TAYLOR CREEK STREAM RESTORATION

BID NO. XXXXX

WATERSHED PROTECTION AND RESTORATION OFFICE

HARFORD COUNTY, MARYLAND

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

MISS UTILITY — CALL BEFORE YOU DIG

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GENERAL NOTES

1. SPECIFICATIONS: ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH MARYLAND STATE HIGHWAY ADMINISTRATIONS STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS LATEST EDITION AND ANY ADDENDA THERETO.

2. UTILITIES: UTILITY LOCATIONS SHOWN ON THE PLANS ARE BASED ON LIMITED INFORMATION AVAILABLE. HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF THIS INFORMATION. THE COST OF REPAIR OR REPLACEMENT OF ANY SUCH FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE BORNE BY HIM/HER.

   CONTACT "MISS UTILITY" PHONE 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK THERE SHOULD BE NO EXCAVATION UNTIL THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN DETERMINED.

3. STANDARD DETAILS: REFERENCE MADE TO STANDARDS ARE TAKEN FROM THE HARFORD COUNTY ROAD CODE "BOOK OF STANDARD DETAILS" AND FROM "THE MARYLAND STATE HIGHWAY ADMINISTRATION'S BOOK OF STANDARDS-HIGHWAY AND INCIDENTAL STRUCTURES", IT WILL BE THE CONTRACTOR'S RESPONSIBILITY THAT THE STANDARD DRAWINGS IN HIS/HER POSSESSION ARE THE LATEST REVISED STANDARDS UP TO AND INCLUDING THE DATE OF THE ADVERTISEMENT OF THIS CONTRACT.

4. RIGHT-OF-WAY LINES: RIGHT-OF-WAY LINES SHOWN ON THESE PLANS WERE BASED ON BEST AVAILABLE PLAT AND DEED RECORDS AND HARFORD COUNTY CADASTRAL GIS DATA. NO BOUNDARY SURVEY WAS COMPLETED, THEREFORE, THESE LINES DO NOT REPRESENT THE OFFICIAL PROPERTY ACQUISITION LINES. FOR OFFICIAL FEE RIGHT-OF-WAY AND EASEMENT INFORMATION, SEE THE APPROPRIATE RIGHT-OF-WAY PLATS.

5. SOIL CONSERVATION: THE CONTRACTOR SHALL NOT DISTURB THE EXISTING VEGETATION OUTSIDE THE LIMITS OF DISTURBANCE. STOCKPILING AND STAGING WILL NOT BE ALLOWED ON SITE, THE CONTRACTOR MUST SECURE AN OFF-SITE AREA AND ANY NECESSARY PERMITS. SOIL STABILIZATION WILL CONFORM TO 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. THE CONTRACTOR WILL OBTAIN APPROVAL OF THE HARFORD COUNTY SOIL CONSERVATION DISTRICT FOR HIS/HER PLANS IN CONTROLLING SEDIMENT EROSION FOR THE BORROW AREA AND DISPOSING OF ANY WASTE EXCAVATION.

6. EXISTING MAILBOXES AND EXISTING SIGNS: ALL EXISTING MAILBOXES, SIGNS AND PAPER BOXES DISTURBED DURING CONSTRUCTION SHALL BE TEMPORARILY RESET IMMEDIATELY AND PERMANENTLY RESET AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE INCIDENTAL TO ALL OTHER ITEMS IN THE CONTRACT.

7. SURVEYS:

   TOPOGRAPHIC SURVEY PERFORMED BY BAYLAND CONSULTANTS & DESIGNERS, INC., DATED MARCH 2023.

   HORIZONTAL AND VERTICAL CONTROL ESTABLISHED FROM REAL TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (GPS) CONTROL POINTS. TRAVERSE POINTS ARE IRON REBAR UNLESS OTHERWISE SPECIFIED. COORDINATES AND BEARINGS SHOWN HEREON ARE REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD83/1991). ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

INT	NORTHING	EASTING	ELEVATION	DESCRIPTION
TPS1	639,408.44	1,495,452.91	60.16	MAG/DISK
TPS2	639,039.55	1,495,676.40	68.80	MAG/DISK
TPS3	637,165.39	1,494,657.28	17.51	MAG/DISK
TPS4	637,498.66	1,495,004.69	23.02	REBAR W/ YELLOW CAP
TPS5	637,747.42	1,495,072.33	31.20	REBAR W/ YELLOW CAP
TPS6	637,964.24	1,495,221.17	29.58	REBAR W/ YELLOW CAP
TPS7	638,165.21	1,495,193.93	25.13	REBAR W/ YELLOW CAP
TPS8	638,430.79	1,495,167.25	30.20	REBAR W/ YELLOW CAP
TPS9	638,653.96	1,495,194.34	35.88	REBAR W/ YELLOW CAP
TPS10	638,870.79	1,495,217.99	41.00	REBAR W/ YELLOW CAP
TPS11	639,209.59	1,495,206.36	52.44	REBAR W/ YELLOW CAP

   ONLY THOSE CONTROL POINTS SHOWN ON THESE PLANS ARE TO BE USED FOR THE CONSTRUCTION OF THIS PROJECT.

8. CONTOURS AND PLANIMETRICS SHOWN OUTSIDE OF LIMIT OF FIELD RUN SURVEY ARE BASED ON 2020 MARYLAND LIDAR ONE FOOT INTERVAL TOPOGRAPHY AND 2017, 2018, 2019, 2022 AND 2023 HARFORD COUNTY GIS DATA.

9. ONLY TREES WITH A 12" DIAMETER OR GREATER WITHIN THE STUDY AREA WERE FIELD LOCATED AND ARE SHOWN ON THE PLANS.

10. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE OF LIMIT OF WORK ARE NOT SHOWN ON PLANS.

11. FEMA FIRM PANEL #24025C0261E EFFECTIVE APRIL 9, 2016 SHOWS THAT THE PROJECT SITE IS NOT WITHIN THE 100-YEAR FLOODPLAIN LIMITS.

12. TAYLOR CREEK IS A TRIBUTARY TO THE GUNPOWDER RIVER (MD WATERSHED BASIN CODE 02-13-08-01) WHICH IS A USE 1 STREAM WITH STREAM CLOSURE PERIOD FROM MARCH 1ST THROUGH JUNE 15TH.

13. THE PROJECT SITE IS NOT WITHIN THE CRITICAL AREA.



LOCATION MAP

SCALE: 1"=600'

LEGEND

TRAVERSE POINT (TPS# 2)
EX. PROPERTY LINE
EX. EASEMENT LINE
EX. MAJOR CONTOUR (22)
EX. MINOR CONTOUR (24)
EX. ROAD
EX. TREELINE
EX. STORM DRAIN, INLET, & MANHOLE (EX. 12" SD)
EX. BUILDING
EX. SANITARY SEWER & MANHOLE (EX. 12" SS, EX. 12" SS)
EX. RIPRAP TO REMAIN
EX. PERENNIAL WATERS OF THE US (WUS) DELINEATED BY BAYLAND
EX. INTERMITTENT WATERS OF THE US (WUS) DELINEATED BY BAYLAND
EX. EPHEMERAL WATERS OF THE US (WUS) DELINEATED BY BAYLAND
EX. UTILITY POLE
EX. WOODEN FOOT BRIDGE
EX. TREE DBH 12" TO 29.9"
EX. TREE DBH 12" TO 29.9" TO BE REMOVED
EX. SPECIMEN TREE DBH GREATER THAN OR EQUAL TO 30"
EX. SPECIMEN TREE DBH GREATER THAN OR EQUAL TO 30" TO BE REMOVED
EX. NON-TIDAL WETLAND
EX. 25' NON-TIDAL WETLAND BUFFER
SOIL BORING LOCATION (B-1)
EX. GUY WIRE
LIMIT OF FIELD RUN TOPOGRAPHY
EX. CHAINLINK FENCE
EX. OVERHEAD ELECTRICAL WIRE (OHE)
PR. BASEFLOW CHANNEL
PR. CLAY CHANNEL BLOCK
EX. 100-YEAR FLOODPLAIN BOUNDARY DELINEATED BY BAYLAND
PR. 100-YEAR FLOODPLAIN BOUNDARY DELINEATED BY BAYLAND
PR. ALIGNMENT (0+00, 0+15)
PR. LIMIT OF DISTURBANCE (LOD)
EX. THALWEG
EX. DRAINAGE AREA
EX. SOIL BOUNDARY
EX. TC PATH
PR. MAJOR CONTOUR (35)
PR. MINOR CONTOUR (33)
PR. SPOT SHOT (EL. 32.0)
PR. LOG GRADE CONTROL
PR. VALLEY WIDE GRADE CONTROL
PR. RIFFLE-WEIR
PR. RIPRAP PROTECTION
PR. LIMIT OF DISTURBANCE/HIGH VISIBILITY FENCE (LOD, HVF)
PR. VALLEY WIDE WEIR

PROJECT SUMMARY

TOTAL LENGTH OF STREAM RESTORED: 3,553 LF
STREAM USE CLASS: I
STREAM CLOSURE PERIOD: MARCH 1ST THROUGH JUNE 15TH

THIS PROJECT CONSISTS OF 3,553 LF OF STEAM RESTORATION INTENDED TO MEET THE REQUIREMENTS OF THE COUNTY'S MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT. NO NEW IMPERVIOUS AREA IS PROPOSED, NO EXISTING IMPERVIOUS AREA IS BEING REDEVELOPED AND SITE DRAINAGE PATTERNS ARE MAINTAINED, THEREFORE, CONVENTIONAL STORMWATER MANAGEMENT IS NOT REQUIRED FOR THE SITE.

PROPOSED STREAM RESTORATION	STREAM LENGTH (LF)	POLLUTANT REDUCTION CREDITS			IMPERVIOUS AREA TREATED (ACRES)
		TN (LBS/YR)	TP (LBS/YR)	TSS (TONS/YR)	
	3,553	1,270.0	346.7	770.2	139.1*

* ACCOUNTING FOR STORMWATER WASTELOAD ALLOCATIONS AND IMPERVIOUS ACRES TREATED (VERSION DATE IS NOVEMBER 2021)

Owner:

Prepared By :

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

DEVELOPER'S/LANDOWNER'S CERTIFICATION

I/WE CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWING(S) WILL BE ACCOMPLISHED PURSUANT TO THESE PLANS. I/WE ALSO UNDERSTAND THAT IT IS MY/OUR RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE SUBMITTAL OF "AS-BUILT" PLANS WITHIN 30 DAYS OF COMPLETION, BY A REGISTERED PROFESSIONAL ENGINEER.

OWNER/DEVELOPER SIGNATURE _____ DATE _____

PRINTED NAME _____

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME, OR UNDER MY SUPERVISION, AND MEETS THE MINIMUM STANDARDS OF THE HARFORD COUNTY DEPARTMENT OF PUBLIC WORKS AND/OR UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, AND/OR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION.

ENGINEER'S SIGNATURE _____ DATE _____

SEAN CRAWFORD — PRINTED NAME
200966 — MD PE REGISTRATION NO.

FIELD VERIFICATION

I HEREBY CERTIFY THAT I COMPLETED A FIELD VERIFICATION TO THE INFORMATION SHOWN ON THE PLANS APRIL 12, 2023 AND THAT THE INFORMATION SHOWN ON THE PLANS IS IN AGREEMENT WITH THE ACTUAL FIELD CONDITIONS.

ENGINEER'S SIGNATURE _____ DATE _____

SEAN CRAWFORD — PRINTED NAME
200966 — MD PE REGISTRATION NO.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE 'AS-BUILT' PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

ENGINEER'S SIGNATURE _____ DATE _____

PRINTED NAME _____ MD PE REGISTRATION NO.

EROSION AND SEDIMENT CONTROL PLAN #: _____

TECHNICAL REVIEW BY:

HARFORD SOIL CONSERVATION DISTRICT

APPROVED BY:

HARFORD SOIL CONSERVATION DISTRICT

60% DESIGN DRAWINGS

S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
TITLE SHEET

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS
SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. GN-01 OF GN-03
SHEET NO. 1 OF 55

BID No.:
HCG DWG ID No.:
SCALE: 1" = 1 inch

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SOIL BORING LOG

BORING B-1

DEPTH(ELEV.)	CLASSIFICATION
0.0' (60.0)	60.0 GROUND SURFACE
	DARK BROWN SILTY SAND W/ ORGANICS (SM)
1.0' (59.0)	
	BROWN SILTY SAND (SM)
3.5' (56.5)	
	GRAY/ORANGE SANDY LEAN CLAY (CL)
6.0' (54.0)	
	WHITE/ORANGE LEAN CLAY W/ SAND, WET (CL)
7.5' (52.5)	

BOTTOM EL. 52.5

SOIL BORING LOG

BORING B-2

DEPTH(ELEV.)	CLASSIFICATION
0.0' (52.0)	52.0 GROUND SURFACE
	DARK BROWN SILTY SAND W/ ORGANICS (SM)
1.0' (51.0)	
	BROWN POORLY GRADED SAND W/ SILT (SP-SM)
4.0' (48.0)	
	BROWN LEAN CLAY W/ SAND, MOIST (CL)
5.5' (46.5)	
	RED/WHITE LEAN CLAY, WET (CL)
7.5' (44.5)	

BOTTOM EL. 44.5

SOIL BORING LOG

BORING B-3

DEPTH(ELEV.)	CLASSIFICATION
0.0' (42.0)	42.0 GROUND SURFACE
	DARK BROWN SILTY SAND W/ ORGANICS (SM)
1.0' (41.0)	
	TAN/GRAY CLAYEY SAND (SC)
3.0' (39.0)	
	BROWN SANDY LEAN CLAY (CL)
4.5' (37.5)	
	RED/WHITE LEAN CLAY, WET (CL)
6.0' (36.0)	

BOTTOM EL. 36.0

SOIL BORING LOG

BORING B-4

DEPTH(ELEV.)	CLASSIFICATION
0.0' (31.0)	31.0 GROUND SURFACE
	DARK BROWN SILTY SAND W/ ORGANICS (SM)
1.0' (30.0)	
	BROWN SILTY SAND (SM)
3.0' (28.0)	
	BROWN SANDY LEAN CLAY, WET (CL)
4.0' (27.0)	

BOTTOM EL. 27.0

SOIL BORING LOG

BORING B-5

DEPTH(ELEV.)	CLASSIFICATION
0.0' (27.0)	27.0 GROUND SURFACE
	BROWN/RED CLAYEY SAND W/ ORGANICS (SC)
1.0' (26.0)	
	BROWN SANDY LEAN CLAY, MOIST (CL)
4.0' (23.0)	
	BROWN LEAN CLAY W/ SAND, WET (CL)
6.0' (21.0)	

BOTTOM EL. 21.0

SOIL BORING LOG

BORING B-6

DEPTH(ELEV.)	CLASSIFICATION
0.0' (24.0)	24.0 GROUND SURFACE
	DARK BROWN SILTY SAND W/ ORGANICS (SM)
2.0' (22.0)	
	BROWN LEAN CLAY W/ SAND, WET (CL)
4.0' (20.0)	

BOTTOM EL. 20.0

SOIL BORING LOG

BORING B-7

DEPTH(ELEV.)	CLASSIFICATION
0.0' (25.0)	25.0 GROUND SURFACE
	DARK BROWN SILTY SAND W/ ORGANICS (SM)
1.0' (24.0)	
	BROWN SANDY LEAN CLAY (CL)
3.0' (22.0)	
	DARK GRAY LEAN CLAY W/ SAND (CL)
5.0' (20.0)	
	GRAY LEAN CLAY, WET (CL)
6.0' (19.0)	

BOTTOM EL. 19.0

SOIL BORING LOG

BORING B-8

DEPTH(ELEV.)	CLASSIFICATION
0.0' (18.0)	18.0 GROUND SURFACE
	DARK BROWN SILTY SAND W/ ORGANICS (SM)
1.0' (17.0)	
	RED CLAYEY SAND (SC)
2.0' (16.0)	
	DARK GRAY CLAYEY SAND (SC)
4.0' (14.0)	
	GRAY/RED LEAN CLAY, WET (CL)
6.0' (12.0)	

BOTTOM EL. 12.0

SOIL CLASSIFICATION TABLE

SOIL SAMPLE NUMBER	DEPTH (FT)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	USCS CLASSIFICATION
B-2	5.5-7.5	48	25	23	85	CL
B-4	3.0-4.0	26	17	9	58	CL
B-5	1.0-4.0	31	22	9	59	CL
B-8	2.0-4.0	23	11	12	47	SC

NOTES:
1. SOIL BORING LOGS ARE NOT DRAWN TO SCALE.
2. BORING LAYERS IDENTIFIED IN THE SOIL CLASSIFICATION TABLE HAVE UNDERGONE LABORATORY TESTING AND FORMAL USCS CLASSIFICATION PROCEDURES. ALL OTHER BORING LOGS ARE BASED ON VISUAL FIELD CLASSIFICATION ONLY.
3. SOIL BORINGS WERE CONDUCTED BY BAYLAND IN SEPTEMBER 2022 AND APRIL 2023. THE CONDITIONS INDICATED BY SOIL BORINGS AS SPECIFIED ON THE CONTRACT DRAWINGS APPLY ONLY AT THE SPECIFIC LOCATION OF EACH BORING AT THE TIME THAT THE BORINGS WERE MADE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CONDITIONS TO THEIR SATISFACTION. THE OWNER AND DESIGN CONSULTANTS ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OF ACCURACY OF THESE INVESTIGATIONS, AND THERE IS NO WARRANTY OR GUARANTEE THAT CONDITIONS OTHER THAN THOSE IDENTIFIED BY THE SUBSURFACE INVESTIGATIONS WILL NOT BE ENCOUNTERED.

SOIL BULK DENSITY

SOIL SAMPLE NUMBER	DEPTH (FT)	BULK DENSITY (LBS/FT^3)	USCS CLASSIFICATION
B-1	6.0-6.5	99.26	--
B-3	2.5-3.0	91.14	--
B-4	3.0-4.0	103.01	CL
B-5	1.0-4.0	88.02	CL
B-6	3.0-3.5	88.02	--
B-8	2.0-4.0	104.25	SC

GENERAL GEOTECHNICAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBGRADE INSPECTIONS AND SOIL COMPACTION TESTING ASSOCIATED WITH THE PROPOSED WORK. THIS WORK SHALL BE COMPLETED BY OR UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND, IF REQUESTED BY THE OWNER/DEVELOPER OR AS INDICATED ON THE APPROVED PLANS. THIS ENGINEER IS HEREON REFERRED TO AS THE GEOTECHNICAL ENGINEER AND SHALL BE FROM AN INDEPENDENT FIRM FROM THAT OF THE CONTRACTOR.
2. ALL FILL AREAS SHALL BE CLEANED OF ALL VEGETATION AND DEBRIS. STRIPPED OF ALL TOPSOIL, AND THEN SCARIFIED TO A MINIMUM DEPTH OF 12 INCHES PRIOR TO THE PLACEMENT OF FILL. FILL MATERIAL SHALL BE PLACED IN CONTROLLED LIFTS WITH A MAXIMUM THICKNESS OF 8" PRIOR TO COMPACTION THAT IS CONTINUOUS OVER THE ENTIRE AREA WHERE FILL IS TO BE PLACED. EACH LAYER OF FILL SHALL BE COMPACTED WITH THE MINIMUM NUMBER OF PASSES NECESSARY TO PRODUCE A FULL ASYMPTOTIC COMPACTION.
3. FOR STRUCTURAL AREAS, UNLESS OTHERWISE NOTED BY THE APPROVED PLANS, COMPACTION SHALL BE CARRIED OUT WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT TO A DRY DENSITY OF 95% OF THE MAXIMUM DENSITY (STANDARD PROCTOR DENSITY PER ASTM D-698 AND AASHTO METHOD T-99).
4. FOR VEGETATIVE AREAS, UNLESS OTHERWISE NOTED BY THE APPROVED PLANS, COMPACTION SHALL BE CARRIED OUT AT A LESS THAN OPTIMUM MOISTURE CONTENT (E.G., AT A WATER CONTENT OF LESS THAN 13% ON A SOIL HAVING AN OPTIMUM CONTENT OF 15%) TO A DRY DENSITY OF BETWEEN 80% AND 85% OF THE MAXIMUM DENSITY (STANDARD PROCTOR DENSITY PER ASTM D-698).
5. ALL SOILS USED IN FILL AND BACKFILL MUST BE MOISTENED OR AERATED TO WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT. WHERE THE SOIL LAYER IS TOO DRY, THE CONTRACTOR MUST APPLY WATER UNIFORMLY USING APPROVED EQUIPMENT TO INCREASE THE MOISTURE CONTENT TO WITHIN 2% OF THE OPTIMUM. WHERE THE SOIL LAYER IS TOO WET, THE CONTRACTOR MUST DRY THE SOILS BY PLOWING OR DISKING TO AERATE THE SOIL AND REDUCE THE MOISTURE CONTENT TO WITHIN 2% OF THE OPTIMUM.
6. IF THE EXISTING ONSITE MATERIAL IS ROCKY, THEN THE SAME CAN BE USED UP TO 9 INCHES BELOW THE FINAL ELEVATION OR SUBBASE. THE REMAINING FILL MUST BE SELECT EARTH FILL. SOFT SPOTS IDENTIFIED DURING COMPACTION SHALL BE UNDERCUT AND BACKFILLED APPROPRIATELY.
7. ALL SELECT EARTH FILL SHALL BE FREE FROM ORGANICS, FROZEN MATERIAL, AND ROCKS/STONES GREATER THAN 2 INCHES IN ANY DIMENSION. ALL FILL MATERIAL MUST BE FREE FROM WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR OTHER DELETERIOUS MATERIALS.
8. ALL IMPORTED FILL MATERIAL SHALL HAVE A MINIMUM DENSITY OF 105 POUNDS PER CUBIC FOOT FOR THE MAXIMUM DRY DENSITY ACCORDING TO AASHTO T-180, METHOD C AND SHALL NOT HAVE A LIQUID LIMIT GREATER THAN 30 NOR A PLASTICITY INDEX GREATER THAN 6 ACCORDING TO ASTM D-4318.ALL OTHER MATERIALS SHALL MEET THE REQUIREMENTS STATED IN CATEGORY 900 OF THE LATEST EDITION OF THE MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.
9. NRCS-MD POND CODE NO. 378 STANDARDS/SPECIFICATIONS (MD-378) SHALL SUPERSEDE THESE NOTES FOR ANY FILL SUBJECT TO MD-378 WHEN THESE NOTES ARE LESS STRINGENT AND/OR IN THE CASE OF CONFLICT. ANY REFERENCE TO THE ENGINEER IN THE MD-378 SHALL BE THE PROFESSIONAL ENGINEER WHO SIGNED AND SEALED THE DESIGN PLANS. ANY REFERENCE TO THE GEOTECHNICAL ENGINEER SHALL BE THE GEOTECHNICAL ENGINEER IN THESE GENERAL NOTES.
10. THE CONTRACTOR SHALL SUBMIT ALL REQUIRED PROCTOR DENSITY RESULTS OF TESTED FILL TO THE OWNER/DEVELOPER FOR REVIEW AND ACCEPTANCE. IF REQUIRED BY THE COUNTY, COMPACTION TESTS SHALL BE COMPLETED FOR EVERY LIFT OF FILL AND THE TESTING FREQUENCY SHALL BE A COMPACTION TEST PER LIFT AND AT LEAST TWO COMPACTION TESTS PER DAY. THE GEOTECHNICAL ENGINEER SHALL SUPPLY THE OWNER/DEVELOPER WITH CERTIFIED COMPACTION TEST RESULTS, INCLUDING CERTIFICATION OF PIPE BEDDING SUBGRADE AND/OR FILL SUBGRADE, WHERE APPROPRIATE.
11. ALL REQUIRED INSPECTIONS, TESTS, SUPPORTING DATA, REPORTS, AND CERTIFICATIONS SHALL BE PROVIDED TO THE OWNER/DEVELOPER AND SHALL BE SIGNED AND SEALED BY THE GEOTECHNICAL ENGINEER. DAILY INSPECTION REPORTS, IF REQUESTED, MAY BE PROVIDED WITHOUT BEING IMMEDIATELY SIGNED AND SEALED BY THE GEOTECHNICAL ENGINEER. THESE REPORTS SHALL BE COMPILED, REVIEWED, SIGNED AND SEALED, AND SUBMITTED TO THE OWNER/DEVELOPER NO LATER THAN 30 DAYS AFTER THE COMPLETION OF THE PROJECT.

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HARFORD COUNTY STANDARD SPECIFICATIONS OR DETAILS FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. THE STATE HIGHWAY ADMINISTRATION'S HIGHWAY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND THE BOOK OF STANDARDS FOR HIGHWAY & INCIDENTAL STRUCTURES SHALL BE USED IF NO HARFORD COUNTY STANDARD OR DETAIL EXIST.
2. THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO THEIR SATISFACTION PRIOR TO CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING UTILITIES AND ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE COUNTY AT THE CONTRACTORS OWN EXPENSE.
3. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777 A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION, BORING, PILE DRIVING AND/OR DIGGING FOR THE LOCATION OF GAS, ELECTRIC, TELEPHONE, WATER AND SEWER LINES.
4.
5. WHILE WORKING NEAR GAS MAINS AND SERVICES, PROPER CAUTIONS AND PROCEDURES SHOULD BE FOLLOWED. IF SPANS OF GAS MAINS ARE TO BE EXPOSED DURING EXCAVATION, CONTACT THE BGE GAS ENGINEERING DEPARTMENT TO ARRANGE APPROVAL OF SUPPORT METHODS AND INSPECTION. MAINTAIN A 4 FOOT HORIZONTAL AND 12 FOOT VERTICAL CLEARANCE BETWEEN EXISTING GAS FACILITIES AND ANY NEW PROPOSED FACILITIES.
6. MECHANICAL EXCAVATION SHALL NOT BE CONDUCTED WITHIN 3 FEET HORIZONTALLY OR WITHIN 2 FEET VERTICALLY OF KNOWN UTILITY LOCATIONS. HAND OR SOFT DIGGING SHALL BE DONE WITHIN THESE LIMITS. UNDERGROUND UTILITIES, ONCE UNCOVERED, SHALL BE PROTECTED FROM BEING STRUCK BY EQUIPMENT.
7. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLETE SUCH WORK.
8. ONLY TREES WITH A DIAMETER GREATER THAN OR EQUAL TO 12 INCHES WERE FIELD LOCATED AND ARE SHOWN ON THE PLANS.
9. THE LIMIT OF DISTURBANCE (LOD) SHOWN ON THE PLANS IS NOT THE LIMIT OF CLEARING AND GRUBBING. NO TREES SHALL BE REMOVED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE COUNTY OR IF EXPLICITLY SHOWN ON THE PLANS TO BE REMOVED. ALL TREES TO REMAIN WITHIN AND/OR NEAR THE WORK AREA SHALL BE PROTECTED.
10. NO EXISTING TREES REMOVED WITHIN THE LIMIT OF DISTURBANCE SHALL BE DISPOSED OF OFFSITE WITHOUT PRIOR PERMISSION FROM THE COUNTY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS TESTING WHICH MAY INCLUDE FILL COMPACTION, CONCRETE, HOT MIX ASPHALT AND FURNISHED TOPSOIL. ALL MATERIALS TESTING SHALL BE PERFORMED BY THE CONTRACTOR AND SHALL BE COMPENSATED FOR AS PART OF THE APPROPRIATE PAY ITEM.
12. ALL DISTURBED AREAS SHALL HAVE PERMANENT OR TEMPORARY STABILIZATION COMPLETED WITHIN:

    12.A. END OF THE WORK DAY FOR AREAS WITHIN WATERWAYS.
    12.B. THREE CALENDAR DAYS ON SLOPES GREATER THAN 3:1 AND TO THE SURFACE OF ALL PERIMETER SEDIMENT CONTROLS.
    12.C. SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS.
    12.D. ALL STABILIZATION MUST BE IN ACCORDANCE WITH MARYLAND DEPARTMENT OF AGRICULTURE (MDA) FERTILIZER LAW.

13. ALL DISTURBED AREAS WITH SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH 100% BIODEGRADABLE SOIL STABILIZATION MATTING THAT HAS A SUFFICIENT DESIGN SHEAR STRESS FOR THE APPLICATION. SEE SOIL STABILIZATION MATTING DETAIL ON THE SEDIMENT AND EROSION CONTROL PLANS.
14. ALL PERMANENTLY STABILIZED AREAS SHALL INCLUDE A MINIMUM OF 4" SETTLED LIFT OF TOPSOIL PER THE 2011 MDE SPECIFICATIONS.
15. ALL STAKING, RESTAKING, AND CUT SHEETS SHALL BE PERFORMED OR SUPERVISED BY A REGISTERED LAND SURVEYOR OR PROFESSIONAL ENGINEER AT THE CONTRACTOR'S EXPENSE.
16. ALL CONSTRUCTION TO BE PERFORMED IN ACCORDANCE WITH STATE OF MARYLAND OCCUPATIONAL SAFETY LAWS.
17. CONTRACTOR MUST ENSURE THAT COPIES OF FEDERAL, STATE, AND COUNTY PERMITS ARE POSTED ON SITE PRIOR TO THE START OF WORK.
18. ALL ROADS SHALL BE CLEANED AND CLEARED BY THE END OF EACH DAY. ANY MUD OR ROCKS TRACKED ON THE ROADWAYS SHALL BE SWEPT THROUGHOUT THE WORK DAY.
19. THE CONTRACTOR SHALL RESTORE ALL AREAS IMPACTED BY CONSTRUCTION ACTIVITY TO A CONDITION EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL EXPENSE TO THE COUNTY. THIS SHALL INCLUDE BUT IS NOT LIMITED TO GRASS AREAS, ROADS, AND PAVED AREAS AS WELL AS CURB AND GUTTER AND PAVEMENT AT CONSTRUCTION ENTRANCES.
20. SUMP PITS SHALL BE INSTALLED AS REQUIRED FOR ADEQUATE DEWATERING IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AT NO ADDITIONAL EXPENSE TO THE COUNTY.
21. ELECTRONIC CAD FILES WILL BE PROVIDED BY THE DESIGN CONSULTANTS AFTER AWARD OF CONTRACT TO ASSIST WITH CONSTRUCTION STAKEOUT.

