

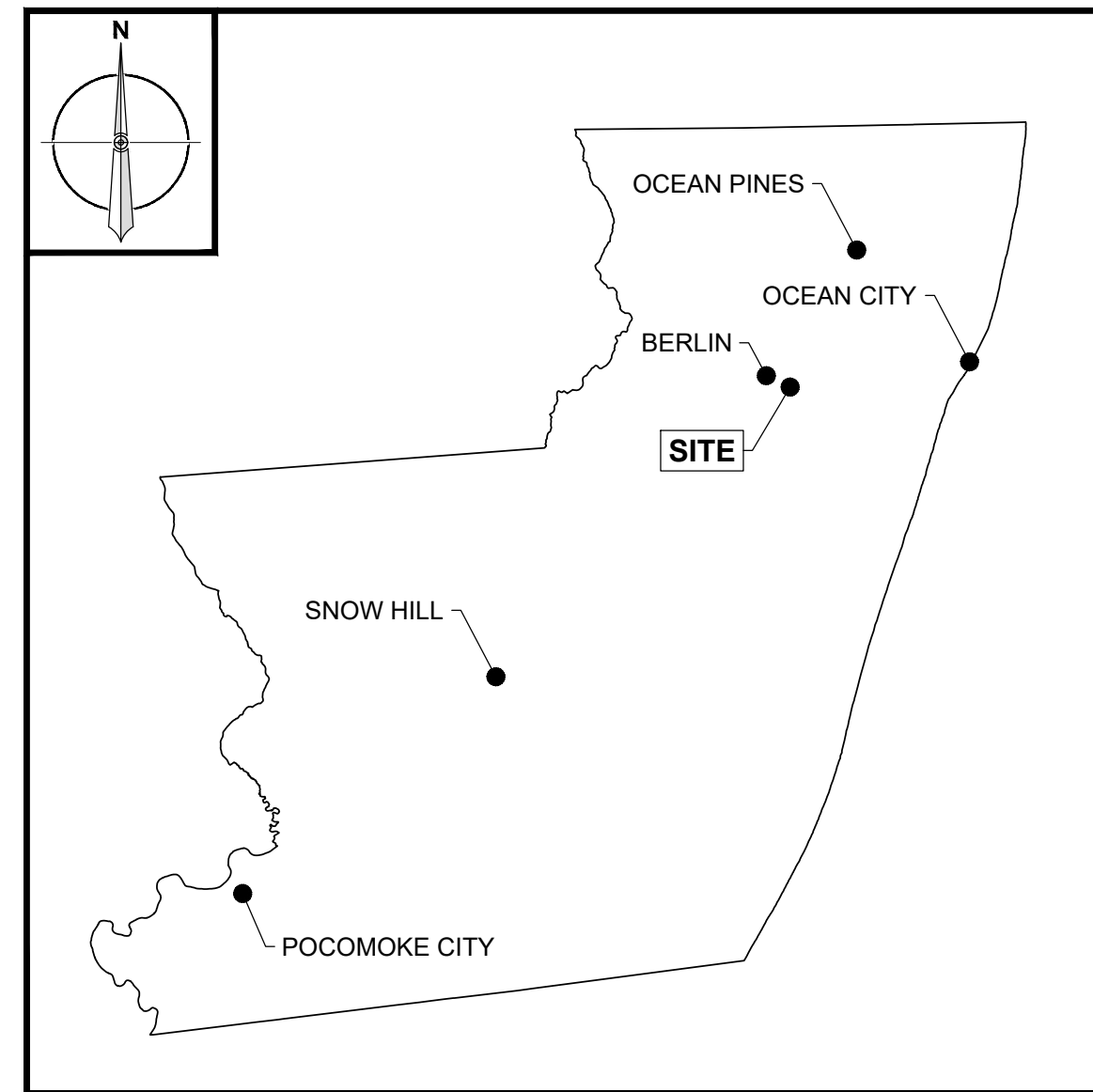
HUDSON BRANCH STREAM RESTORATION TOWN OF BERLIN, MARYLAND



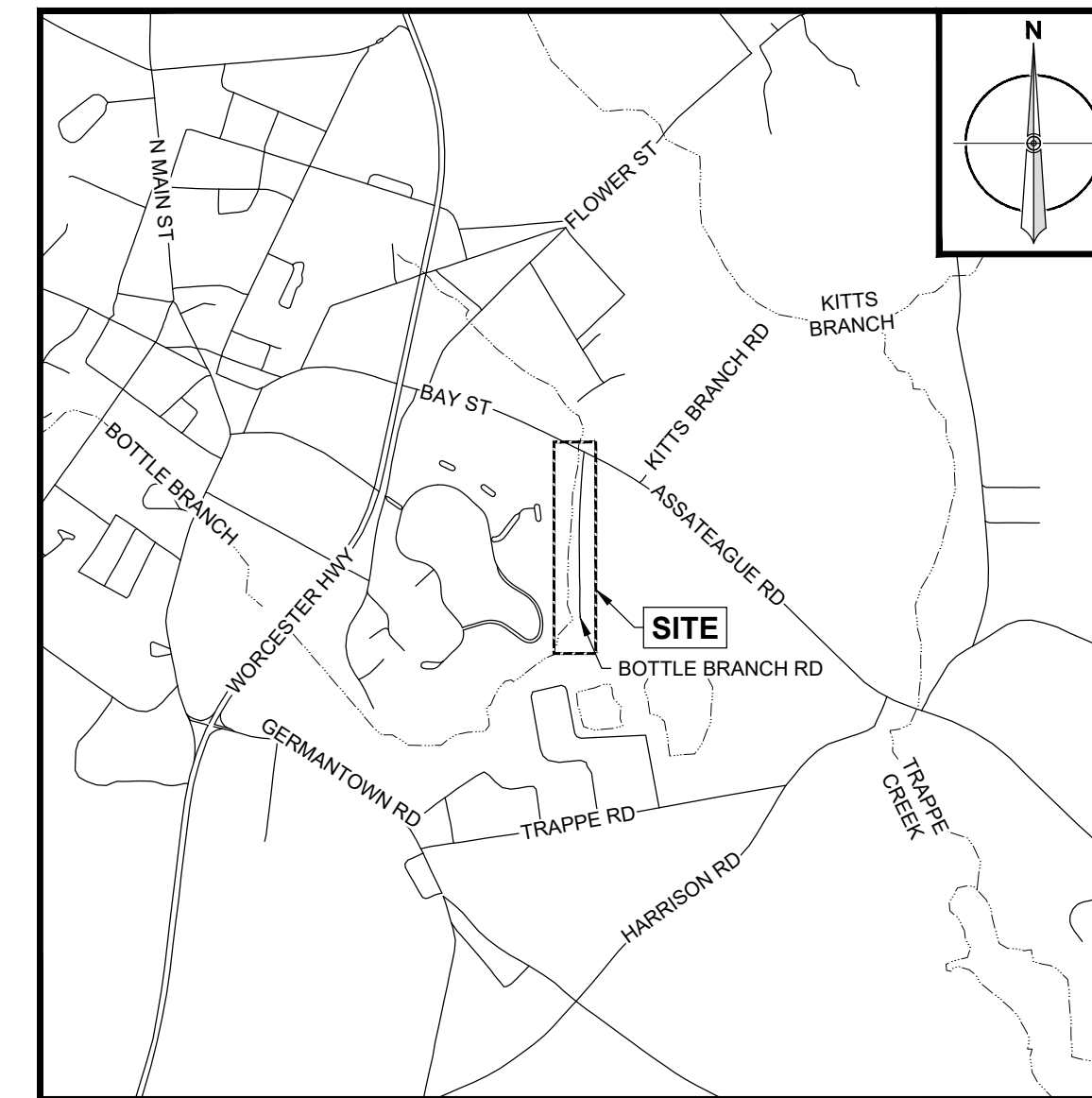
EA Engineering, Science, and
Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com



VICINITY MAP - WORCESTER COUNTY
SCALE: NOT TO SCALE



SITE LOCATION MAP
SCALE: 1" = 2,000'

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

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

USE I WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
USE III WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD OCTOBER 1 THROUGH APRIL 30, INCLUSIVE, DURING ANY YEAR.
USE IV WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR.
- STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

SEQUENCE OF CONSTRUCTION

-

GENERAL NOTES

- PROPERTY LINES, TOPOGRAPHY, AND EXISTING CONDITIONS LOCATION ARE BASED ON A SURVEY PREPARED BY SOLUTIONS IPEM, DATED DECEMBER 15, 2023.
- WATERS OF THE US AND WETLANDS DELINEATION WAS CONDUCTED BY EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC IN NOVEMBER 2023.
- FOREST STAND DELINEATION AND FIELD ASSESSMENT WAS CONDUCTED BY EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC IN NOVEMBER 2023.
- FEMA FLOODPLAIN IS BASED ON FIRM MAP 24047C0154H, WITH AN EFFECTIVE DATE OF JULY 16, 2015.
- SOIL CLASSIFICATIONS AND BOUNDARIES ARE BASED ON USDA WEB SOILS SURVEY DATA ACCESSED DECEMBER 2023.

EROSION AND SEDIMENT CONTROL NOTES

- TOTAL DISTURBED AREA: 186,358.18 SQ. FT. OR 4.28 AC.
- CUT/FILL QUANTITIES:
2.1. CUT: 8,024 CU. YD.
2.2. FILL: 1,028 CU. YD.
- BORROW/SPOIL QUANTITIES:
3.1. BORROW: 1,807 CU. YD.
3.2. SPOIL: 6,416 CU. YD.

OWNER'S/DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION, VEGETATIVE STABILIZATION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT CONTROL BEFORE BEGINNING THE PROJECT. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY STATE OF MARYLAND, DEPARTMENT OF THE ENVIRONMENT, COMPLIANCE INSPECTORS, WORCESTER COUNTY INSPECTORS, AND THE REPRESENTATIVES OF THE WORCESTER SOIL CONSERVATION DISTRICT.

