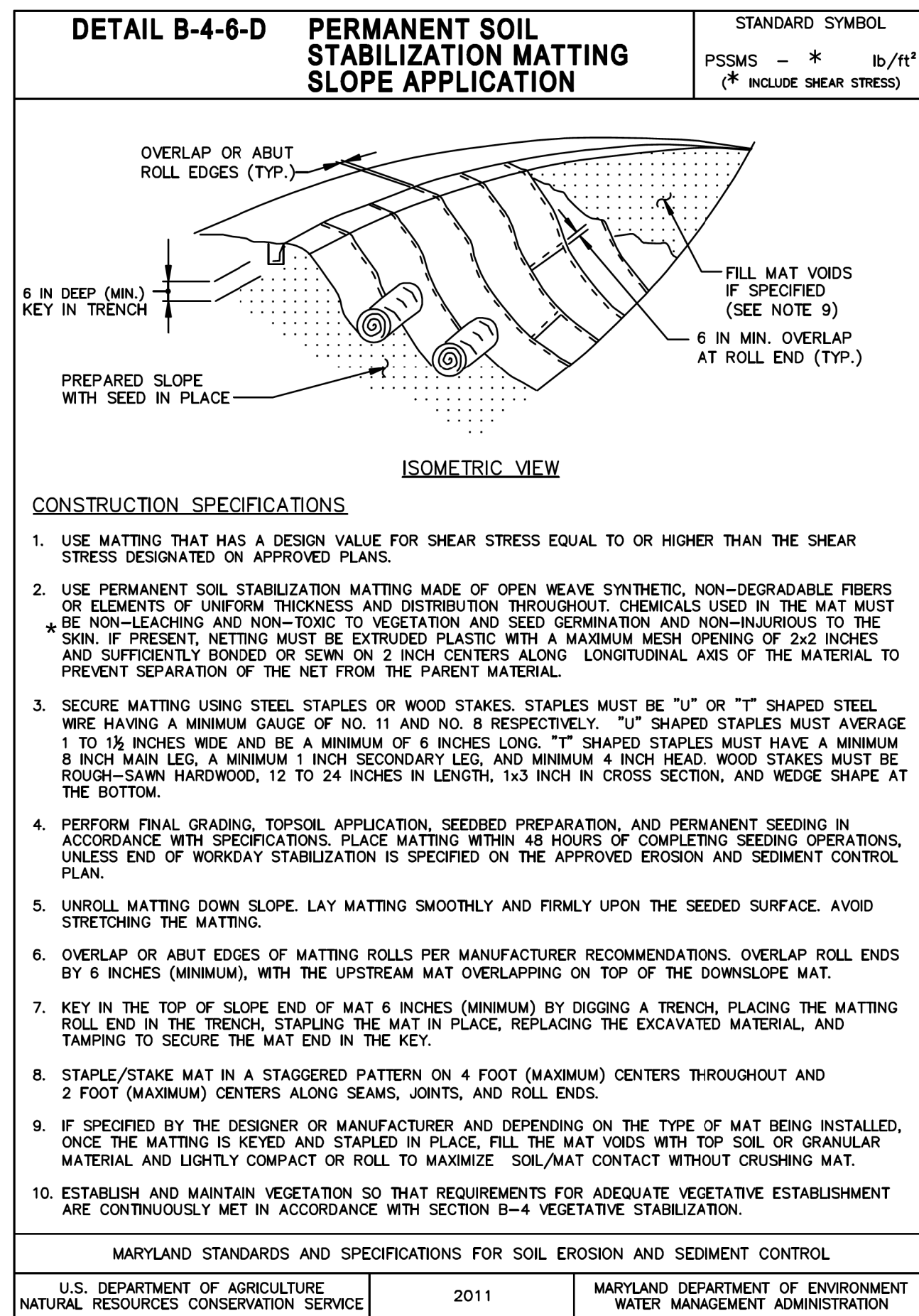
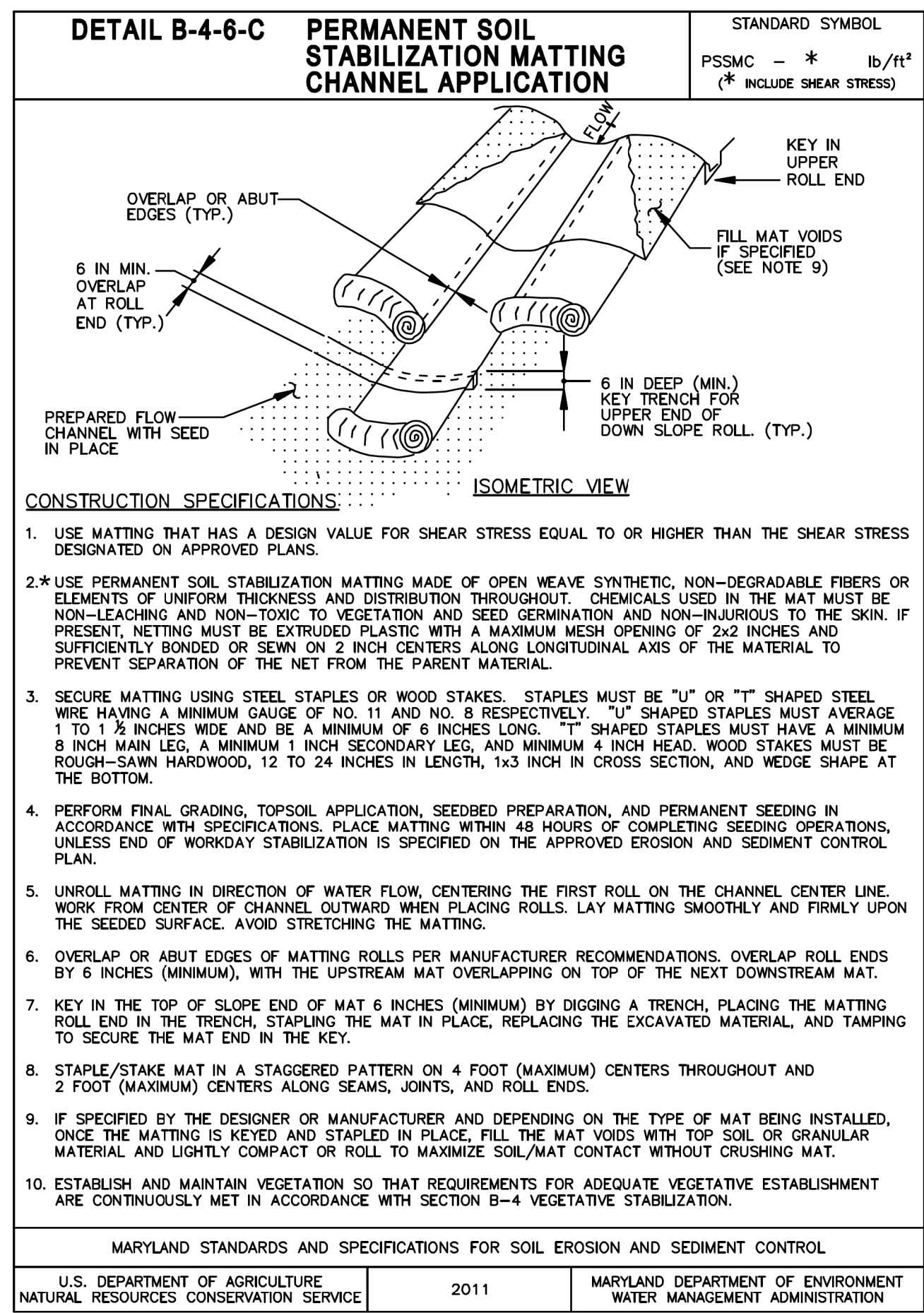