ABBREVIATIONS

AC	ACRES	MIN.	MINIMUM
BLDG	BUILDING	O.C.	OFF-CENTER
CCB	CLAY CHANNEL BLOCK	PERM.	PERMANENT
C/L	CENTERLINE	PR.	PROPOSED
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
DBH	DIAMETER AT BREAST HEIGHT	RCP	REINFORCED CONCRETE PIPE
DWG	DRAWING	RW	RIFFLE-WEIR
EA	EACH	SCE	STABILIZED CONSTRUCTION ENTRANCE
ELEV.	ELEVATION	SD	STORM DRAIN
EW	ENDWALL	SF	SQUARE FEET
EX.	EXISTING	SS	SANITARY SEWER
FT.	FEET	STA.	STATION
HVF	HIGH VISIBILITY FENCE	STD	STANDARD
HW	HEADWALL	SY.	SQUARE YARDS
IN.	INCHES	TBR.	TO BE REMOVED
INV.	INVERT	TOB	TOP OF BANK
LB	POUNDS	TPS	TRAVERSE POINT
LGC	LOG GRADE CONTROL	TYP.	TYPICAL
LF	LINEAR FEET	VWGC	VALLEY WIDE GRADE CONTROL
LOD	LIMIT OF DISTURBANCE	VWW	VALLEY WIDE WEIR
MAX.	MAXIMUM	W	WATER MAIN
MB	MOUNTABLE BERM	WSE	WATER SURFACE ELEVATION
MH	MANHOLE	XS	CROSS-SECTION
		YR.	YEAR

PROJECT INFORMATION

1.	OWNER/DEVELOPER:	HARFORD COUNTY DEPARTMENT OF PUBLIC WORKS WATERSHED PROTECTION AND RESTORATION OFFICE CONTACT: BETSY COLLINS EMAIL: BACOLLINS@HARFORDCOUNTYMD.GOV
2.	OWNER/DEVELOPER INFORMATION:	212 SOUTH BOND STREET, 1ST FLOOR BEL AIR, MD 21014
3.	ENGINEER:	BAYLAND CONSULTANTS & DESIGNERS, INC.
4.	ENGINEER INFORMATION:	7455 NEW RIDGE ROAD, SUITE T HANOVER, MARYLAND 21076 PH: 410-694-9401
5.	TAX MAP:	65
6.	PARCEL:	604
7.	LOT:	N/A
8.	DEED REF:	638/105
9.	DISTRICT:	01
10.	ZONING:	R2 URBAN RESIDENTIAL
11.	PROPERTY AREA:	69.33 ACRES
12.	WATERSHED:	GUNPOWDER RIVER
13.	STREAM USE DESIGNATION:	I
14.	CRITICAL AREA:	NO

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
GENERAL NOTES

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. GN-02 OF GN-03

SHEET NO. 2 OF 55

BID No.:

HCG DWG ID No.:

SCALE 1" = 2"

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_GN02.dwg

SYSTEM (NAD83/11) MARYLAND GRID

E: 1,445,750
N: 634,650

TRIMBLE RD

TAX ID. 01-012436
DARLENE AMANDA SUTTON
T.M.65 GRD.4B P.290
DEED: 13021/63

TAX ID. 01-018031
CRESENCIO TADEO RIVERA ESTRADA
VERNET NANCY RIVERA ESTRADA
T.M.65 GRD.4B P.289
DEED: 13535/452

TAX ID. 01-088261
ANTHONY PODOWSKI
JANET R. WILLIAMSON
T.M.65 GRD.4B P.291
DEED: 2356/565

TAX ID. 01-104136
ELIZABETH MORRISSEY
T.M.65 GRD.4B P.291
DEED: 14764/206

TPS# 1
TPS# 2

EXISTING CONDITIONS – SHEET 4/DWG. EX-01
PLAN – SHEET 11/DWG. SR-01
LANDSCAPING PLAN – SHEET 38/DWG. LP-01
FOREST CONSERVATION PLAN – SHEET 32/DWG. FC-01
EROSION & SEDIMENT CONTROL PLAN – SHEET 48/DWG. ES-01

EXISTING CONDITIONS – SHEET 5/DWG. EX-02
PLAN – SHEET 12/DWG. SR-02
LANDSCAPING PLAN – SHEET 39/DWG. LP-02
FOREST CONSERVATION PLAN – SHEET 33/DWG. FC-02
EROSION & SEDIMENT CONTROL PLAN – SHEET 49/DWG. ES-02

TAX ID. 01-084181
MITCHELL R. AYRES JR.
T.M.65 GRD.4A P.563
DEED: 1348/154

TAX ID. 01-012436
JOHN H. GREY
T.M.65 GRD.4A P.444
DEED: 8676/142

TPS# 11
TPS# 10
TPS# 9
TPS# 8

TAX ID. 01-044347
HUGH VAN HAYES II
ELIZABETH C. HAYES
T.M.65 GRD.4A P.233
DEED: 10548/315

TAX ID. 01-022931
NICK WHEELER
T.M.65 GRD.4A P.508
DEED: 14673/162

TAX ID. 01-321614
LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC.
"OPEN SPACE"
T.M.65 GRD.4A P.1043 SEC.2
PLAT: 10116

TAX ID. 01-306166
LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC.
T.M.65 GRD.4A P.1043
PLAT: 8139

TAX ID. 01-310464
LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC
T.M.65 GRD.4A P.1043 SEC.2
PLAT: 10836

TAYLOR CREEK

TRIBUTARY #1

TPS# 7
TPS# 6
TPS# 5
TPS# 4
TPS# 3

STORMWATER MANAGEMENT POND #3
(DWG. 030312)

STORMWATER MANAGEMENT POND #4
(DWG. 030313)

EXISTING CONDITIONS – SHEET 6/DWG. EX-03
PLAN – SHEET 13/DWG. SR-03
LANDSCAPING PLAN – SHEET 40/DWG. LP-03
FOREST CONSERVATION PLAN – SHEET 34/DWG. FC-03
EROSION & SEDIMENT CONTROL PLAN – SHEET 50/DWG. ES-03

EXISTING CONDITIONS – SHEET 8/DWG. EX-05
PLAN – SHEET 15/DWG. SR-05
LANDSCAPING PLAN – SHEET 42/DWG. LP-05
FOREST CONSERVATION PLAN – SHEET 37/DWG. FC-05
EROSION & SEDIMENT CONTROL PLAN – SHEET 53/DWG. ES-05

TAX ID. 01-310484
ESSE I. LOHR
T.M.65 GRD.4B P.298
DEED: 1109/583

TAX ID. 01-120143
BOARD OF EDUCATION OF HARFORD COUNTY
T.M.65 GRD.4B P.604
PLAT: 13244

E: 1,445,750
N: 637,450

EXISTING CONDITIONS – SHEET 7/DWG. EX-04
PLAN – SHEET 14/DWG. SR-04
LANDSCAPING PLAN – SHEET 41/DWG. LP-04
FOREST CONSERVATION PLAN – SHEET 35/DWG. FC-04
EROSION & SEDIMENT CONTROL PLAN – SHEET 51/DWG. ES-04

FOREST CONSERVATION PLAN – SHEET 36/DWG. FC-05
EROSION & SEDIMENT CONTROL PLAN – SHEET 52/DWG. ES-05

E: 1,444,650
N: 637,450

SOURGHUM CT
CIDER PRESS LOOP
CIDER PRESS CT
FALCONER RD
FALCONER RD
JONATHAN DR
BALDWIN DR

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
KEY SHEET

KEY SHEET

SCALE: 1" = 100'

0 50 100 200

1 INCH = 100 FEET

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www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A	REVISIONS
GP # N/A	

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 100'
DATE : 05/06/24

DRAWING NO. GN-03 OF GN-03

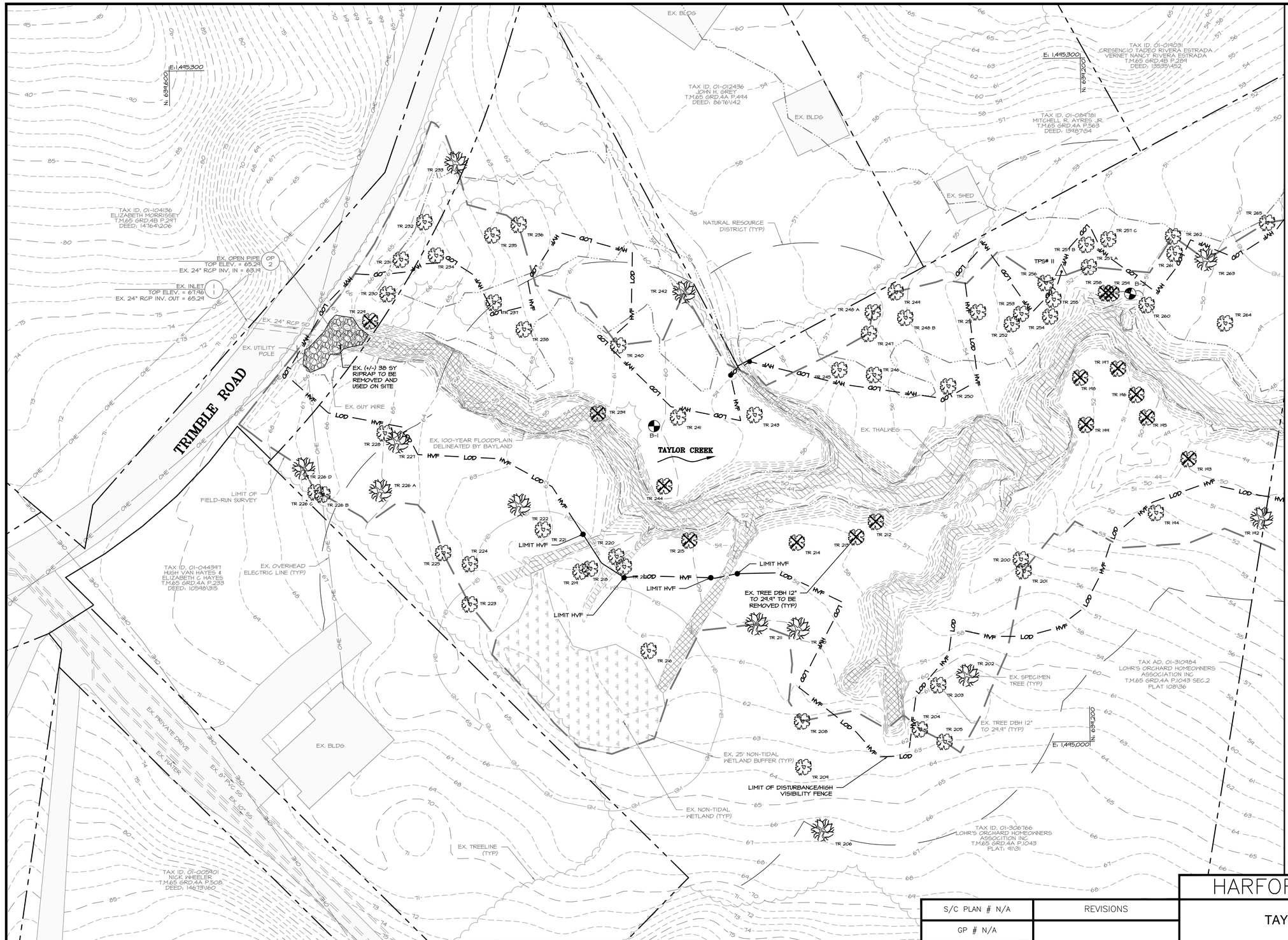
SHEET NO. 3 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_KEY01.dwg



SYSTEM (NAD'83/'11) MARYLAND GRID

MATCHLINE REFER TO SHEET 5/DWG EX-02

NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. FOR SOIL BORING LOGS, SEE SHEET 2/DWG GN-02.
3. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE.
4. EXISTING SUITABLE ROCK WITHIN THE LIMITS OF PROPOSED GRADING SHOULD BE REMOVED, STOCKPILED AND RE-USED ON SITE IF IT MEETS MATERIAL SPECIFICATIONS PER THE CONTRACT DOCUMENTS AND IS APPROVED BY THE ENGINEER.
5. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.

EXISTING CONDITIONS

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EXISTING CONDITIONS

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 20'

DATE : 05/06/24

DRAWING NO. EX-01 OF EX-05

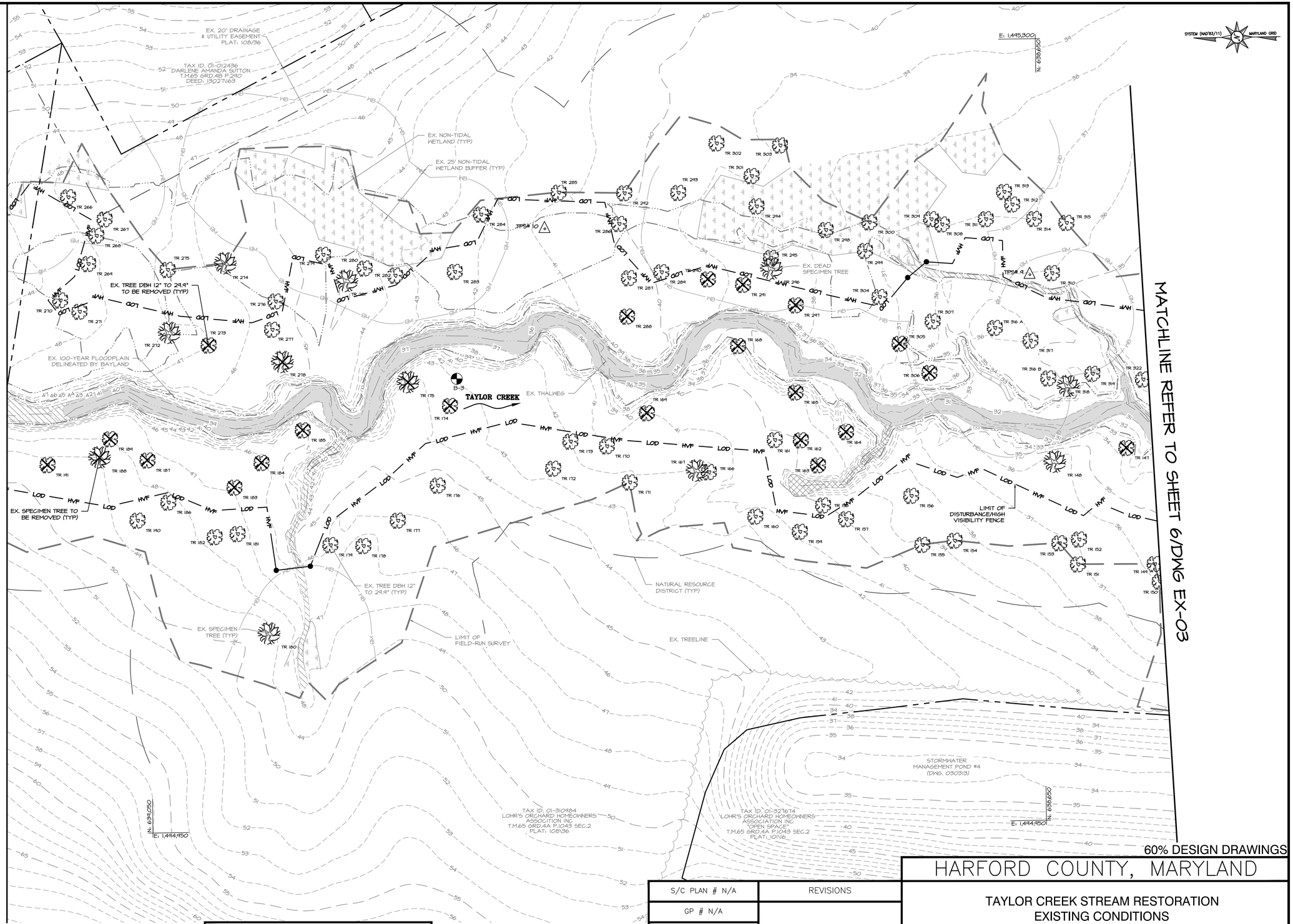
SHEET NO. 4 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

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NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE. SEE ROCK SIZING TABLES AND DETAILS SHEET 16/DWG DE-01 FOR ACTUAL DIMENTIONS
3. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.
4. FOR STRUCTURE DETAILS SEE SHEET 16/DWG DE-01 AND SHEET 18/DWG DE-03.
5. ROCK FOR RIFFLE-WEIR RUNS IS NOT SHOWN IN PLAN VIEW. FOR EXTENTS OF ROCK, REFER TO THE DETAILS.
6. ODD CONTOURS ARE SHOWN FOR TOP OF BERMS ONLY. REFER TO PROFILE AND CROSS SECTIONS FOR ALL OTHER ODD ELEVATIONS

EXISTING CONDITIONS

SCALE: 1" = 20'

0 10 20 40
1 INCH = 20 FEET

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EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A	REVISIONS
GP # N/A	

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EXISTING CONDITIONS

DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/06/24
REVIEWED BY : SMC/CMS	
DRAWING NO. EX-02 OF EX-05	SHEET NO. 5 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_EX02.dwg

MATCHLINE REFER TO SHEET 8/DWG EX-05

MATCHLINE REFER TO SHEET 5/DWG EX-02

MATCHLINE REFER TO SHEET 7/DWG EX-04

SYSTEM (NAD'83/11) MARYLAND GRID

E:1,445,250 N: 636,350

E: 1,444,950 N: 636,550

NATURAL RESOURCE DISTRICT (TYP)

LIMIT OF FIELD-RUN SURVEY

TAX ID. 01-310484
LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC
T.M.65 GRD.4A P.1043 SEC.2
PLAT: 108/36

EX. 20' DRAINAGE & UTILITY EASEMENT PLAT: 108/36

TRIBUTARY #1

EX. SPECIMEN TREE TO BE REMOVED (TYP)

TPS# 8

TPS# 7

B-6

EX. DEAD TREE DBH 12" TO 24.9"

EX. NON-TIDAL WETLAND (TYP)

EX. 25' NON-TIDAL WETLAND BUFFER (TYP)

TAYLOR CREEK

EX. 100-YEAR FLOODPLAIN DELINEATED BY BAYLAND

EX. THALWEG

EX. WOODEN FOOT BRIDGE TO BE REMOVED AND SET ASIDE ON SITE

B-4

EX. TREE DBH 12" TO 24.9" TO BE REMOVED (TYP)

B-5

EX. TREE DBH 12" TO 24.9" (TYP)

LIMIT OF DISTURBANCE/HIGH VISIBILITY FENCE

EX. SPECIMEN TREE (TYP)

EX. TREELINE (TYP)

STORMWATER MANAGEMENT POND #4 (DWG. 030313)

EX. FLARED END SECTION/FES 4
TOP ELEV. = 32.41'
EX. 24" CMP IN = 30.45

EX. RISER STRUCTURE R 3
TOP ELEV. = 31.84'
EX. 24" CMP INV. OUT = 30.34

EX. (+/-) 6 SY RIPRAP TO BE REMOVED AND REUSED ON SITE

TAX ID. 01-321674
LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC
"OPEN SPACE"
T.M.65 GRD.4A P.1043 SEC.2
PLAT: 101/6

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EXISTING CONDITIONS

NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. FOR SOIL BORING LOGS, SEE SHEET 2/DWG GN-02.
3. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE.
4. EXISTING SUITABLE ROCK WITHIN THE LIMITS OF PROPOSED GRADING SHOULD BE REMOVED, STOCKPILED AND RE-USED ON SITE IF IT MEETS MATERIAL SPECIFICATIONS PER THE CONTRACT DOCUMENTS AND IS APPROVED BY THE ENGINEER.
5. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.

EXISTING CONDITIONS

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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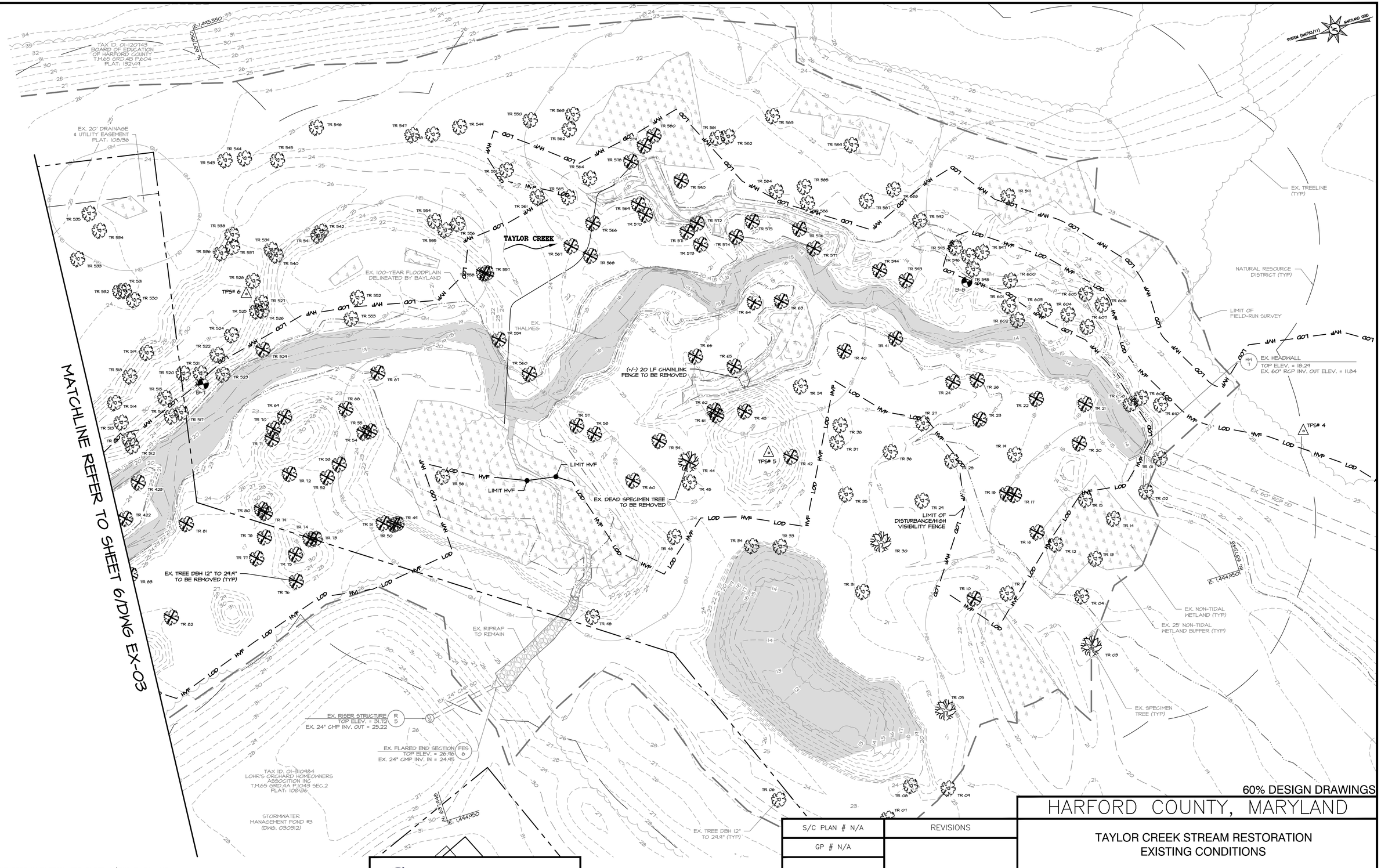
S/C PLAN # N/A	REVISIONS
GP # N/A	

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS
DRAWING NO. EX-03 OF EX-05

SCALE : 1" = 20'
DATE : 05/06/24
SHEET NO. 6 OF 55

BID No.:
HCG DWG ID No.:
SCALE 1 inch

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60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EXISTING CONDITIONS

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

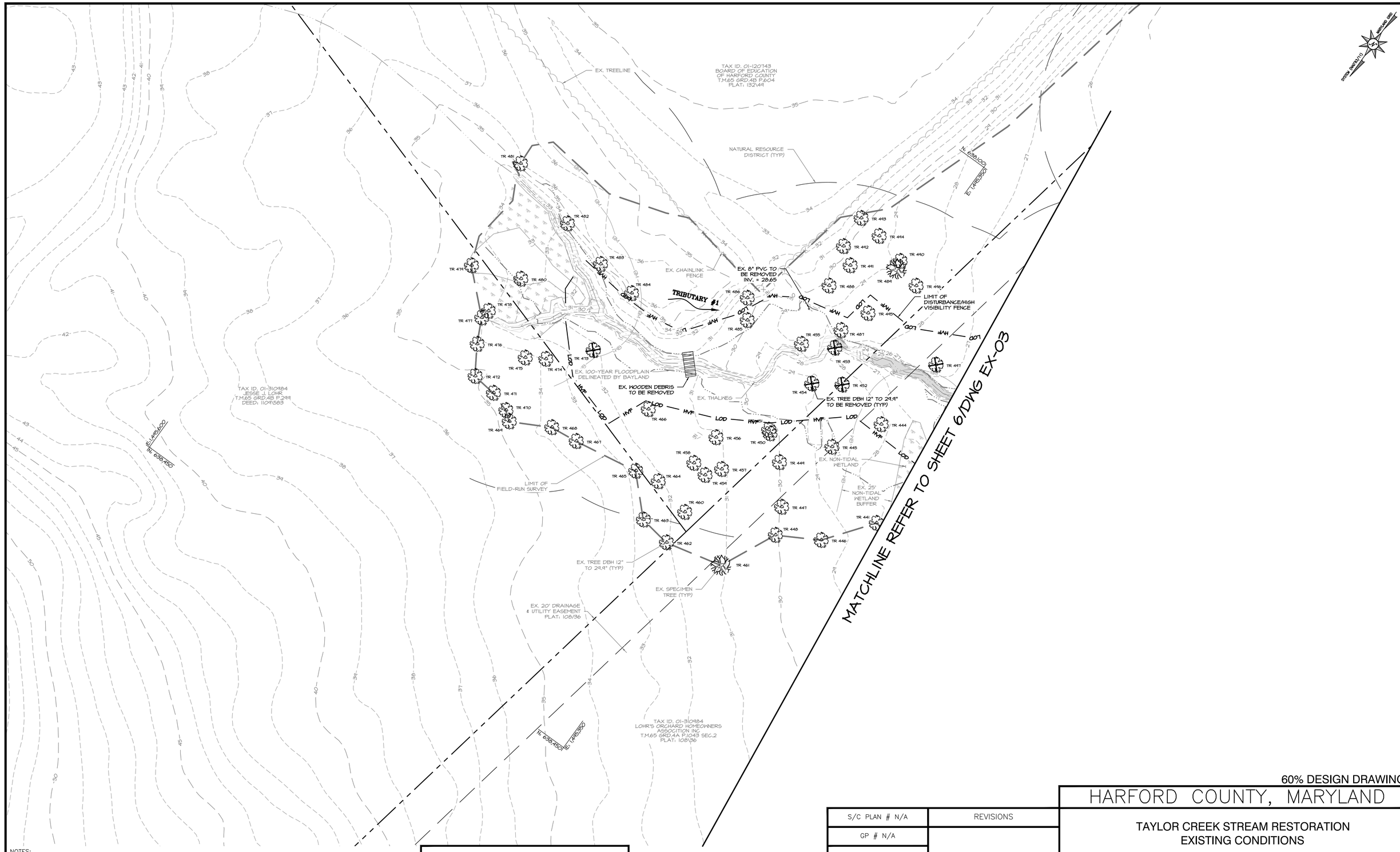
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S/C PLAN # N/A	REVISIONS
GP # N/A	

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS
SCALE : 1" = 20'
DATE : 05/06/24
DRAWING NO. EX-04 OF EX-05
SHEET NO. 7 OF 55

BID No.:
HCG DWG ID No.:

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_EX04.dwg



NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. FOR SOIL BORING LOGS, SEE SHEET 2/DWG GN-02.
3. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE.
4. EXISTING SUITABLE ROCK WITHIN THE LIMITS OF PROPOSED GRADING SHOULD BE REMOVED, STOCKPILED AND RE-USED ON SITE IF IT MEETS MATERIAL SPECIFICATIONS PER THE CONTRACT DOCUMENTS AND IS APPROVED BY THE ENGINEER.
5. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.

EXISTING CONDITIONS

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

BayLand Consultants & Designers, Inc.

"Integrating Engineering and Environment"

7455 New Ridge Road, Suite T
Hanover, Maryland 21076

Phone: (410) 694-9401
Fax: (410) 694-9105

www.baylandinc.com

BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EXISTING CONDITIONS

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 20'

DATE : 05/06/24

DRAWING NO. EX-05 OF EX-05

SHEET NO. 8 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_EX05.dwg

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 01	27.1	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	GOOD
TR 02	15.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 03	35.0	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 04	25.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 05	32.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 06	18.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 07	13.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 08	14.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 09	16.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 10 (TBR.)	15.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 11	12.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 12	24.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 13	17.7	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 14	18.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 15	16.2	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 16 (TBR.)	14.3, 7.9	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 17 (TBR.)	24.5	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 18 (TBR.)	13.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 19	14.2	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 20 (TBR.)	21.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 21 (TBR.)	27.9	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 22 (TBR.)	14.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 23 (TBR.)	23.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 24 (TBR.)	17.5, 16.9	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 26 (TBR.)	14.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 27	16.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 28	19.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 29	21.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 30	39.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 31	19.8, 17.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 33	17.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 34	19.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 35	22.1	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 36	18.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 37	19.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 38	26.1	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 39	18.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 40 (TBR.)	27.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 41 (TBR.)	20.4	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 42 (TBR.)	17.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 43 (TBR.)	20.6	PS	PRUNUS SEROTINA	BLACK CHERRY	GOOD
TR 44 (TBR.)	30.5	DEAD	N/A	N/A	DEAD
TR 45	19.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 46	15.8, 15.6	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 48	14.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 49 (TBR.)	18.7	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 50 (TBR.)	13.0	PST	PINUS STROBUS	EASTERN WHITE PINE	FAIR
TR 51 (TBR.)	16.9	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 52 (TBR.)	24.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 53 (TBR.)	22.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 54 (TBR.)	14.6	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 55 (TBR.)	14.5	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 56	13.7	TD	TAXODIUM DISTICHUM	BALD CYRRESS	GOOD
TR 57 (TBR.)	25.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 58 (TBR.)	15.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 59 (TBR.)	18.9, 7.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 60 (TBR.)	12.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 61 (TBR.)	12.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 62 (TBR.)	14.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 63 (TBR.)	24.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 64 (TBR.)	18.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 65 (TBR.)	13.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 66 (TBR.)	12.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 67 (TBR.)	14.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 68 (TBR.)	13.7	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 69 (TBR.)	16.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 70 (TBR.)	15.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 71 (TBR.)	12.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 72 (TBR.)	24.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 73 (TBR.)	13.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 74 (TBR.)	14.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 75 (TBR.)	13.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 76 (TBR.)	16.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 77 (TBR.)	12.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 78 (TBR.)	12.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 79 (TBR.)	15.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 80 (TBR.)	13.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 81 (TBR.)	14.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 82 (TBR.)	26.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 83 (TBR.)	15.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR

TBR = TO BE REMOVED

NOTE:
TREES TO BE REMOVED SHALL NOT BE REMOVED
FROM THE SITE WITHOUT DPW APPROVAL.

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 84 (TBR.)	16.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 85 (TBR.)	31.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 86	14.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 87	18.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 88	12.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 89	14.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 90	17.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 91 (TBR.)	14.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 92	17.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 93	13.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 94 (TBR.)	19.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 95	44.0, 34.9, 18.5	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 97	43.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 98	19.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 99	26.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 100 (TBR.)	17.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 101 (TBR.)	22.0	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 102 (TBR.)	21.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 103	27.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 104	19.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 105	23.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 106 (TBR.)	29.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 107 (TBR.)	16.9	PS	PRUNUS SEROTINA	BLACK CHERRY	FAIR
TR 108 (TBR.)	13.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 109	13.7	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 110	23.9	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 111	28.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 112 (TBR.)	21.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 113	17.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 114 (TBR.)	20.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 115	12.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 116	30.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 117	15.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 118	22.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 119	12.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 120	12.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 121	14.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 122	20.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 123	31.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 124	14.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 125	14.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 126 (TBR.)	14.6	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 127	13.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 128	20.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 129	27.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 130 (TBR.)	29.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 131 (TBR.)	13.7	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 132 (TBR.)	14.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 133	15.9	QF	QUERCUS FALCATA	SOUTHERN RED OAK	FAIR
TR 134	31.3	QF	QUERCUS FALCATA	SOUTHERN RED OAK	GOOD
TR 135	18.5	PV	PINUS VIRGINIANA	VIRGINIA PINE	FAIR
TR 136	13.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	POOR
TR 137	12.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 138	14.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 139	23.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 140	18.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 141	15.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 142	24.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 143 (TBR.)	28.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 144 (TBR.)	25.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 145	14.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 146 (TBR.)	18.2	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 147 (TBR.)	16.3	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 148	34.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 149	13.0	PS	PRUNUS SEROTINA	BLACK CHERRY	FAIR
TR 150	12.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 151	18.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 152	22.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 153	12.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 154	15.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 155	27.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 156	23.4	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 157	18.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 158	12.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 159	14.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 160	17.9	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 161	13.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 162 (TBR.)	25.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 163 (TBR.)	19.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 164 (TBR.)	21.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 165 (TBR.)	19, 17.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 166	24.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 167	33.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 168 (TBR.)	17.1	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 169 (TBR.)	29.0	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 170	13.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 171	18.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 172	18.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 173	26.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 174 (TBR.)	21.7	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 175 (TBR.)	35.5, 14.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 176	22.7	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 177	12.3	FG	FAGUS GRANDIFOLIA	AMERICAN BEECH	GOOD
TR 178	22.1	PT	PINUS TAEDA	LOBLOLLY PINE	GOOD
TR 179	19.7	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 180	36.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 181	19.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 182	22.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 183 (TBR.)	12.3	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 184 (TBR.)	13.6	PS	PRUNUS SEROTINA	BLACK CHERRY	FAIR
TR 185 (TBR.)	14.9, 14.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 186	27.2	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 187 (TBR.)	23.9	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 188 (TBR.)	33.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 189 (TBR.)	27.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 190	22.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 191 (TBR.)	25.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 192	31.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 193 (TBR.)	12.3	PS	PRUNUS SEROTINA	BLACK CHERRY	FAIR
TR 194	23.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 195 (TBR.)	16.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 196 (TBR.)	14.1	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 197 (TBR.)	17.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 198 (TBR.)	16.2	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 199 (TBR.)	28.7	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 200	15.6	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 201	16.5	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 202	33.5	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 203	22.5	PS	PRUNUS SEROTINA	BLACK CHERRY	FAIR
TR 204	26.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 205	17.2	PS	PRUNUS SEROTINA	BLACK CHERRY	POOR
TR 206	30.0, 15.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 208	26.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 209	19.9	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 210	33.7	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 211	36.7	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 212 (TBR.)	13.6	QPA	QUERCUS PALUSTRIS	PIN OAK	POOR
TR 213 (TBR.)	23.4	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 214 (TBR.)	22.0	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 215 (TBR.)	26.3	AR	ACER RUBRUM	RED MAPLE	POOR
TR 216	16.2	AR	ACER RUBRUM	RED MAPLE	POOR
TR 217	16.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 218	21.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 219	17.2	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 220	20.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 221	22.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 222	34.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 223	15.9	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 224	14.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 225	19.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 226 A	31.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 226 B	14.7	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 226 C	15, 3.1	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 226 D	32.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 227	31.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 228	28.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 229 (TBR.)	15.2	PS	PRUNUS SEROTINA	BLACK CHERRY	POOR
TR 230	13.5	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 231	25.0	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 232	29.5	QR	QUERCUS RUBRA	NORTHERN RED OAK	GOOD
TR 233	43.7	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 234	20.0	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 235	16.7	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 236	16.9	PS	PRUNUS SEROTINA	BLACK CHERRY	FAIR
TR 237	13.1	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 238	23.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 239 (TBR.)	14.4	JN	JUGLANS NIGRA	BLACK WALNUT	POOR
TR 240	16.0	AR	ACER RUBRUM	RED MAPLE	POOR
TR 241	22.9	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 242	49.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 243	19.3	AR	ACER RUBRUM	RED MAPLE	POOR
TR 244 (TBR.)	20.6	AR	ACER RUBRUM	RED MAPLE	POOR
TR 245	12.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 246	20.3	QPA	QUERCUS PALUSTRIS	PIN OAK	POOR
TR 247	21.5	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 248A	14.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 248B	11.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 249	27.0	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 250	18.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 251	15.0	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 252	15.8	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 253	15.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 254	24.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 255	19.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 256	15.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 257 A	17.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 257 B	22.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 257 C	25.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 258 (TBR.)	23.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 259 (TBR.)	14.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 260	18.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 261	23.5, 16.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 262	26.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 263	31.5	QPH	QUERCUS PHELLOS	WILLOW OAK	FAIR
TR 264	18.6	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 265	15.6	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 266	24.6, 11.3	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 267	22.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 268	22.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 269	28.1	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 270	22.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 271	24.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 272	34.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 273 (TBR.)	28.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 274	30.4	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 275	26.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 276	18.8	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 277	12.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 278 (TBR.)	32.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 279	17.3	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 280	14.2	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 281	30.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 282	16.4	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 283	18.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 284	17.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 285	17.7	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 286	16.7	QP	QUERCUS PAGODA	CHERRY BARK OAK	GOOD
TR 287	27.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 288 (TBR.)	15.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 289	13.1, 12.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 290 (TBR.)	21.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 291 (TBR.)	15.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 292	15.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 293	23.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 294	13.7	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 295	14.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 296	32.5	DEAD	N/A	N/A	DEAD
TR 297 (TBR.)	18.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 298	13.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 299	17.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 300	15.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 301	15.2, 10.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 302	17.5	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 303	15.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 304	12.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 305 (TBR.)	17.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 306 (TBR.)	29.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 307	15.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 308	13.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 309	12.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 310	22.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 311	13.2	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 312	19.7	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 313	24.1	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 314	22.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 315	18.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 316 A	21.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 316 B	25.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 317	21.0, 11.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 318	30.3, 16.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
TREE INVENTORY