OWNER/DEVELOPER SIGNATURE: _____
DATE: _____
PRINTED NAME AND TITLE: _____
TELEPHONE NUMBER: _____
ADDRESS: _____

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

PROJECT INFORMATION

SITE LOCATION:
BOTTLE BRANCH ROAD
BERLIN, MARYLAND 21811

TAX MAP 25, GRID 22, PARCEL 324
TAX ID # 03-016498

CLIENT:
MAYOR AND COUNCIL OF BERLIN
10 WILLIAM STREET
BERLIN, MARYLAND 21811
CONTACT: MS. MARY BOHLEN, TOWN ADMINISTRATOR

ENGINEER:
EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC
11200 RACETRACK ROAD, UNIT A101
OCEAN PINES, MARYLAND 21811
(410) 641-5341
CONTACT: MR. STEVEN LEMASTERS, PE

DATUM:
HORIZONTAL: MARYLAND STATE PLANE NAD83
VERTICAL: NAVD88

SHEET LIST

DRAWING NO.	SHEET NO.	DRAWING TITLE
G-001	1	TITLE SHEET
G-002	2	KEY SHEET AND LEGEND
C-101	3	EXISTING CONDITIONS PLAN
C-102	4	EXISTING CONDITIONS PLAN
C-103	5	EXISTING CONDITIONS PLAN
C-104	6	EXISTING CONDITIONS PLAN
C-105	7	SITE DESIGN PLAN
C-106	8	SITE DESIGN PLAN
C-107	9	SITE DESIGN PLAN
C-108	10	SITE DESIGN PLAN
C-109	11	EROSION AND SEDIMENT CONTROL PLAN
C-110	12	EROSION AND SEDIMENT CONTROL PLAN
C-111	13	EROSION AND SEDIMENT CONTROL PLAN
C-112	14	EROSION AND SEDIMENT CONTROL PLAN

HORIZONTAL DATUM:
MARYLAND STATE PLANE
NAD83

VERTICAL DATUM:
NAVD88

SCALE AS SHOWN

FULL SIZE PLOT: 24" x 36"

REVISIONS

NO.	DATE	DESCRIPTION

SEAL

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. 55422 EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
HUDSON BRANCH
STREAM RESTORATION

PROJECT ADDRESS
BOTTLE BRANCH ROAD
BERLIN, MARYLAND

DRAWING TITLE
TITLE SHEET

DRAWING INFORMATION

DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL

PROJECT NUMBER: 1470412

DRAWING NO.

G-001

DATE: FEBRUARY 2026 SHEET: 1 OF 14

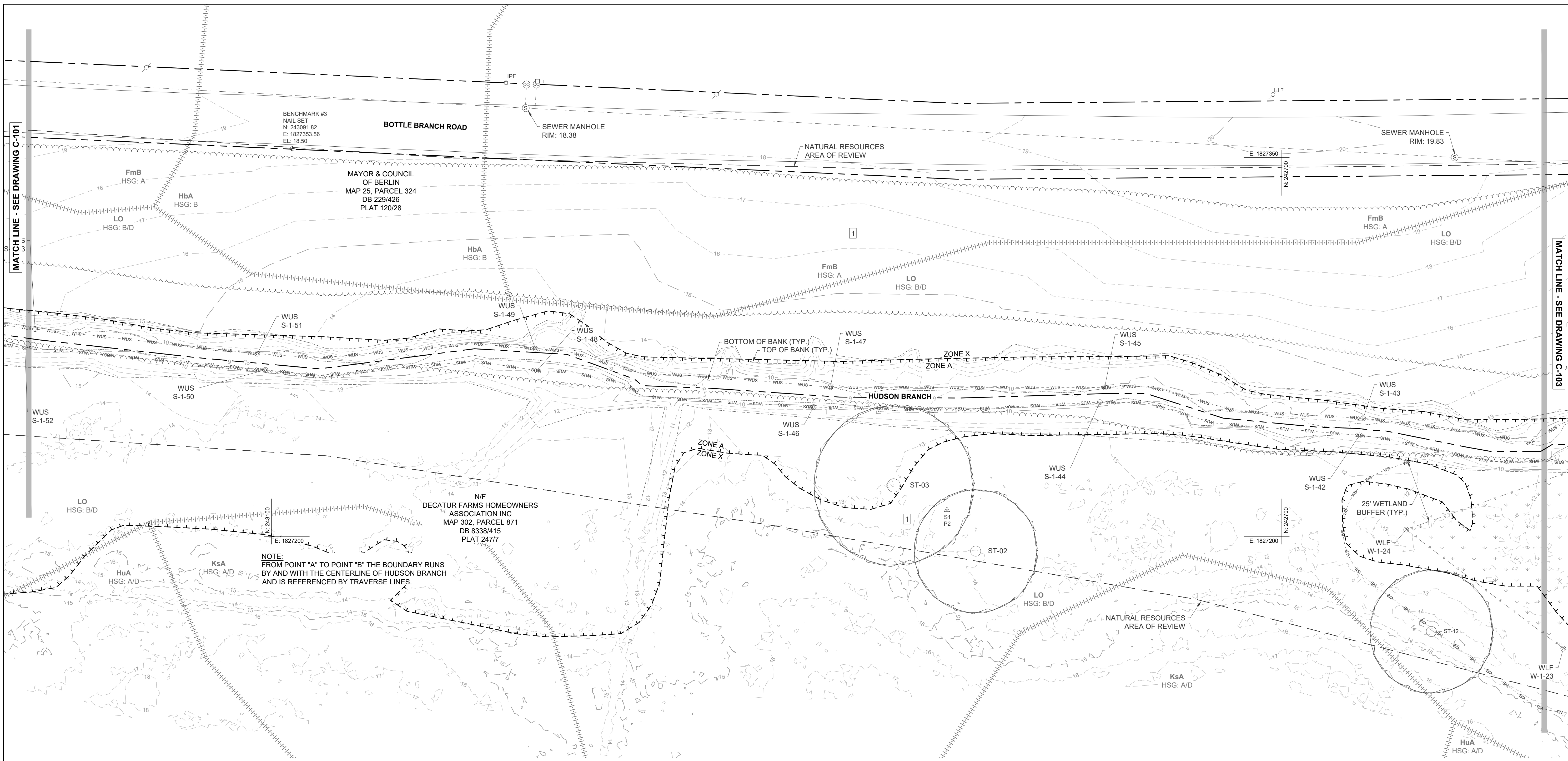


EA Engineering, Science, and Technology, Inc., PBC

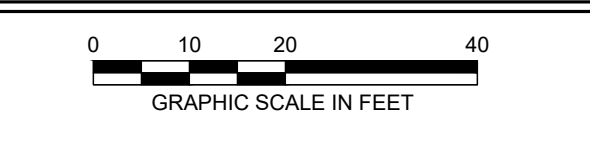
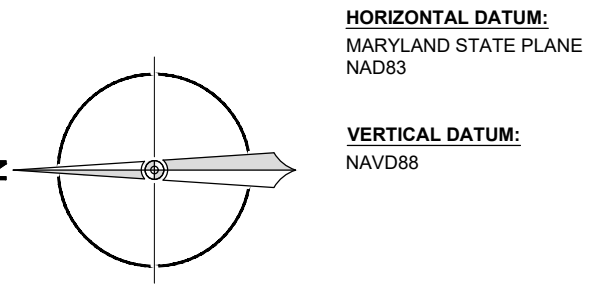
11200 RaceTrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341
www.eaest.com

MATCH LINE - SEE DRAWING C-101

MATCH LINE - SEE DRAWING C-103



NOTE:
FROM POINT "A" TO POINT "B" THE BOUNDARY RUNS
BY AND WITH THE CENTERLINE OF HUDSON BRANCH
AND IS REFERENCED BY TRAVERSE LINES.



REVISIONS

SEAL

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. 55422 EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
**HUDSON BRANCH
STREAM RESTORATION**

PROJECT ADDRESS
**BOTTLE BRANCH ROAD
BERLIN, MARYLAND**

DRAWING TITLE
EXISTING CONDITIONS PLAN

DRAWING INFORMATION
DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL

PROJECT NUMBER: 1470412

DRAWING NO.
C-102

DATE: FEBRUARY 2026 SHEET: 4 OF 14

SOILS TABLE					
MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING	K FACTOR (WHOLE SOIL)	DRAINAGE CLASS	PRIME AGRICULTURAL
FmB	FORT MOTT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A	.20	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED
HbA	HAMBROOK SANDY LOAM, 0 TO 2 PERCENT SLOPES	B	.32	NOT HYDRIC	ALL AREAS ARE PRIME FARMLAND
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.02	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.15	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
LO	LONGMARSH AND INDIANTOWN SOILS, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED	B/D	-	HYDRIC	NOT PRIME FARMLAND
RoA	ROSDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A	.10	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED

SPECIMEN TREES					
TREE NUMBER	DBH (IN.)	COMMON NAME	SCIENTIFIC NAME	CONDITION	STAND
ST-01	48	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-02	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-03	42	RED MAPLE	ACER RUBRUM	GOOD	1
ST-04	43	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-05	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-06	45	RED MAPLE	ACER RUBRUM	GOOD	1
ST-07	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-08	40.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-09	33	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-10	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-11	47	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-12	32	RED MAPLE	ACER RUBRUM	GOOD	1

FILE PATH: C:\TOWN OF BERLIN\1470412 - HUDSON BRANCH STREAM RESTORATION\PROJECT\DRAWING\EXISTING CONDITIONS PLAN.DWG (C:\HOLEMASTERS\STEVEN.ASPROUSE@EA.COM)

PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION



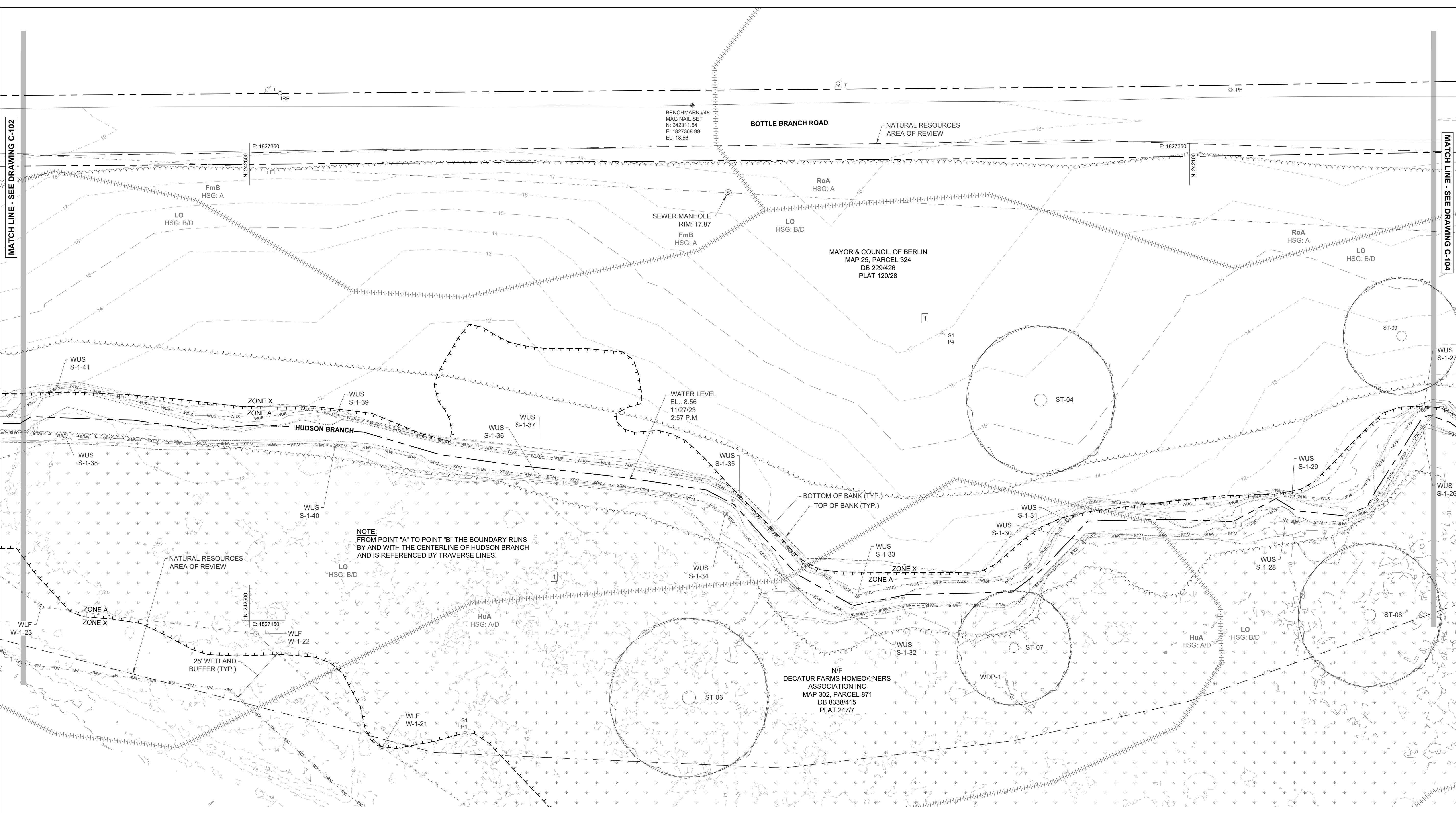
EA Engineering, Science, and Technology, Inc., PBC

11200 RaceTrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com

MATCH LINE - SEE DRAWING C-102

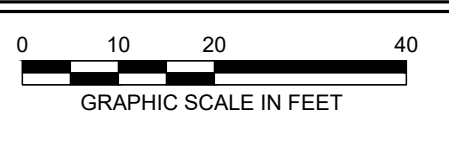
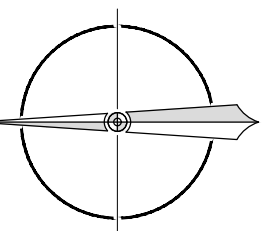
MATCH LINE - SEE DRAWING C-104



NOTE:
FROM POINT "A" TO POINT "B" THE BOUNDARY RUNS
BY AND WITH THE CENTERLINE OF HUDSON BRANCH
AND IS REFERENCED BY TRAVERSE LINES.

HORIZONTAL DATUM:
MARYLAND STATE PLANE
NAD83

VERTICAL DATUM:
NAVD88



FULL SIZE PLOT: 24" x 36"

NO.	REVISIONS

SEAL

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. 55422 EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
**HUDSON BRANCH
STREAM RESTORATION**

PROJECT ADDRESS
**BOTTLE BRANCH ROAD
BERLIN, MARYLAND**

DRAWING TITLE
EXISTING CONDITIONS PLAN

DRAWING INFORMATION
DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL
PROJECT NUMBER: 1470412

DRAWING NO.
C-103
DATE: FEBRUARY 2026 SHEET: 5 OF 14

SOILS TABLE					
MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING	K FACTOR (WHOLE SOIL)	DRAINAGE CLASS	PRIME AGRICULTURAL
FmB	FORT MOTT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A	.20	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED
HbA	HAMBROOK SANDY LOAM, 0 TO 2 PERCENT SLOPES	B	.32	NOT HYDRIC	ALL AREAS ARE PRIME FARMLAND
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.02	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.15	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
LO	LONGMARSH AND INDIANTOWN SOILS, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED	B/D	-	HYDRIC	NOT PRIME FARMLAND
RoA	ROSEDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A	.10	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED

SPECIMEN TREES					
TREE NUMBER	DBH (IN.)	COMMON NAME	SCIENTIFIC NAME	CONDITION	STAND
ST-01	48	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-02	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-03	42	RED MAPLE	ACER RUBRUM	GOOD	1
ST-04	43	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-05	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-06	45	RED MAPLE	ACER RUBRUM	GOOD	1
ST-07	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-08	40.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-09	33	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-10	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-11	47	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-12	32	RED MAPLE	ACER RUBRUM	GOOD	1

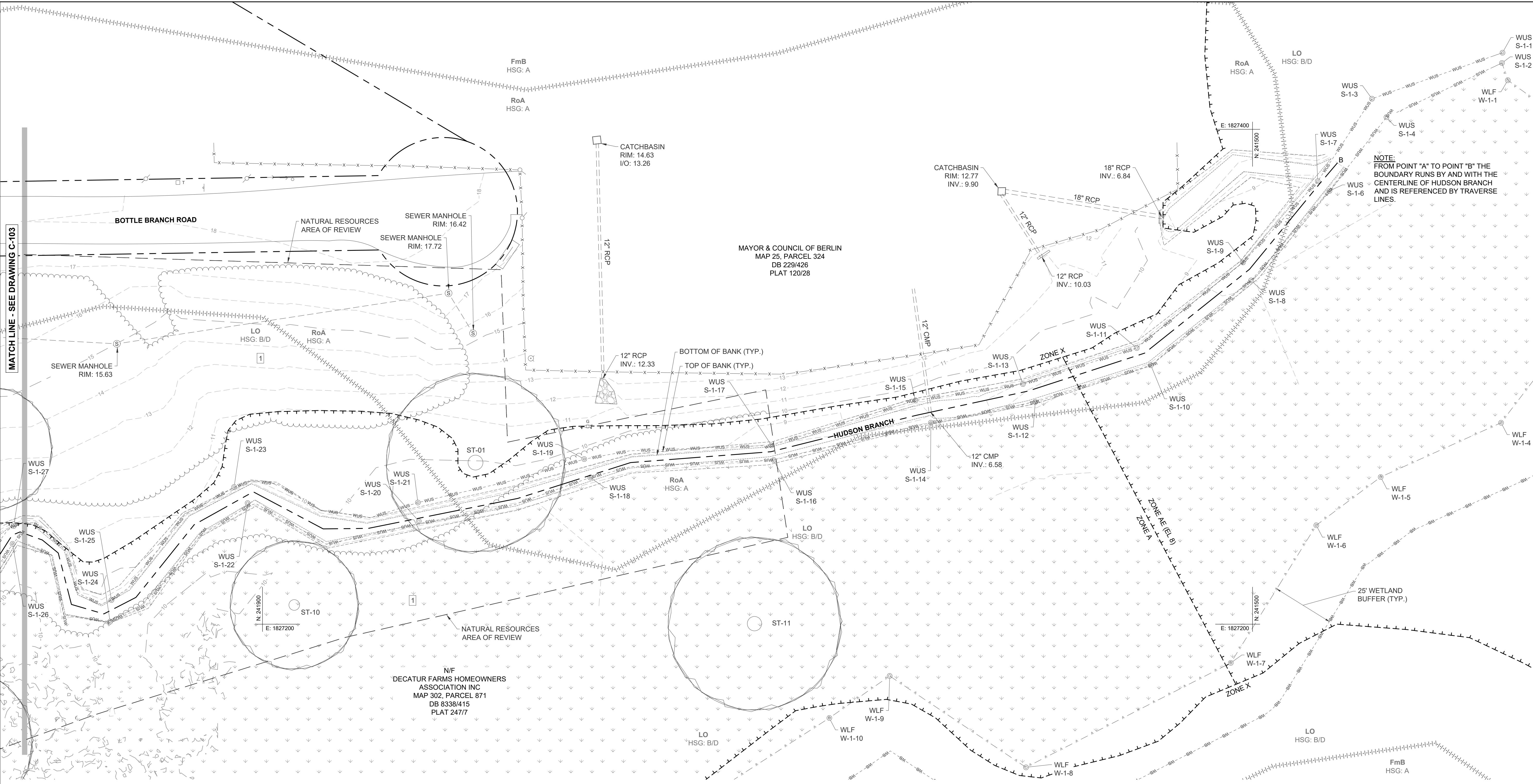
FILE PATH: C:\DATA\07\070412\1 HUDSON BRANCH STREAM RESTORATION\PRODUCT\DRAWING\EXISTING CONDITIONS PLAN.DWG © 2016 LEADERSHIP DESIGN GROUP, P.C.

PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION



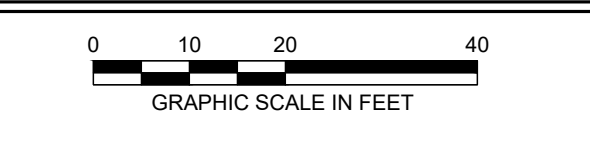
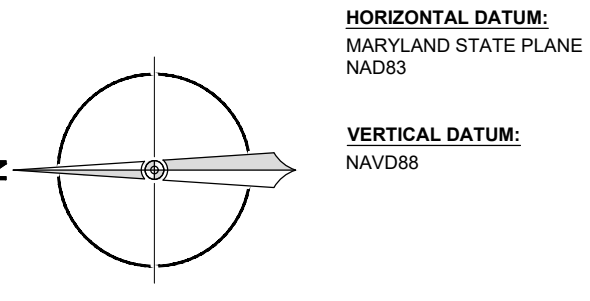
EA Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341
www.eaest.com



MATCH LINE - SEE DRAWING C-103

NOTE:
FROM POINT "A" TO POINT "B" THE
BOUNDARY RUNS BY AND WITH THE
CENTERLINE OF HUDSON BRANCH
AND IS REFERENCED BY TRAVERSE
LINES.



FULL SIZE PLOT: 24" x 36"

REVISIONS

SEAL

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. 55422 EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
**HUDSON BRANCH
STREAM RESTORATION**

PROJECT ADDRESS
**BOTTLE BRANCH ROAD
BERLIN, MARYLAND**

DRAWING TITLE
EXISTING CONDITIONS PLAN

DRAWING INFORMATION
DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL
PROJECT NUMBER: 1470412

DRAWING NO.
C-104
DATE: FEBRUARY 2026 SHEET: 6 OF 14

SOILS TABLE					
MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING	K FACTOR (WHOLE SOIL)	DRAINAGE CLASS	PRIME AGRICULTURAL
FmB	FORT MOTT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A	.20	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED
HbA	HAMBROOK SANDY LOAM, 0 TO 2 PERCENT SLOPES	B	.32	NOT HYDRIC	ALL AREAS ARE PRIME FARMLAND
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.02	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.15	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
LO	LONGMARSH AND INDIANTOWN SOILS, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED	B/D	-	HYDRIC	NOT PRIME FARMLAND
RoA	ROSEDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A	.10	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED

SPECIMEN TREES					
TREE NUMBER	DBH (IN.)	COMMON NAME	SCIENTIFIC NAME	CONDITION	STAND
ST-01	48	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-02	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-03	42	RED MAPLE	ACER RUBRUM	GOOD	1
ST-04	43	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-05	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-06	45	RED MAPLE	ACER RUBRUM	GOOD	1
ST-07	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-08	40.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-09	33	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-10	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-11	47	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-12	32	RED MAPLE	ACER RUBRUM	GOOD	1

FILE PATH: C:\WORK\02026\1470412\HUDSON BRANCH STREAM RESTORATION\PRODUCTION\BERLIN\1470412_0103_EXISTING CONDITIONS PLAN.DWG (C:\WORK\02026\1470412\HUDSON BRANCH STREAM RESTORATION\PRODUCTION\BERLIN\1470412_0103_EXISTING CONDITIONS PLAN.DWG)

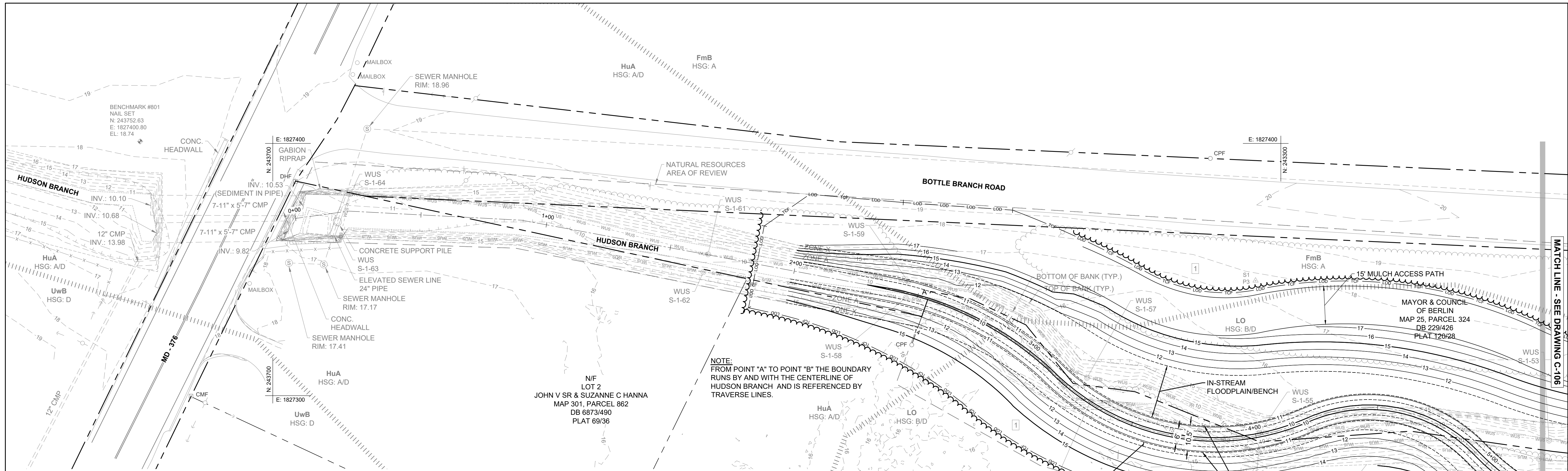
PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION



EA Engineering, Science, and Technology, Inc., PBC

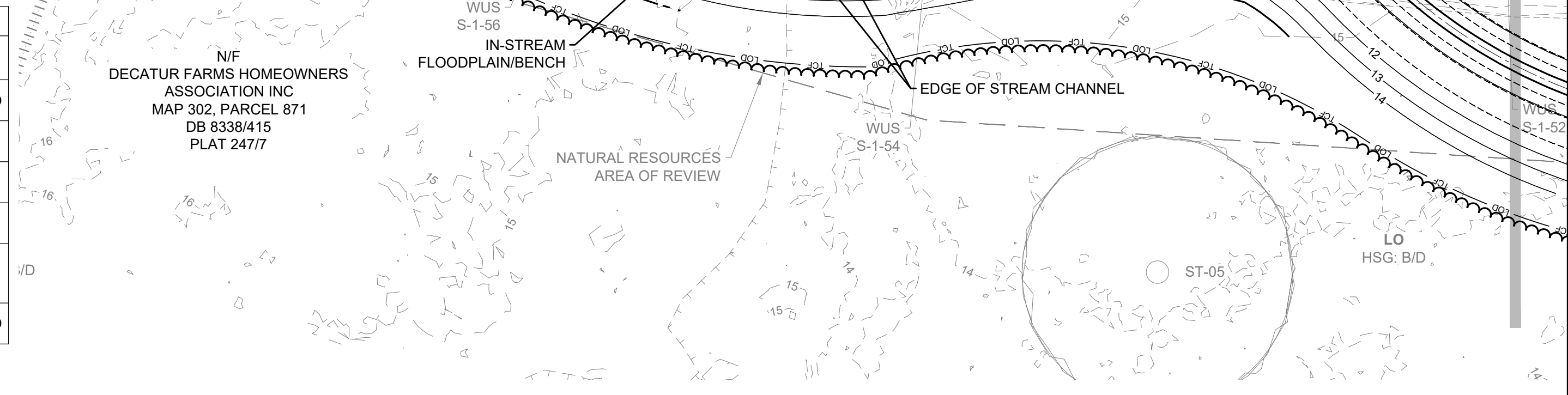
11200 Raceback Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com



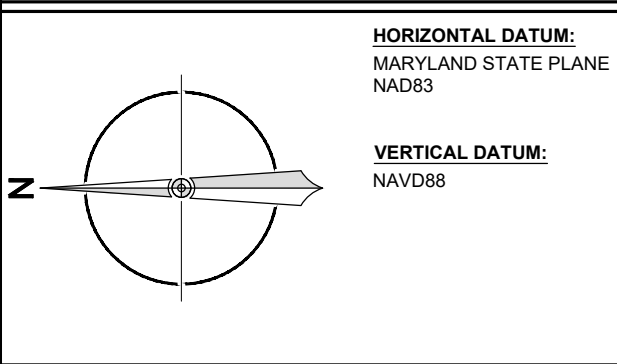
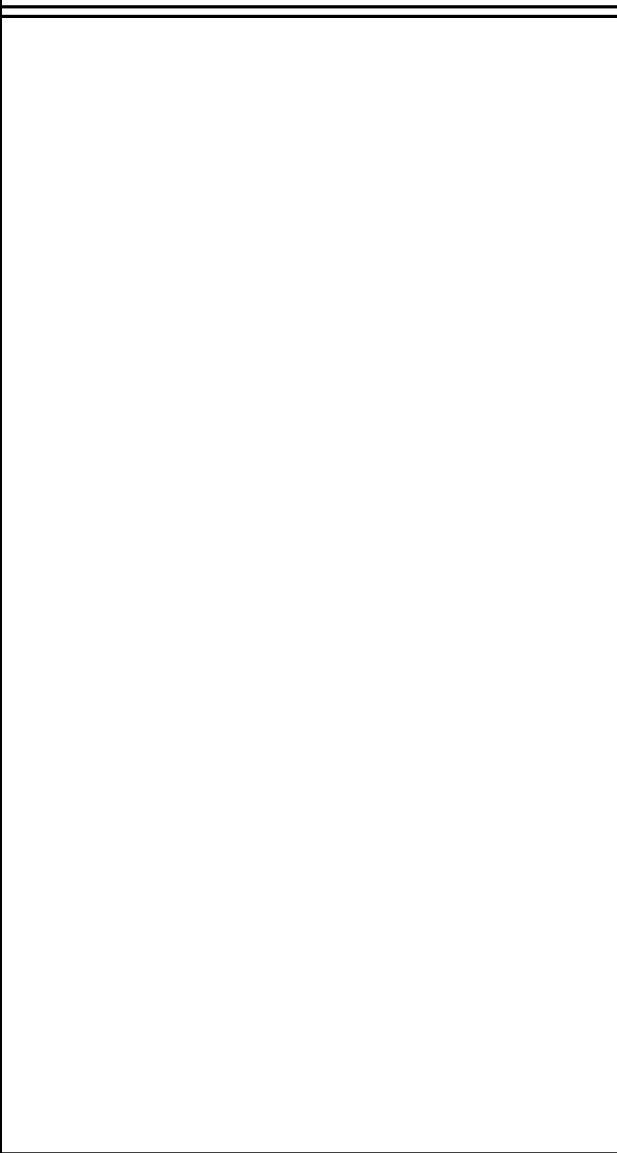
SPECIMEN TREES					
TREE NUMBER	DBH (IN.)	COMMON NAME	SCIENTIFIC NAME	CONDITION	STAND
ST-01	48	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-02	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-03	42	RED MAPLE	ACER RUBRUM	GOOD	1
ST-04	43	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-05	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-06	45	RED MAPLE	ACER RUBRUM	GOOD	1
ST-07	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-08	40.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-09	33	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-10	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-11	47	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-12	32	RED MAPLE	ACER RUBRUM	GOOD	1