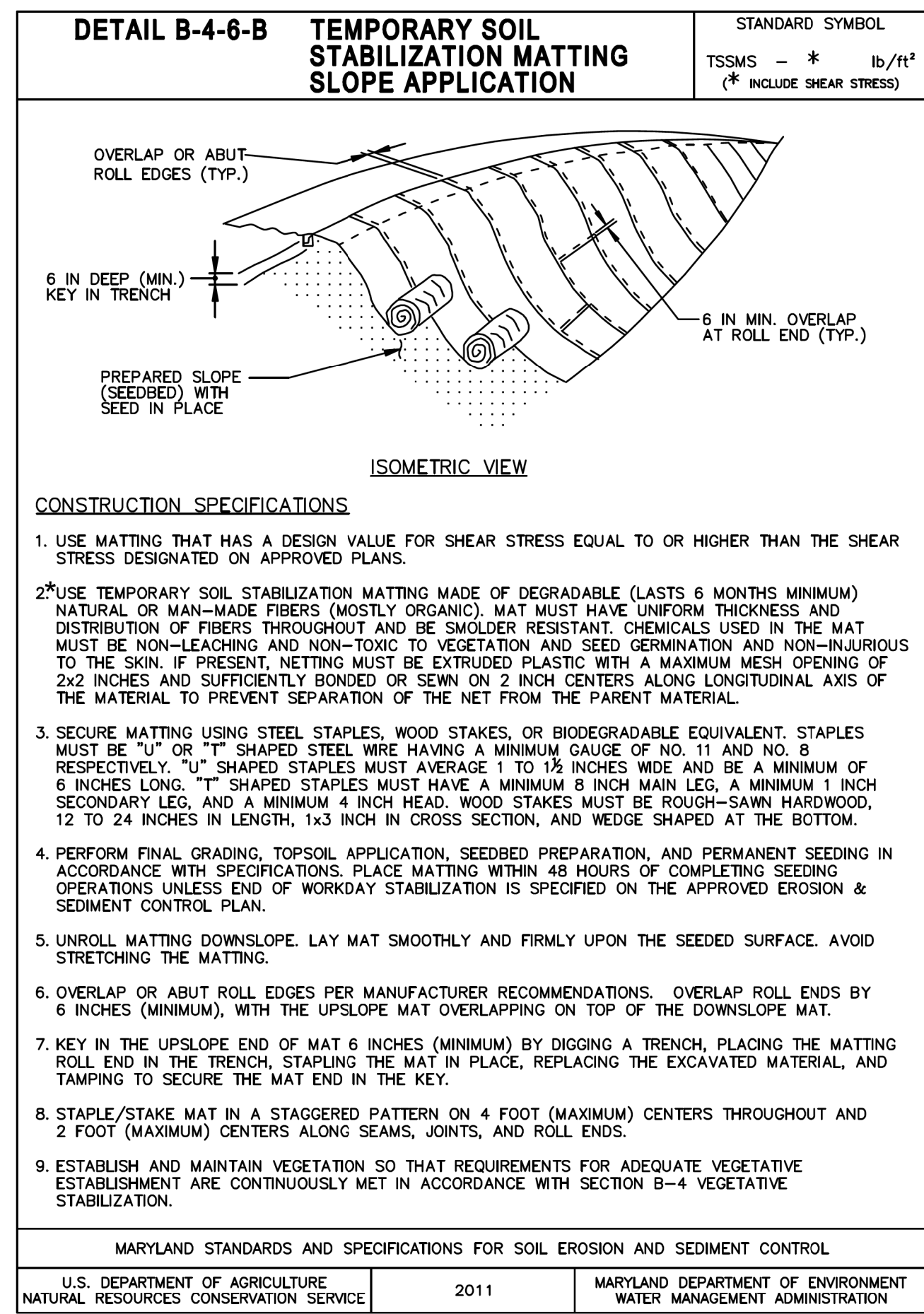