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
7455 New

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 319	18.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 320	17.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 321	17.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 322	29.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 323 (TBR.)	14.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 324	15.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 325	32.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 326	15.2, 5.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 327	28.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 328	19.6	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 329	16.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 330	18.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 331	17.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 332	23.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 333	16.6, 12.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 334	16.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 335 (TBR.)	25.2	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 336	18.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 337	18.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 338	15.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 339	15.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 340	18.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 341	21.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 342	16.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 343	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 344	16.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 345	15.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 346	40.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 347	18.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 348	13.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 349	22.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 350	13.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 351	17.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 352	17.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 353	25.9	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 354	18.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 355	17.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 356	20.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 357	27.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 358	18.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 359	18.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 360 (TBR.)	16.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 361 (TBR.)	24.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 362 (TBR.)	12.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 363	15.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 364	37.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 365	18.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 366	19.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 367	18.7	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 368	14.9	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 369	13.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 370	23.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 371	15.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 372	25.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 373	28.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 374	31.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 375	12.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 376	12.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 377	23.4	DEAD	N/A	N/A	DEAD
TR 378	30.5	QPH	QUERCUS PHELLOS	WILLOW OAK	GOOD
TR 379	21.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 380	14.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 381	15.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 382	22.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 383	22.6	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 384	16.4	PS	PRUNUS SEROTINA	BLACK CHERRY	GOOD
TR 385 (TBR.)	21.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 386	17.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 387 (TBR.)	14.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 388	31.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 389	21.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 390	30.0	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 391 A	18.4	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 391 B	22.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 392	25.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 393	13.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 394	13.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 395 (TBR.)	13.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 396 (TBR.)	14.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 397 (TBR.)	40.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 398 (TBR.)	16.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 399	14.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 400	24.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 401	23.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 402	23.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 403	13.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 404	21.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 405	19.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 406	19.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 407	20.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 408	18.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 409 (TBR.)	16.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 410	17.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 411	25.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 412	25.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 413	21.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 414	14.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 415	19.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 416	16.7	PS	PRUNUS SEROTINA	BLACK CHERRY	GOOD
TR 417	21.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 418	21.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 419 (TBR.)	24.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 420 (TBR.)	12.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 421 (TBR.)	12.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 422 (TBR.)	16.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 423 (TBR.)	16.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 424	26.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 425 (TBR.)	26.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 426	16.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 427	21.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 428	26.5	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 429 (TBR.)	30.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 430	20.0	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 431	22.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 432	24.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 433	21.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 434	16.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 435	19.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 436	20.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 437	16.0	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 438	12.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 439	16.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 440	29.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 441	22.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 442	24.1	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 443	21.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 444	20.3	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 445	23.0	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 446	24.5	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 447	19.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 448	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 449	15.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 450	14.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 451	14.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 452 (TBR.)	21.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 453 (TBR.)	21.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 454 (TBR.)	22.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 455	13.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 456	15.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 457	15.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 458	13.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 459	12.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 460	14.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 461	31.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 462	14.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 463	12.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 464	18.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 465	16.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 466	12.6, 12.2, 11.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 467	18.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 468	16.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 469	21.7	QP	QUERCUS PAGODA	CHERRY BARK OAK	GOOD
TR 470	16.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 471	17.8	QP	QUERCUS PAGODA	CHERRY BARK OAK	GOOD
TR 472	14.9	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 473 (TBR.)	13.5	AR	ACER RUBRUM	RED MAPLE	GOOD

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 474	18.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 475	17.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 476	17.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR–POOR
TR 477	12.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 478	13.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 479	18.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 480	12.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 481	13.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 482	17.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 483	15.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 484	19.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 485	12.3	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 486	17.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 487	19.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 488	14.5	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 489	30.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 490	14.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 491	12.1	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	GOOD
TR 492	15.2	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 493	13.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 494	18.6	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 495	15.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR–POOR
TR 496	14.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 497 (TBR.)	26.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 498	20.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 499	14.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 500	28.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 501	14.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	POOR
TR 502 (TBR.)	25.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 503	24.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 504	21.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 505	21.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 506	17.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 507	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 508	20.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 509	24.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 510 (TBR.)	28.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR–POOR
TR 511	15.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 512	18.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 513	13.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 514	17.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 515	12.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 516	15.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 517	23.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 518	17.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 519	26.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 520	15.5	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 521	12.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 522	13.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 523	16.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 524	18.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 525	14.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 526	23.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 527	12.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 528	15.3, 10.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 529 (TBR.)	13.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 530	17.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 531	12.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 532	21.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 533	14.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 534	24.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 535	18.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 536	15.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 537	20.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 538	15.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 539	17.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 540	19.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 541	15.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 542	12.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 543	14.0	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 544	12.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 545	16.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 546	13.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 547	20.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 548	14.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 549	22.6	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 550	25.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR–POOR
TR 551	16.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 552	12.6	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	GOOD
TR 553	12.4	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	GOOD
TR 554	18.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 555	22.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 556	21.3,16.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 557 (TBR.)	14.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 558 (TBR.)	12.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 559 (TBR.)	16.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 560 (TBR.)	13.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 561	16.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 562	13.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 563	14.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 564	16.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 565	16.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 566 (TBR.)	15.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 567 (TBR.)	14.3	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 568 (TBR.)	20.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 569 (TBR.)	14.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 570 (TBR.)	19.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 571 (TBR.)	15.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 572 (TBR.)	22.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 573 (TBR.)	13.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 574 (TBR.)	22.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 575 (TBR.)	22.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 576 (TBR.)	13.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 577 (TBR.)	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 578 (TBR.)	12.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 579 (TBR.)	16.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 580 (TBR.)	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 581	15.9	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 582	14.3	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 583	25.0	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 584	19.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 585	18.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 586	18.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 587	14.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 588	12.4	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 589	15.7	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 590 (TBR.)	20.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 591	18.9	TD	TAXODIUM DISTICHUM	BALD CYPRESS	GOOD
TR 592	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 593 (TBR.)	20.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 594 (TBR.)	24.0	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 595	24.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 596	14.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 597	17.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 598	13.7, 12.7	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 600	22.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 601	13.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 602	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	POOR
TR 603	15.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 604	13.6	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 605	17.6	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 606	13.3	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 607	12.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 608	12.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 609	12.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 610	16.4	AR	ACER RUBRUM	RED MAPLE	GOOD

TBR = TO BE REMOVED

NOTE:
TREES TO BE REMOVED SHALL NOT BE REMOVED
FROM THE SITE WITHOUT DPW APPROVAL.

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
TREE INVENTORY

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
7455 New Ridge Road, Suite T
Hanover, Maryland 21076
Phone: (410) 694-9401
Fax: (410) 694-9105
www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. TI–02 OF TI–02

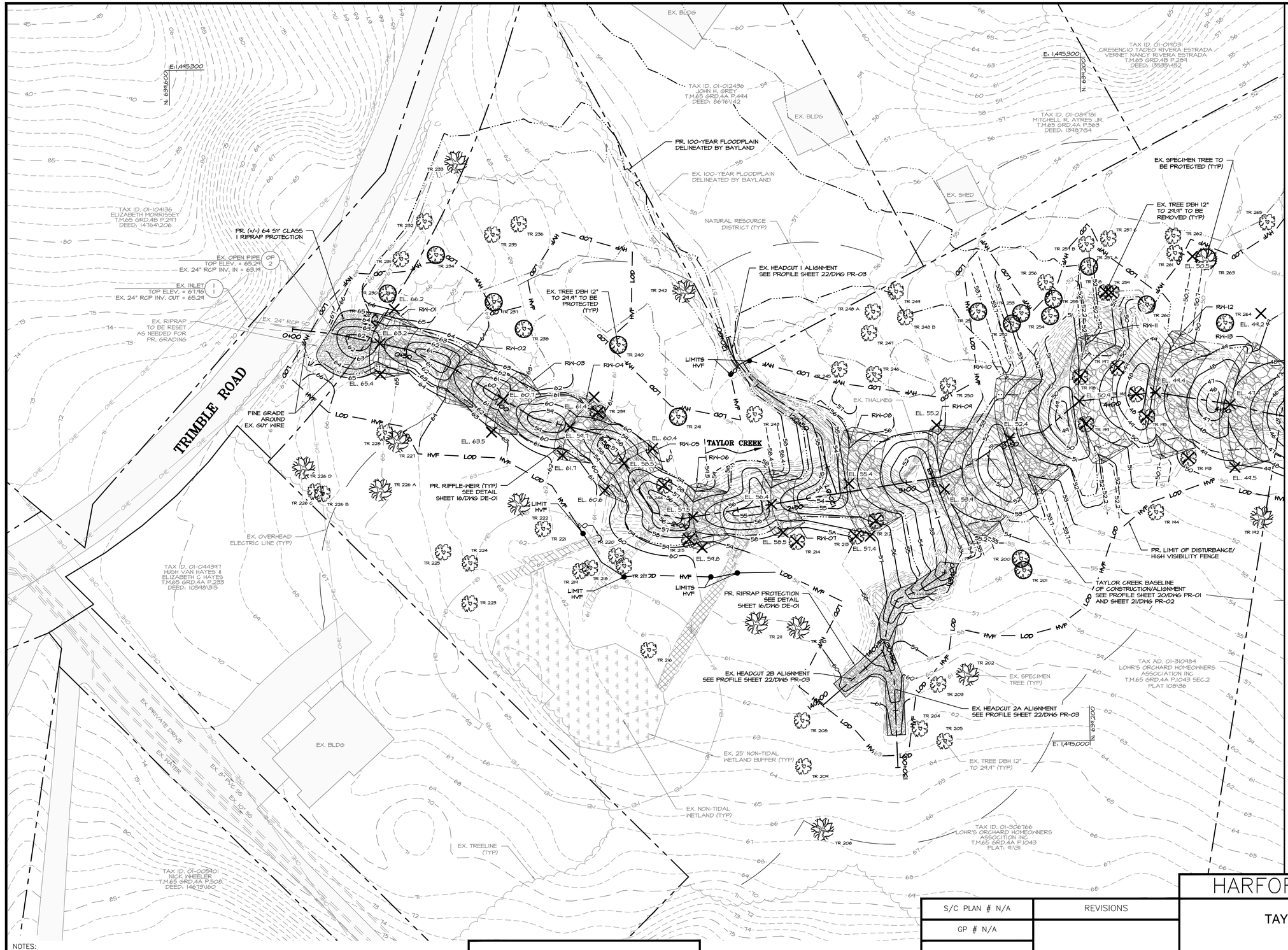
SHEET NO. 10 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 Inch

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NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE. SEE ROCK SIZING TABLES AND DETAILS SHEET 16/DWG DE-01 FOR ACTUAL DIMENTIONS
3. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.
4. FOR STRUCTURE DETAILS SEE SHEET 16/DWG DE-01 TO SHEET 19/DWG DE-04.
5. ROCK FOR RIFFLE-WEIR RUNS IS NOT SHOWN IN PLAN VIEW. FOR EXTENTS OF ROCK, REFER TO THE DETAILS.
6. ODD CONTOURS ARE SHOWN FOR TOP OF BERMS ONLY. REFER TO PROFILE AND CROSS SECTIONS FOR ALL OTHER ODD ELEVATIONS.

PLAN-STREAM

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

SYSTEM (NAD83/11) MARYLAND GRID

MATCHLINE REFER TO SHEET 12/DWG SR-02

60% DESIGN DRAWINGS

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION PLAN

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

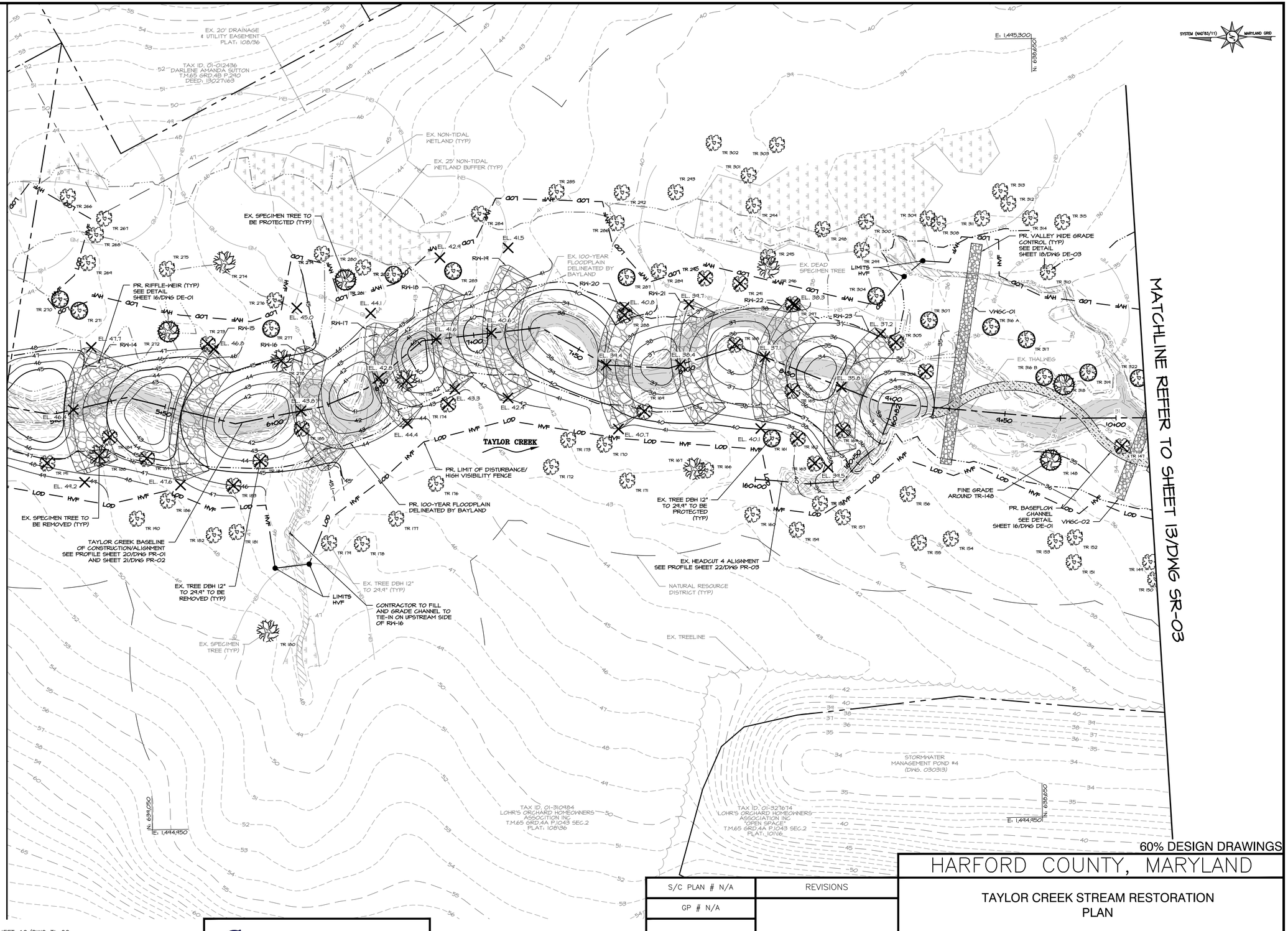
SCALE : 1" = 20'

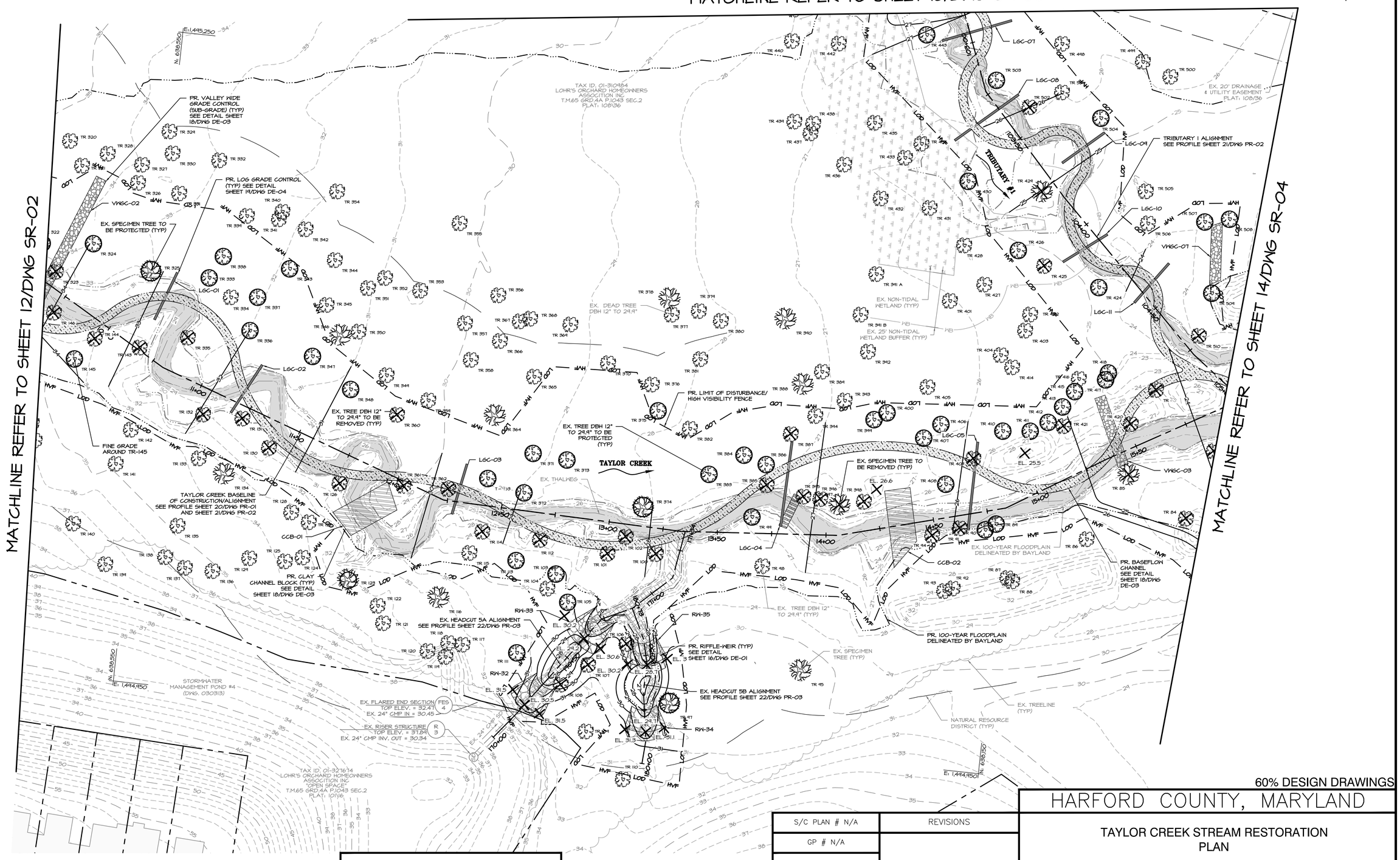
DATE : 05/06/24

DRAWING NO. SR-01 OF SR-05

SHEET NO. 11 OF 55

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MATCHLINE REFER TO SHEET 11/DWG SR-01
MATCHLINE REFER TO SHEET 13/DWG SR-03
SYSTEM (NAD'83/11) MARYLAND GRID
E: 1,445,300
N: 636,650
EX. 20' DRAINAGE & UTILITY EASEMENT PLAT: 108/36
TAX ID. 01-012436 DARLENE AMANDA SUTTON T.M.65 GRD.4B P.240 DEED: 15027/163
EX. NON-TIDAL WETLAND (TYP)
EX. 25' NON-TIDAL WETLAND BUFFER (TYP)
EX. SPECIMEN TREE TO BE PROTECTED (TYP)
EX. 100-YEAR FLOODPLAIN DELINEATED BY BAYLAND
EX. DEAD SPECIMEN TREE
PR. VALLEY WIDE GRADE CONTROL (TYP) SEE DETAIL SHEET 18/DWG DE-03
LIMITS HVF
PR. RIFFLE-WEIR (TYP) SEE DETAIL SHEET 16/DWG DE-01
VNSC-01
VNSC-02
EX. THALWEG
TAYLOR CREEK
PR. LIMIT OF DISTURBANCE/ HIGH VISIBILITY FENCE
PR. 100-YEAR FLOODPLAIN DELINEATED BY BAYLAND
EX. TREE DBH 12" TO 29.9" TO BE PROTECTED (TYP)
FINE GRADE AROUND TR-148
PR. BASEFLOW CHANNEL SEE DETAIL SHEET 16/DWG DE-01
EX. SPECIMEN TREE TO BE REMOVED (TYP)
TAYLOR CREEK BASELINE OF CONSTRUCTION/ALIGNMENT SEE PROFILE SHEET 20/DWG PR-01 AND SHEET 21/DWG PR-02
EX. TREE DBH 12" TO 29.9" TO BE REMOVED (TYP)
EX. TREE DBH 12" TO 29.9" (TYP)
LIMITS HVF
CONTRACTOR TO FILL AND GRADE CHANNEL TO TIE-IN ON UPSTREAM SIDE OF RW-16
EX. HEADCUT 4 ALIGNMENT SEE PROFILE SHEET 22/DWG PR-03
NATURAL RESOURCE DISTRICT (TYP)
EX. SPECIMEN TREE (TYP)
EX. TREELINE
STORMWATER MANAGEMENT POND #4 (DWG. 030313)
TAX ID. 01-310484 LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC T.M.65 GRD.4A P.1043 SEC.2 PLAT: 10036
TAX ID. 01-327674 LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC "OPEN SPACE" T.M.65 GRD.4A P.1043 SEC.2 PLAT: 10016
RW-14
RW-15
RW-16
RW-17
RW-18
RW-19
RW-20
RW-21
RW-22
RW-23
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60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION PLAN

NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE. SEE ROCK SIZING TABLES AND DETAILS SHEET 16/DWG DE-01 FOR ACTUAL DIMENTIONS
3. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.
4. FOR STRUCTURE DETAILS SEE SHEET 16/DWG DE-01 TO SHEET 19/DWG DE-04.
5. ROCK FOR RIFFLE-WEIR RUNS IS NOT SHOWN IN PLAN VIEW. FOR EXTENTS OF ROCK, REFER TO THE DETAILS.
6. ODD CONTOURS ARE SHOWN FOR TOP OF BERMS ONLY. REFER TO PROFILE AND CROSS SECTIONS FOR ALL OTHER ODD ELEVATIONS.

PLAN-STREAM

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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S/C PLAN # N/A	REVISIONS
GP # N/A	

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. SR-03 OF SR-05

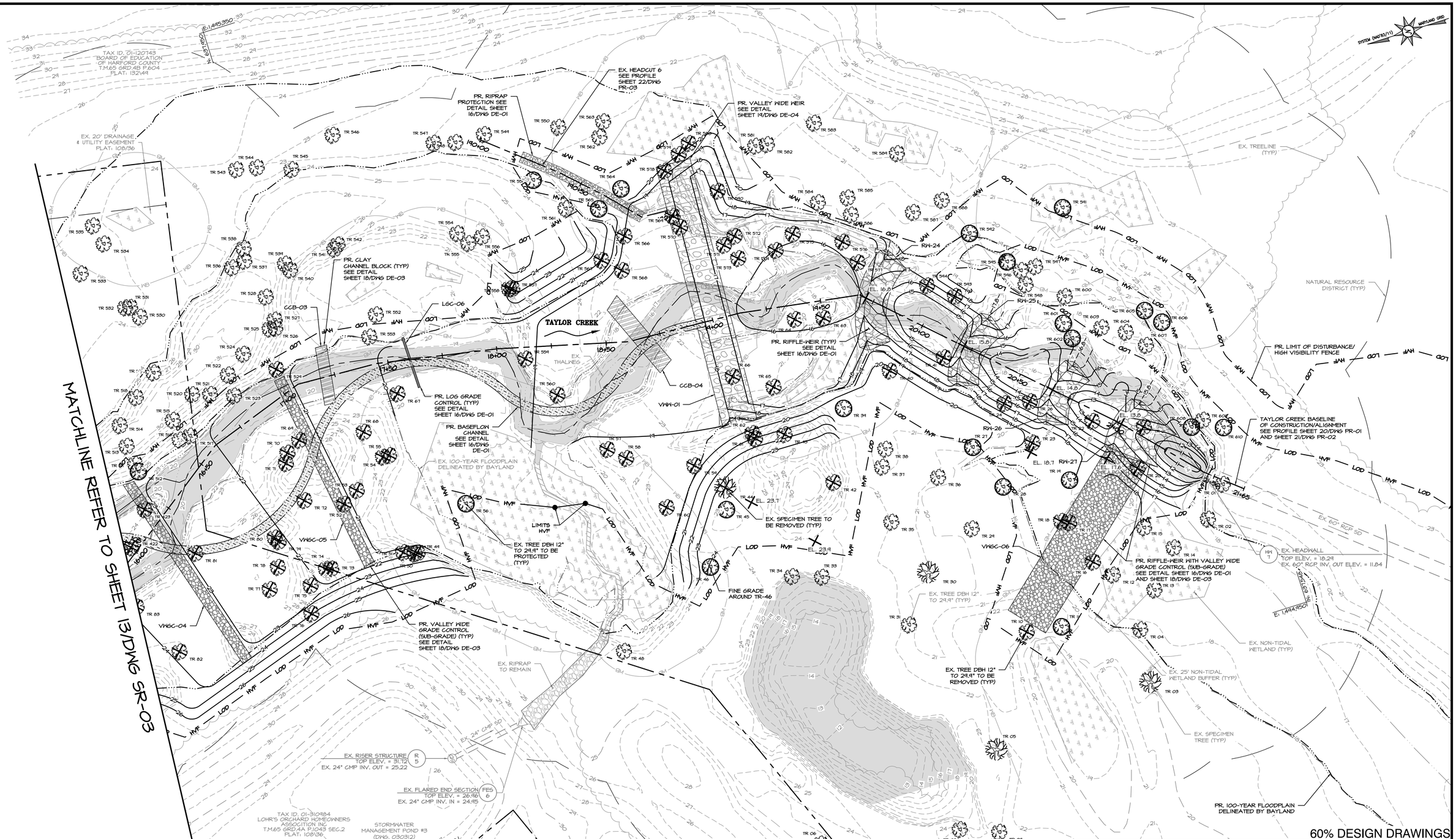
SHEET NO. 13 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_SR03.dwg



NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE. SEE ROCK SIZING TABLES AND DETAILS SHEET 16/DWG DE-01 FOR ACTUAL DIMENTIONS
3. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.
4. FOR STRUCTURE DETAILS SEE SHEET 16/DWG DE-01 TO SHEET 19/DWG DE-04.
5. ROCK FOR RIFFLE-WEIR RUNS IS NOT SHOWN IN PLAN VIEW. FOR EXTENTS OF ROCK, REFER TO THE DETAILS.
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PLAN-STREAM

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

S/C PLAN # N/A

GP # N/A

REVISIONS

TAYLOR CREEK STREAM RESTORATION PLAN

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 20'

DATE : 05/06/24

DRAWING NO. SR-04 OF SR-05

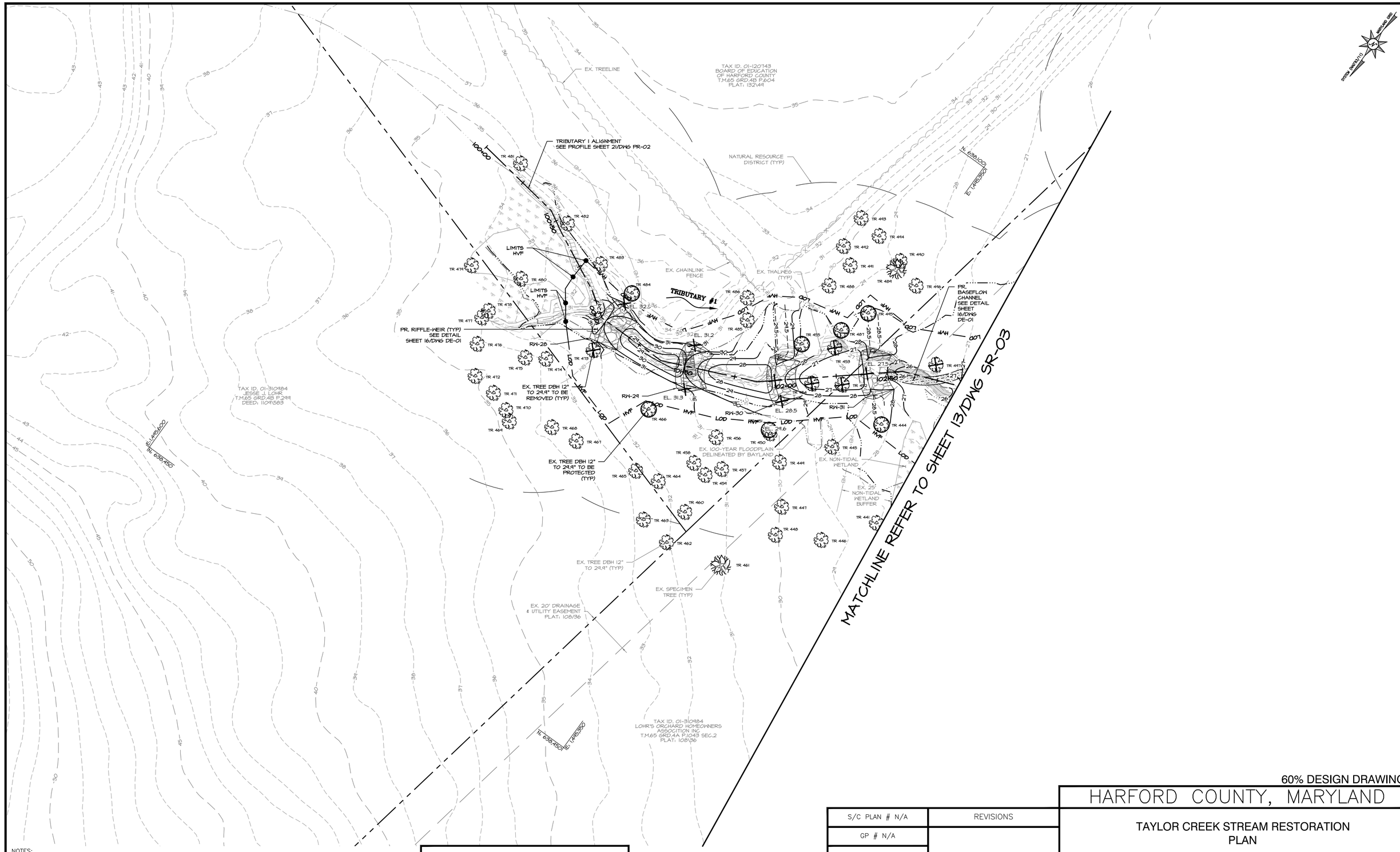
SHEET NO. 14 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_SR04.dwg



NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE. SEE ROCK SIZING TABLES AND DETAILS SHEET 16/DWG DE-01 FOR ACTUAL DIMENTIONS
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4. FOR STRUCTURE DETAILS SEE SHEET 16/DWG DE-01 TO SHEET 19/DWG DE-04.
5. ROCK FOR RIFFLE-WEIR RUNS IS NOT SHOWN IN PLAN VIEW. FOR EXTENTS OF ROCK, REFER TO THE DETAILS.
6. ODD CONTOURS ARE SHOWN FOR TOP OF BERMS ONLY. REFER TO PROFILE AND CROSS SECTIONS FOR ALL OTHER ODD ELEVATIONS.

PLAN-STREAM

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
7455 New Ridge Road, Suite T
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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
PLAN

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

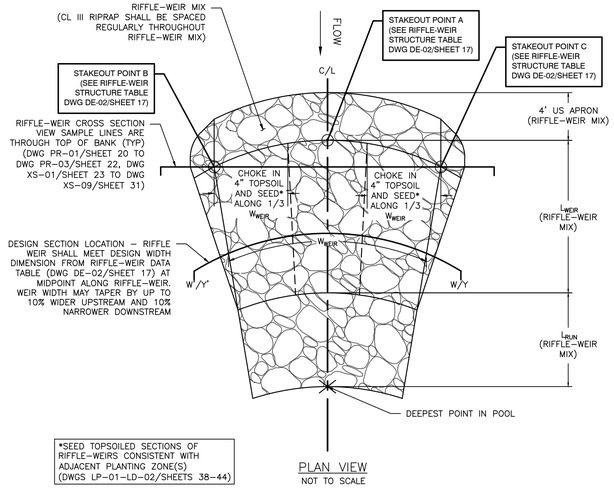
DRAWING NO. SR-05 OF SR-05

SHEET NO. 15 OF 55

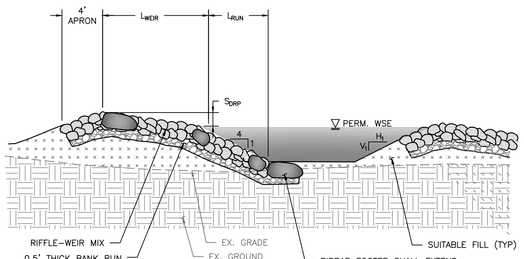
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HCG DWG ID No.:

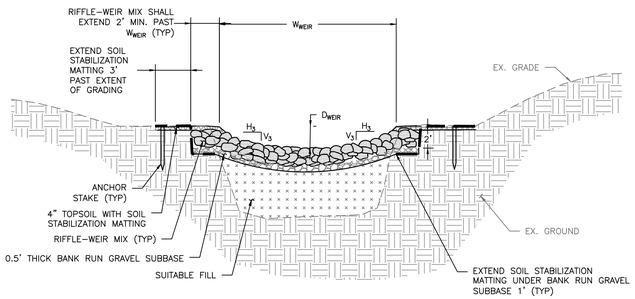
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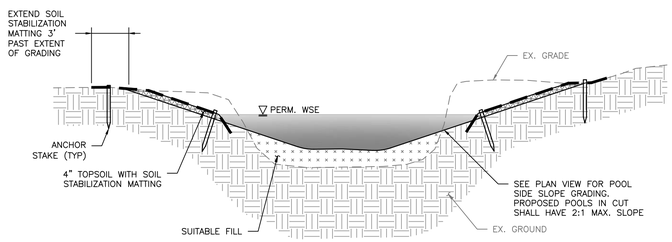
PLAN VIEW
NOT TO SCALE



PROFILE VIEW
(SHOWN AT THALWEG)
NOT TO SCALE

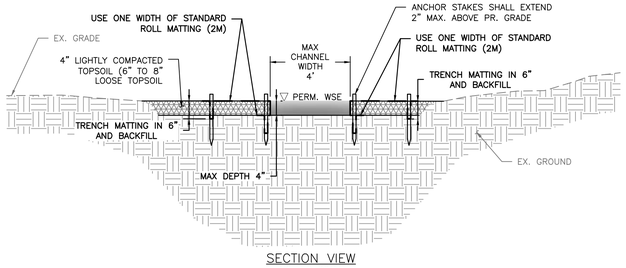


TYPICAL SECTION VIEW
THROUGH WEIR
NOT TO SCALE



TYPICAL SECTION VIEW
THROUGH POOL
NOT TO SCALE

RIFFLE–WEIR DETAILS
NOT TO SCALE



SECTION VIEW
NOT TO SCALE

BASEFLOW CHANNEL DETAIL

PERMANENT STABILIZATION FOR DISTURBED FLOODPLAIN/TERRACE ADJACENT TO THE RESTORED STREAM CHANNEL WILL CONSIST OF BIODEGRADABLE SOIL STABILIZATION MATTING WITH 4 INCHES OF TOPSOIL AND SEED INCLUDING AT THE BASEFLOW CHANNEL AS SHOWN ON THIS SHEET AND AT THE DIRECTION OF THE COUNTY AND/OR ENGINEER.