SOILS TABLE					
MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING	K FACTOR (WHOLE SOIL)	DRAINAGE CLASS	PRIME AGRICULTURAL
FmB	FORT MOTT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A	.20	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED
HbA	HAMBROOK SANDY LOAM, 0 TO 2 PERCENT SLOPES	B	.32	NOT HYDRIC	ALL AREAS ARE PRIME FARMLAND
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.02	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.15	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
LO	LONGMARSH AND INDIANTOWN SOILS, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED	B/D	-	HYDRIC	NOT PRIME FARMLAND
RoA	ROSEDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A	.10	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED



STREAM CHANNEL CENTERLINE PROFILE - 0+00 TO 5+37
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

FOR CONTINUATION - SEE DRAWING C-106



0 10 20 40
GRAPHIC SCALE IN FEET

FULL SIZE PLOT: 24" x 36"

REVISIONS

SEAL

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. 55422 EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
HUDSON BRANCH
STREAM RESTORATION

PROJECT ADDRESS
BOTTLE BRANCH ROAD
BERLIN, MARYLAND

DRAWING TITLE
SITE DESIGN PLAN

DRAWING INFORMATION
DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL
PROJECT NUMBER: 1470412

DRAWING NO.
C-105
DATE: FEBRUARY 2026 SHEET: 7 OF 14

FILE PATH: C:\TOWN OF BERLIN\1470412 HUDSON BRANCH STREAM RESTORATION\PRODUCTION\BERLIN\1470412_C105 SITE DESIGN PLAN\DWG C-105.DWG (DATE: 02/16/2026 09:52 AM)

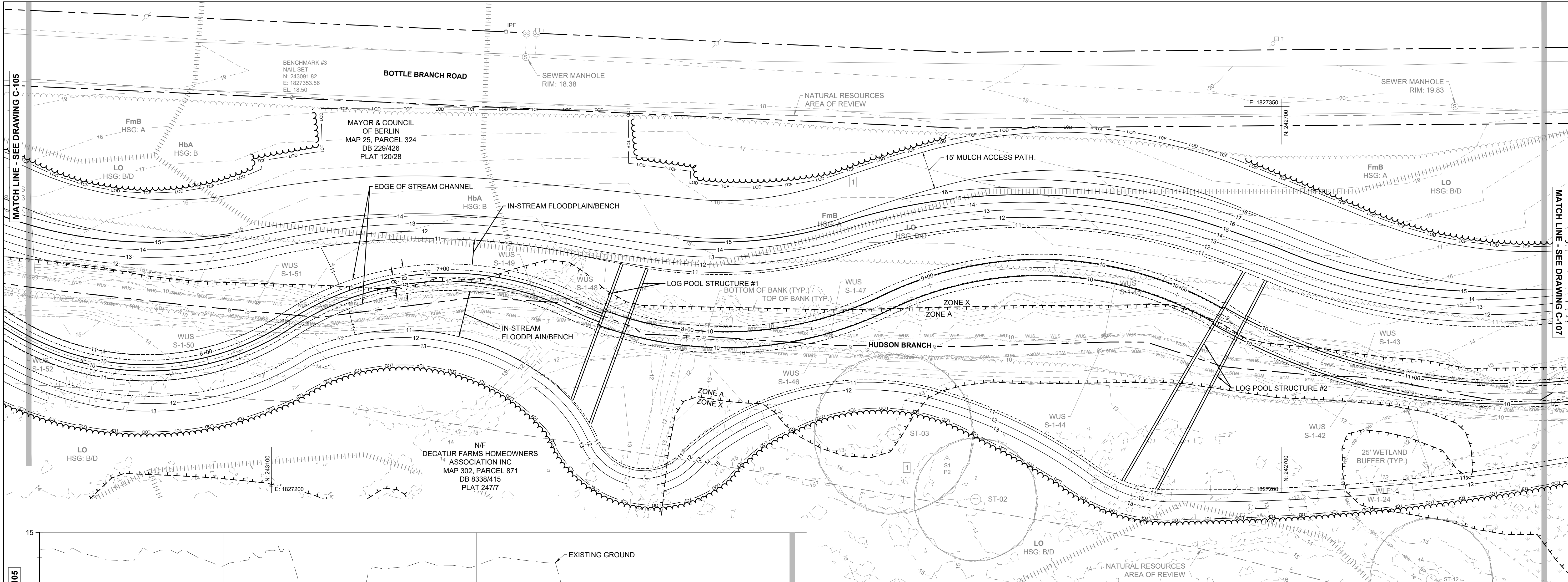
PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION



EA Engineering, Science, and Technology, Inc., PBC

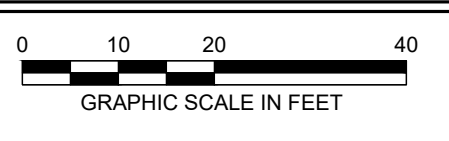
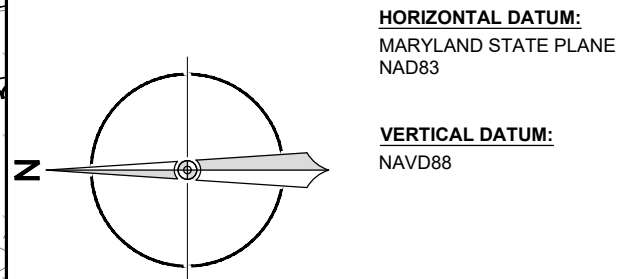
11200 Raceback Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com



MATCH LINE - SEE DRAWING C-107

MATCH LINE - SEE DRAWING C-105



FULL SIZE PLOT: 24" x 36"

REVISIONS table with columns for revision number, description, and date.

SEAL area for professional certification.

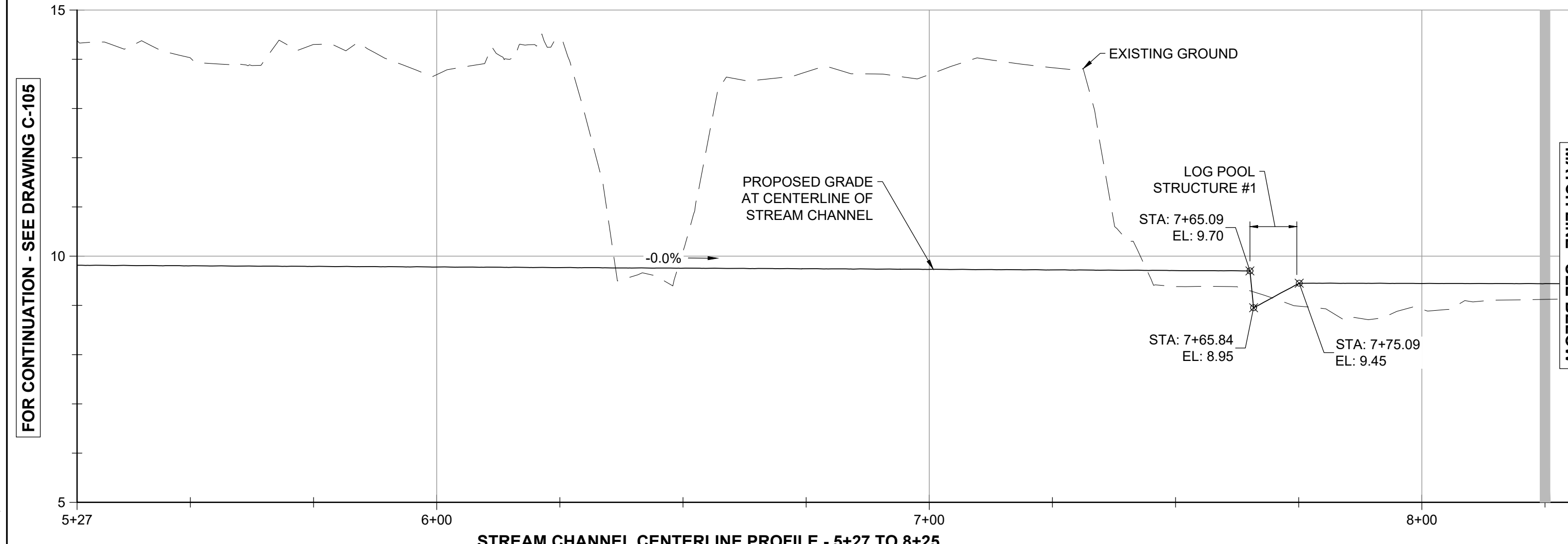
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 55422 EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME: HUDSON BRANCH STREAM RESTORATION