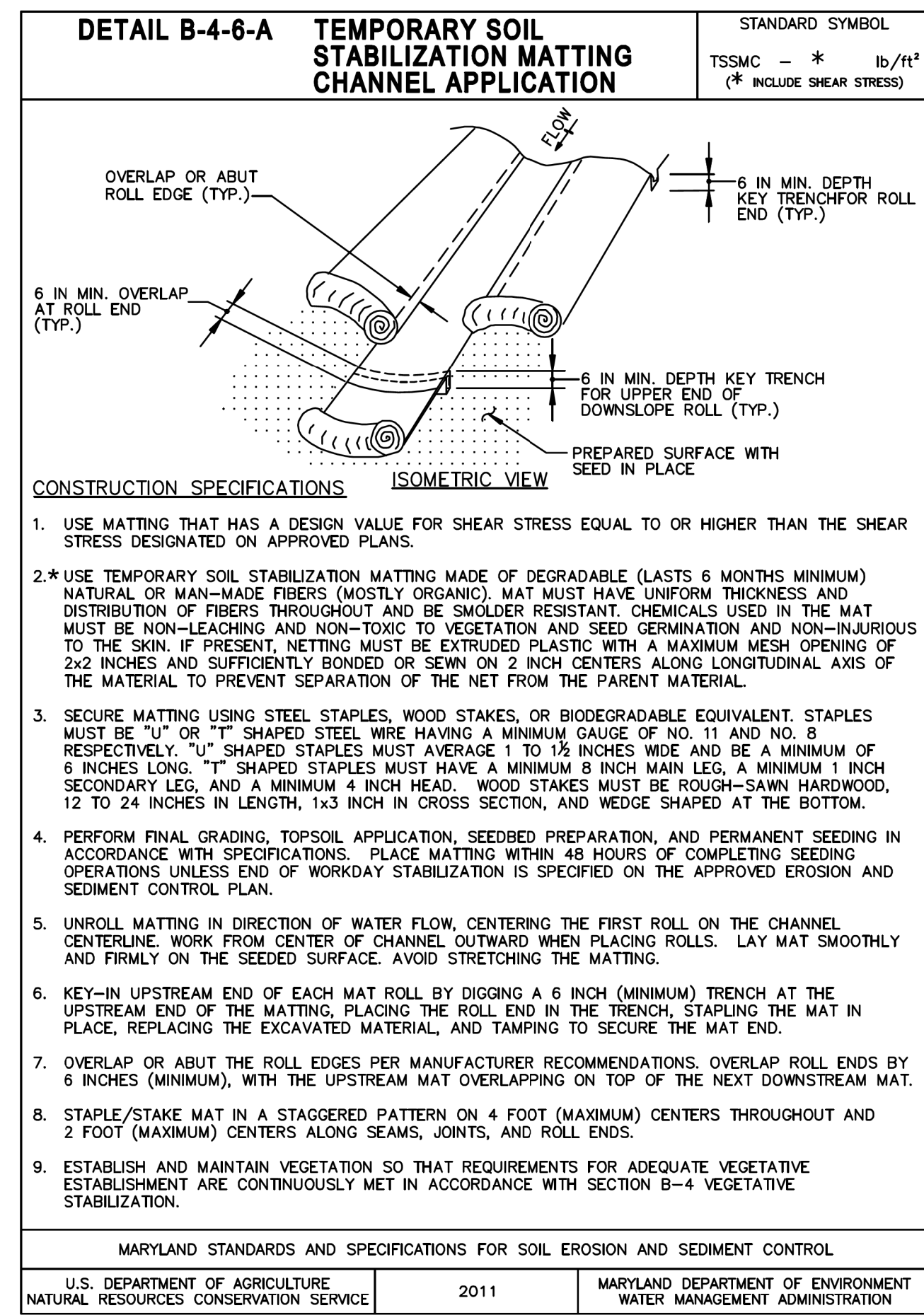
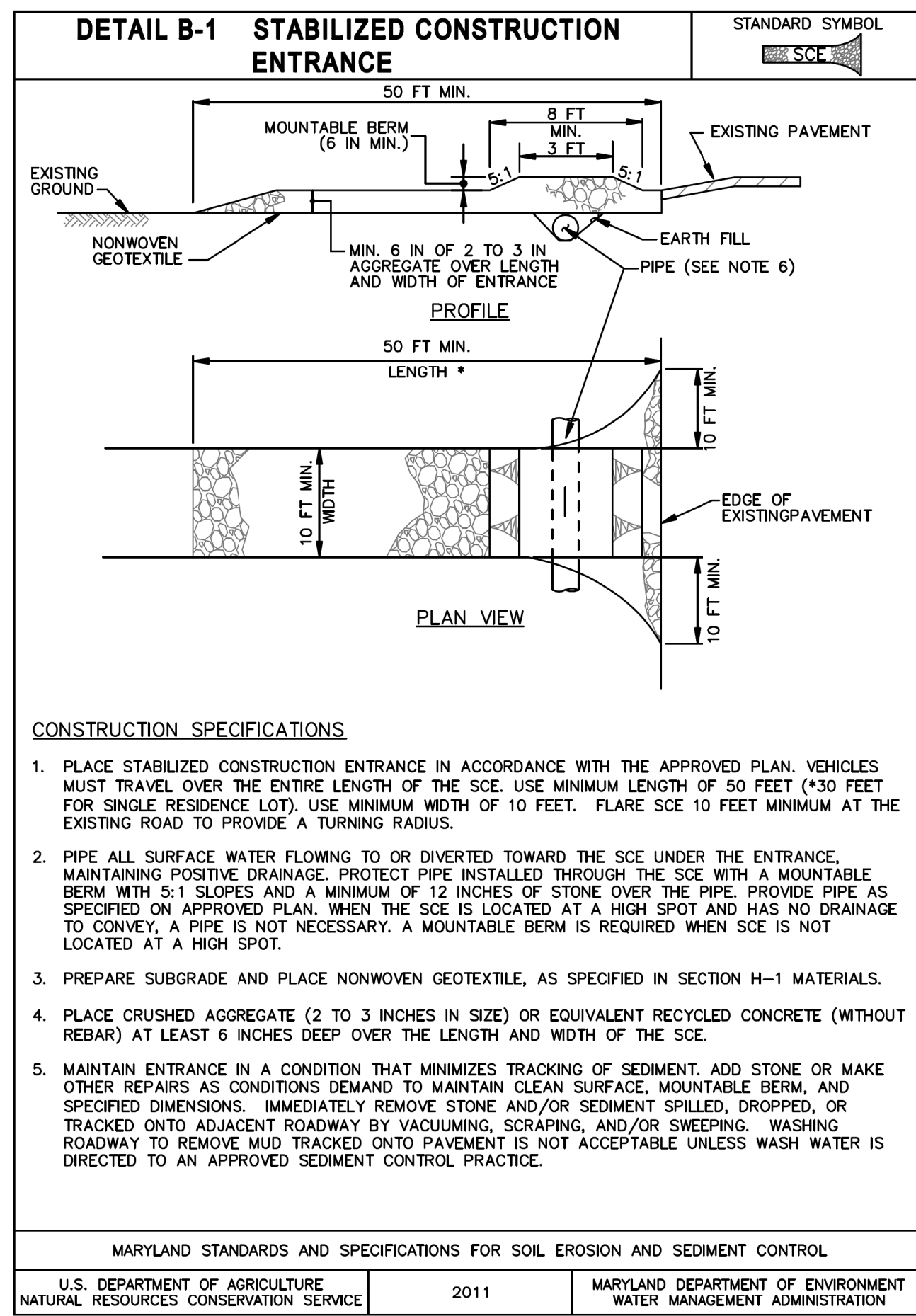