FLOODPLAIN MICROTOPOGRAPHY

FLOODPLAIN MICROTOPOGRAPHY NOTES:
1. FLOODPLAIN MICROTOPOGRAPHY SHALL BE INCORPORATED INTO THE FLOODPLAIN WITHIN THE LIMIT OF DISTURBANCE AS DIRECTED BY THE COUNTY/ENGINEER. MICROTOPOGRAPHY SHALL NOT BE INCORPORATED INTO PROPOSED BERMS.
2. FLOODPLAIN MICROTOPOGRAPHY SHALL CONSIST OF SCARIFYING THE PROPOSED SURFACE AND INSTALLING HUMMOCKS ORIENTED PARALLEL TO THE DIRECTION OF FLOW AND INSTALLED IN A RANDOM PATTERN.
3. HUMMOCKS SHALL FEATURE A MAXIMUM ELEVATION DIFFERENCE OF 0.5 FEET ABOVE PROPOSED GRADE.
4. NO SEPARATE PAYMENT WILL BE MADE FOR THE CREATION OF FLOODPLAIN MICROTOPOGRAPHY.
5. MOUNDS AND PITS MUST BE INSTALLED AT A 1:1 RATIO TO ENSURE THERE IS NO NET INCREASE OR DECREASE IN PROPOSED GRADE.

RIFFLE–WEIR CONSTRUCTION SPECIFICATIONS

FOR MATERIAL AND SUBMITTAL REQUIREMENTS SEE THE TECHNICAL SPECIFICATIONS.

CONSTRUCTION

1. THE RIFFLE–WEIRS SHALL BE INSTALLED ACCORDING TO THE SEQUENCE OF CONSTRUCTION, THE CONSTRUCTION DRAWINGS, THESE SPECIFICATIONS, AND AS DIRECTED BY THE COUNTY.
2. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO CONSTRUCT, INSTALL, AND MAINTAIN THE RIFFLE–WEIRS AS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN THESE SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL REVIEW THE DETAILS AND SPECIFICATIONS WITH THE ENGINEER PRIOR TO CONSTRUCTION.
4. USING PUMP AROUND TECHNIQUES, THE STREAM SHALL BE DIVERTED AND THE CONSTRUCTION AREA DEWATERED AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLANS.
5. THE CONTRACTOR SHALL STAKE OUT THE EXTENTS OF EACH STRUCTURE AND IF REQUIRED, REVIEW THE STAKEOUT WITH THE ENGINEER PRIOR TO CONSTRUCTION.
6. SUITABLE FILL SHALL BE USED FOR FILLING THE FACILITY BOTTOM TO ACHIEVE THE GRADE NECESSARY FOR THE INSTALLATION OF THE WEIR. SUITABLE FILL SHALL BE PLACED IN LIFTS NO MORE THAN EIGHT (8) INCHES THICK AND COMPACTED. COMPACTION TESTING MAY BE REQUIRED AT THE DISCRETION OF THE INSPECTOR AT NO ADDITIONAL COST TO THE COUNTY.
7. RIPRAP FOOTER SHALL BE PLACED AT THE INTERFACE OF THE POOLS AND WEIRS AS SHOWN ON THE CONSTRUCTION DRAWINGS. RIPRAP FOOTER MUST EXTEND A MINIMUM OF TWO FEET BELOW THE PROPOSED POOL INVERT AND TWO FEET DOWNSTREAM INTO THE POOL TO PREVENT UNDERMINING. BANK RUN GRAVEL SUBBASE SHALL BE USED TO SEPARATE THE SUITABLE FILL AND THE RIPRAP THAT LINE THE FACILITY BOTTOM. RIFFLE–WEIR MIX SHALL BE PLACED ADJACENT TO THE FOOTER AT THE WEIR ELEVATION UPSTREAM OF THE FOOTER RIPRAP TO FORM THE WEIR CHANNEL PARABOLIC SHAPE. RIPRAP SHALL BE ARRANGED HORIZONTALLY IN THE CENTER OF THE CHANNEL AND THE ARMS ON EITHER SIDE OF THE CHANNEL SHALL BE EXTENDED PARABOLICALLY AT APPROXIMATELY A 20 DEGREE ANGLE LONGITUDINALLY TO THE CENTER OF THE POOL OR AS DIRECTED BY THE COUNTY. THE RIPRAP SHALL BE ARRANGED TO MAXIMIZE INTERLOCKING. THE FACE OF THE RIPRAP SHALL BE TILTED DOWNSTREAM TO OCCUPY HALF OF THE INCLINE MADE UP OVER THE ENTIRE LENGTH OF THE WEIR.
8. ONCE THE RUNS HAVE BEEN PLACED, FILL WITH RIFFLE–WEIR MIX TO FORM THE BACKSIDE OF THE WEIR. A MINIMUM OF SIX (6) INCHES OF BANK RUN GRAVEL SUBBASE SHALL BE USED TO SEPARATE THE SUITABLE FILL OR EXISTING GRADE AND THE BACKSIDE OF THE WEIR. A SMALL RIPRAP APRON SHALL BE PLACED WHERE THE RIPRAP MEETS THE POOL ON THE DOWNSTREAM SIDE. SMALL AND LARGE STONES SHALL BE MIXED TO MINIMIZE VOID SPACE.
9. RIFFLE–WEIR RIPRAP MIX SHOULD BE PLACED IN LAYERS AND STREAMBED MATERIAL SHALL BE WASHED INTO THE MIX AFTER EACH LAYER IS PLACED TO MINIMIZE VOID SPACE EXCEPT FOR THE TOP 4 INCHES WHICH DO NOT REQUIRE STREAMBED MATERIAL. STONE SHALL BE PLACED IN A MANNER SO THAT IT SHINGLES IN A DOWNSTREAM DIRECTION, MINIMIZES VOID SPACE AND PROMOTES INTERLOCKING. DUMPING OF STONE WILL NOT BE PERMITTED. VOID SPACE MUST BE MINIMIZED TO THE SATISFACTION OF THE COUNTY PRIOR TO ACCEPTANCE OF EACH CONSTRUCTED WEIR.
10. SURFACE ELEVATIONS OF THE STRUCTURES SHALL CONFORM TO THE PROPOSED DESIGN STREAM PROFILES AND CROSS SECTIONS SPECIFIED IN THE CONTRACT DOCUMENTS. TOLERANCES OF THE FINISHED STRUCTURE ARE AS FOLLOWS:

    SURFACE ELEVATION: +/– 0.2 FEET
    SLOPE: +/– 0.1 PERCENT

11. PLACED MATERIAL NOT CONFORMING TO THE SPECIFIED LIMITS SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE COUNTY AT NO ADDITIONAL COST.

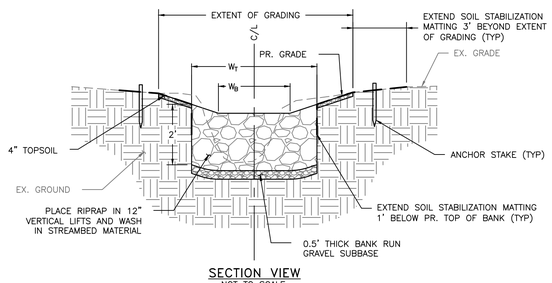
RIFFLE–WEIR ROCK SIZE TABLE

ROCK TYPE	ROCK SIZE	% BY WEIGHT
RIFFLE–WEIR MIX #1	CLASS 0 RIPRAP (D_{50}=5.5"; D_{100}=7.0")	10
	CLASS I RIPRAP (D_{50}=9.5"; D_{100}=15.0")	20
	CLASS II RIPRAP (D_{50}=16.0"; D_{100}=24.0")	45
	CLASS III RIPRAP (D_{50}=23.0"; D_{100}=34.0")	25
RIFFLE–WEIR MIX #2	CLASS 0 RIPRAP (D_{50}=5.5"; D_{100}=7.0")	15
	CLASS I RIPRAP (D_{50}=9.5"; D_{100}=15.0")	40
	CLASS II RIPRAP (D_{50}=16.0"; D_{100}=24.0")	20
	CLASS III RIPRAP (D_{50}=23.0"; D_{100}=34.0")	25
RIFFLE–WEIR MIX #3	CLASS 0 RIPRAP (D_{50}=5.5"; D_{100}=7.0")	25
	CLASS I RIPRAP (D_{50}=9.5"; D_{100}=15.0")	50
	CLASS III RIPRAP (D_{50}=23.0"; D_{100}=34.0")	25

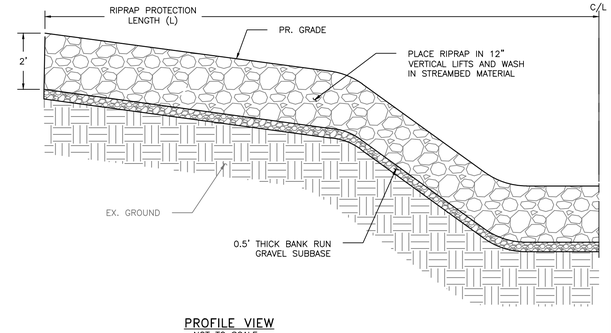
NOTES:
1. THE MINIMUM DRY UNIT WEIGHT FOR ALL STONE SHALL BE 160 LB/CF.
2. SANDSTONE BOULDERS AND/OR SILICA STONE CAN BE SUBSTITUTED FOR GRANITE IF APPROVED BY THE COUNTY AND ENGINEER IN WRITING. SANDSTONE BOULDERS AND/OR SILICA STONE MUST MEET THE SIZING REQUIREMENTS IN THE RIFFLE–WEIR ROCK SIZE TABLE AND MUST HAVE A MINIMUM DRY UNIT WEIGHT OF 145 LB/CF.

RIPRAP PROTECTION DIMENSIONS

ALIGNMENT	START STA.	END STA.	OUTFALL CHANNEL RIPRAP CLASS	W_T (FT)	W_B (FT)	L (FT)
EX. HEADCUT 2A	130+14.28	131+04.63	CLASS I (D_{50}=9.5"; D_{100}=15.0")	8	3.7	90.4
EX. HEADCUT 2B	140+09.93	140+35.41	CLASS I (D_{50}=9.5"; D_{100}=15.0")	8	3.6	25.5
EX. HEADCUT 6	190+20.00	190+81.61	CLASS I (D_{50}=9.5"; D_{100}=15.0")	5	N/A	61.6



SECTION VIEW
NOT TO SCALE



PROFILE VIEW
NOT TO SCALE

RIPRAP PROTECTION DETAILS
NOT TO SCALE

RIPRAP PROTECTION NOTES:
1. RIPRAP PROTECTION MIX SHALL CONSIST OF 50% CL I RIPRAP AND 50% CL II RIPRAP MIX BY PARTS. RIPRAP SHALL BE MIXED PRIOR TO INSTALLATION.
2. SMALL AND LARGE STONES SHALL BE MIXED TO MINIMIZE VOID SPACES. STONE MUST BE PLACED IN A MANNER TO PROMOTE INTERLOCKING. DUMPING OF STONE WILL NOT BE PERMITTED.
3. RIPRAP SHALL BE PLACED IN LAYERS WITH A MAXIMUM THICKNESS OF 12 INCHES. STREAMBED MATERIAL SHALL BE WASHED INTO EACH LIFT OF RIPRAP TO ENSURE SURFACE FLOW.
4. STONE MUST BE BLUE/GREY/BROWN IN COLOR. NO WHITE STONE SHALL BE ALLOWED.

60% DESIGN DRAWINGS

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BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
DETAILS

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. DE–01 OF DE–04

SHEET NO. 16 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

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MAIN STEM RIFFLE WEIR DATA TABLE

	RW-01	RW-02	RW-03	RW-04	RW-05	RW-06	RW-07	RW-08	RW-09	RW-10	RW-11	RW-12	RW-13	RW-14	RW-15	RW-16	RW-17	RW-18	RW-19	RW-20	RW-21	RW-22	RW-23	RW-24	RW-25	RW-26	RW-27
RIFFLE LENGTH (LWEIR, FEET)	12.0	12.0	10.0	12.0	10.0	12.0	10.0	15.0	15.0	15.0	15.0	15.0	15.1	15.0	12.0	10.0	10.0	10.0	12.0	10.0	12.0	12.0	10.0	10.0	10.0	10.0	20.0
DROP ACROSS RIFFLE (SDRP, FEET)	1.2	1.3	1.0	1.2	1.0	1.1	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.2	1.0	1.2	1.0	1.2	1.0	1.3	1.3	0.8	1.0	1.0	1.0	2.0
RIFFLE WIDTH (WWEIR, FEET)	24.0	24.0	24.0	24.0	26.0	24.0	24.0	42.0	48.0	48.0	50.0	50.0	50.0	50.0	54.0	50.0	42.0	42.0	54.0	50.0	50.0	50.0	54.0	40.0	30.0	26.0	22.0
RIFFLE DEPTH (DWEIR, FEET)	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.5	2.0	2.0	2.0
GLIDE SLOPE (H1:V1, FEET/FEET)	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1
RIFFLE WIDTH TO DEPTH RATIO (WWEIR:DWEIR, FEET/FEET)	12.0	12.0	12.0	12.0	13.7	12.0	12.0	32.3	36.9	36.9	38.5	38.5	38.5	38.5	45.0	38.5	32.3	32.3	41.5	38.5	38.5	41.7	41.5	26.7	15.0	13.0	11.0
RUN LENGTH (LRUN, FEET)	6.0	4.0	6.0	6.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	8.0	6.0	4.0	4.0	5.9
RIFFLE-WEIR MIX	2	1	3	3	3	2	2	1	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

TRIBUTARY 1 RIFFLE WEIR DATA TABLE

	RW-28	RW-29	RW-30	RW-31
RIFFLE LENGTH (LWEIR, FEET)	10.0	10.0	10.0	10.0
DROP ACROSS RIFFLE (SDRP, FEET)	1.0	1.5	1.0	0.5
RIFFLE WIDTH (WWEIR, FEET)	20.0	20.0	20.0	20.0
RIFFLE DEPTH (DWEIR, FEET)	1.0	1.0	1.0	1.0
GLIDE SLOPE (H1:V1, FEET/FEET)	3:1	3:1	3:1	3:1
RIFFLE WIDTH TO DEPTH RATIO (WWEIR:DWEIR, FEET/FEET)	20.0	20.0	20.0	20.0
RUN LENGTH (LRUN, FEET)	5.6	4.0	4.0	4.0
RIFFLE-WEIR MIX	3	3	3	3

HEADCUT 5A RIFFLE WEIR DATA TABLE

	RW-32	RW-33
RIFFLE LENGTH (LWEIR, FEET)	12.0	12.0
DROP ACROSS RIFFLE (SDRP, FEET)	1.3	1.2
RIFFLE WIDTH (WWEIR, FEET)	14.0	14.0
RIFFLE DEPTH (DWEIR, FEET)	1.0	1.0
GLIDE SLOPE (H1:V1, FEET/FEET)	N/A	3:1
RIFFLE WIDTH TO DEPTH RATIO (WWEIR:DWEIR, FEET/FEET)	14.0	14.0
RUN LENGTH (LRUN, FEET)	8.0	N/A
RIFFLE-WEIR MIX	3	3

HEADCUT 5B RIFFLE WEIR DATA TABLE

	RW-34	RW-35
RIFFLE LENGTH (LWEIR, FEET)	10.0	10.0
DROP ACROSS RIFFLE (SDRP, FEET)	1.0	0.7
RIFFLE WIDTH (WWEIR, FEET)	14.0	14.0
RIFFLE DEPTH (DWEIR, FEET)	1.0	1.0
GLIDE SLOPE (H1:V1, FEET/FEET)	N/A	3:1
RIFFLE WIDTH TO DEPTH RATIO (WWEIR:DWEIR, FEET/FEET)	14.0	14.0
RUN LENGTH (LRUN, FEET)	8.0	N/A
RIFFLE-WEIR MIX	3	3

RIFFLE WEIR STRUCTURE TABLE

STRUCTURE ID	STAKEOUT POINT ID	ALIGNMENT	STA	OFFSET	NORTHING	EASTING	ELEV.
RW-01	A	MAIN STEM	0+38.9	0.0	639,509.20	1,495,178.74	63.2
	B	MAIN STEM	0+41.86	12.7	639,509.16	1,495,165.66	65.2
	C	MAIN STEM	0+41.86	-12.7	639,503.47	1,495,190.51	65.2
RW-02	A	MAIN STEM	0+73.9	0.0	639,476.46	1,495,166.83	62.0
	B	MAIN STEM	0+76.86	12.7	639,480.79	1,495,154.48	64.0
	C	MAIN STEM	0+76.86	-12.7	639,467.14	1,495,176.01	64
RW-03	A	MAIN STEM	0+98.90	0.0	639,455.35	1,495,153.45	60.7
	B	MAIN STEM	1+01.96	12.7	639,459.57	1,495,141.07	62.7
	C	MAIN STEM	1+01.96	-12.7	639,445.95	1,495,162.54	62.7
RW-04	A	MAIN STEM	1+30.96	0.0	639,426.25	1,495,140.93	59.7
	B	MAIN STEM	1+30.63	12.7	639,429.75	1,495,128.67	61.7
	C	MAIN STEM	1+37.19	-11.9	639,417.26	1,495,150.90	61.7
RW-05	A	MAIN STEM	1+62	0.0	639,402.80	1,495,124.66	58.5
	B	MAIN STEM	1+68.01	12.8	639,411.09	1,495,113.18	60.5
	C	MAIN STEM	1+62.58	-14.2	639,390.14	1,495,131.03	60.5
RW-06	A	MAIN STEM	2+05.00	0.0	639,372.98	1,495,100.64	57.5
	B	MAIN STEM	2+06.95	12.9	639,369.17	1,495,088.12	59.5
	C	MAIN STEM	2+08.96	-12.4	639,370.88	1,495,113.55	59.5
RW-07	A	MAIN STEM	2+40.00	0.0	639,338.36	1,495,105.74	56.4
	B	MAIN STEM	2+43.06	12.7	639,333.48	1,495,093.61	58.4
	C	MAIN STEM	2+43.06	-12.7	639,337.19	1,495,118.77	58.4
RW-08	A	MAIN STEM	2+75.00	-3.5	639,304.24	1,495,114.31	55.4
	B	MAIN STEM	2+80.49	18.7	639,295.57	1,495,093.15	56.7
	C	MAIN STEM	2+80.49	-25.7	639,302.05	1,495,137.08	56.7
RW-09	A	MAIN STEM	3+15.25	5.6	639,261.78	1,495,111.54	53.9
	B	MAIN STEM	3+19.61	31.2	639,247.95	1,495,089.50	55.2
	C	MAIN STEM	3+22.52	-19.4	639,264.58	1,495,137.36	55.2
RW-10	A	MAIN STEM	3+49.94	0.0	639,233.56	1,495,133.19	52.4
	B	MAIN STEM	3+59.25	24.4	639,220.05	1,495,110.80	53.7
	C	MAIN STEM	3+53.40	-25.9	639,234.77	1,495,159.30	53.7
RW-11	A	MAIN STEM	3+85.81	0.0	639,202.68	1,495,149.11	50.9
	B	MAIN STEM	3+76.74	25.7	639,193.39	1,495,123.53	52.2
	C	MAIN STEM	3+92.51	-26.4	639,198.63	1,495,176.02	52.2
RW-12	A	MAIN STEM	4+19.59	0.0	639,169.06	1,495,152.46	49.4
	B	MAIN STEM	4+26.35	26.4	639,166.93	1,495,125.33	50.7
	C	MAIN STEM	4+26.25	-26.4	639,157.98	1,495,177.32	50.7
RW-13	A	MAIN STEM	4+52.73	0.0	639,136.42	1,495,146.79	47.9
	B	MAIN STEM	4+61.29	25.8	639,134.61	1,495,119.63	49.2
	C	MAIN STEM	4+57.52	-26.8	639,125.05	1,495,171.52	49.2
RW-14	A	MAIN STEM	5+07.58	0.0	639,082.84	1,495,139.32	46.4
	B	MAIN STEM	5+06.95	27.2	639,077.82	1,495,112.57	47.7
	C	MAIN STEM	5+21.12	-23.6	639,074.48	1,495,165.22	47.7
RW-15	A	MAIN STEM	5+57.58	0.0	639,034.19	1,495,138.19	45.0
	B	MAIN STEM	5+65.09	28.4	639,034.07	1,495,108.81	46.3
	C	MAIN STEM	5+65.09	-28.4	639,019.76	1,495,163.78	46.3
RW-16	A	MAIN STEM	6+12.61	0.0	638,980.45	1,495,137.32	43.8
	B	MAIN STEM	6+19.61	26.3	638,968.85	1,495,112.73	45.1
	C	MAIN STEM	6+19.61	-26.3	638,978.26	1,495,164.42	45.1
RW-17	A	MAIN STEM	6+50.95	0.0	638,945.41	1,495,151.52	42.8
	B	MAIN STEM	6+47.93	22.6	638,933.21	1,495,132.19	44.1
	C	MAIN STEM	6+64.67	-18.3	638,946.57	1,495,174.33	44.1
RW-18	A	MAIN STEM	6+83.00	0.0	638,919.36	1,495,168.61	41.6
	B	MAIN STEM	6+88.79	22.1	638,911.44	1,495,147.18	42.9
	C	MAIN STEM	6+88.67	-22.1	638,915.87	1,495,191.16	42.9
RW-19	A	MAIN STEM	7+07.99	0.0	638,894.49	1,495,171.05	40.6
	B	MAIN STEM	7+12.22	29.1	638,887.43	1,495,142.54	41.9
	C	MAIN STEM	7+18.64	-27.4	638,886.57	1,495,199.33	41.9
RW-20	A	MAIN STEM	7+64.20	0.0	638,843.12	1,495,155.96	39.4
	B	MAIN STEM	7+71.21	26.3	638,837.86	1,495,129.27	40.7
	C	MAIN STEM	7+71.21	-26.3	638,834.40	1,495,181.70	40.7
RW-21	A	MAIN STEM	7+97.91	0.0	638,809.71	1,495,155.69	38.4
	B	MAIN STEM	7+99.6	27.1	638,800.19	1,495,130.21	39.7
	C	MAIN STEM	8+09.73	-24.5	638,805.53	1,495,182.57	39.7
RW-22	A	MAIN STEM	8+37.96	0.0	638,771.81	1,495,158.55	37.1
	B	MAIN STEM	8+47.50	25.5	638,772.65	1,495,131.36	38.4
	C	MAIN STEM	8+42.11	-26.9	638,757.78	1,495,181.85	38.4
RW-23	A	MAIN STEM	8+75.00	0.0	638,737.54	1,495,144.50	35.8
	B	MAIN STEM	8+82.62	28.4	638,741.24	1,495,115.38	37.1
	C	MAIN STEM	8+82.62	-28.4	638,719.73	1,495,167.85	37.1
RW-24	A	MAIN STEM	19+71.27	0.0	637,698.26	1,495,143.17	16.8
	B	MAIN STEM	19+81.87	19.0	637,703.78	1,495,122.09	18.3
	C	MAIN STEM	19+71.38	-21.8	637,683.12	1,495,158.80	18.3
RW-25	A	MAIN STEM	20+21.31	0.0	637,662.13	1,495,108.53	15.8
	B	MAIN STEM	20+25.28	15.8	637,670.23	1,495,094.35	17.8
	C	MAIN STEM	20+25.28	-15.8	637,648.30	1,495,117.23	17.8
RW-26	A	MAIN STEM	20+66.32	0.0	637,629.62	1,495,077.42	14.8
	B	MAIN STEM	20+69.78	13.7	637,636.62	1,495,065.11	16.8
	C	MAIN STEM	20+69.57	-13.8	637,617.73	1,495,085.11	16.8
RW-27	A	MAIN STEM	21+01.31	0.0	637,604.48	1,495,053.08	13.8
	B	MAIN STEM	21+03.64	11.8	637,611.65	1,495,043.42	15.8
	C	MAIN STEM	21+03.64	-11.8	637,594.18	1,495,059.28	15.8
RW-28	A	TRIBUTARY 1	101+05.00	0.0	638,269.09	1,495,455.49	31.0
	B	TRIBUTARY 1	101+07.47	10.6	638,279.71	1,495,453.00	32.0
	C	TRIBUTARY 1	101+07.47	-10.6	638,258.47	1,495,453.05	32.0
RW-29	A	TRIBUTARY 1	101+50.00	0.0	638,264.31	1,495,411.47	30.0
	B	TRIBUTARY 1	101+52.47	10.6	638,273.06	1,495,404.97	31.0
	C	TRIBUTARY 1	101+52.47	-10.6	638,253.58	1,495,413.45	31.0
RW-30	A	TRIBUTARY 1	101+95.00	0.0	638,244.22	1,495,371.52	28.5
	B	TRIBUTARY 1	101+97.47	10.6	638,250.77	1,495,362.80	29.5
	C	TRIBUTARY 1	101+97.47	-10.6	638,234.50	1,495,376.47	29.5
RW-31	A	TRIBUTARY 1	102+40.00	0.0	638,215.28	1,495,337.06	27.5
	B	TRIBUTARY 1	102+42.47	10.6	638,221.83	1,495,328.34	28.5
	C	TRIBUTARY 1	102+42.47	-10.6	638,205.56	1,495,342.01	28.5
RW-32	A	HEADCUT 5A	170+20.80	0.0	638,360.83	1,494,959.34	30.5
	B	HEADCUT 5A	170+22.30	7.5	638,353.87	1,494,956.16	31.5
	C	HEADCUT 5A	170+22.32	-7.5	638,366.02	1,494,964.96	31.5
RW-33	A	HEADCUT 5A	170+61.81	0.0	638,336.82	1,494,992.58	29.2
	B	HEADCUT 5A	170+63.32	7.5	638,329.86	1,494,989.40	30.2
	C	HEADCUT 5A	170+63.32	-7.5	638,342.01	1,494,998.20	30.2
RW-34	A	HEADCUT 5B	180+14.61	0.0	638,304.23	1,494,952.73	29.7
	B	HEADCUT 5B	180+16.20	7.5	638,297.09	1,494,955.45	30.7
	C	HEADCUT 5B	180+16.20	-7.5	638,311.86	1,494,953.15	30.7
RW-35	A	HEADCUT 5B	180+45.61	0.0	638,306.75	1,494,983.49	28.7
	B	HEADCUT 5B	180+47.24	7.5	638,299.89	1,494,986.88	29.7
	C	HEADCUT 5B	180+47.24	-7.5	638,314.39	1,494,983.26	29.7

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
DETAILS

BayLand Consultants & Designs, Inc.
"Integrating Engineering and Environment"
7455 New Ridge Road, Suite T
Hanover, Maryland 21076
Phone: (410) 694-9401
Fax: (410) 694-9105
www.baylandinc.com
BAYLAND JOB NO. 4_4601

S/C PLAN # N/A

GP # N/A

REVISIONS

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. DE-02 OF DE-04

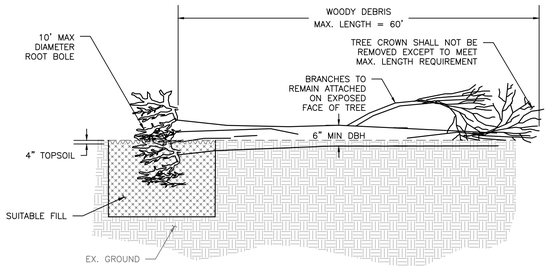
SHEET NO. 17 OF 55

BID No.:

HCG DWG ID No.:

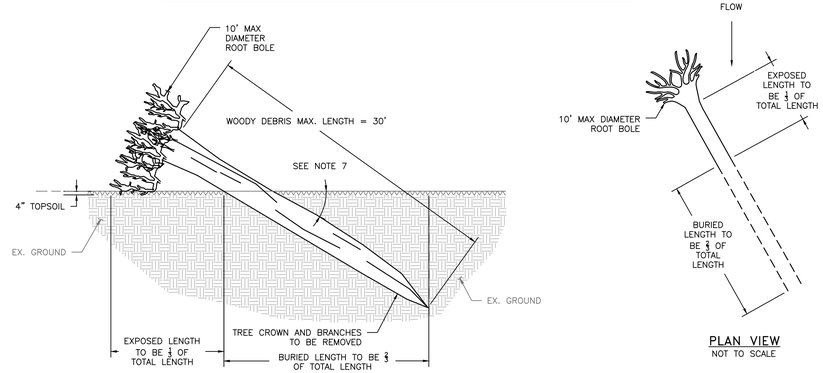
SCALE: 1 inch

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PROFILE VIEW
NOT TO SCALE

WOODY DEBRIS INSTALLATION OPTION 1



PROFILE VIEW
NOT TO SCALE

PLAN VIEW
NOT TO SCALE

WOODY DEBRIS INSTALLATION OPTION 2

WOODY DEBRIS INSTALLATION OPTION 1 IS PREFERRED. WOODY DEBRIS INSTALLATION OPTION 2 MAY BE USED IN WET AREAS.

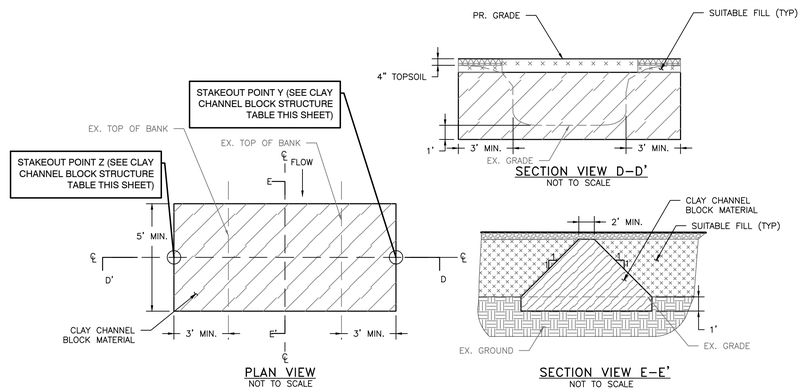
WOODY DEBRIS DETAILS

NOT TO SCALE

WOODY DEBRIS NOTES:
1. EXISTING TREES TO BE REMOVED WITHIN THE LIMIT OF DISTURBANCE SHALL NOT BE DISPOSED OF OFFSITE WITHOUT PERMISSION FROM THE COUNTY.
2. ALL REMOVED TREES THAT ARE NOT USED IN OTHER PROPOSED STRUCTURES SHALL BE PLACED WITHIN THE FLOODPLAIN FOLLOWING THE SPECIFICATIONS WITHIN THE WOODY DEBRIS DETAIL OR AT THE DIRECTION OF THE COUNTY.
3. WOODY DEBRIS SHALL BE PLACED AT THE DIRECTION OF THE ENGINEER/COUNTY AND WITHIN THE FLOODPLAIN A MINIMUM OF 5 FEET FROM THE PROPOSED CHANNEL TOP OF BANK AND VALLEY WALL TOE OF SLOPE AND A MINIMUM OF 10 FEET LATERAL AND VERTICAL CLEARANCE FROM ALL UTILITIES.
4. IF REQUIRED BY THE ENGINEER/COUNTY, BRANCHES SHALL BE PRUNED FROM PORTION OF TREE TO BE BURIED BELOW GRADE.
5. TIMBER FOR USE IN PROPOSED WOODY DEBRIS STRUCTURE SHALL BE HARVESTED ON SITE. NO INVASIVE SPECIES SHALL BE UTILIZED.
6. WOODY DEBRIS SHALL ALWAYS BE ORIENTED WITH THE ROOT BOLE UPSTREAM.
7. ANGLE OF INSTALLATION MAY RANGE FROM 30 DEGREES TO VERTICAL (90 DEGREES) AS DIRECTED BY THE COUNTY.
8. WOODY DEBRIS INSTALLATION OPTION 1 IS PREFERRED. WOODY DEBRIS INSTALLATION OPTION 2 MAY BE USED IN WET AREAS.
9. WOODY DEBRIS PLACEMENT TO BE DIRECTED IN THE FIELD.