PROJECT ADDRESS: BOTTLE BRANCH ROAD, BERLIN, MARYLAND

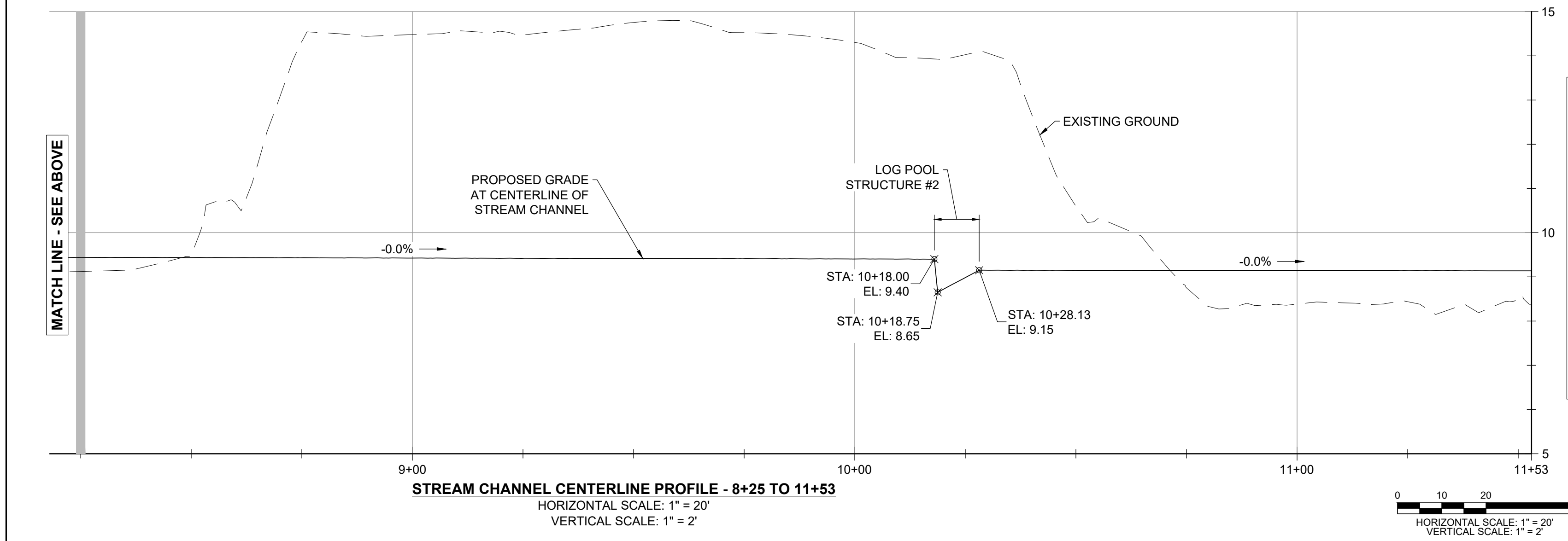
DRAWING TITLE: SITE DESIGN PLAN

DRAWING INFORMATION: DRAWN BY: SMB, DESIGNED BY: GZ, CHECKED BY: WRB, PROJECT MANAGER: SCL, PROJECT NUMBER: 1470412, DRAWING NO. C-106, DATE: FEBRUARY 2026, SHEET: 8 OF 14



MATCH LINE - SEE BELOW

FOR CONTINUATION - SEE DRAWING C-105



FOR CONTINUATION - SEE DRAWING C-105



SOILS TABLE with columns: MAP UNIT SYMBOL, MAP UNIT NAME, HSG RATING, K FACTOR (WHOLE SOIL), DRAINAGE CLASS, PRIME AGRICULTURAL.

SPECIMEN TREES table with columns: TREE NUMBER, DBH (IN.), COMMON NAME, SCIENTIFIC NAME, CONDITION, STAND.

FILE PATH: C:\WORK\OF BERLIN\1470412 - HUDSON BRANCH STREAM RESTORATION\DRAWING\PRODUCTION\BERLIN\1470412 - 0205 - SITE DESIGN\PLAN\DWG C-106.DWG DATE: 02/16/2026 09:02 AM

PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION

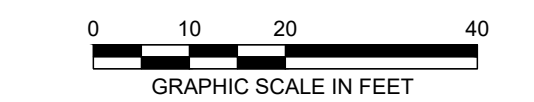
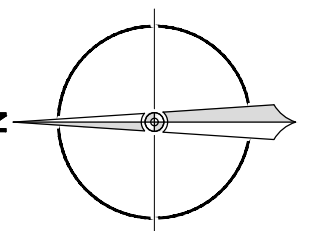


EA Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341
www.eaest.com

HORIZONTAL DATUM:
MARYLAND STATE PLANE
NAD83

VERTICAL DATUM:
NAVD88



FULL SIZE PLOT: 24" x 36"

REVISIONS

NO.	DATE	DESCRIPTION

SEAL



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. 55422 EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
**HUDSON BRANCH
STREAM RESTORATION**

PROJECT ADDRESS
**BOTTLE BRANCH ROAD
BERLIN, MARYLAND**

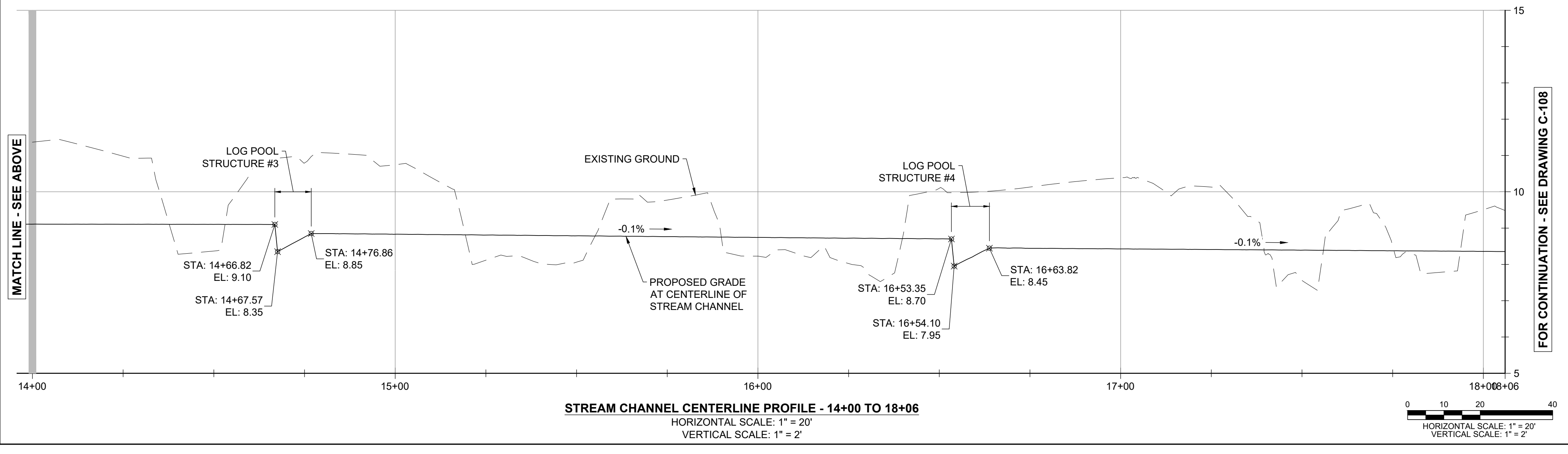
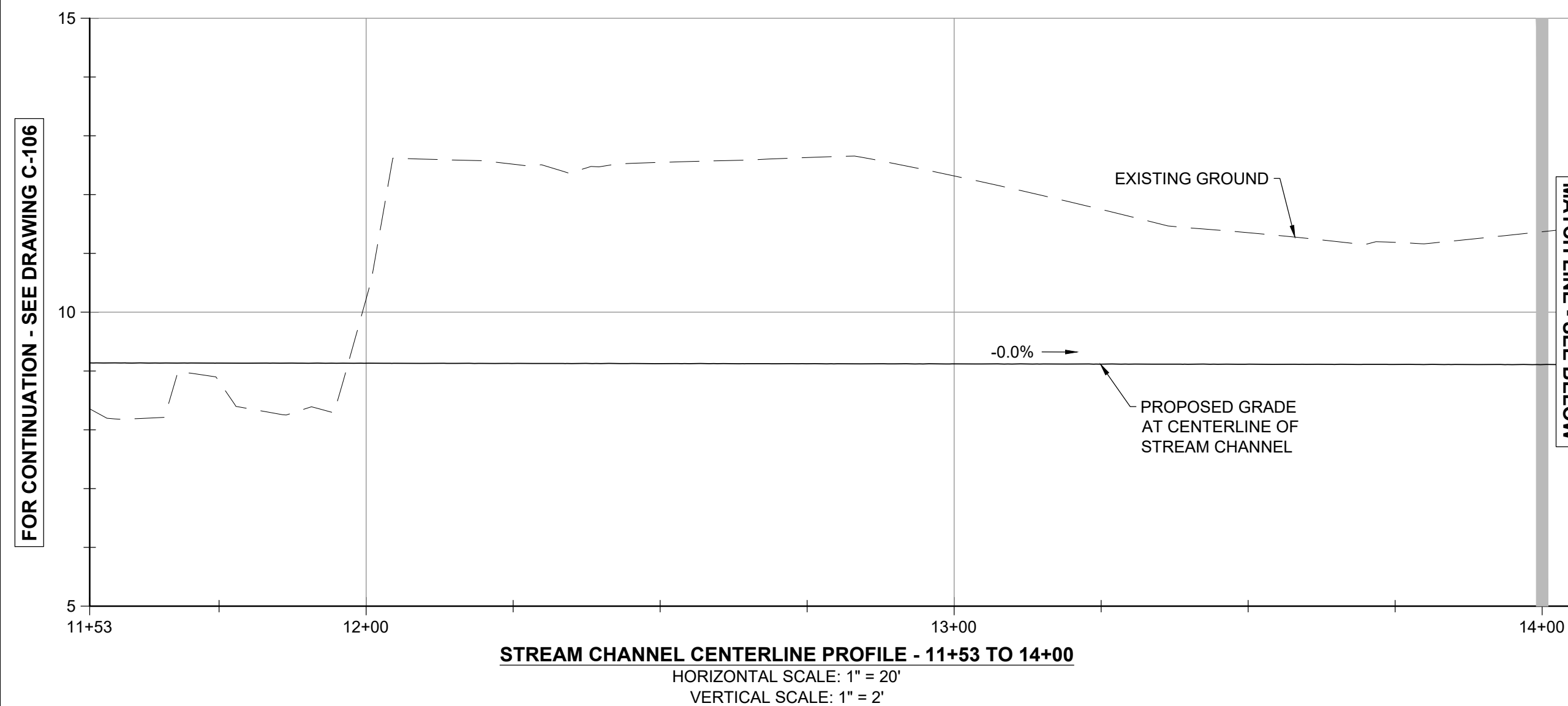
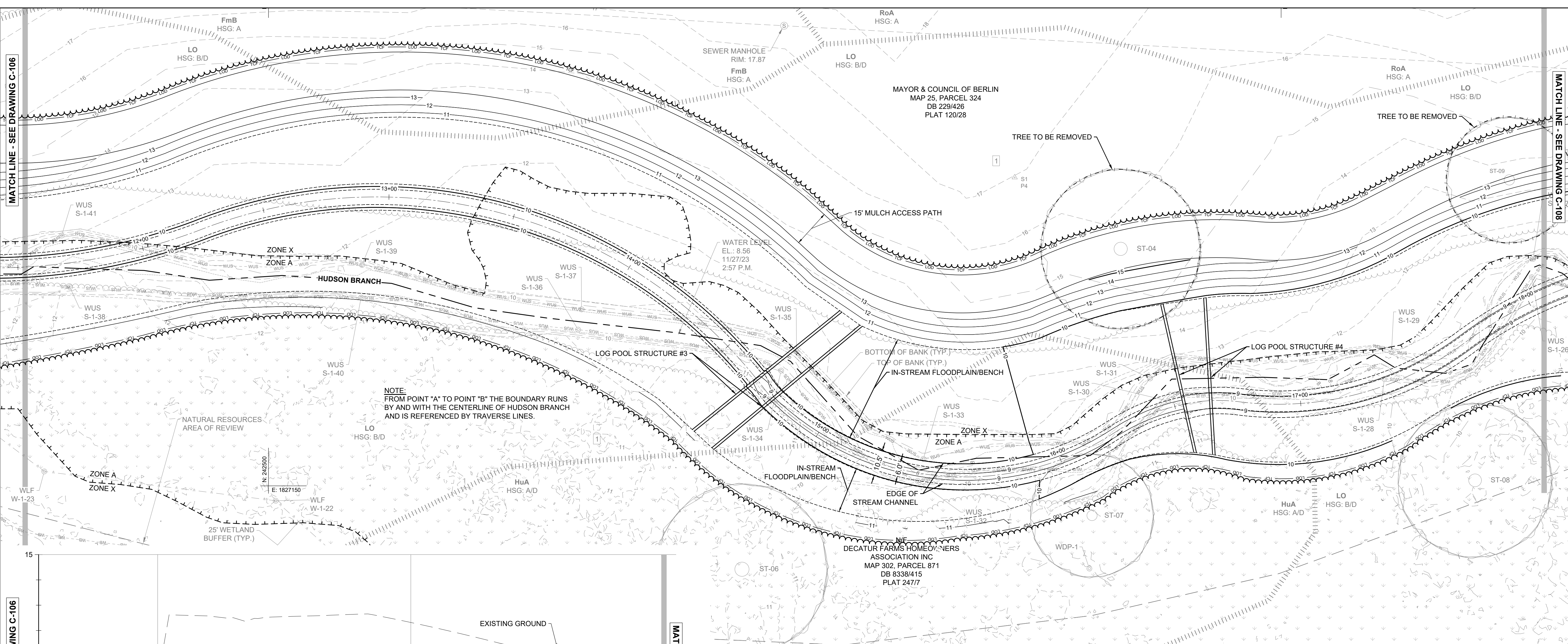
DRAWING TITLE
SITE DESIGN PLAN