PROFESSIONAL CERTIFICATION \*I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MD LICENSE NUMBER: 53587 EXPIRATION DATE: 12-09-2024









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

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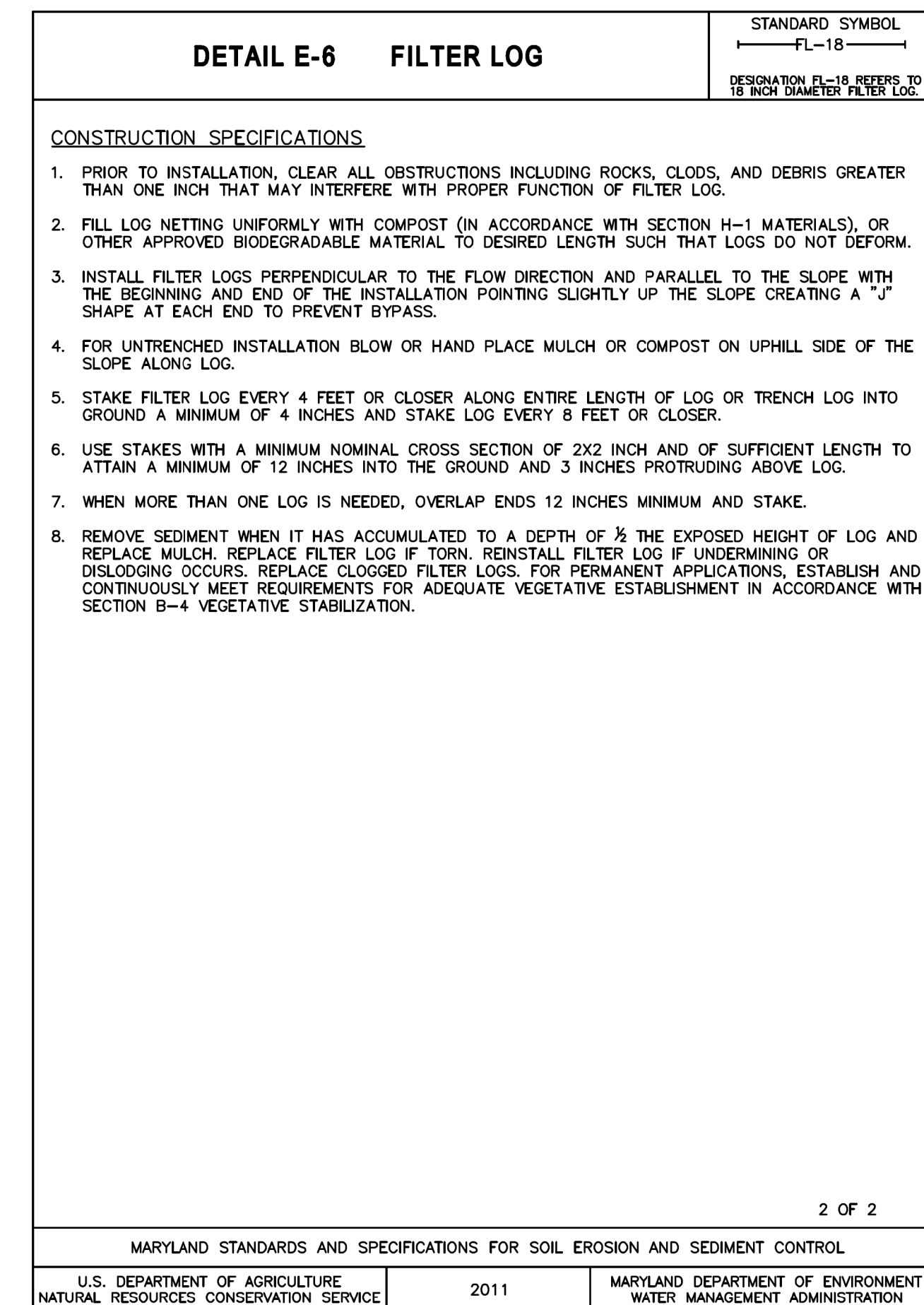
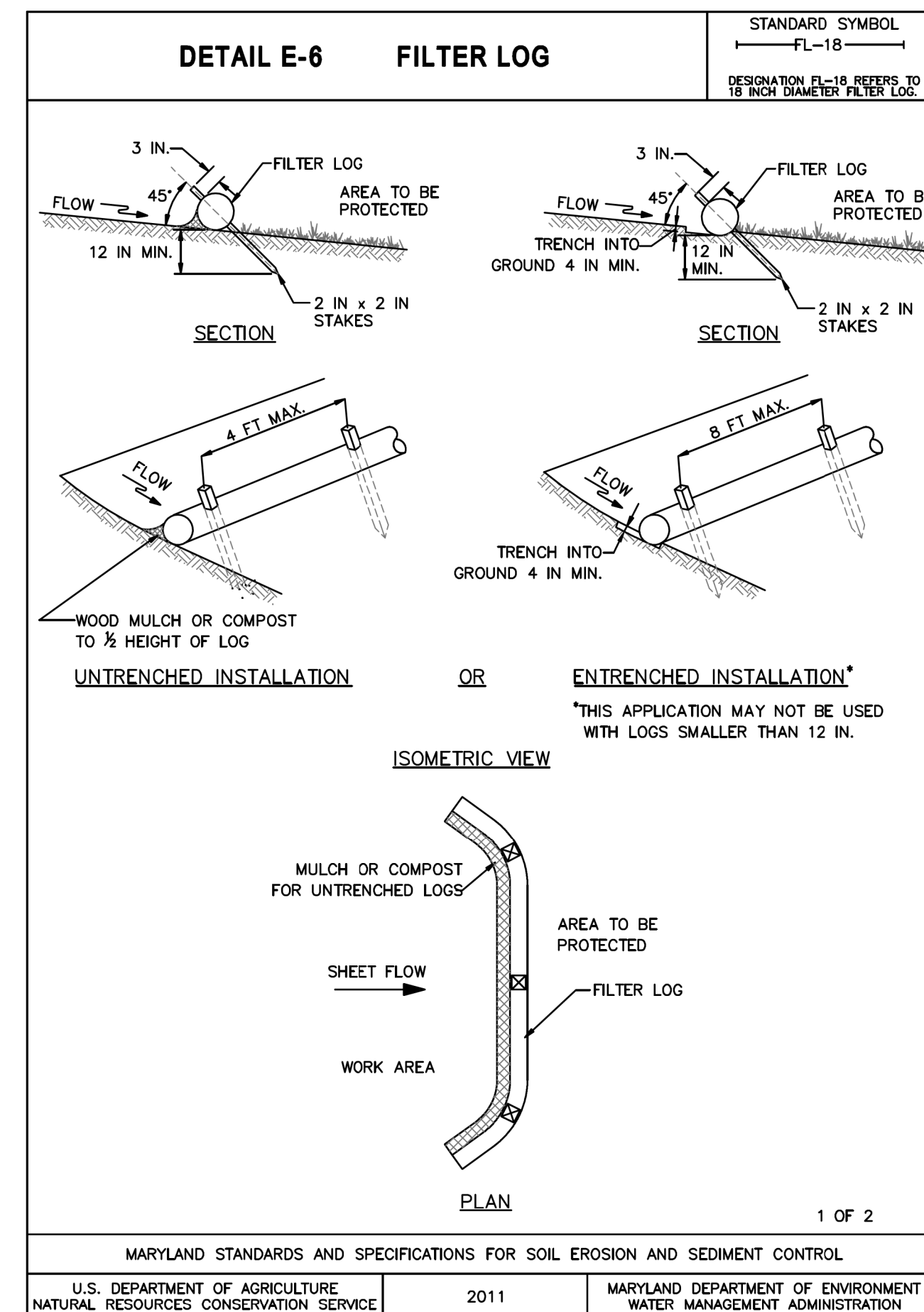