CLAY CHANNEL BLOCK STRUCTURE TABLE

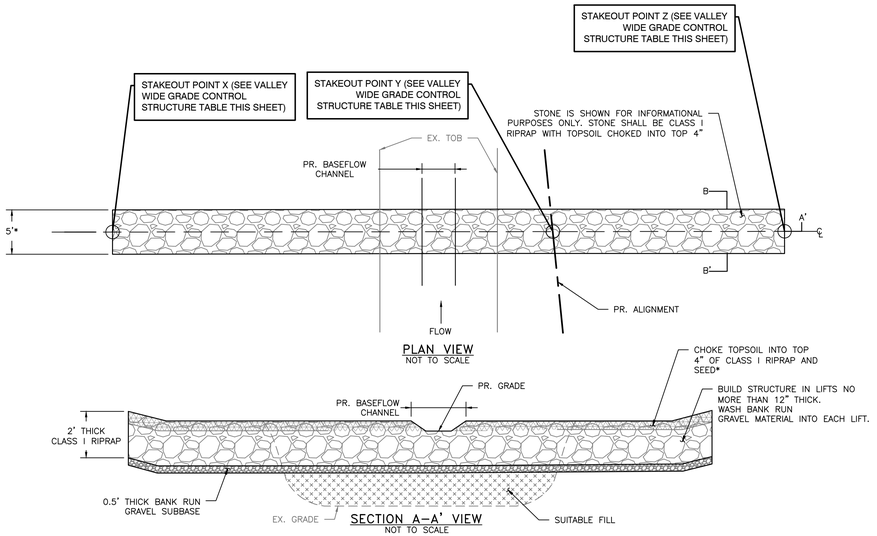
STRUCTURE ID	STAKEOUT POINT ID	ALIGNMENT	NORTHING	EASTING
CCB-01	Y	MAIN STEM	638,431.47	1,495,048.29
	Z	MAIN STEM	638,453.24	1,495,033.04
CCB-02	Y	MAIN STEM	638,200.99	1,495,076.10
	Z	MAIN STEM	638,194.11	1,495,046.73
CCB-03	Y	MAIN STEM	637,942.17	1,495,197.15
	Z	MAIN STEM	637,945.98	1,495,170.81
CCB-04	Y	MAIN STEM	637,809.47	1,495,176.04
	Z	MAIN STEM	637,794.82	1,495,140.99



CLAY CHANNEL BLOCK DETAILS

NOT TO SCALE

CLAY CHANNEL BLOCK NOTES:
1. CLAY CHANNEL BLOCK MATERIAL (CLAY FILL) SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) DESIGNATIONS SC, CH, OR CL, WITH A MINIMUM OF 35 PERCENT PASSING THE #200 SIEVE. CLAY FILL SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 2", AND FROZEN OR OBJECTIONABLE MATERIAL. MATERIAL USED FOR CLAY CHANNEL BLOCK CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.
2. CLAY CHANNEL BLOCK MATERIAL SHALL BE COMPACTED TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. COMPACTED CLAY FILL SHALL CONFORM TO A MINIMUM 93 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO METHOD T-99 OR ASTM D698. CLAY FILL SHALL BE PLACED IN 8-INCH MAXIMUM LIFTS AND EACH LIFT SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, AND/OR HAND TAMPERS. COMPACTION OF EACH CLAY CHANNEL BLOCK SHALL BE TESTED BY THE ONSITE GEOTECHNICAL ENGINEER AND RESULTS OF THE COMPACTION TESTING SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL.
3. IN INSTANCES WHERE GROUNDWATER IS ENCOUNTERED DURING EXCAVATION FOR, OR DURING INSTALLATION OF CLAY CHANNEL BLOCKS, THE CONTRACTOR MAY NEED TO OPERATE SUMP PIT OR OTHER DEWATERING DEVICE(S) TO DRAWDOWN LOCAL GROUNDWATER AND TO ALLOW FOR REQUIRED COMPACTION.
4. CLAY CHANNEL BLOCK DIMENSIONS MAY BE ADJUSTED IN THE FIELD UNDER THE SUPERVISION OF THE COUNTY.



*SEED TOPSOILED VALLEY-WIDE GRADE CONTROLS CONSISTENT WITH ADJACENT PLANTING ZONE(S) (DWGS LP-01-LD-02/SHEETS 38-44)

VALLEY WIDE GRADE CONTROL DETAILS

NOT TO SCALE

VALLEY WIDE GRADE CONTROL NOTES:
1. IN THE FLOODPLAIN AND OTHER AREAS WITH UNCONSOLIDATED SOIL, PLACE BANK RUN GRAVEL AS NEEDED TO CREATE A STABLE SUBGRADE FOR THE ROCK STRUCTURE. CONTRACTOR SHALL TRACK OVER BANK RUN GRAVEL MULTIPLE TIMES TO UNIFORMLY COMPACT AND ENSURE STABLE SUBGRADE.
2. SEE PROFILE AND CROSS-SECTIONS FOR PROPOSED GRADES.
3. BANK RUN GRAVEL SHALL BE WASHED INTO EACH LIFT OF CLASS I RIPRAP THAT IS PLACED TO FILL/MINIMIZE VOID SPACE IN CLASS I RIPRAP EXTENDING ACROSS THE FLOODPLAIN. MINIMIZING VOID SPACE IN THE CLASS I RIPRAP IS ESSENTIAL TO THE SUCCESS OF THE VALLEY WIDE GRADE CONTROL STRUCTURE TO ENSURE SURFACE FLOW ACROSS THE FLOODPLAIN.
4. SMALL AND LARGE STONES SHALL BE MIXED TO MINIMIZE VOID SPACES. STONE MUST BE PLACED IN A MANNER TO PROMOTE INTERLOCKING. DUMPING OF STONE WILL NOT BE PERMITTED.
5. STONE MUST BE BLUE/GREY/BROWN IN COLOR. NO WHITE STONE SHALL BE ALLOWED.

VALLEY WIDE GRADE CONTROL STRUCTURE TABLE

STRUCTURE ID	ALIGNMENT	STAKEOUT POINT ID	NORTHING	EASTING	STATION
VWGC-01	MAIN STEM	X	638,675.79	1,495,208.07	–
		Y	638,687.34	1,495,133.94	9+26.78
		Z	638,691.18	1,495,109.26	–
VWGC-02	MAIN STEM	X	638,580.13	1,495,179.16	–
		Y	638,599.81	1,495,128.66	10+14.60
		Z	638,613.85	1,495,092.64	–
VWGC-03	MAIN STEM	X	638,112.93	1,495,128.31	–
		Y	638,101.30	1,495,103.29	15+41.54
		Z	638,098.85	1,495,098.01	–
VWGC-04	MAIN STEM	X	638,044.71	1,495,164.03	–
		Y	638,038.34	1,495,142.16	16+15.61
		Z	638,017.40	1,495,070.35	–
VWGC-05	MAIN STEM	X	637,964.72	1,495,188.76	–
		Y	637,963.67	1,495,181.61	17+00.97
		Z	637,950.94	1,495,094.54	–
VWGC-06	MAIN STEM	X	637,605.90	1,495,038.28	
		Y	N/A	N/A	N/A
		Z	637,672.76	1,494,980.07	
VWGC-07	N/A	X	638,067.86	1,495,213.11	
		Y	N/A	N/A	N/A
		Z	638,065.94	1,495,186.26	

60% DESIGN DRAWINGS

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
DETAILS

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. DE-03 OF DE-04

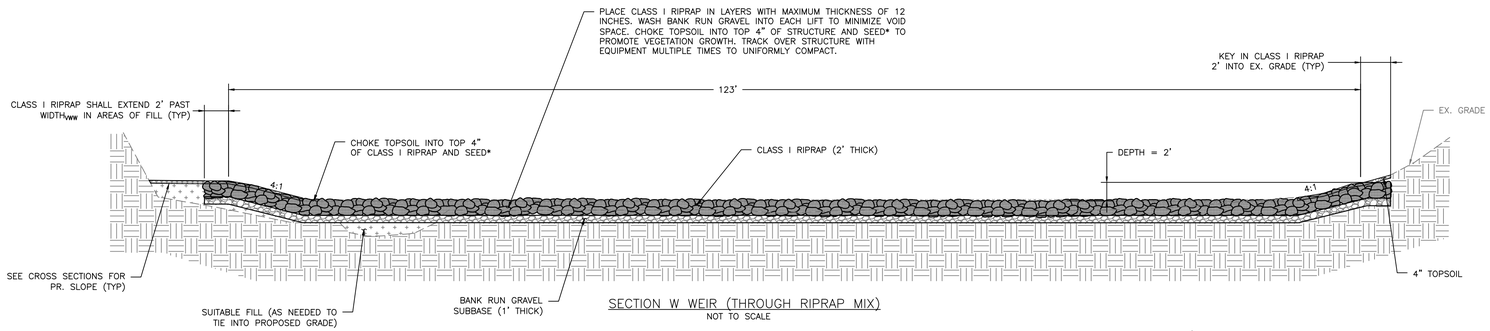
SHEET NO. 18 OF 55

BID No.:

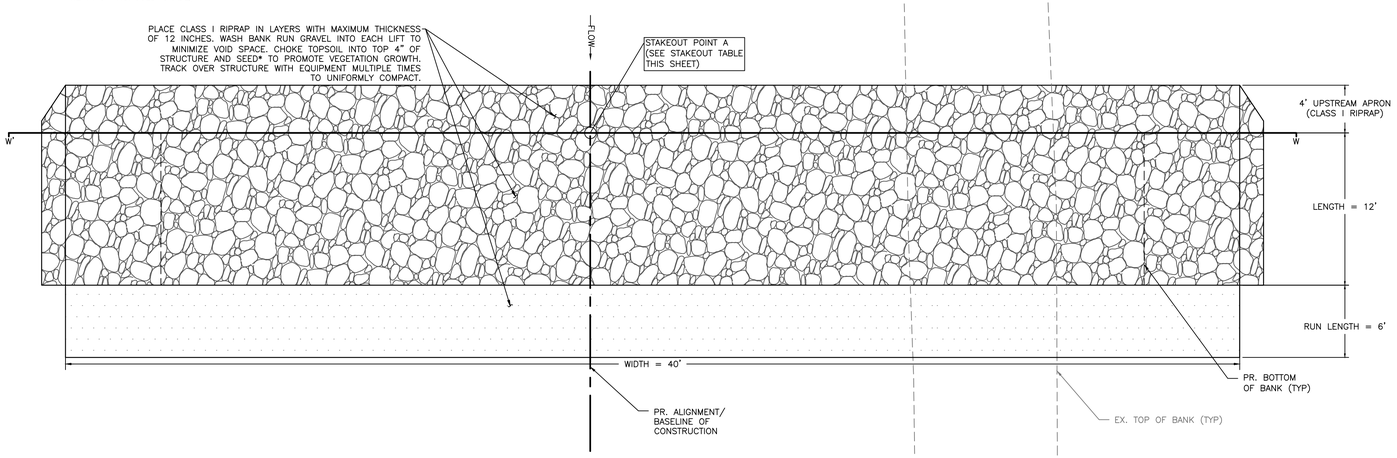
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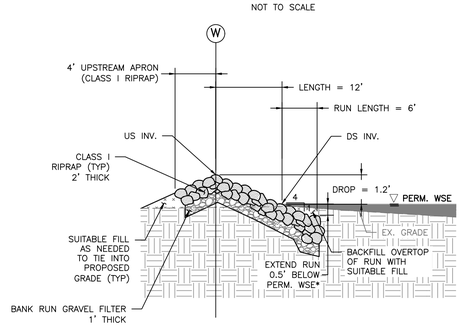


SECTION W WEIR (THROUGH RIPRAP MIX)
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

*SEED TOPSOILED VALLEY-WIDE WEIRS CONSISTENT WITH ADJACENT PLANTING ZONE(S) (DWGS LP-01-LD-02/SHEETS 38-44)



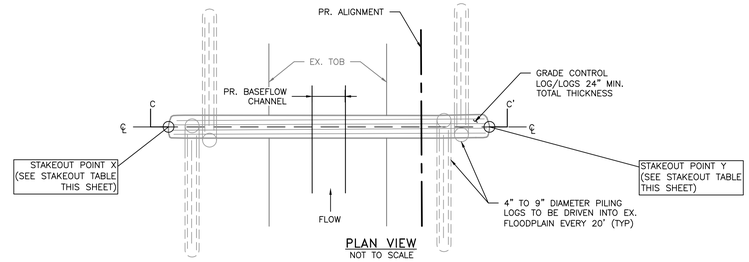
PROFILE VIEW (SHOWN THROUGH FLOODPLAIN)
NOT TO SCALE

VALLEY WIDE WEIR DETAILS

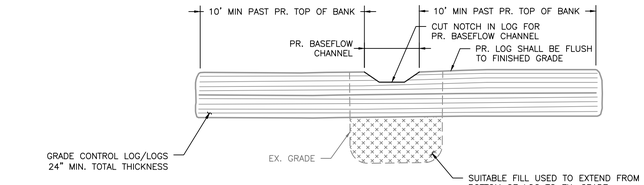
VALLEY WIDE WEIR NOTES:
1. CONTRACTOR SHALL TRACK OVER THE STRUCTURE MULTIPLE TIMES TO UNIFORMLY COMPACT.
2. ADDITIONAL BANK RUN GRAVEL MATERIAL MAY BE REQUIRED BEYOND 1' TO CREATE A STABLE SUB-GRADE.
3. COMPACTION TESTING MAY BE REQUIRED AT THE COUNTY'S DISCRETION TO ENSURE A STABLE SUB-GRADE.
4. VOID SPACE MUST BE MINIMIZED TO THE SATISFACTION OF THE COUNTY PRIOR TO THE ACCEPTANCE OF THE STRUCTURE.

VALLEY WIDE WEIR STRUCTURE TABLE

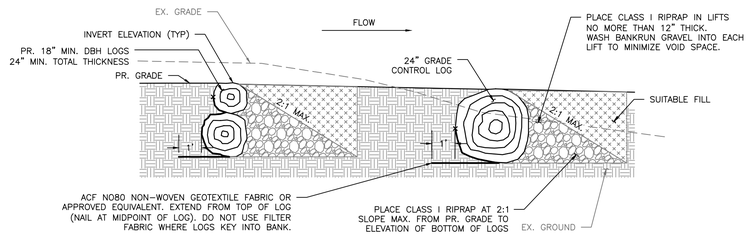
STRUCTURE ID	STAKEOUT POINT ID	ALIGNMENT	STA	NORTHING	EASTING	CREST ELEV.
VWW-01	A	MAIN STEM	18+96.31	637,771.63	1,495,154.86	18.0



PLAN VIEW
NOT TO SCALE



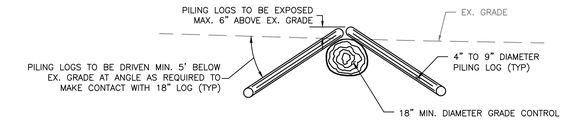
SECTION C-C' VIEW
NOT TO SCALE



PROFILE VIEW (SHOWN THROUGH BASEFLOW CHANNEL)
NOT TO SCALE

LOG GRADE CONTROL STRUCTURE TABLE

STRUCTURE ID	ALIGNMENT	STAKEOUT POINT ID	NORTHING	EASTING
LGC-01	MAIN STEM	X	638,540.80	1,495,139.88
		Y	638,548.90	1,495,117.29
LGC-02	MAIN STEM	X	638,497.46	1,495,101.80
		Y	638,509.38	1,495,078.49
LGC-03	MAIN STEM	X	638,398.95	1,495,066.53
		Y	638,403.36	1,495,042.93
LGC-04	MAIN STEM	X	638,251.47	1,495,092.60
		Y	638,252.48	1,495,053.38
LGC-05	MAIN STEM	X	638,166.54	1,495,101.66
		Y	638,166.68	1,495,059.97
LGC-06	MAIN STEM	X	637,905.35	1,495,189.68
		Y	637,904.96	1,495,165.68
LGC-07	TRIBUTARY 1	X	638,171.68	1,495,296.09
		Y	638,202.47	1,495,283.46
LGC-08	TRIBUTARY 1	X	638,164.94	1,495,262.55
		Y	638,191.81	1,495,238.48
LGC-09	TRIBUTARY 1	X	638,123.69	1,495,249.42
		Y	638,141.61	1,495,233.45
LGC-10	TRIBUTARY 1	X	638,117.47	1,495,202.98
		Y	638,136.40	1,495,188.22
LGC-11	TRIBUTARY 1	X	638,087.93	1,495,192.71
		Y	638,101.79	1,495,173.12



PROFILE VIEW (SHOWN THROUGH FLOODPLAIN)
NOT TO SCALE

LOG GRADE CONTROL DETAILS

LOG GRADE CONTROL NOTES:
1. LOGS SHALL OVERLAP 2.0' MIN. AND SHALL BE STAGGERED IF MULTIPLE FLOODPLAIN LOGS ARE UTILIZED TO ACHIEVE THE REQUIRED TOTAL FLOODPLAIN LENGTH.
2. UP TO TWO LOGS MAY BE UTILIZED TO ACHIEVE REQUIRED MINIMUM THICKNESS OF 24", AND EACH LOG SHALL SHALL BE 18" MIN. DBH. THE LARGEST, HARDIEST LOGS WITH HIGH SPECIFIC GRAVITIES SHALL BE FAVORED FOR USE. LOGS MEETING THE 24" MIN. DBH REQUIREMENT SHALL BE UTILIZED FIRST AND THE SUPPLY THEREOF SHALL BE EXHAUSTED PRIOR TO EXERCISING THE TWO LOG OPTION.
3. THE TOP ELEVATION OF THE ENTIRE LOG WITHIN THE BASEFLOW CHANNEL SHALL BE NO CLOSER THAN 0.3' TO THE TOP OF BANK. IF THE LOG IS NOT COMPLETELY STRAIGHT, THE LOW POINT OF THE LOG SHALL BE CENTERED IN THE BASEFLOW CHANNEL. IF THIS IS NOT POSSIBLE, A 2" DEEP BY 6" WIDE NOTCH SHALL BE CUT IN THE LOG IN THE CENTER OF THE BASEFLOW CHANNEL.
4. THE PILING LOGS ARE INTENDED TO ANCHOR THE GRADE CONTROL LOGS IN PLACE. THEY SHOULD BE INSTALLED TO FORM A TEEPEE SHAPE OVER THE GRADE CONTROL LOGS.

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. DE-04 OF DE-04

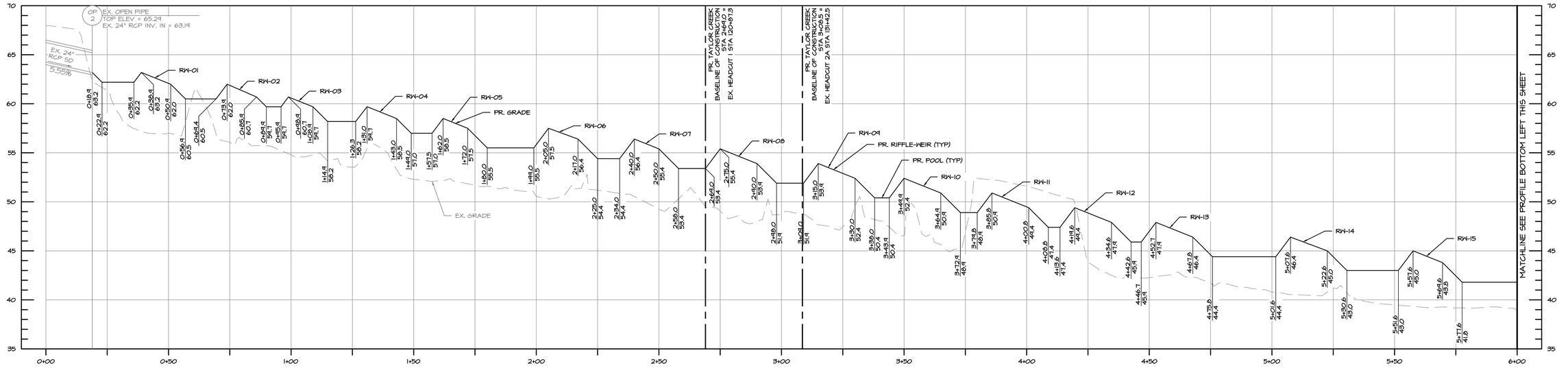
SHEET NO. 19 OF 55

BID No.:

HCG DWG ID No.:

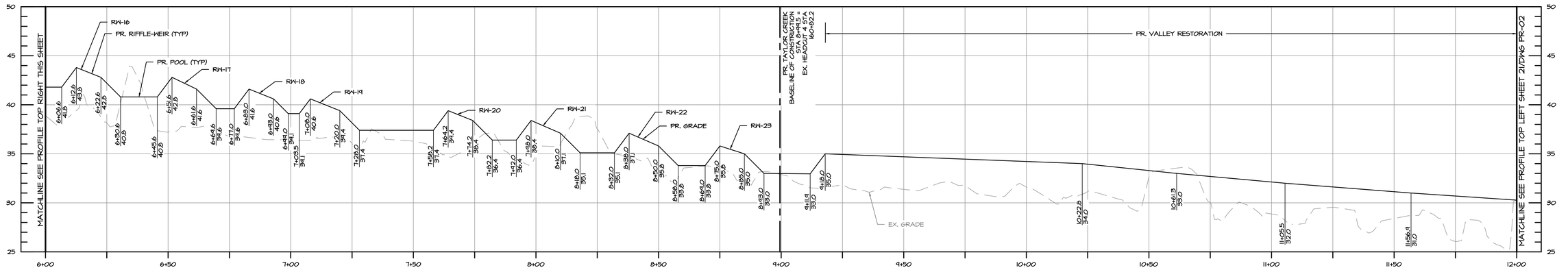
SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_DEA03.dwg



PROFILE TAYLOR CREEK BASELINE OF CONSTRUCTION STA: 0+00 TO STA: 6+00

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



PROFILE TAYLOR CREEK BASELINE OF CONSTRUCTION STA: 6+00 TO STA: 12+00

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'

60% DESIGN DRAWINGS

NOTE:
1. PROFILE SHOWS SUPERIMPOSED MAXIMUM DEPTH OF POOLS. SEE SHEET 11/DWG SR-01 TO SHEET 15/DWG SR-05 FOR GRADING OF POOLS.

0 10 20 40
1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION PROFILE

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. PR-01 OF PR-03

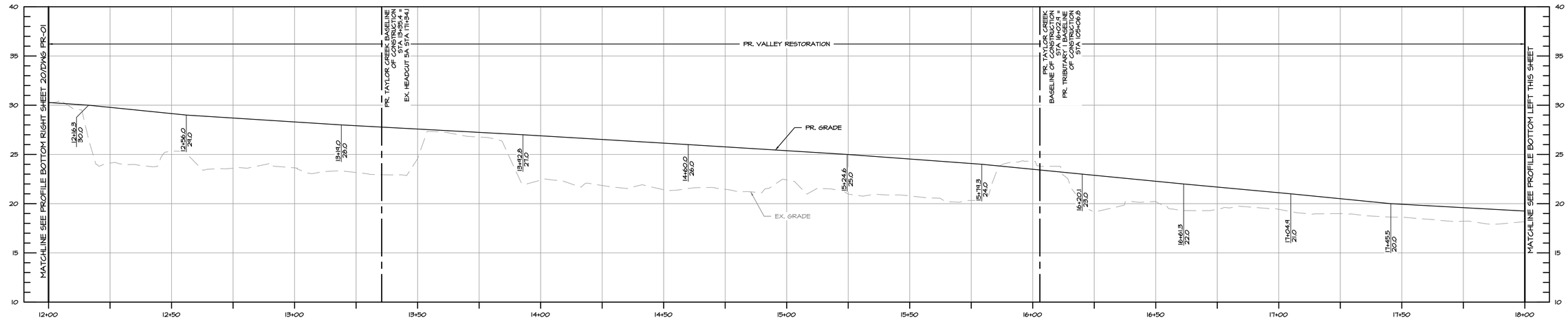
SHEET NO. 20 OF 55

BID No.:

HCG DWG ID No.:

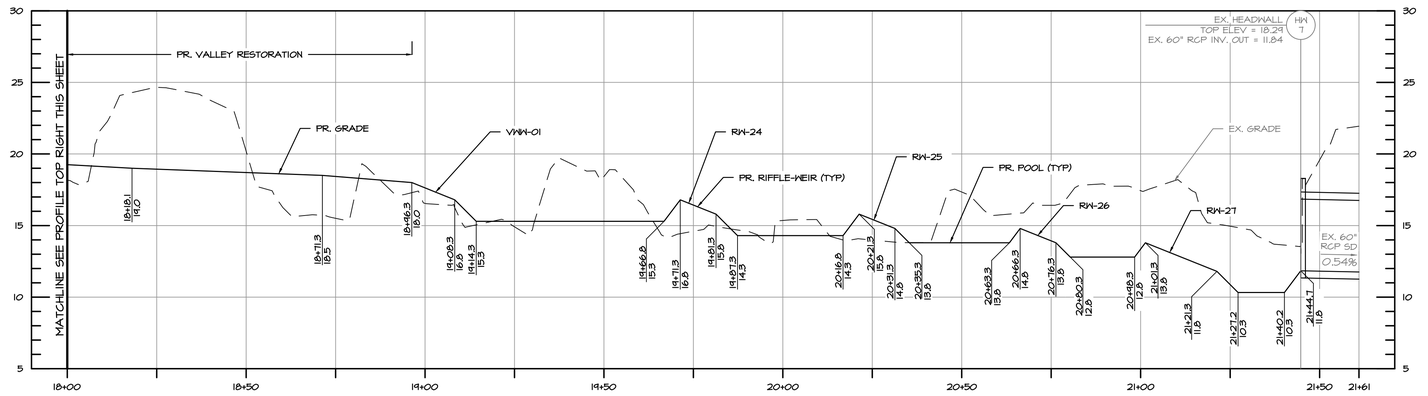
SOLE_1.dgn

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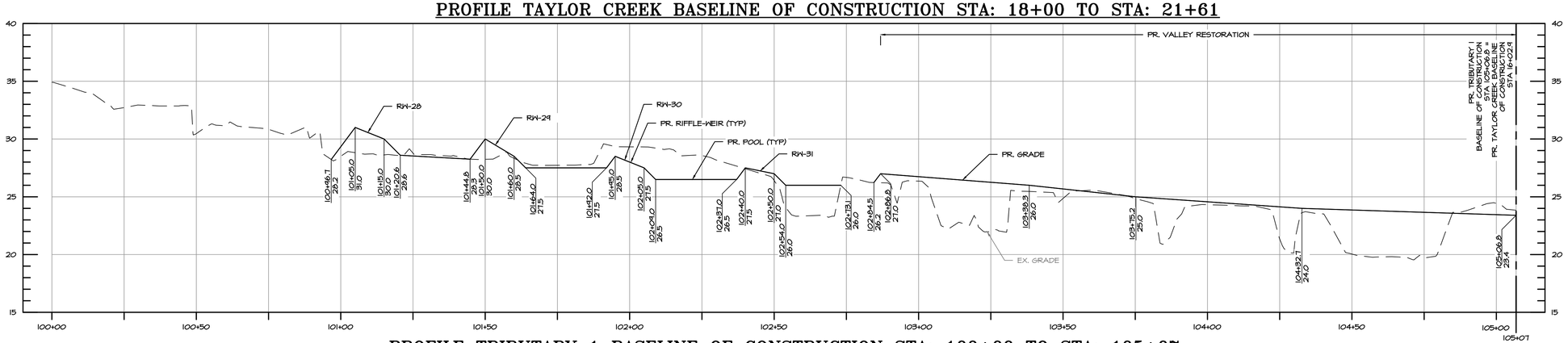


PROFILE TAYLOR CREEK BASELINE OF CONSTRUCTION STA: 12+00 TO STA: 18+00

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



PROFILE TAYLOR CREEK BASELINE OF CONSTRUCTION STA: 18+00 TO STA: 21+61



PROFILE TRIBUTARY 1 BASELINE OF CONSTRUCTION STA: 100+00 TO STA: 105+07

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'

60% DESIGN DRAWINGS

NOTE:
1. PROFILE SHOWS SUPERIMPOSED MAXIMUM DEPTH OF POOLS. SEE SHEET 11/DWG SR-01 TO SHEET 15/DWG SR-05 FOR GRADING OF POOLS.

0 10 20 40
1 INCH = 20 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION PROFILE

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. PR-02 OF PR-03

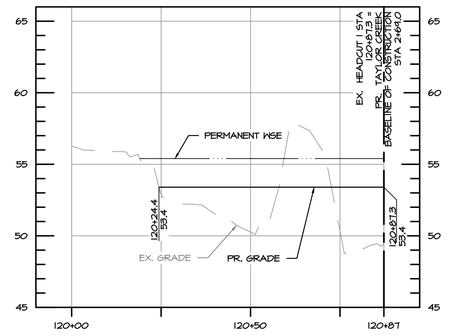
SHEET NO. 21 OF 55

BID No.:

HCG DWG ID No.:

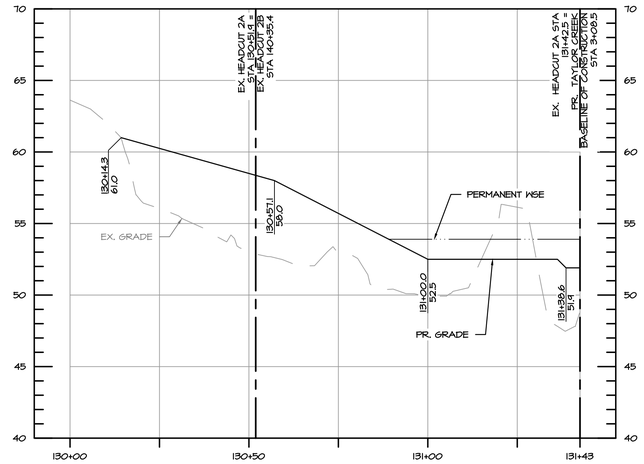
SCALE: 1 inch

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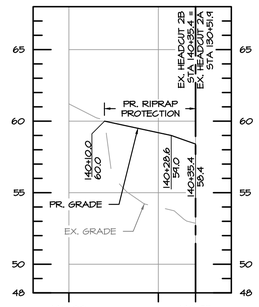
PROFILE EX. HEADCUT 1 STA: 120+00 TO STA: 120+87

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



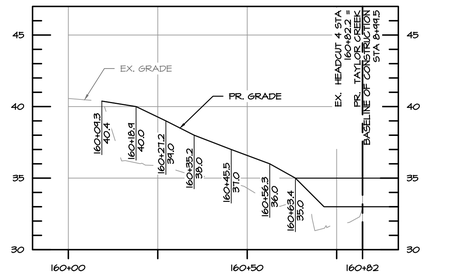
PROFILE EX. HEADCUT 2A STA: 130+00 TO STA: 131+43

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



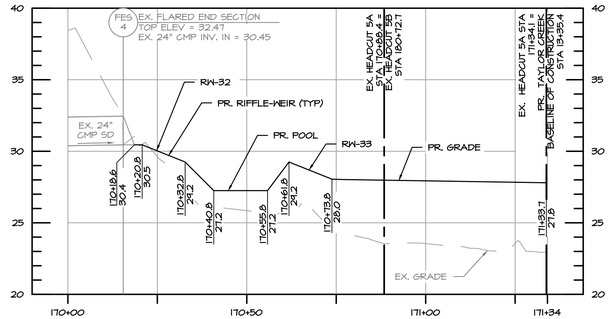
PROFILE EX. HEADCUT 2B STA: 140+00 TO STA: 140+35

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



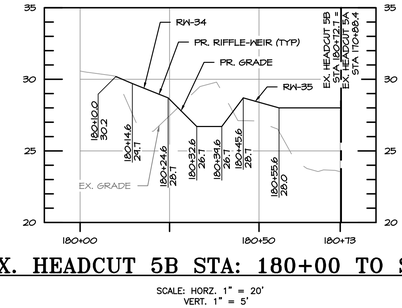
PROFILE EX. HEADCUT 4 STA: 160+00 TO STA: 160+82

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



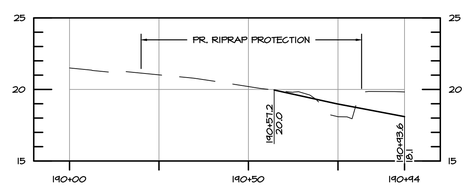
PROFILE EX. HEADCUT 5A STA: 170+00 TO STA: 171+34

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



PROFILE EX. HEADCUT 5B STA: 180+00 TO STA: 180+73

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



PROFILE EX. HEADCUT 6 STA: 190+00 TO STA: 190+94

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'

0 10 20 40
1 INCH = 20 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
PROFILE

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. PR-03 OF PR-03

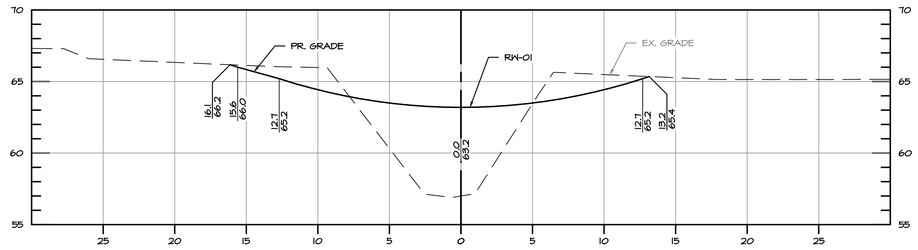
SHEET NO. 22 OF 55

BID No.:

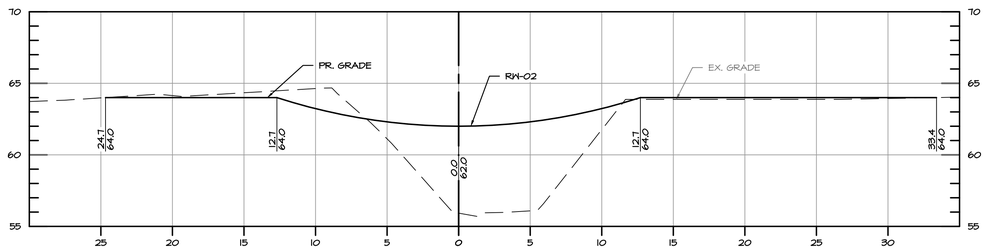
HCG DWG ID No.:

SCALE 1 inch

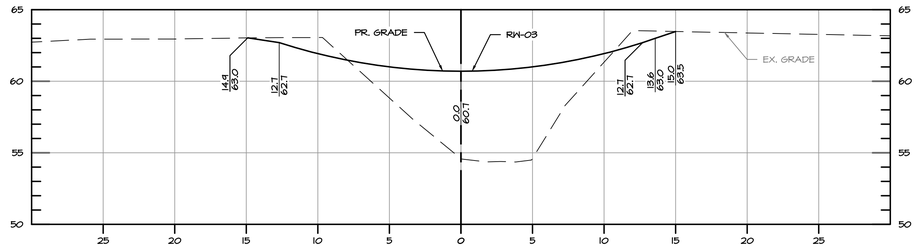
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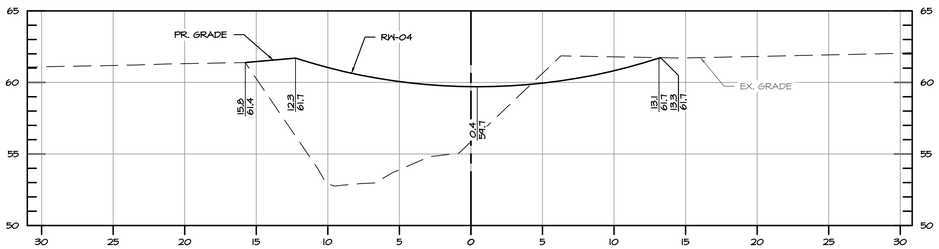
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 0+41.9



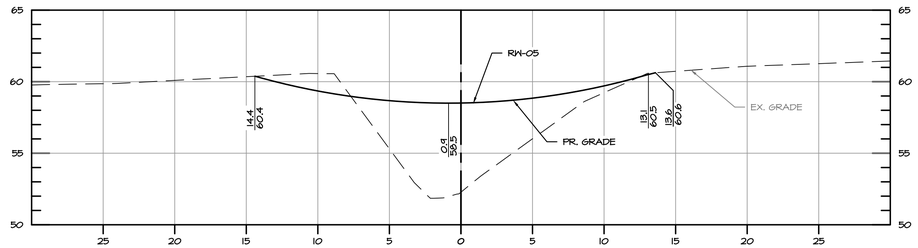
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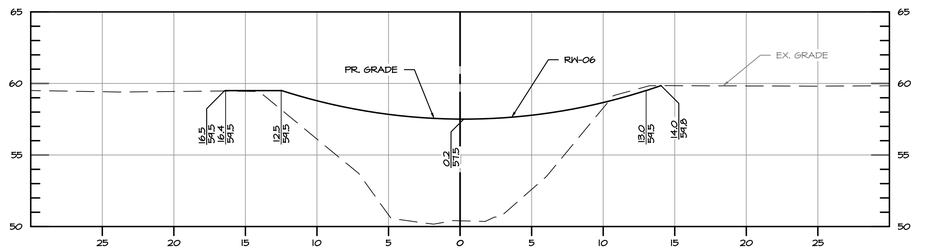
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 1+02.0



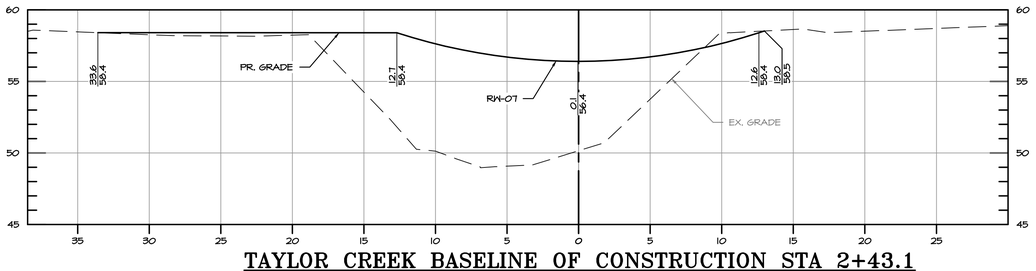
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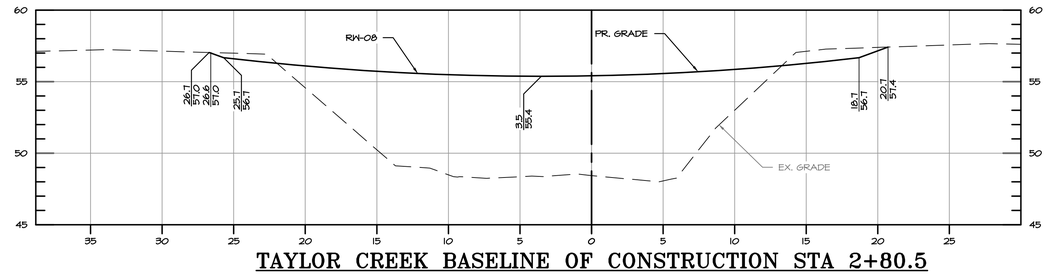
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 1+65.4



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 2+08.0



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 2+43.1



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 2+80.5

60% DESIGN DRAWINGS

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
2. REFER TO RIFFLE-WEIR STAKEOUT TABLE ON DWG DE-02/SHEET 17 FOR RIFFLE-WEIR CREST ELEVATIONS.