DRAWING INFORMATION
DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL

PROJECT NUMBER: 1470412

DRAWING NO.
C-107

DATE: FEBRUARY 2026 SHEET: 9 OF 14



SOILS TABLE					
MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING	K FACTOR (WHOLE SOIL)	DRAINAGE CLASS	PRIME AGRICULTURAL
FmB	FORT MOTT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A	.20	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED
HbA	HAMBROOK SANDY LOAM, 0 TO 2 PERCENT SLOPES	B	.32	NOT HYDRIC	ALL AREAS ARE PRIME FARMLAND
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.02	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.15	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
LO	LONGMARSH AND INDIANTOWN SOILS, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED	B/D	-	HYDRIC	NOT PRIME FARMLAND
RoA	ROSDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A	.10	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED

SPECIMEN TREES					
TREE NUMBER	DBH (IN.)	COMMON NAME	SCIENTIFIC NAME	CONDITION	STAND
ST-01	48	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-02	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-03	42	RED MAPLE	ACER RUBRUM	GOOD	1
ST-04	43	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-05	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-06	45	RED MAPLE	ACER RUBRUM	GOOD	1
ST-07	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-08	40.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-09	33	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-10	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-11	47	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-12	32	RED MAPLE	ACER RUBRUM	GOOD	1

FILE PATH: C:\DATA\01\BERLIN\1470412_HUDSON BRANCH STREAM RESTORATION\DRAWING\PRODUCTION\BERLIN\1470412_C107_S1T1_SITE DESIGN PLANS\DWG\1470412026_C107.dwg

PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION

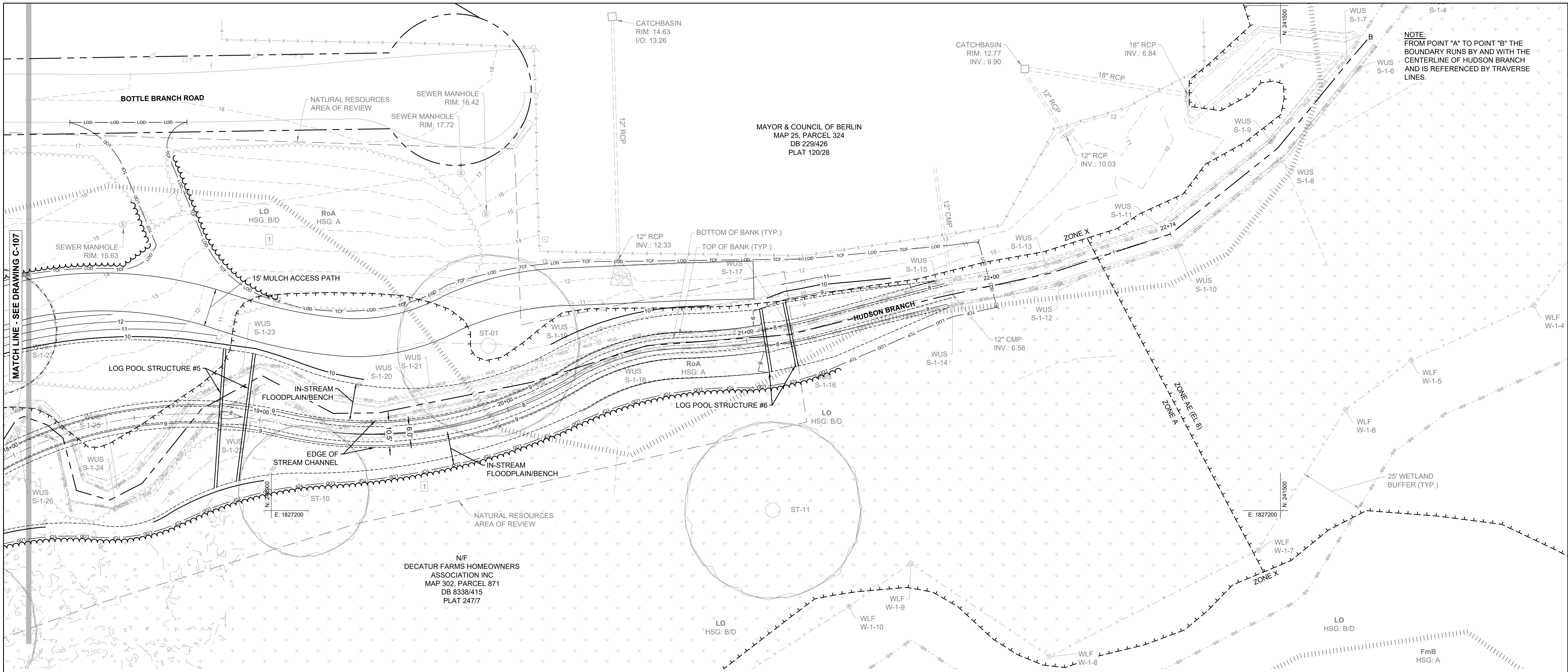


EA Engineering, Science, and Technology, Inc., PBC

11200 Race Track Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com

NOTE:
FROM POINT "A" TO POINT "B" THE
BOUNDARY RUNS BY AND WITH THE
CENTERLINE OF HUDSON BRANCH
AND IS REFERENCED BY TRAVERSE
LINES.

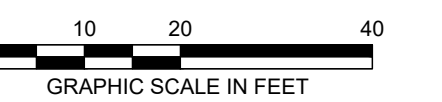
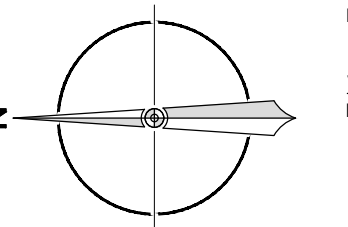


MATCH LINE - SEE DRAWING C-107

FOR CONTINUATION - SEE DRAWING C-107

HORIZONTAL DATUM:
MARYLAND STATE PLANE
NAD83

VERTICAL DATUM:
NAVD88



FULL SIZE PLOT: 24" x 36"

REVISIONS

NO.	DATE	DESCRIPTION

SEAL

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. 55422
EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
**HUDSON BRANCH
STREAM RESTORATION**

PROJECT ADDRESS
**BOTTLE BRANCH ROAD
BERLIN, MARYLAND**

DRAWING TITLE
SITE DESIGN PLAN

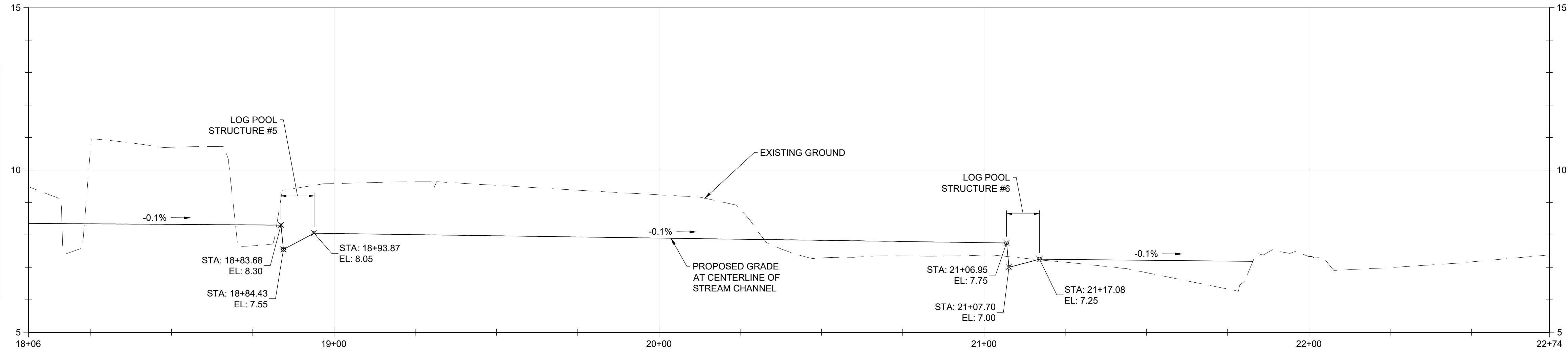
DRAWING INFORMATION
DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL

PROJECT NUMBER: 1470412

DRAWING NO.