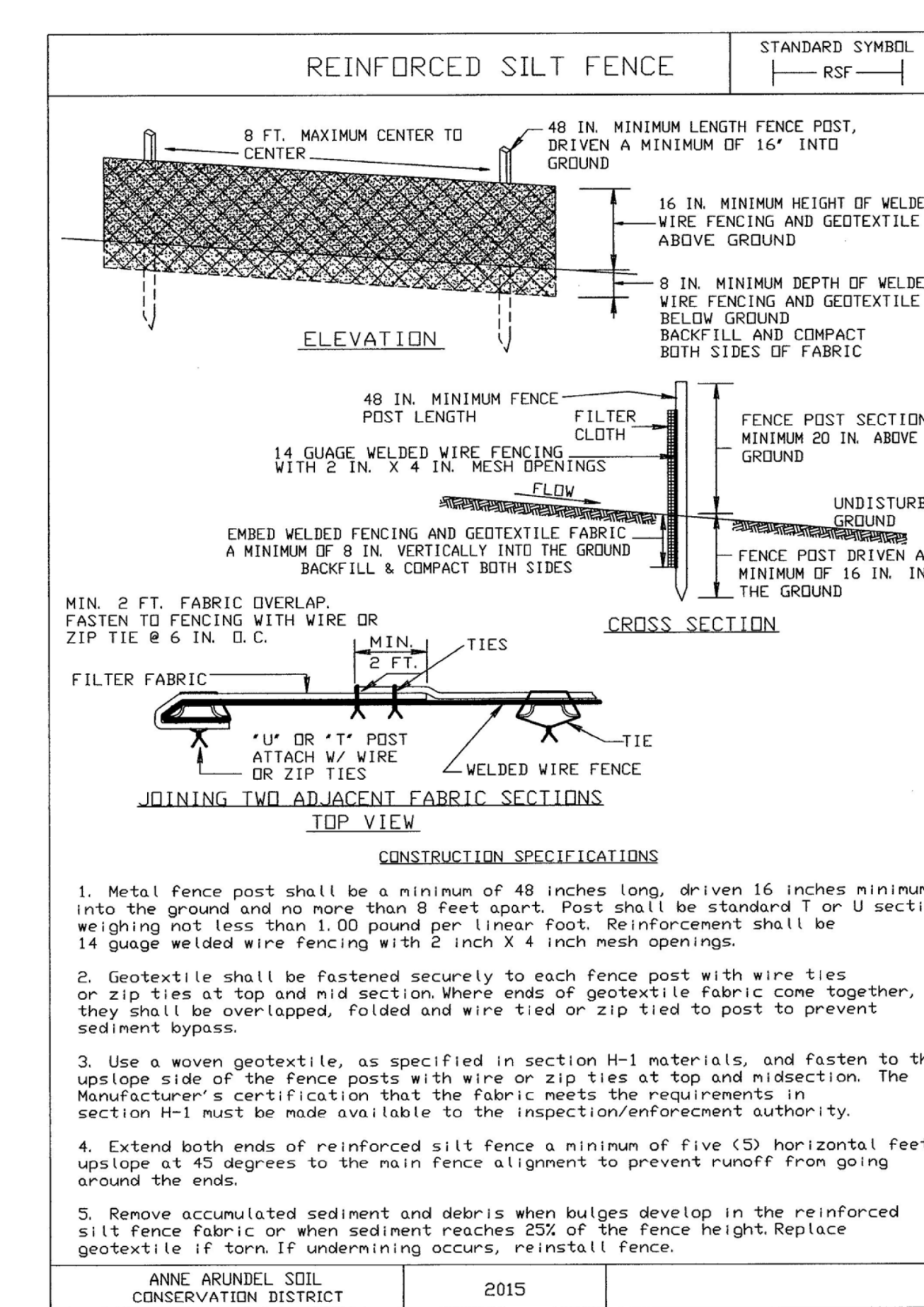
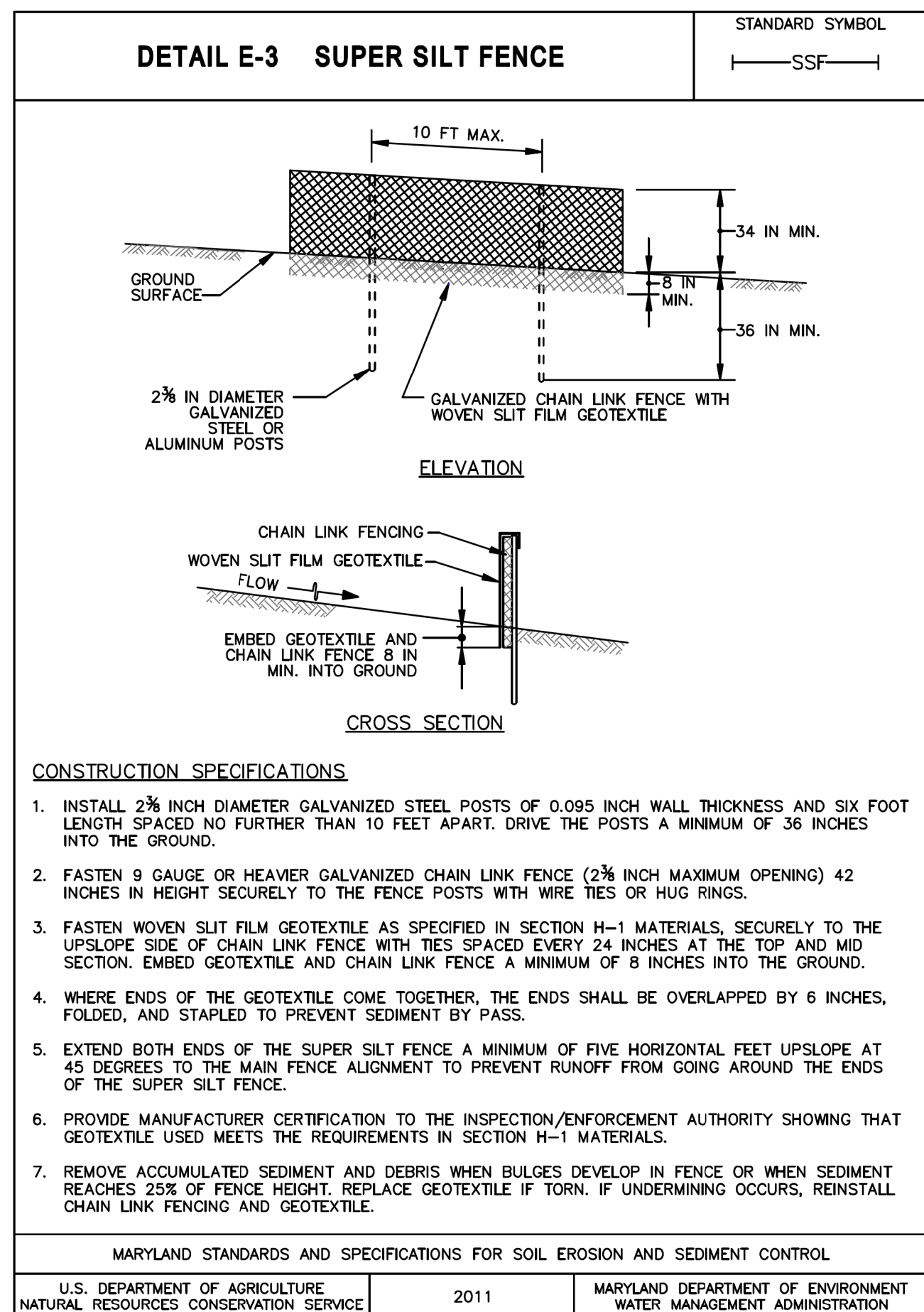
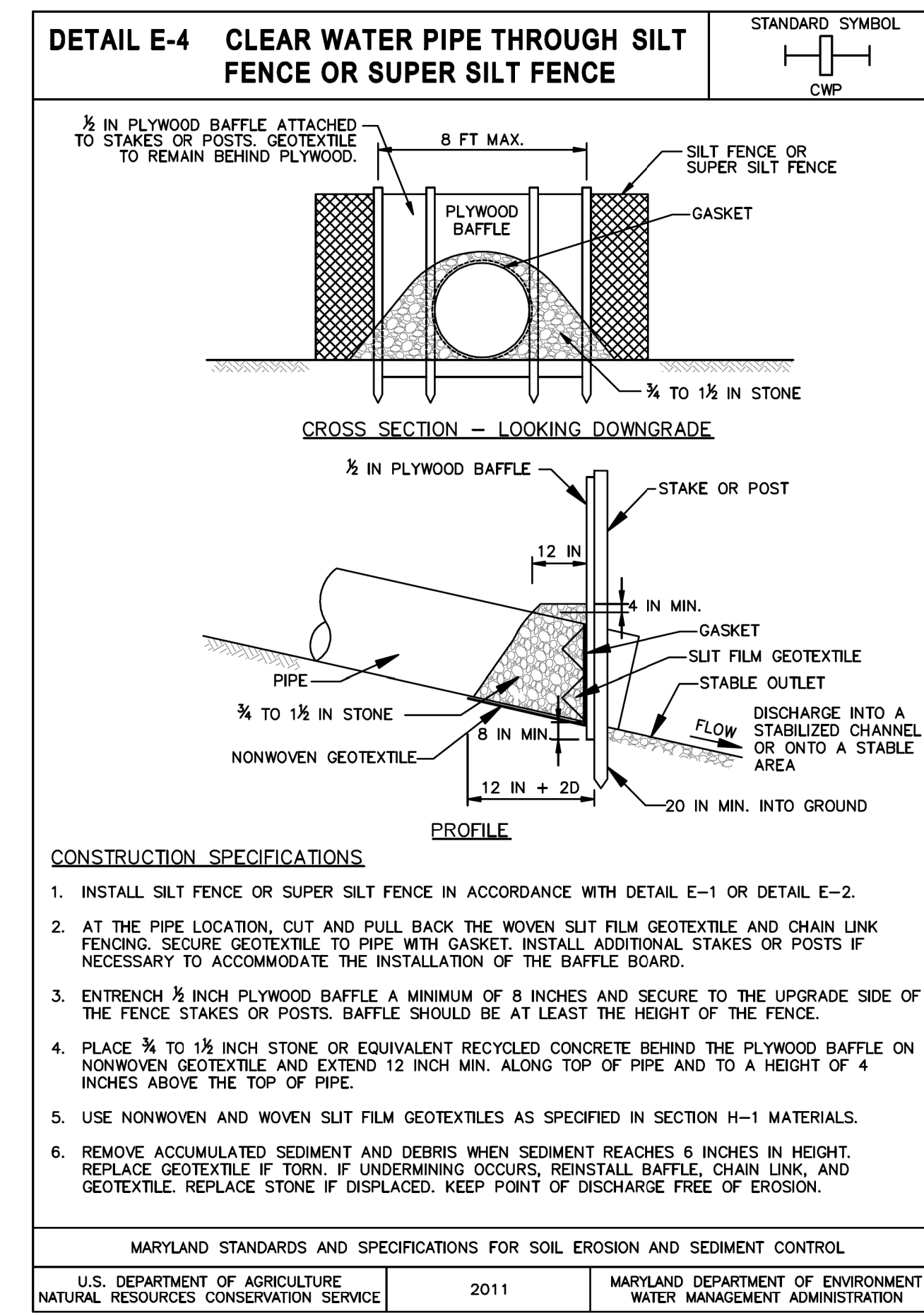
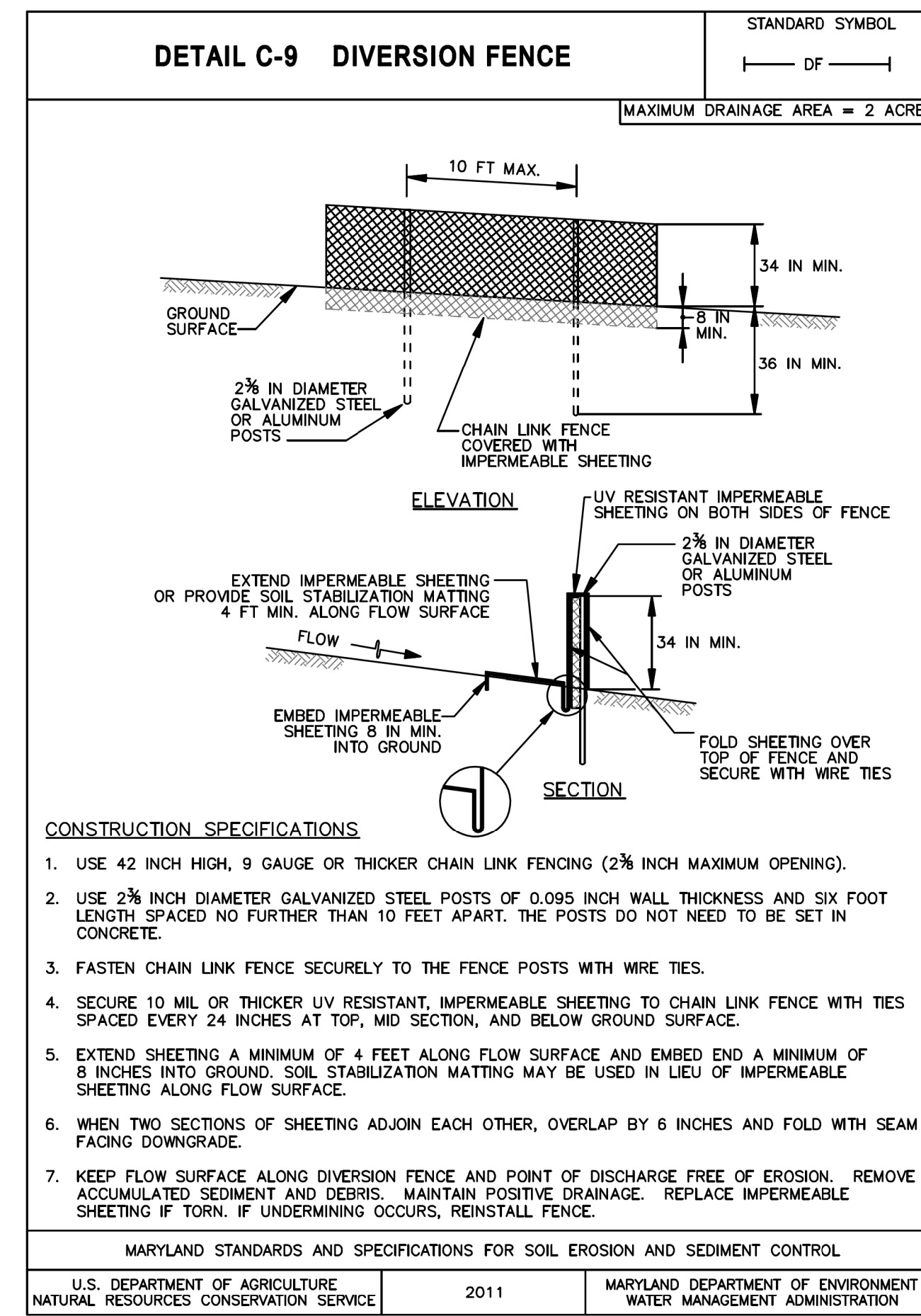
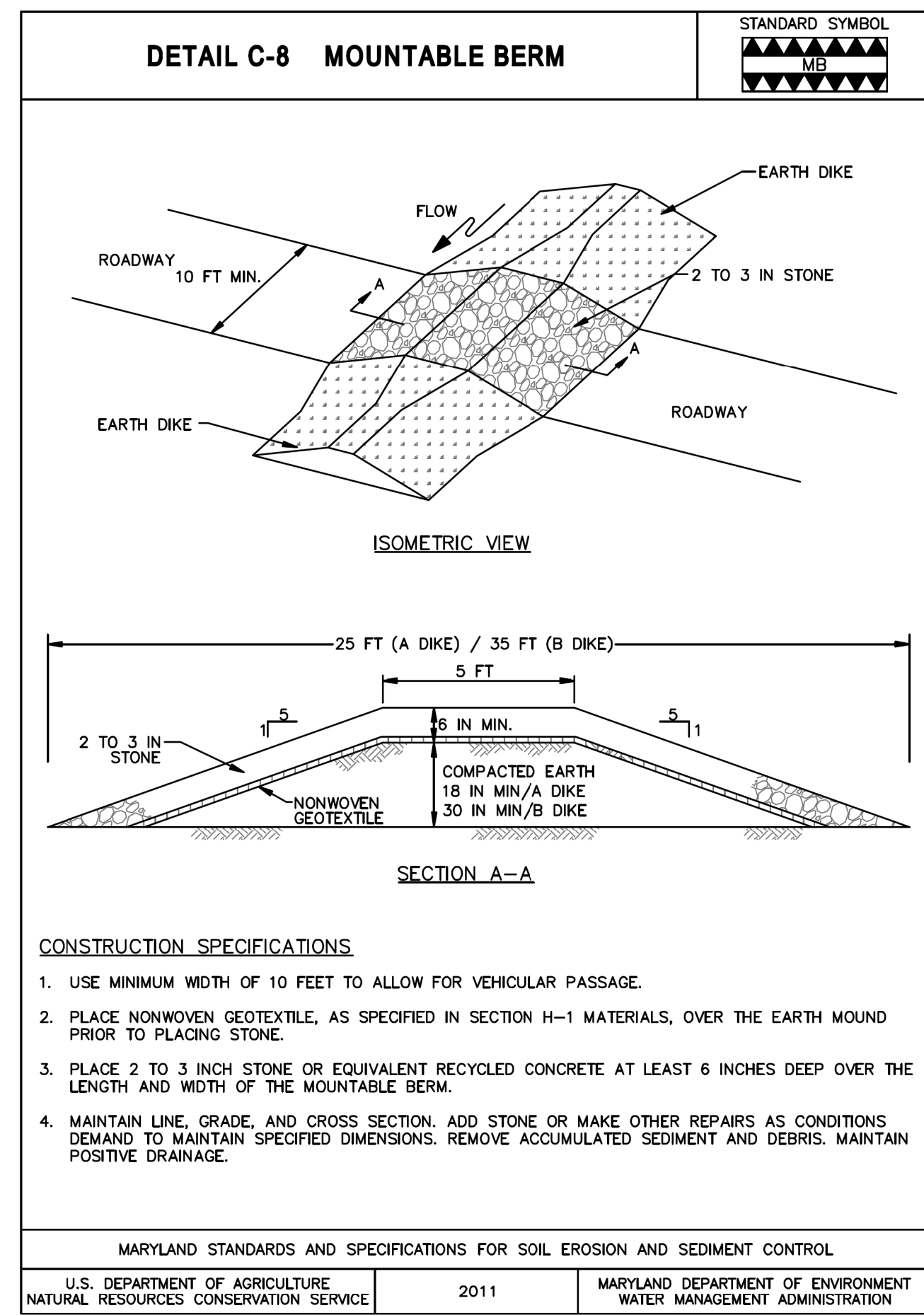