0 2.5 5 10
1 INCH = 5 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS-01 OF XS-09

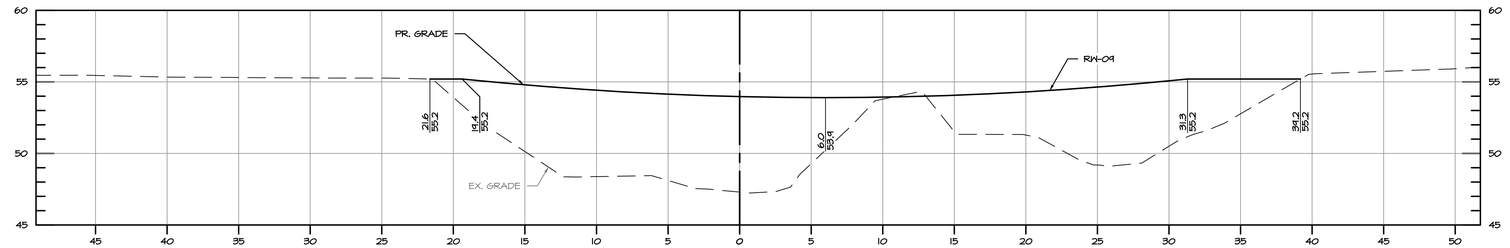
SHEET NO. 23 OF 55

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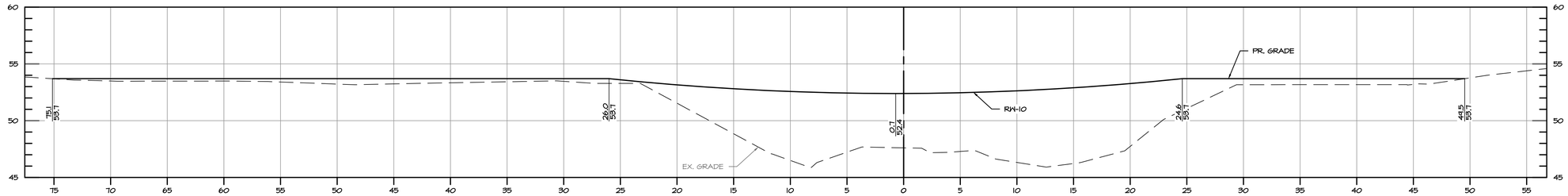
HCG DWG ID No.:

SCALE 1 inch

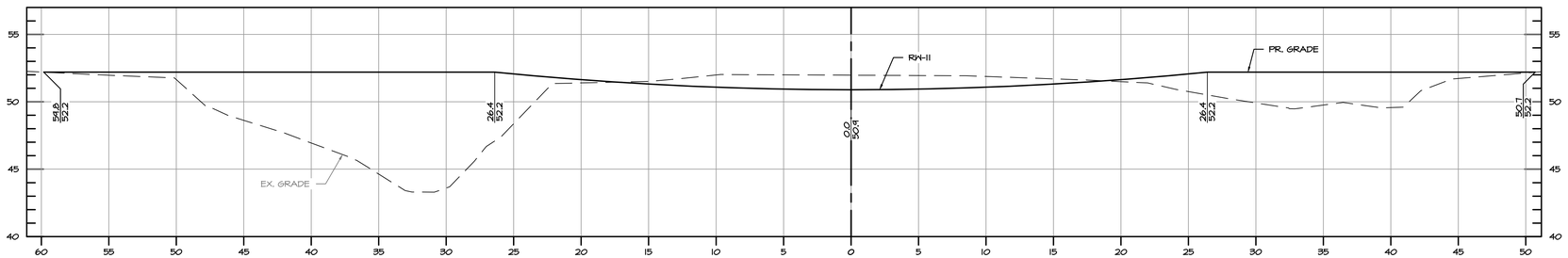
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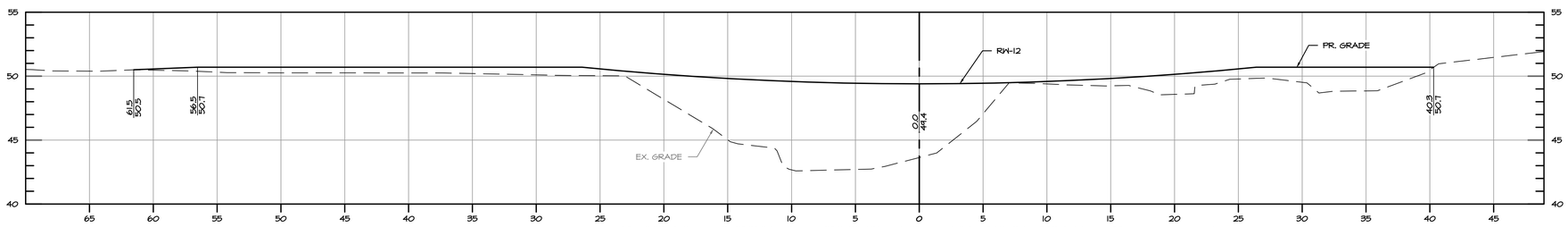
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 3+21.4



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 3+56.4



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 3+92.5



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 4+26.3

60% DESIGN DRAWINGS

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
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0 2.5 5 10
1 INCH = 5 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS-02 OF XS-09

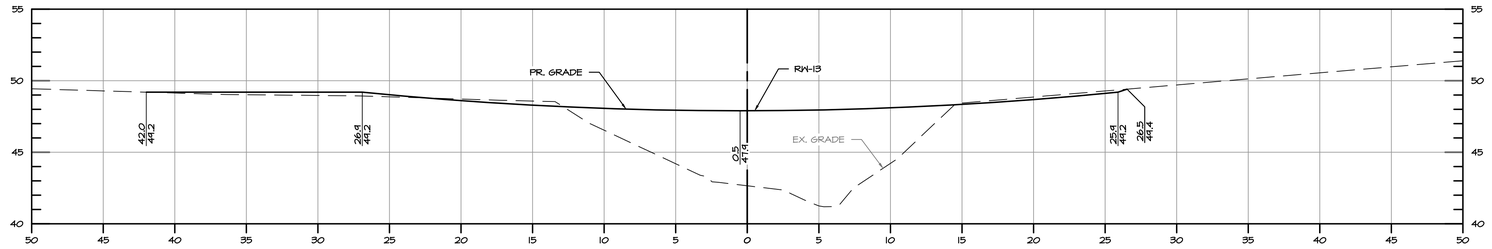
SHEET NO. 24 OF 55

BID No.:

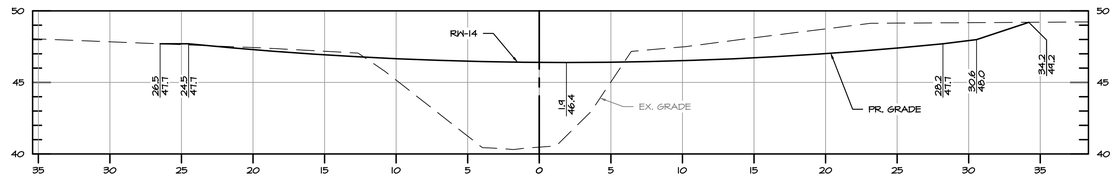
HCG DWG ID No.:

SCALE: 1 inch

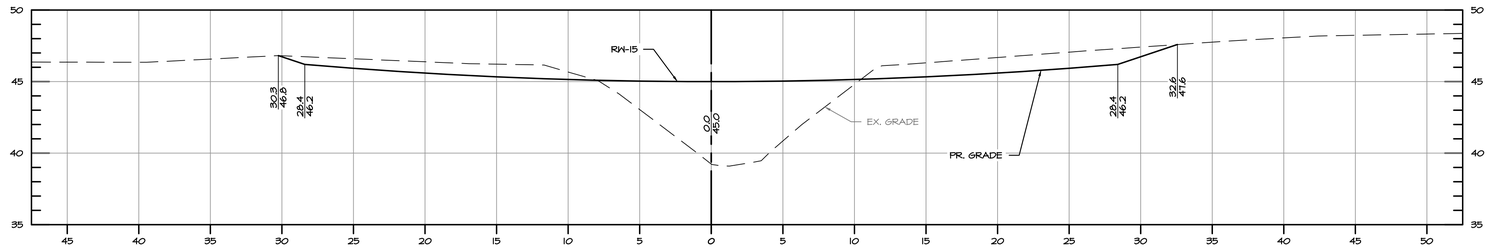
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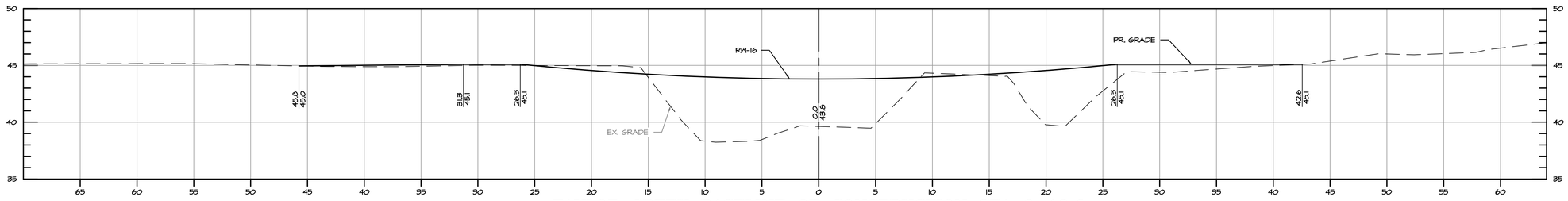
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 4+59.4



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 5+14.5



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 5+65.1



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 6+19.6

60% DESIGN DRAWINGS

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
2. REFER TO RIFFLE–WEIR STAKEOUT TABLE ON DWG DE–02/SHEET 17 FOR RIFFLE–WEIR CREST ELEVATIONS.

0 2.5 5 10
1 INCH = 5 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 5'

DATE : 05/06/24

DRAWING NO. XS–03 OF XS–09

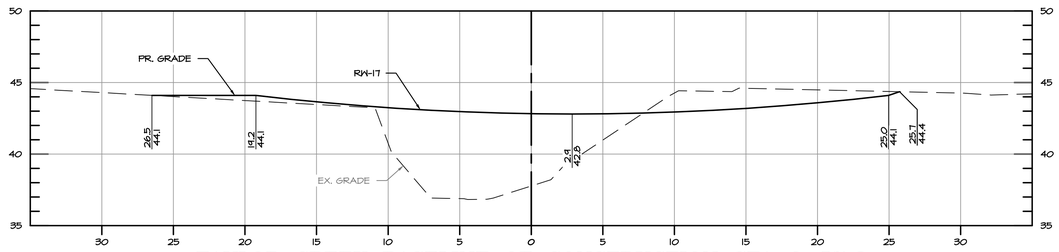
SHEET NO. 25 OF 55

BID No.:

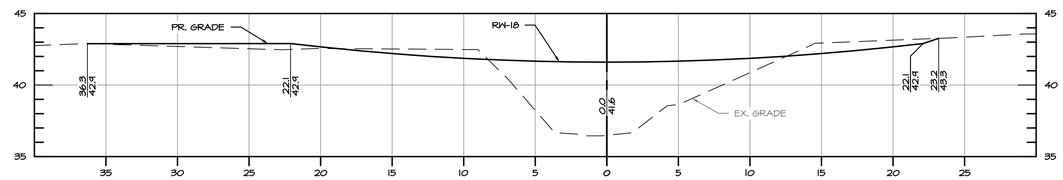
HCG DWG ID No.:

SCALE: 1 inch

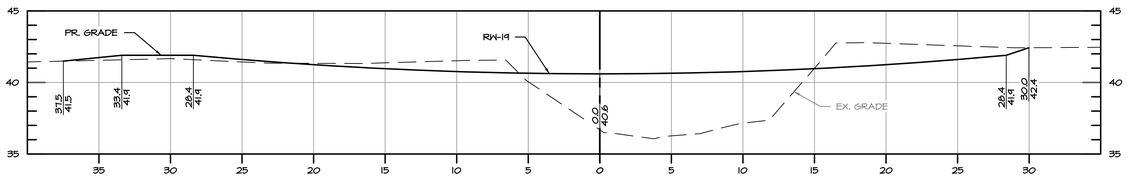
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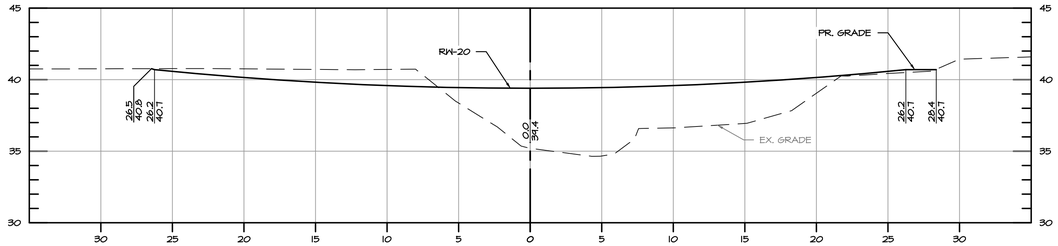
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 6+57.2



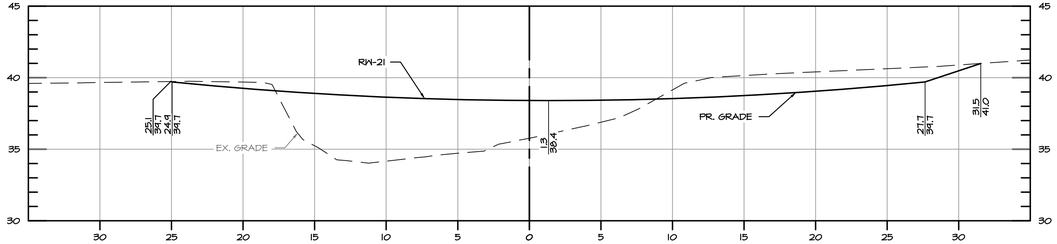
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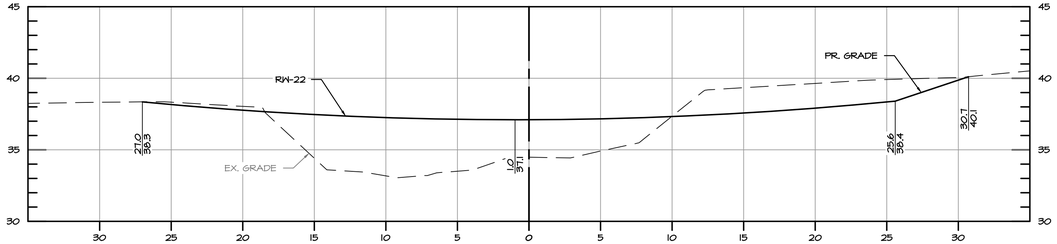
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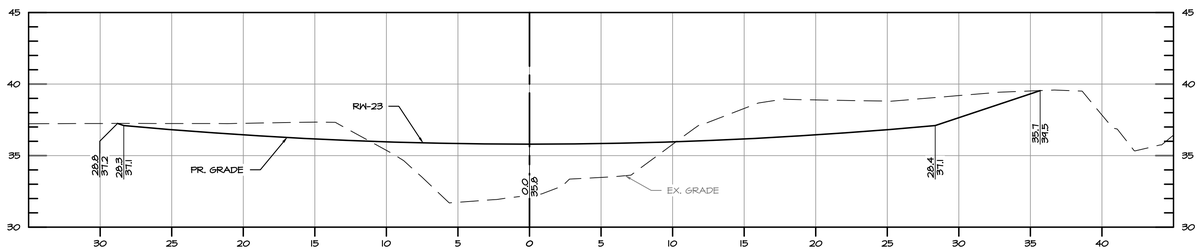
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TAYLOR CREEK BASELINE OF CONSTRUCTION STA 8+04.9



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 8+44.9



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 8+82.6

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
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0 2.5 5 10
1 INCH = 5 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS–04 OF XS–09

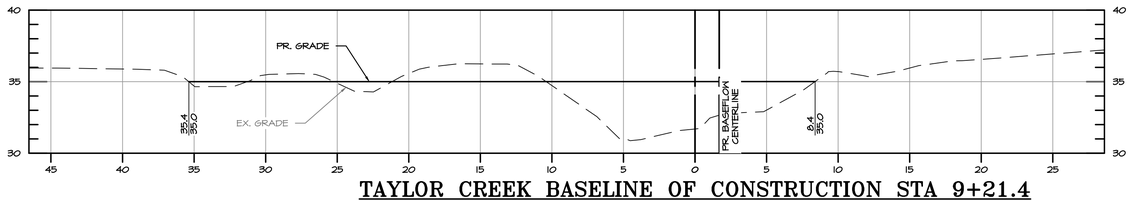
SHEET NO. 26 OF 55

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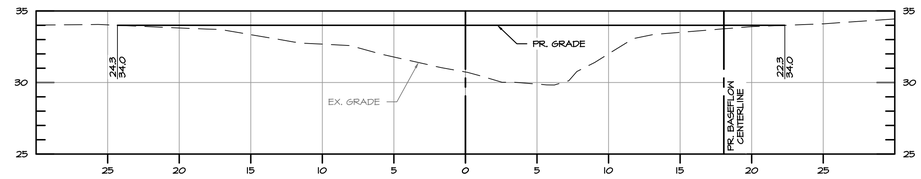
HCG DWG ID No.:

SCALE 1 inch

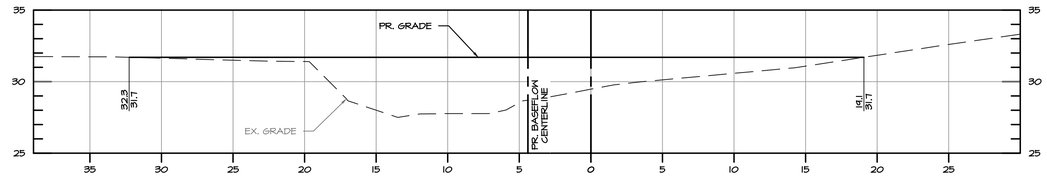
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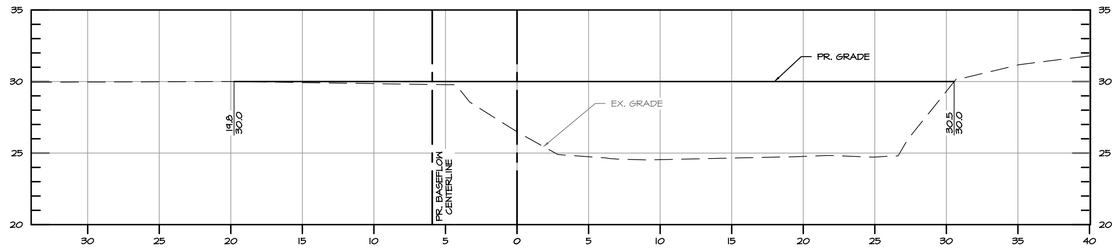
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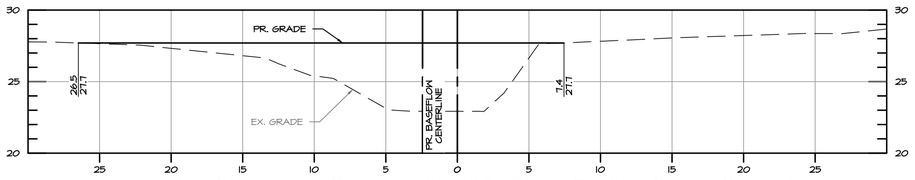
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 10+21.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 11+21.3



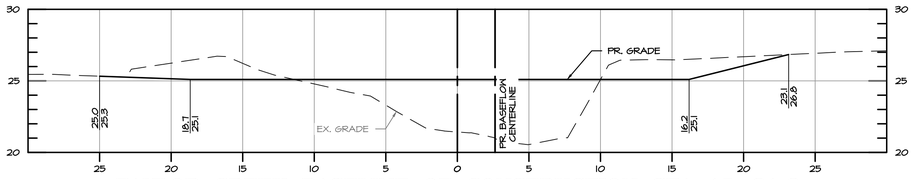
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 12+16.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 13+41.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 14+21.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 15+21.3

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
2. REFER TO RIFFLE–WEIR STAKEOUT TABLE ON DWG DE–02/SHEET 17 FOR RIFFLE–WEIR CREST ELEVATIONS.
3. BASEFLOW CHANNEL CENTERLINE IS SHOWN ON CROSS SECTION VIEWS. REFER TO DWG DE–03/SHEET 18 FOR DIMENSIONS

0 2.5 5 10
1 INCH = 5 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS–05 OF XS–09

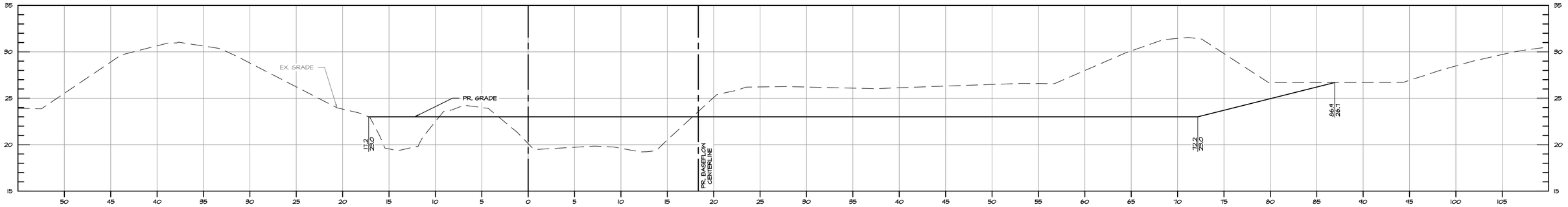
SHEET NO. 27 OF 55

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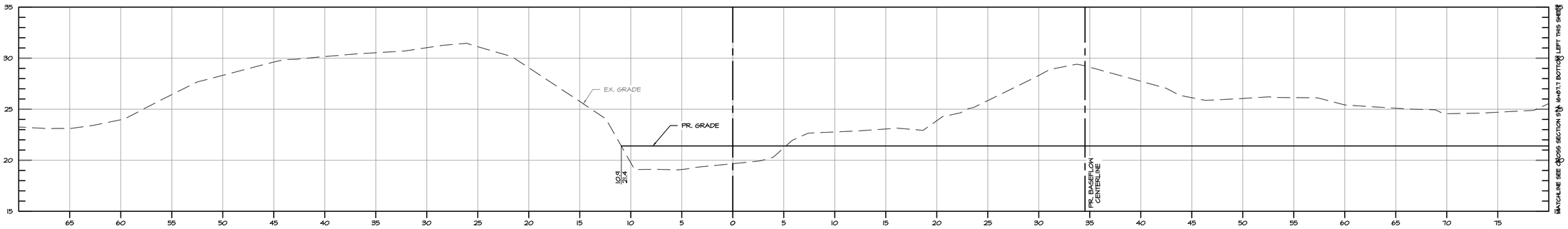
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SCALE: 1 inch

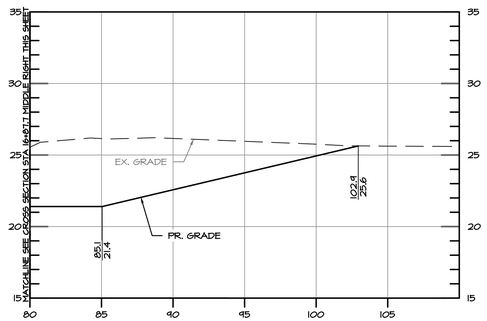
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TAYLOR CREEK BASELINE OF CONSTRUCTION STA 16+20.1



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 16+87.7



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 16+87.7

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
2. REFER TO RIFFLE–WEIR STAKEOUT TABLE ON DWG DE–02/SHEET 17 FOR RIFFLE–WEIR CREST ELEVATIONS.
3. BASEFLOW CHANNEL CENTERLINE IS SHOWN ON CROSS SECTION VIEWS. REFER TO DWG DE–03/SHEET 18 FOR DIMENSIONS

0 2.5 5 10
1 INCH = 5 FEET

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BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS–06 OF XS–09

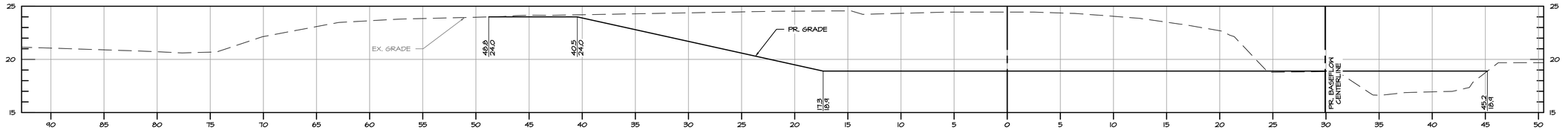
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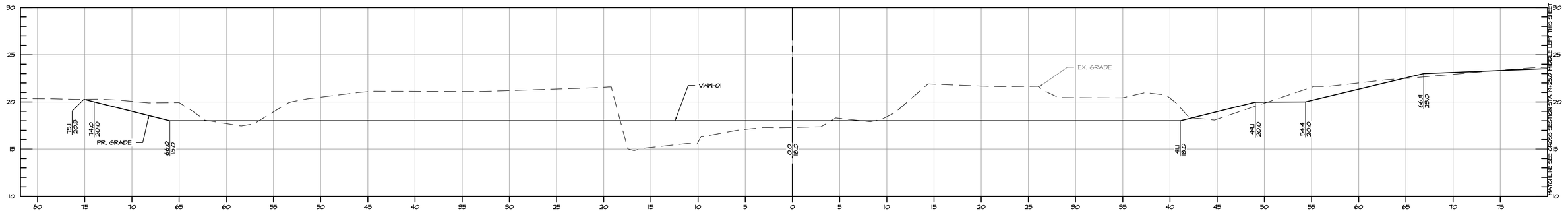
HCG DWG ID No.:

SCALE: 1 inch

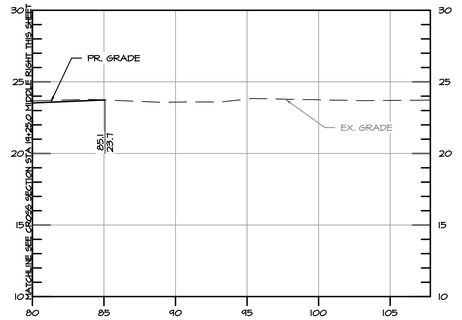
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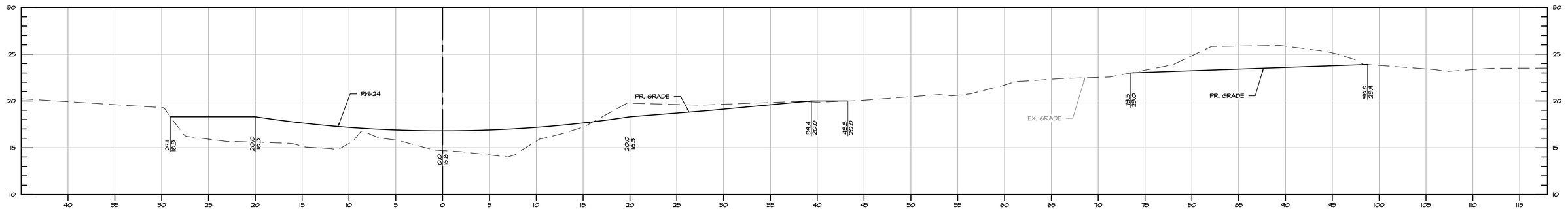
TAYLOR CREEK BASELINE OF CONSTRUCTION STA 18+31.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 18+96.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 18+96.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 19+77.0

60% DESIGN DRAWINGS

NOTES:
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0 2.5 5 10
1 INCH = 5 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS-07 OF XS-09

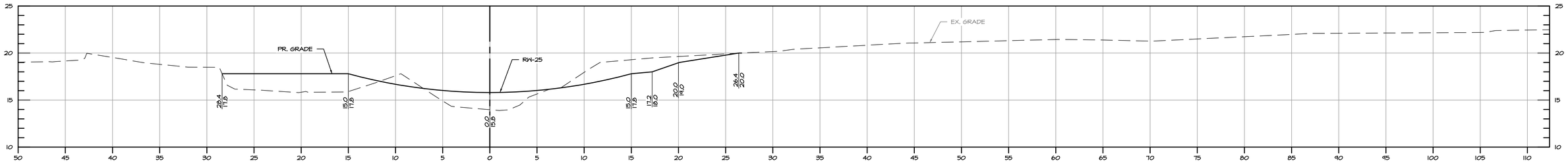
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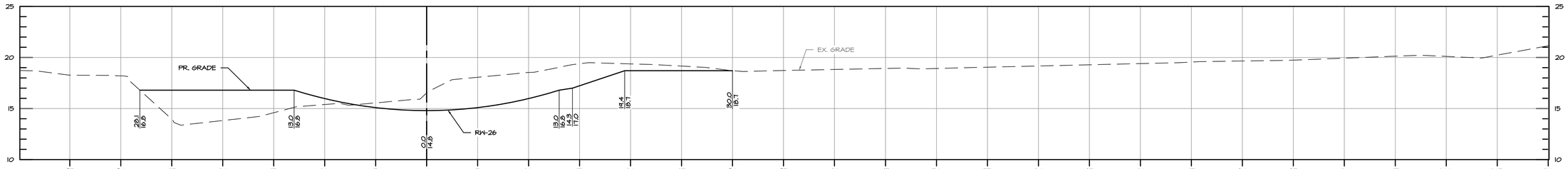
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SCALE 1 inch

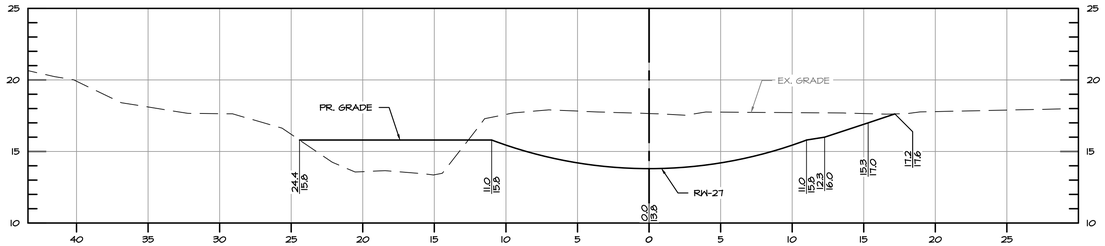
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TAYLOR CREEK BASELINE OF CONSTRUCTION STA 20+25.3



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 20+69.7



TAYLOR CREEK BASELINE OF CONSTRUCTION STA 21+03.6

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
2. REFER TO RIFFLE-WEIR STAKEOUT TABLE ON DWG DE-02/SHEET 17 FOR RIFFLE-WEIR CREST ELEVATIONS.