C-108

DATE: FEBRUARY 2026 SHEET: 10 OF 14



STREAM CHANNEL CENTERLINE PROFILE - 18+06 TO 22+74

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING	K FACTOR (WHOLE SOIL)	DRAINAGE CLASS	PRIME AGRICULTURAL
FmB	FORT MOTT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A	.20	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED
HbA	HAMBROOK SANDY LOAM, 0 TO 2 PERCENT SLOPES	B	.32	NOT HYDRIC	ALL AREAS ARE PRIME FARMLAND
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.02	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.15	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
LO	LONGMARSH AND INDIANTOWN SOILS, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED	B/D	-	HYDRIC	NOT PRIME FARMLAND
RoA	ROSEDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A	.10	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED

SPECIMEN TREES					
TREE NUMBER	DBH (IN.)	COMMON NAME	SCIENTIFIC NAME	CONDITION	STAND
ST-01	48	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-02	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-03	42	RED MAPLE	ACER RUBRUM	GOOD	1
ST-04	43	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-05	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-06	45	RED MAPLE	ACER RUBRUM	GOOD	1
ST-07	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-08	40.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-09	33	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-10	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-11	47	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-12	32	RED MAPLE	ACER RUBRUM	GOOD	1

FILE PATH: C:\WORK\BERLIN\1470412 - HUDSON BRANCH STREAM RESTORATION\PROJECT\DRAWING\SETUP\1470412 - 0200 - SITE DESIGN\PLAN\NOI\CD\WATERWAYS\STREAM\1470412-0200-0100.dwg

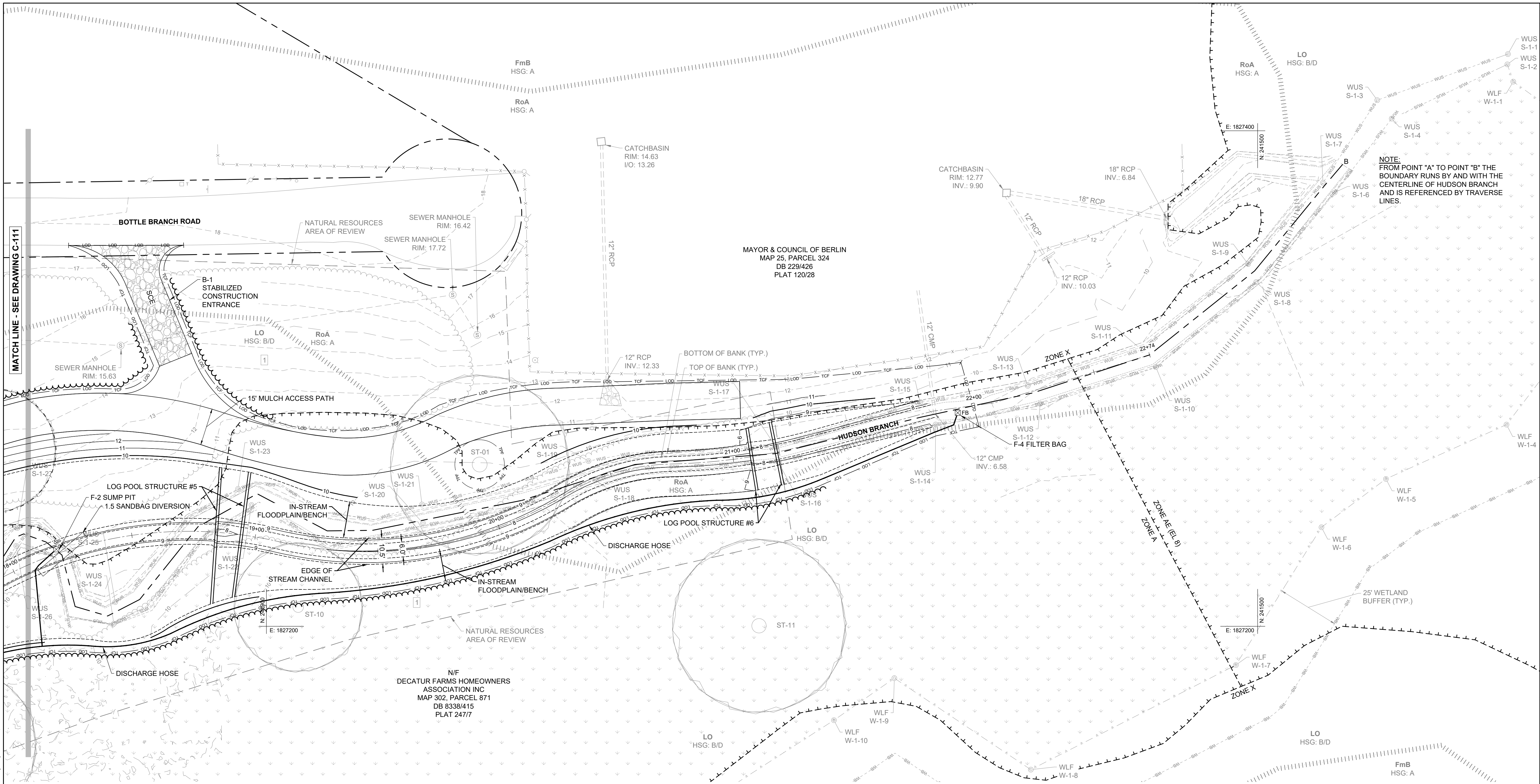
PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION



EA Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com



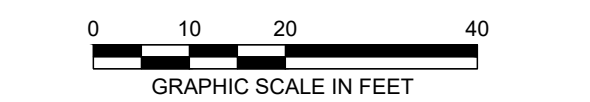
NOTE:
FROM POINT "A" TO POINT "B" THE
BOUNDARY RUNS BY AND WITH THE
CENTERLINE OF HUDSON BRANCH
AND IS REFERENCED BY TRAVERSE
LINES.

MAYOR & COUNCIL OF BERLIN
MAP 25, PARCEL 324
DB 229/426
PLAT 120/28

N/F
DECATUR FARMS HOMEOWNERS
ASSOCIATION INC
MAP 302, PARCEL 871
DB 8338/415
PLAT 247/7

HORIZONTAL DATUM:
MARYLAND STATE PLANE
NAD83

VERTICAL DATUM:
NAVD88



FULL SIZE PLOT: 24" x 36"

REVISIONS

NO.	DESCRIPTION

SEAL

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. 55422
EXPIRATION DATE: DECEMBER 16, 2027

PROJECT NAME
**HUDSON BRANCH
STREAM RESTORATION**

PROJECT ADDRESS
**BOTTLE BRANCH ROAD
BERLIN, MARYLAND**

DRAWING TITLE
**EROSION AND SEDIMENT
CONTROL PLAN**

DRAWING INFORMATION
DRAWN BY: SMB DESIGNED BY: GZ
CHECKED BY: WRB PROJECT MANAGER: SCL
PROJECT NUMBER: 1470412

DRAWING NO.
C-112
DATE: FEBRUARY 2026 SHEET: 14 OF 14

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR
TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

- a. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER
DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES
STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- b. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED
AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

SOILS TABLE

MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING	K FACTOR (WHOLE SOIL)	DRAINAGE CLASS	PRIME AGRICULTURAL
FmB	FORT MOTT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A	.20	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED
HbA	HAMBROOK SANDY LOAM, 0 TO 2 PERCENT SLOPES	B	.32	NOT HYDRIC	ALL AREAS ARE PRIME FARMLAND
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.02	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D	.15	HYDRIC	FARMLAND OF STATEWIDE IMPORTANCE
LO	LONGMARSH AND INDIANTOWN SOILS, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED	B/D	-	HYDRIC	NOT PRIME FARMLAND
RoA	ROSDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A	.10	NOT HYDRIC	PRIME FARMLAND IF IRRIGATED

SPECIMEN TREES

TREE NUMBER	DBH (IN.)	COMMON NAME	SCIENTIFIC NAME	CONDITION	STAND
ST-01	48	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-02	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-03	42	RED MAPLE	ACER RUBRUM	GOOD	1
ST-04	43	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-05	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-06	45	RED MAPLE	ACER RUBRUM	GOOD	1
ST-07	32	RED MAPLE	ACER RUBRUM	GOOD	1
ST-08	40.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-09	33	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-10	34.5	RED MAPLE	ACER RUBRUM	GOOD	1
ST-11	47	TULIPTREE	LIRIODENDRON TULIPIFERA	GOOD	1
ST-12	32	RED MAPLE	ACER RUBRUM	GOOD	1

FILE PATH: C:\WORK\BERLIN\1470412 - HUDSON BRANCH STREAM RESTORATION\CD\PRODUCTION\BERLIN\1470412_CD_ERSION AND SEDIMENT CONTROL PLAN.DWG P:\15\ELIMASTER\STREN\1470412.DWG

PRELIMINARY DESIGN PLANS - NOT FOR CONSTRUCTION