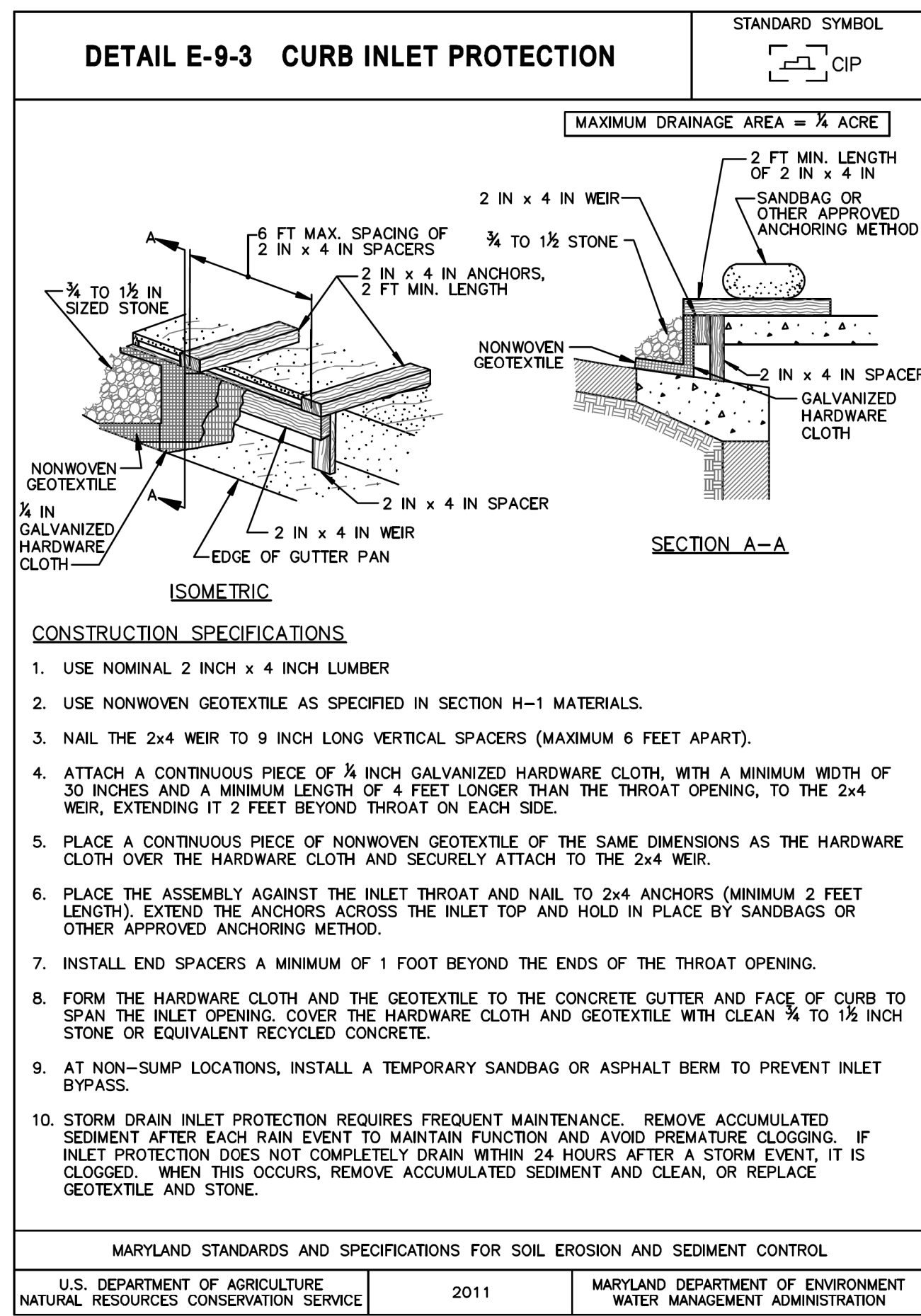
**AECOM**  
4 NORTH PARK DRIVE  
SUITE 300  
HUNT VALLEY, MARYLAND 21030  
PHONE: 410-785-7220  
FAX: 410-785-6818