0 2.5 5 10
1 INCH = 5 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS-08 OF XS-09

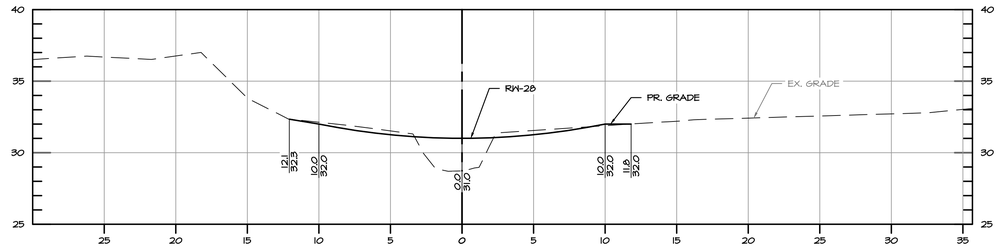
SHEET NO. 30 OF 55

BID No.:

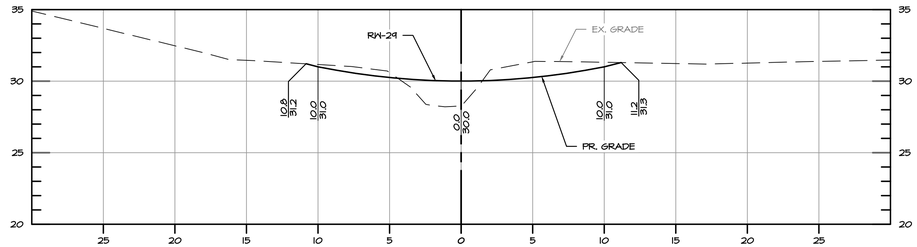
HCG DWG ID No.:

SCALE 1 inch

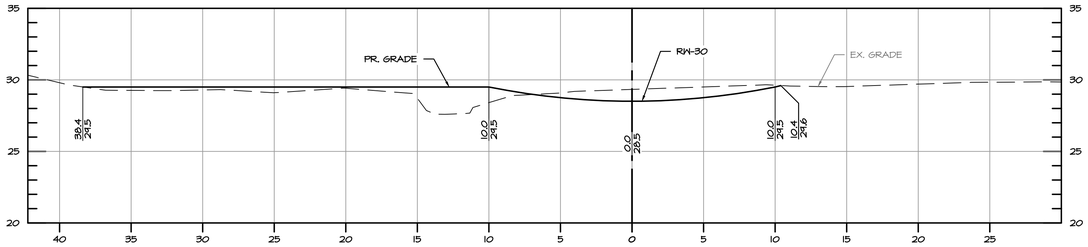
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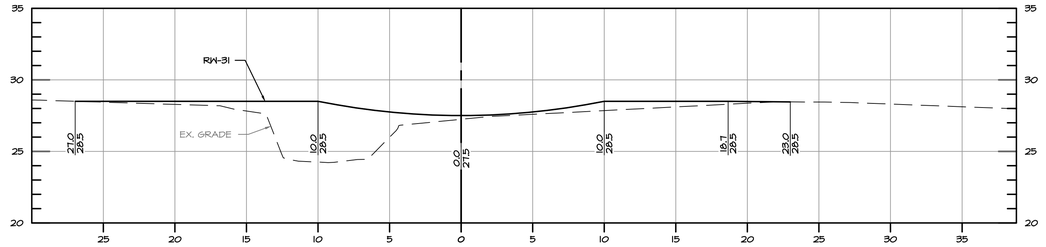
TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 101+07.5



TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 101+52.5

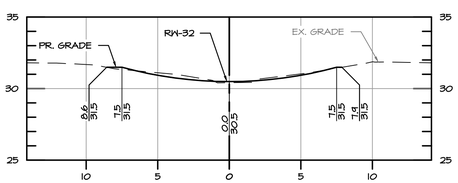


TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 101+97.5

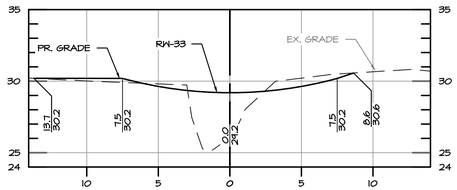


TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 102+42.5

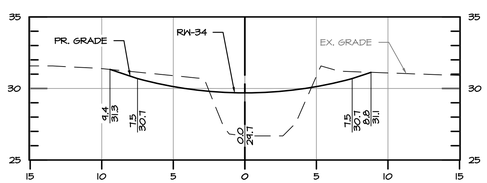
TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 102+86.8



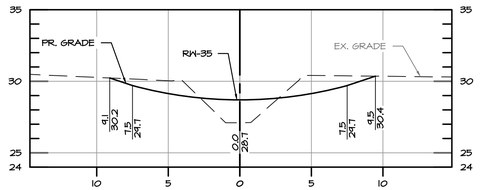
HEADCUT 5A STA 170+22.3



HEADCUT 5A STA 170+63.3



HEADCUT 5B STA 180+16.2



HEADCUT 5B STA 180+47.2

NOTES:
1. NOT ALL CROSS SECTIONS SHOWN ARE PERPENDICULAR TO THE PROPOSED ALIGNMENT. ELECTRONIC CAD FILES WILL BE PROVIDED TO ASSIST WITH STAKEOUT.
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3. BASEFLOW CHANNEL CENTERLINE IS SHOWN ON CROSS SECTION VIEWS. REFER TO DWG DE–03/SHEET 18 FOR DIMENSIONS

0 2.5 5 10
1 INCH = 5 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 5'
DATE : 05/06/24

DRAWING NO. XS–09 OF XS–09

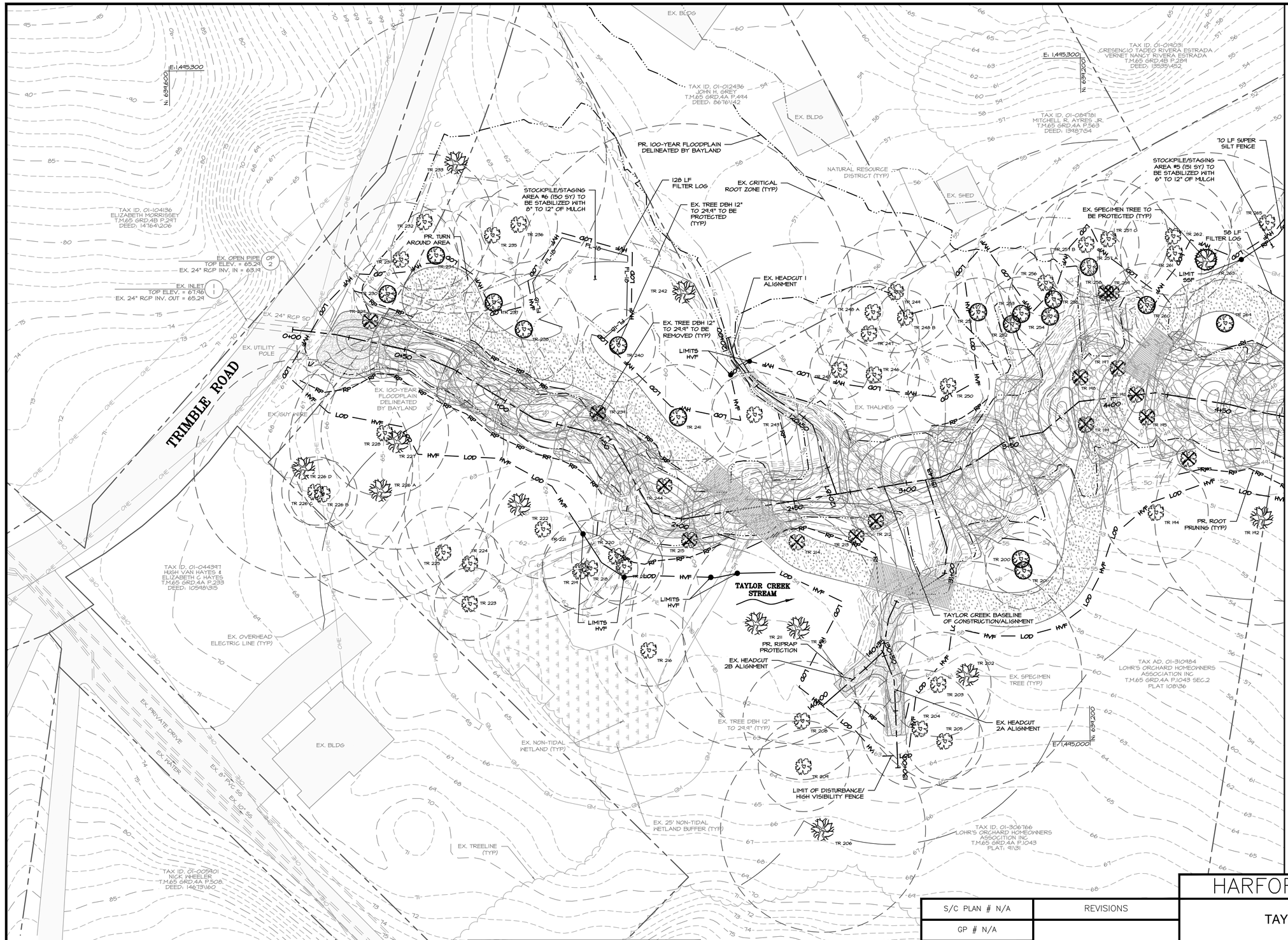
SHEET NO. 31 OF 55

BID No.:

HCG DWG ID No.:

SCALE 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_XS–A08.dwg



SYSTEM (NAD'83/11) MARYLAND GRID

MATCHLINE REFER TO SHEET 33/DWG FC-02

FOREST CONSERVATION LEGEND

- LIMIT OF DISTURBANCE — LOD
- LOD/HIGH VISIBILITY FENCE (SEE DETAIL SHEET 54/DWG ED-01) — LOD — HVF
- TREE PROTECTION (PLANKING) (SEE DETAIL SHEET 54/DWG ED-01)
- ROOT PRUNING (SEE DETAIL SHEET 55/DWG ED-02) — RP — RP
- CRITICAL ROOT ZONE (SEE DETAIL SHEET 54/DWG ED-01)
- 18" FILTER LOG (SEE DETAIL SHEET 55/DWG ED-02) — FL-18
- SUPER SILT FENCE (SEE DETAIL SHEET 54/DWG ED-01) — SSF
- CONSTRUCTION ACCESS ROAD (MULCH) (SEE DETAIL SHEET 54/DWG ED-01)
- CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH) (SEE DETAIL SHEET 54/DWG ED-01)
- TEMPORARY ACCESS BRIDGE (SEE DETAIL SHEET 54/DWG ED-01)

NOTE: ROOT PRUNING WILL BE PERFORMED CONCURRENTLY WITH SUPER SILT FENCE INSTALLATION

FOREST CONSERVATION PLAN

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
7455 New Ridge Road, Suite T
Hanover, Maryland 21076
Phone: (410) 694-9401
Fax: (410) 694-9105
www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A	REVISIONS
GP # N/A	

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
FOREST CONSERVATION PLAN

DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/06/24
REVIEWED BY : SMC/CMS	
DRAWING NO. FC-01 OF FC-06	SHEET NO. 32 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1" = 20'

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_FC01.dwg

FOREST CONSERVATION LEGEND

- LIMIT OF DISTURBANCE — LOD
- LOD/HIGH VISIBILITY FENCE SEE DETAIL SHEET 54/DWG ED-01 — LOD — HVF
- TREE PROTECTION (PLANKING) SEE DETAIL SHEET 54/DWG ED-01
- ROOT PRUNING SEE DETAIL SHEET 55/DWG ED-02 — RP — RP
- CRITICAL ROOT ZONE
- 18" FILTER LOG SEE DETAIL SHEET 55/DWG ED-02 — FL-18
- SUPER SILT FENCE SEE DETAIL SHEET 54/DWG ED-01 — SSF
- CONSTRUCTION ACCESS ROAD (MULCH) SEE DETAIL SHEET 54/DWG ED-01
- CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH) SEE DETAIL SHEET 54/DWG ED-01
- TEMPORARY ACCESS BRIDGE SEE DETAIL SHEET 54/DWG ED-01

NOTE: ROOT PRUNING WILL BE PERFORMED CONCURRENTLY WITH SUPER SILT FENCE INSTALLATION

MATCHLINE REFER TO SHEET 32/DWG FC-01

MATCHLINE REFER TO SHEET 34/DWG FC-03

SYSTEM (NAD'83/11) MARYLAND GRID

E: 1,445,300
N: 636,650

EX. 20' DRAINAGE & UTILITY EASEMENT PLAT: 108/36

TAX ID. 01-012436
DARLENE AMANDA SUTTON
T.M.65 GRD.4B P.240
DEED: 15027/163

NATURAL RESOURCE DISTRICT (TYP)

EX. NON-TIDAL WETLAND (TYP)

EX. 25' NON-TIDAL WETLAND BUFFER (TYP)

EX. CRITICAL ROOT ZONE (TYP)

STOCKPILE/STAGING AREA #5 (17 SY) TO BE STABILIZED WITH MATS AND 12" OF MULCH

70 LF SUPER SILT FENCE

75 LF SUPER SILT FENCE

EX. SPECIMEN TREE TO BE PROTECTED (TYP)

STOCKPILE/STAGING AREA #5 (151 SY) TO BE STABILIZED WITH 8" TO 12" OF MULCH

LIMIT SSF

LIMITS SSF

STOCKPILE/STAGING AREA #4 (154 SY) TO BE STABILIZED WITH 8" TO 12" OF MULCH

55 LF FILTER LOG

50 LF FILTER LOG

EX. DEAD SPECIMEN TREE

LIMITS HVF

PR. VALLEY WIDE GRADE CONTROL (SUB-GRADE) (TYP)

PR. 100-YEAR FLOODPLAIN DELINEATED BY BAYLAND

TAYLOR CREEK BASELINE OF CONSTRUCTION/ALIGNMENT

EX. 100-YEAR FLOODPLAIN DELINEATED BY BAYLAND

TAYLOR CREEK

EX. THALWEG

EX. TREE DBH 12" TO 29.9" TO BE PROTECTED (TYP)

EX. HEADCUT 4 ALIGNMENT

PR. BASEFLOW CHANNEL

EX. SPECIMEN TREE TO BE REMOVED (TYP)

PR. ROOT PRUNING (TYP)

EX. TREE DBH 12" TO 29.9" TO BE REMOVED (TYP)

LIMITS HVF

EX. TREE DBH 12" TO 29.9" (TYP)

EX. 50' STREAM PROTECTION ZONE

EX. TREELINE

STORMWATER MANAGEMENT POND #4 (DWG. 030313)

TAX ID. 01-310184
LOHR'S ORCHARD HOMEOWNERS ASSOCIATION INC
T.M.65 GRD.4A P.1043 SEG.2
PLAT: 108/36

N: 634,050
E: 1,444,950

N: 636,650
E: 1,444,950

60% DESIGN DRAWINGS

FOREST CONSERVATION PLAN

SCALE: 1" = 20'

0 10 20 40
1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
FOREST CONSERVATION PLAN

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. FC-02 OF FC-06

SHEET NO. 33 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_FC02.dwg

FOREST CONSERVATION LEGEND

LIMIT OF DISTURBANCE — LOD

LOD/HIGH VISIBILITY FENCE (SEE DETAIL SHEET 54/DWG ED-01) — LOD — HVF

TREE PROTECTION (PLANKING) (SEE DETAIL SHEET 54/DWG ED-01)

ROOT PRUNING (SEE DETAIL SHEET 55/DWG ED-02) — RP — RP

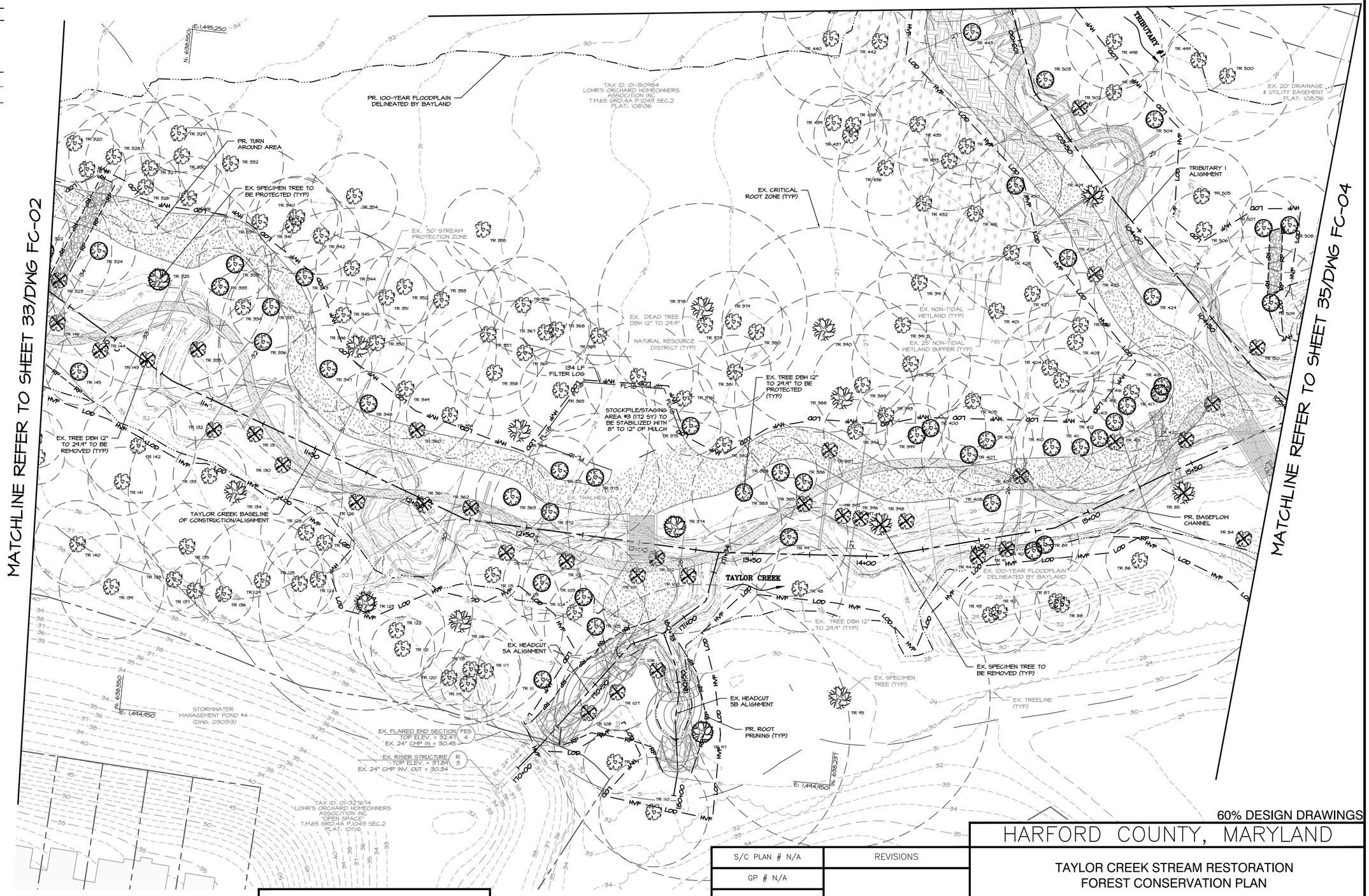
CRITICAL ROOT ZONE

18" FILTER LOG (SEE DETAIL SHEET 55/DWG ED-02) — FL-18

CONSTRUCTION ACCESS ROAD (MULCH) (SEE DETAIL SHEET 54/DWG ED-01)

CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH) (SEE DETAIL SHEET 54/DWG ED-01)

TEMPORARY ACCESS BRIDGE (SEE DETAIL SHEET 54/DWG ED-01)



60% DESIGN DRAWINGS

FOREST CONSERVATION PLAN

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

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EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
FOREST CONSERVATION PLAN

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 20'

DATE : 05/06/24

DRAWING NO. FC-03 OF FC-06

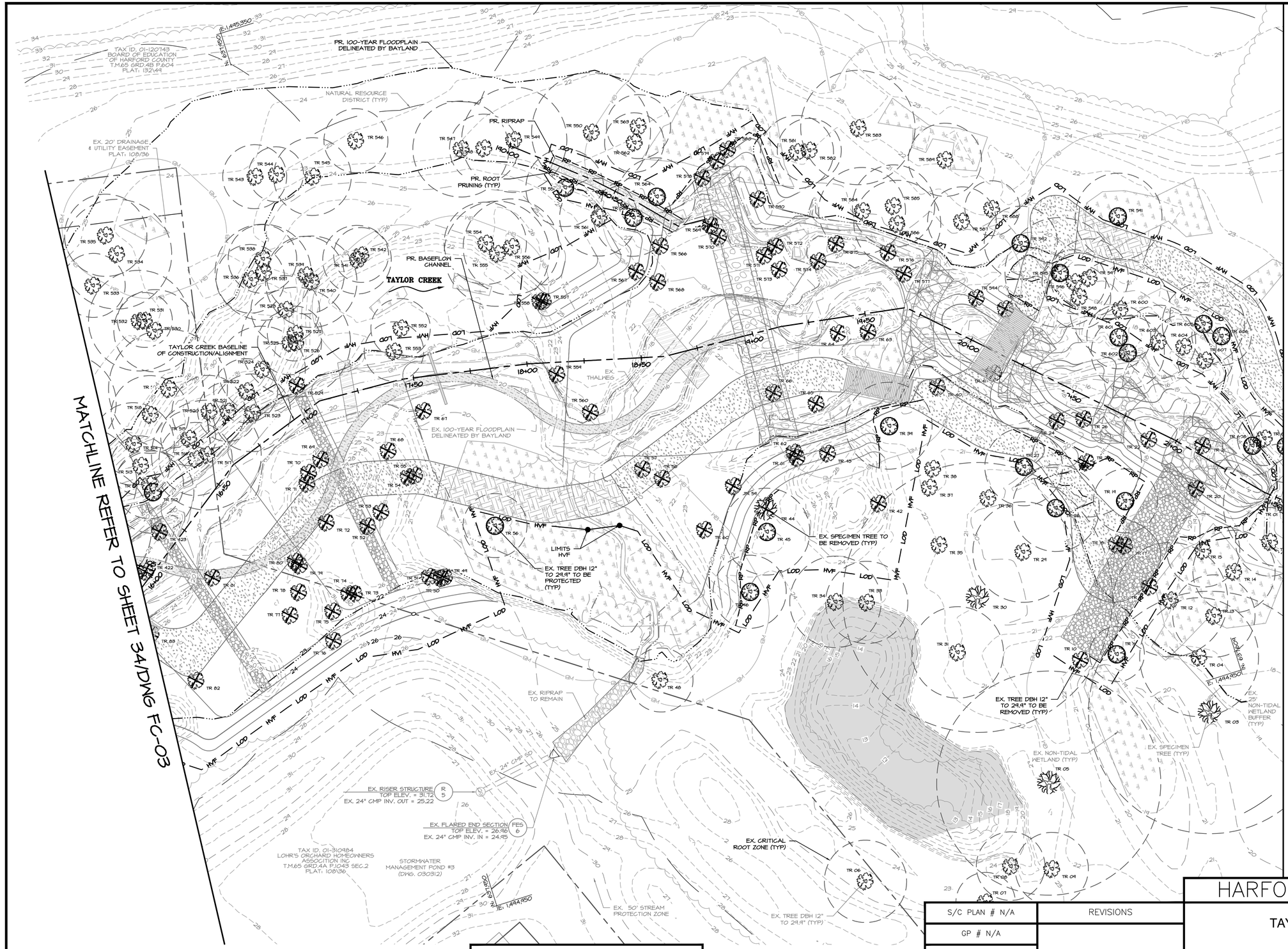
SHEET NO. 34 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1" = 20'

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FOREST CONSERVATION LEGEND

- LIMIT OF DISTURBANCE — LOD
- LOD/HIGH VISIBILITY FENCE SEE DETAIL SHEET 54/DWG ED-01 — LOD HVF
- TREE PROTECTION (PLANKING) SEE DETAIL SHEET 54/DWG ED-01
- ROOT PRUNING SEE DETAIL SHEET 55/DWG ED-02 — RP RP
- CRITICAL ROOT ZONE
- CONSTRUCTION ACCESS ROAD (MULCH) SEE DETAIL SHEET 54/DWG ED-01
- CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH) SEE DETAIL SHEET 54/DWG ED-01
- TEMPORARY ACCESS BRIDGE SEE DETAIL SHEET 54/DWG ED-01

MARYLAND GRID SYSTEM (NAD83/11)

FOREST CONSERVATION PLAN

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
FOREST CONSERVATION PLAN

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 20'

DATE : 05/06/24

DRAWING NO. FC-04 OF FC-06

SHEET NO. 35 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1" = 20'

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_FC04.dwg

FOREST CONSERVATION LEGEND

LIMIT OF DISTURBANCE — LOD

LOD/HIGH VISIBILITY FENCE
SEE DETAIL SHEET 54/DWG ED-01 — LOD — HVF —

SILT FENCE
SEE DETAIL SHEET 54/DWG ED-01 — SF —

CONSTRUCTION ACCESS ROAD (MULCH)
SEE DETAIL SHEET 54/DWG ED-01

CRITICAL ROOT ZONE

STABILIZED CONSTRUCTION ENTRANCE
SEE DETAIL SHEET 54/DWG ED-01 (SCE)

TREE PROTECTION (PLANKING)
SEE DETAIL SHEET 54/DWG ED-01

COLD MIX ASPHALT

MATCHLINE REFER TO SHEET 35/DWG FC-04

EX. TREELINE (TYP)

197 LF SILT FENCE

STOCKPILE/STAGING AREA #2 (311 SY) TO BE STABILIZED WITH 4" TO 6" OF MULCH

EX. TREE DBH 12" TO 29.9" TO BE PROTECTED (TYP)

EX. TREE DBH 12" TO 29.9" (TYP)

EX. 60" RCP SD

TAYLOR CREEK BASELINE OF CONSTRUCTION/ALIGNMENT

EX. CRITICAL ROOT ZONE (TYP)

PR. 100-YEAR FLOODPLAIN DELINEATED BY BAYLAND

NATURAL RESOURCE DISTRICT (TYP)

EX. THALWEG

EX. 100-YEAR FLOODPLAIN DELINEATED BY BAYLAND

N: 685,400
E: 1,445,000

N: 685,400
E: 1,445,000

435 LF SILT FENCE

STOCKPILE/STAGING AREA #1 (1574 SY) TO BE STABILIZED WITH 4" TO 6" OF MULCH

EX. SIDEWALK

EX. CURB & GUTTER

LIMIT HVF

135'

LIMIT HVF

N: 685,650
E: 1,444,650

EX. SIDEWALK

SYSTEM (NAD83/11) MARYLAND GRID

60% DESIGN DRAWINGS

FOREST CONSERVATION PLAN

SCALE: 1" = 20'

0 10 20 40
1 INCH = 20 FEET

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www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
FOREST CONSERVATION PLAN

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. FC-05 OF FC-06

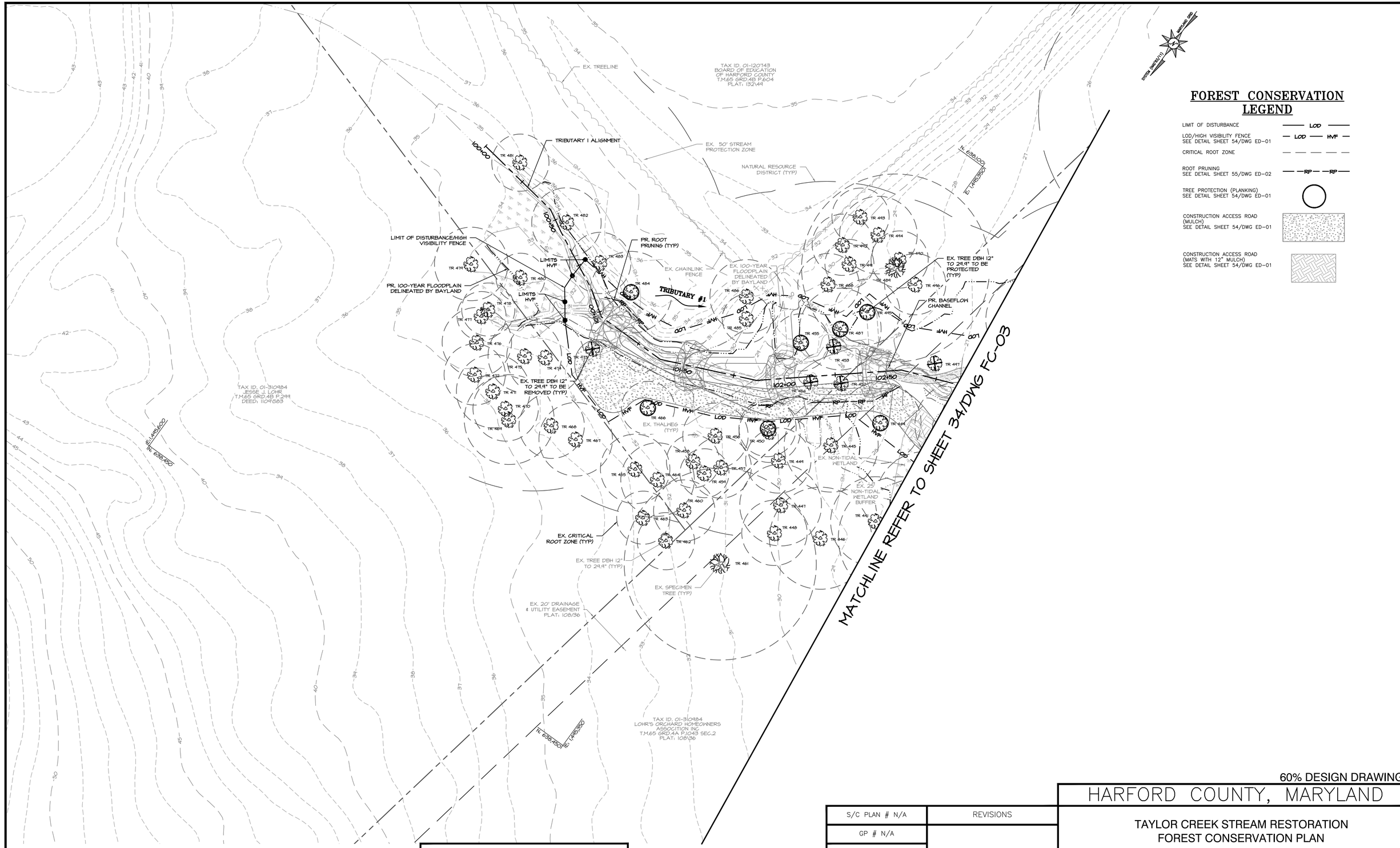
SHEET NO. 36 OF 55

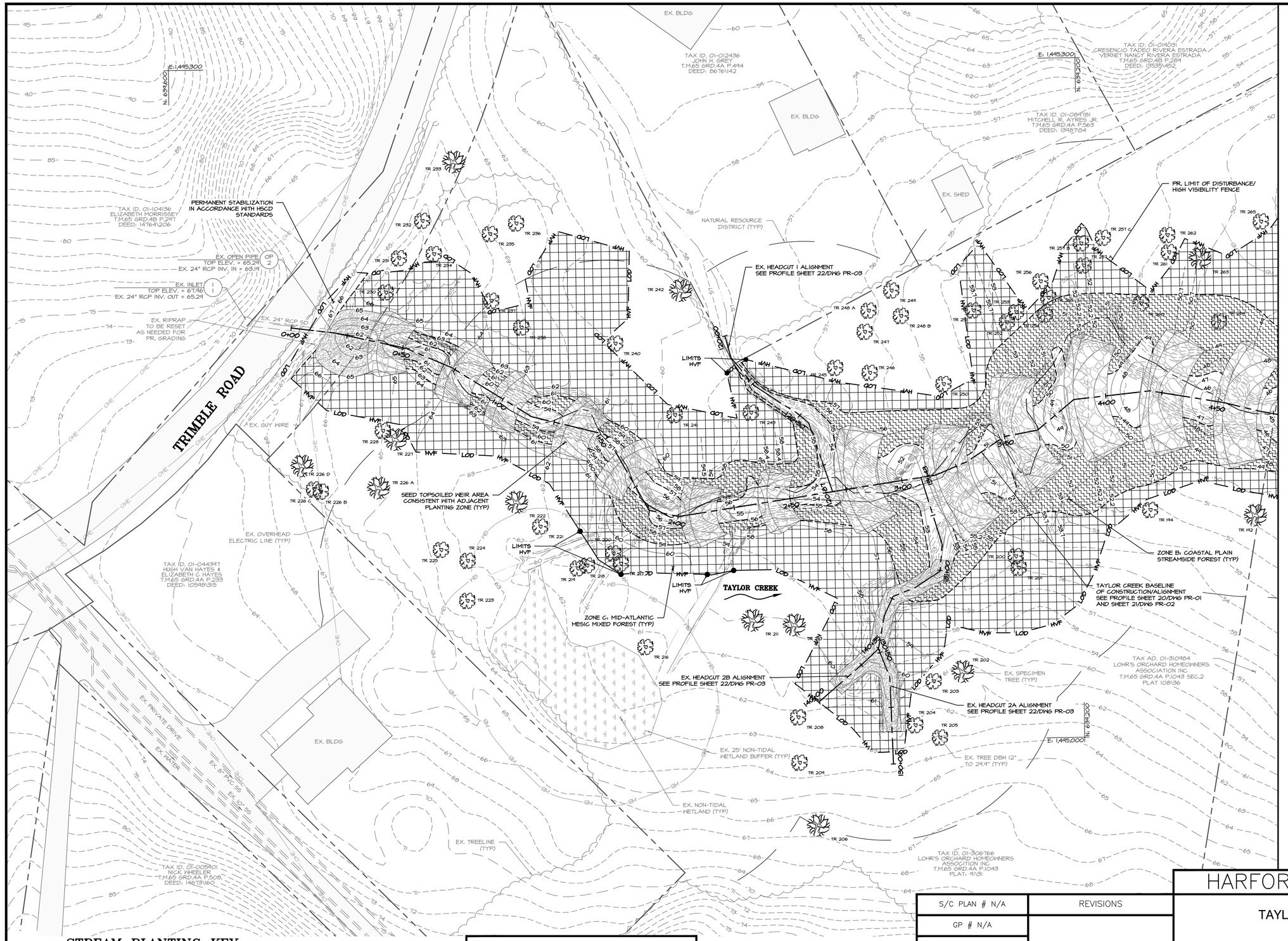
BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_FC05.dwg


TRIBUTARY 1 ALIGNMENT
EX. TREELINE
TAX ID. 01-120743
BOARD OF EDUCATION
OF HARFORD COUNTY
T.M.65 GRD.4B P.604
PLAT: 132/44
EX. 50' STREAM
PROTECTION ZONE
NATURAL RESOURCE
DISTRICT (TYP)
N 638,100
E 1,468,550
LIMIT OF DISTURBANCE/HIGH
VISIBILITY FENCE
PR. ROOT
PRUNING (TYP)
LIMITS
HVF
PR. 100-YEAR FLOODPLAIN
DELINEATED BY BAYLAND
EX. CHAINLINK
FENCE
EX. 100-YEAR
FLOODPLAIN
DELINEATED
BY BAYLAND
EX. TREE DBH 12"
TO 29.9" TO BE
PROTECTED
(TYP)
TRIBUTARY #1
PR. BASEFLOW
CHANNEL
EX. TREE DBH 12"
TO 29.9" TO BE
REMOVED (TYP)
EX. THALWEG
(TYP)
EX. NON-TIDAL
WETLAND
EX. 25'
NON-TIDAL
WETLAND
BUFFER
EX. CRITICAL
ROOT ZONE (TYP)
EX. TREE DBH 12"
TO 29.9" (TYP)
EX. SPECIMEN
TREE (TYP)
EX. 20' DRAINAGE
& UTILITY EASEMENT
PLAT: 108/36
TAX ID. 01-310984
JESSE J. LOHR
T.M.65 GRD.4B P.299
DEED: 1109/503
N 638,850
E 1,468,600
TAX ID. 01-310984
LOHR'S ORCHARD HOMEOWNERS
ASSOCIATION INC
T.M.65 GRD.4A P.1043 SEC.2
PLAT: 108/36
N 638,450
E 1,468,950
MATCHLINE REFER TO SHEET 34/DWG FC-03
LOD
HVF
RP
TR 461
TR 462
TR 463
TR 464
TR 465
TR 466
TR 467
TR 468
TR 469
TR 470
TR 471
TR 472
TR 473
TR 474
TR 475
TR 476
TR 477
TR 478
TR 479
TR 480
TR



MATCHLINE REFER TO SHEET 39/DWG LP-02

SYSTEM (NAD'83/'11) MARYLAND GRID

STREAM PLANTING KEY

- ZONE A: COASTAL PLAIN FLOODPLAIN SWAMP
- ZONE B: COASTAL PLAIN STREAMSIDE FOREST
- ZONE C: MID-ATLANTIC MESIC MIXED FOREST
- ZONE D: FLOODPLAIN POOL
- WOODY/NON-WOODY PLANTING BREAK

NOTE:
1. FOR PLANTING SCHEDULES, NOTES, AND DETAILS, SEE DWG LD-01/SHEET 43 AND DWG LD-02/SHEET 44.