PROFESSIONAL CERTIFICATION  
I 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.  
MD LICENSE NUMBER: S3587  
EXPIRATION DATE: 12-09-2024  
06/08/2023

REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
DATE	APPROVED	DATE	APPROVED
11/20/2023	[Signature]	11/17/2023	[Signature]
11/17/2023	[Signature]	11/17/2023	[Signature]

GP# G02018957  
DWG. NO.: ESN-03  
SCALE: AS NOTED  
DRAWN BY: DMT  
CHECKED BY: DMT  
SHEET NO. 93 OF 116  
PROJECT NO. P504100  
CONTRACT NO. P504105  
BROADNECK PENINSULA TRAIL PHASE IB & V  
EROSION AND SEDIMENT CONTROL NOTES & DETAILS



GP# G02018957 DWG. NO.: ESN-04

AECOM  
4 NORTH PARK DRIVE  
SUITE 300  
HUNT VALLEY, MARYLAND 21030  
PHONE: 410-785-7220  
FAX: 410-785-6818

PROFESSIONAL CERTIFICATION

"I 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."

MD LICENSE NUMBER: 53587  
EXPIRATION DATE: 12-09-2024

06/08/2023

REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY  
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
	11/20/2023   08:59 EST		11/17/2023   08:00	DRAWN BY: DMT
CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: DMT
APPROVED	DATE	APPROVED	DATE	SHEET NO. 94 OF 116
	11/17/2023   11:56 EST		11/17/2023   18:30	PROJECT NO. P504100
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		CONTRACT NO. P504105

BROADNECK PENINSULA TRAIL PHASE IB & V

**EROSION AND SEDIMENT CONTROL NOTES & DETAILS**