LANDSCAPING PLAN

SCALE: 1" = 20'

0 10 20 40
1 INCH = 20 FEET

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
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Hanover, Maryland 21076
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www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION LANDSCAPING PLAN

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. LP-01 OF LP-05

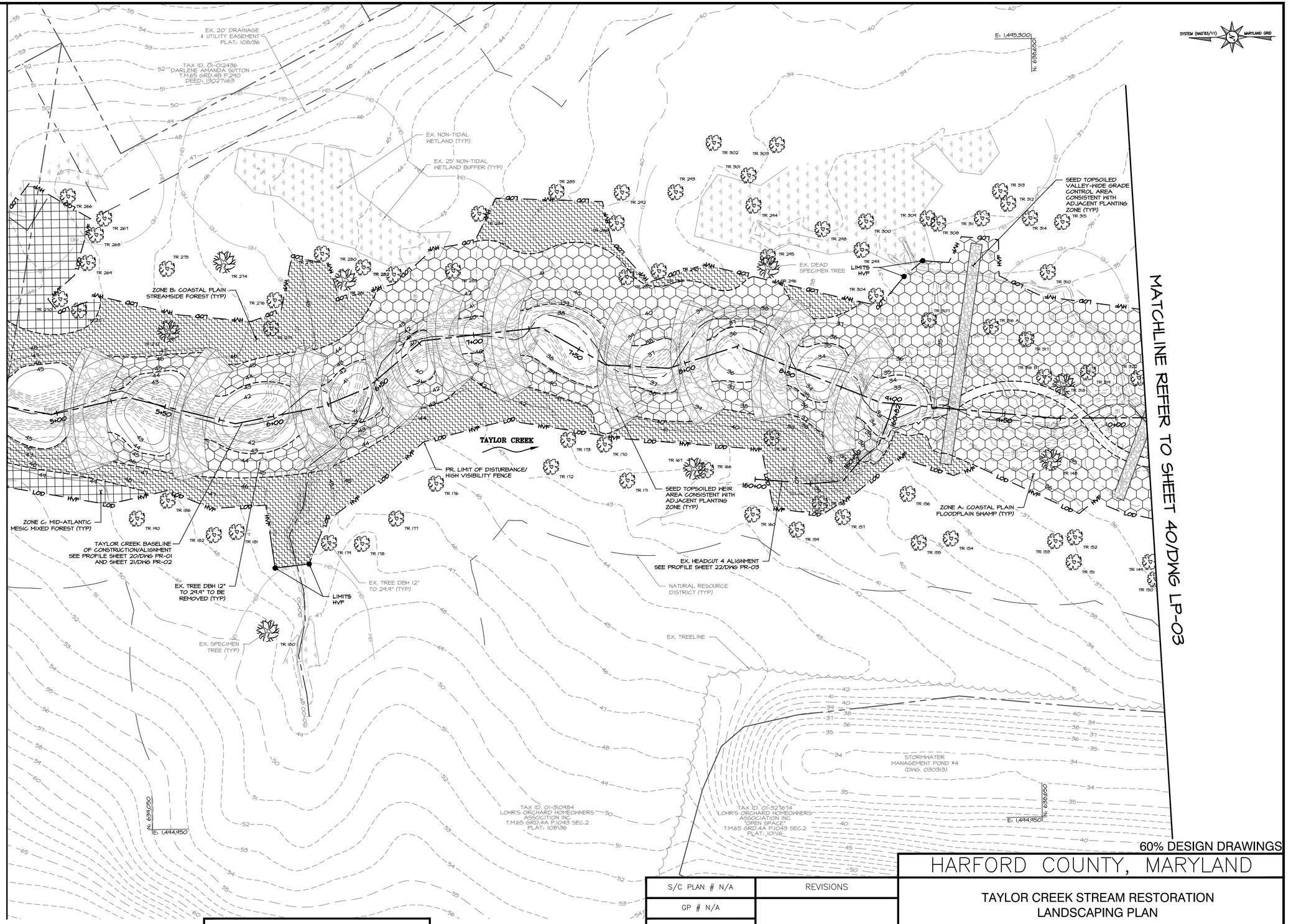
SHEET NO. 38 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_LP01.dwg



STREAM PLANTING KEY

- ZONE A: COASTAL PLAIN FLOODPLAIN SWAMP
- ZONE B: COASTAL PLAIN STREAMSIDE FOREST
- ZONE C: MID-ATLANTIC MESIC MIXED FOREST
- ZONE D: FLOODPLAIN POOL
- WOODY/NON-WOODY PLANTING BREAK

NOTE:
1. FOR PLANTING SCHEDULES, NOTES, AND DETAILS, SEE DWG LD-01/SHEET 43 AND DWG LD-02/SHEET 44.

LANDSCAPING PLAN

SCALE: 1" = 20'

0 10 20 40
1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A	REVISIONS
GP # N/A	

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
LANDSCAPING PLAN

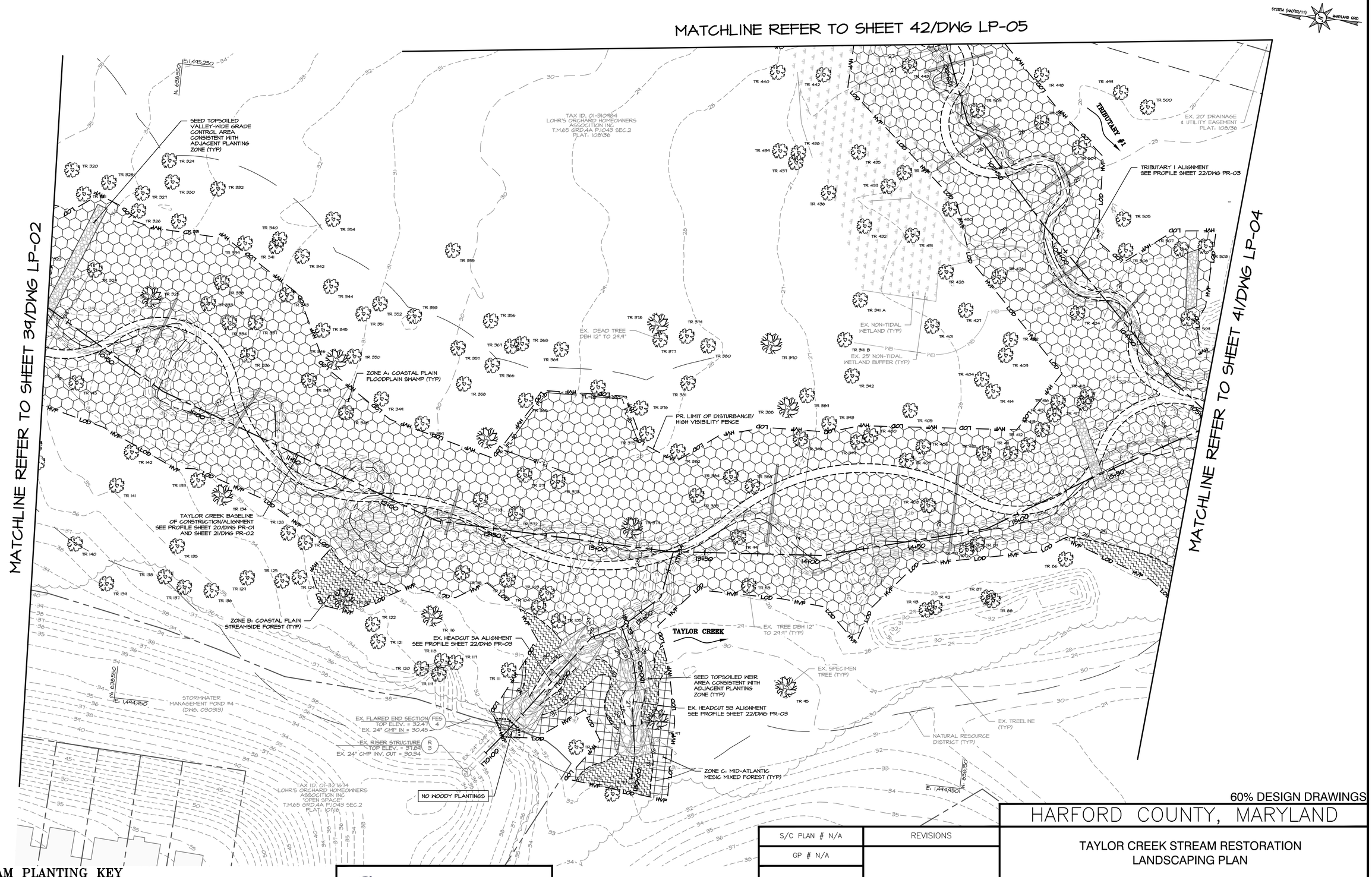
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/06/24
REVIEWED BY : SMC/CMS	
DRAWING NO. LP-02 OF LP-05	SHEET NO. 39 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_LP02.dwg



STREAM PLANTING KEY

- ZONE A: COASTAL PLAIN FLOODPLAIN SWAMP
- ZONE B: COASTAL PLAIN STREAMSIDE FOREST
- ZONE C: MID-ATLANTIC MESIC MIXED FOREST
- ZONE D: FLOODPLAIN POOL
- WOODY/NON-WOODY PLANTING BREAK .....

NOTE:
1. FOR PLANTING SCHEDULES, NOTES, AND DETAILS, SEE DWG LD-01/SHEET 43 AND DWG LD-02/SHEET 44.

LANDSCAPING PLAN

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A	REVISIONS
GP # N/A	

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
LANDSCAPING PLAN

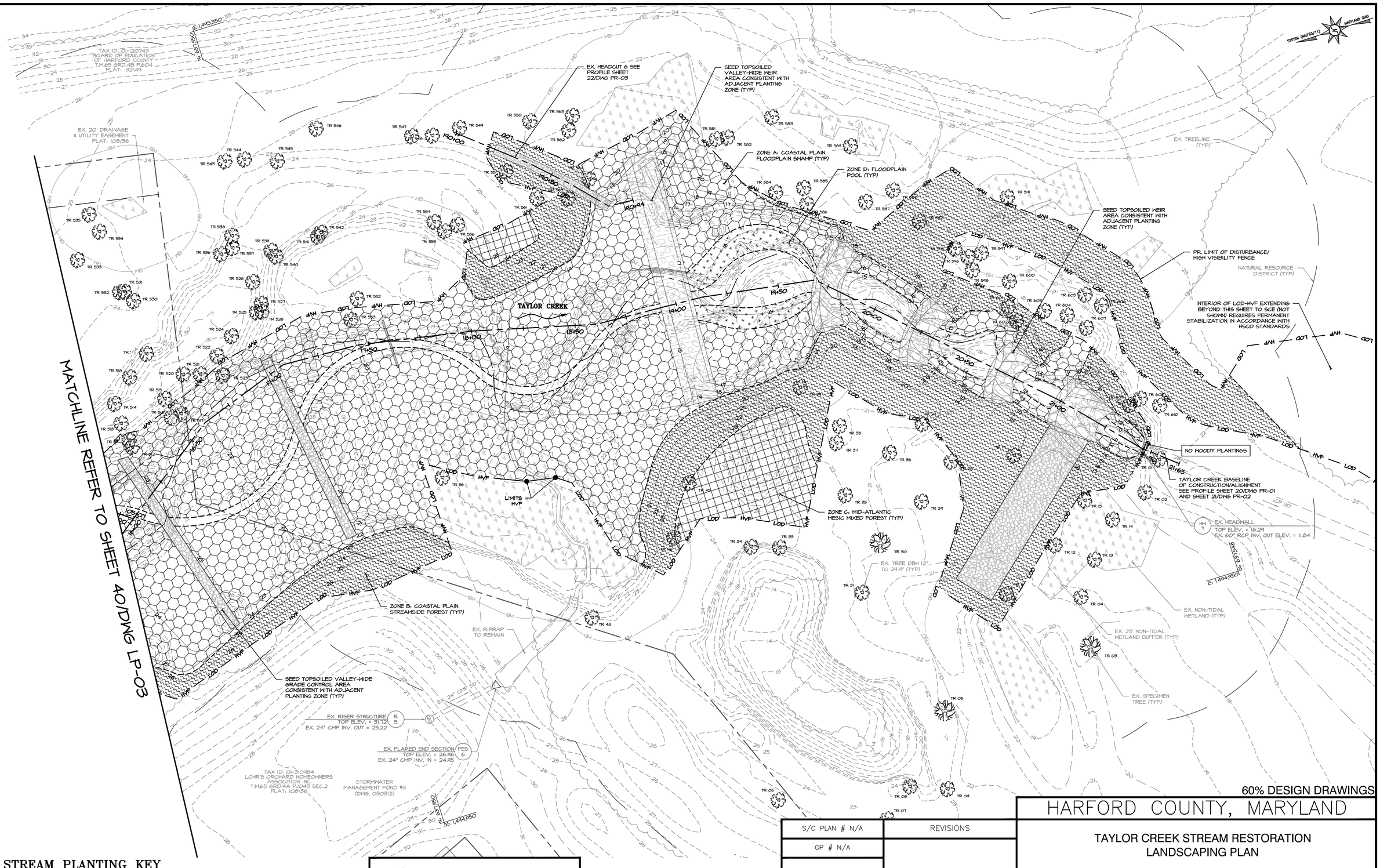
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/06/24
REVIEWED BY : SMC/CMS	
DRAWING NO. LP-03 OF LP-05	SHEET NO. 40 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1"=20'

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_LP03.dwg



STREAM PLANTING KEY

- ZONE A: COASTAL PLAIN FLOODPLAIN SWAMP
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- ZONE C: MID-ATLANTIC MESIC MIXED FOREST
- ZONE D: FLOODPLAIN POOL
- WOODY/NON-WOODY PLANTING BREAK .....

NOTE:
1. FOR PLANTING SCHEDULES, NOTES, AND DETAILS, SEE DWG LD-01/SHEET 43 AND DWG LD-02/SHEET 44.

LANDSCAPING PLAN

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

S/C PLAN # N/A	REVISIONS
GP # N/A	

TAYLOR CREEK STREAM RESTORATION
LANDSCAPING PLAN

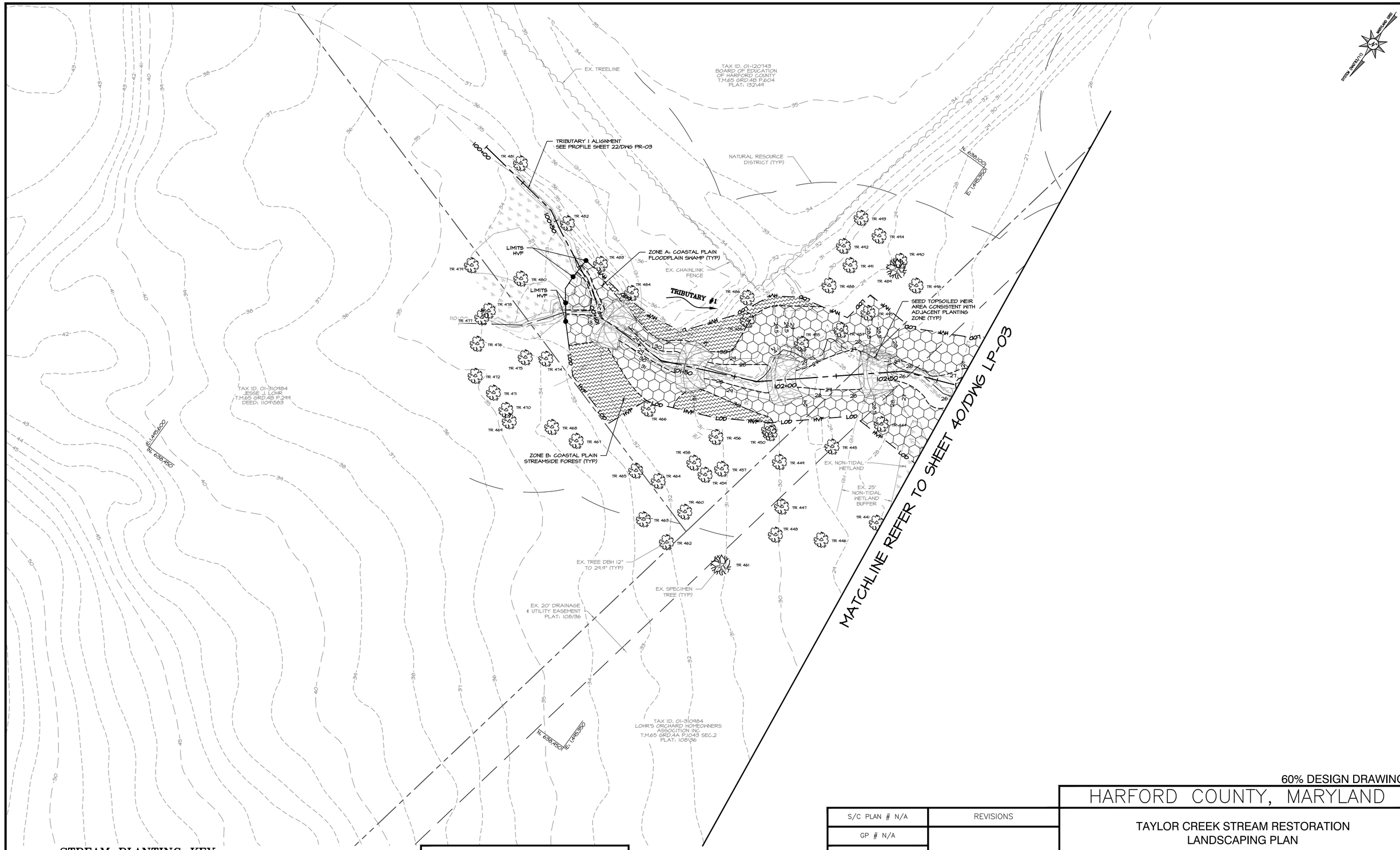
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/06/24
REVIEWED BY : SMC/CMS	
DRAWING NO. LP-04 OF LP-05	SHEET NO. 41 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

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STREAM PLANTING KEY

- ZONE A: COASTAL PLAIN FLOODPLAIN SWAMP
- ZONE B: COASTAL PLAIN STREAMSIDE FOREST
- ZONE C: MID-ATLANTIC MESIC MIXED FOREST
- ZONE D: FLOODPLAIN POOL
- WOODY/NON-WOODY PLANTING BREAK

NOTE:
1. FOR PLANTING SCHEDULES, NOTES, AND DETAILS, SEE DWG LD-01/SHEET 43 AND DWG LD-02/SHEET 44.

LANDSCAPING PLAN

SCALE: 1" = 20'

0 10 20 40
1 INCH = 20 FEET

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
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Hanover, Maryland 21076
Phone: (410) 694-9401
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www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
LANDSCAPING PLAN

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. LP-05 OF LP-05

SHEET NO. 42 OF 55

BID No.:

HCG DWG ID No.:

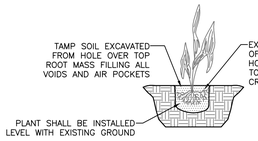
SCALE: 1 inch

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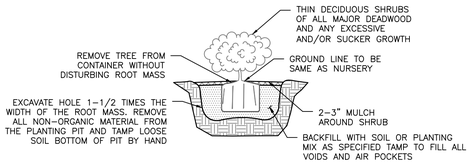
HERBACEOUS PLANTING – QUART

NOT TO SCALE



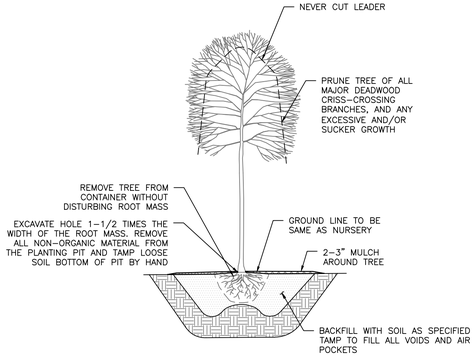
HERBACEOUS PLANTING – PLUG

NOT TO SCALE



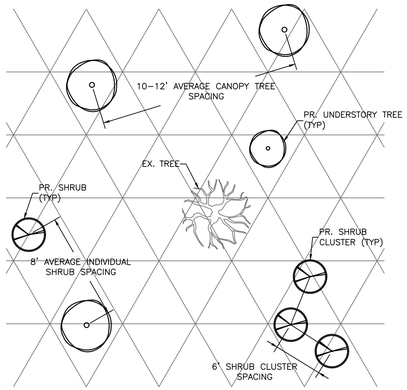
SHRUB PLANTING – CONTAINER GROWN

NOT TO SCALE



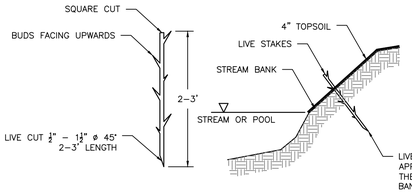
TREE PLANTING – CONTAINER GROWN

NOT TO SCALE



TYPICAL 30'X30' NATURALIZED PLANTING DETAIL

NOT TO SCALE



1. LIVE STAKES SHALL BE INSTALLED ALONG STREAM BANKS OF OPEN POOLS. LIVE STAKES MUST NOT BE INSTALLED ALONG RIFFLE WEIRS, VALLEY WIDE WEIRS, OR CONSTRUCTED RIFFLES.
2. INSTALL LIVE STAKES NO GREATER THAN 1' VERTICALLY ABOVE BASEFLOW WATER SURFACE ELEVATION

LIVE STAKE DETAIL

NOT TO SCALE

GENERAL PLANTING NOTES

1. ALL PLANT MATERIALS SHALL BE NURSERY GROWN AND SHALL CONFORM TO AMERICAN ASSOCIATION OF NURSERYMEN, INC. STANDARDS.
2. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL UTILITY LOCATIONS PRIOR TO PLANTING MATERIAL. IF CONFLICTS ARISE, THE ENGINEER MUST BE NOTIFIED PRIOR TO ANY GROUND BREAKING.
3. HERBACEOUS QUARTS AND PLUGS SHALL BE PLANTED BETWEEN MARCH 15 AND MAY 15 (SPRING PLANTING SEASON) OR BETWEEN SEPTEMBER 15 AND NOVEMBER 15 (FALL PLANTING SEASONS), UNLESS OTHERWISE DIRECTED BY THE COUNTY.
4. TREES AND SHRUBS SHALL BE PLANTED FROM MARCH 1 TO JUNE 15 AND FROM SEPTEMBER 15 TO DECEMBER 15. PLANTING MAY BE CONTINUED DURING THE WINTER MONTHS WITH COUNTY APPROVAL AND PROVIDED THERE IS NO FROST IN THE GROUND AND FROST FREE TOPSOIL PLANTING MIXTURES ARE USED.
5. NO CONTAINER–GROWN MATERIAL SHALL BE PLANTED IF NOT ACCLIMATED TO THE CURRENT WEATHER CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR GENERAL MAINTENANCE INCLUDING WATERING.
6. ALL PLANTING MATERIAL AND PLANTING METHODS SHALL CONFORM TO CONSTRUCTION SPECIFICATIONS AND DETAILS.
7. ALL DISTURBED AREAS SHALL BE STABILIZED PER THE DETAILS AND SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT.
8. ALL EXISTING LAWN AREA NOT EXPLICITLY HATCHED FOR REPLANTING SHALL BE STABILIZED IN ACCORDANCE WITH STANDARD PERMANENT STABILIZATION METHODS.

ZONE A: COASTAL PLAIN FLOODPLAIN SWAMP PLANTING SCHEDULE – 125,704 SF

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SIZE	TYPE	MIN SPACING/LOCATION	QUANTITY
OVERSTORY TREES						
ACER RUBRUM	RED MAPLE	FAC	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	20
BETULA NIGRA	RIVER BIRCH	FACW	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	20
NYSSA SYLVATICA	BLACK GUM	FAC	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	20
PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FACW	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	20
QUERCUS BICOLOR	SWAMP WHITE OAK	FACW	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	25
QUERCUS MICHAUXII	SWAMP CHESTNUT OAK	FACW	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	15
QUERCUS PALUSTRIS	PIN OAK	FACW	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	30
QUERCUS PHELLOS	WILLOW OAK	FACW	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	30
ULMUS AMERICANA	AMERICAN ELM	FAC	4–5 FT	#5P5 CONTAINER	RANDOM AT 12' OC ABOVE INUNDATED AREAS	20
UNDERSTORY TREES						
ASIMINA TRILOBA	PAW PAW	FAC	2–3 FT	#5P5 CONTAINER	NATURALIZED AT 9' OC ABOVE INUNDATED AREAS IN GROUPS OF 3	21
CARPINUS CAROLINIANA	IRONWOOD	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 10' OC ABOVE INUNDATED AREAS	20
ILEX OPACA	AMERICAN HOLLY	FAC	2–3 FT	#5P5 CONTAINER	NATURALIZED AT 10' OC HIGHER ELEVATIONS IN ZONE	15
MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 10' OC ABOVE INUNDATED AREAS	25
SHRUBS						
ALNUS SERRULATA	SMOOTH ALDER	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ABOVE INUNDATED AREAS	40
CEPHALANTHUS OCCIDENTALIS	COMMON BUTTONBUSH	OBL	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC 0–6" OF WATER	150
CORNUS SERICEA	RED–OSIER DOGWOOD	NI	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ABOVE INUNDATED AREAS	20
ILEX VERTICILLATA	WINTERBERRY	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ABOVE INUNDATED AREAS	30
LINDERA BENZOIN	SPICEBUSH	OBL	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ABOVE INUNDATED AREAS	15
SAMBUCUS NIGRA	BLACK ELDERBERRY	NI	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ABOVE INUNDATED AREAS	20
VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ABOVE INUNDATED AREAS	20
VIBURNUM DENTATUM	SOUTHERN ARROWOOD	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ABOVE INUNDATED AREAS	15
VIBURNUM NUDUM	POSSUMHAW VIBURNUM	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC ALONG EDGE OF WATER	25
LIVE STAKES						
CORNUIS AMOMUM	SILKY DOGWOOD	FACW	2 FT	LIVE STAKE	RANDOM AT 4' OC ABOVE INUNDATED AREAS	200
SALIX NIGRA	BLACK WILLOW	OBL	2 FT	LIVE STAKE	RANDOM AT 4' OC 0–3" OF WATER	250
HERBACEOUS						
QUARTS						
OSMUNDA CINNAMOMEA	CINNAMON FERN	FACW	6–12"	4" CONTAINER	RANDOM AT 3' O.C. ABOVE INUNDATED AREASIN PARTIAL TO FULL SHADE	50
OSMUNDA REGALIS	ROYAL FERN	OBL	6–12"	4" CONTAINER	RANDOM AT 3' O.C. ABOVE INUNDATED AREAS IN PARTIAL TO FULL SHADE	50
THELYPTERIS PALUSTRIS	EASTERN MARSH FERN	OBL	6–12"	4" CONTAINER	RANDOM AT 3' O.C. ABOVE INUNDATED AREAS IN PARTIAL TO FULL SHADE	50
WOODWARDIA AEREOLATA	NETTED CHAIN FERN	OBL	6–12"	4" CONTAINER	RANDOM AT 3' O.C. ABOVE INUNDATED AREAS IN PARTIAL TO FULL SHADE	50
PLUGS						
ALISMA SUBCORDATUM	WATER PLANTAIN	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 0–6" OF WATER	200
DECODON VERTICILLATUS	SWAMP LOOSESTRIFE	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 0–6" OF WATER	100
DULICHIUM ARUNDINACEUM	THREE–WAY SEDGE	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 3–6" OF WATER	200
HIBISCUS MOSCHEUTOS	ROSE MALLOW	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 0–3" OF WATER	200
IRIS VIERSICOLOR OR IRIS VIRGINICA	BLUEFLAG	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 0–3" OF WATER	200
PONTEDERIA CORDATA	PICKERELWEED	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 3–6" OF WATER	250
SCHOENOPLECTUS TABERNAEMONTANI	SOFT STEM BULRUSH	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 0–6" OF WATER	100
SAGITTARIA LATIFOLIA	DUCK POTATO	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 3–6" OF WATER	200
SEEDING						
NATIVE SEED MIX (ERNMX 131 OR EQUIVALENT)	NATIVE OBLIGATE WETLAND SEED MIX	N/A	N/A	SEED	THROUGHOUT ZONE	72.0 LBS
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES					ABOVE INUNDATED AREAS	N/A

NATIVE OBLIGATE WETLAND SEED MIX COMPOSITION

% COMPOSITION	BOTANICAL NAME	COMMON NAME
27.00%	CAREX VULPINOIDEA	FOX SEDGE
15.00%	CAREX LURIDA	LURID SEDGE
14.00%	CAREX LUPULINA	HOP SEDGE
12.00%	CAREX SCOPARIA	BLUNT BROOM SEDGE
5.00%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
4.00%	VERBENA HASTATA	BLUE VERVAIN
3.70%	SPARGANIUM EURYCARPUM	GIANT BUR REED
3.00%	CAREX STIPATA	AWL SEDGE
3.00%	JUNCUS EFFUSUS	SOFT RUSH
2.80%	ASCLEPIAS INCARNATA	SWAMP MILKWEED
2.00%	IRIS VERSICOLOR	BLUEFLAG
1.50%	SPARGANIUM AMERICANUM	EASTERN BUR REED
1.40%	BIDENS CERNUA	NODDING BUR MARIGOLD
1.00%	EUPATORIUM PERFOLIATUM	BONESET
1.00%	HELENIUM AUTUMNALE	COMMON SNEEZEWEED
1.00%	VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED
0.50%	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA
0.50%	SCIRPUS CYPERINUS	WOOLGRASS
0.40%	ASTER NOVAE–ANGLIAE	NEW ENGLAND ASTER
0.30%	ASTER PUNICEUS	PURPLESTEM ASTER
0.30%	ASTER UMBELLATUS	FLAT TOPPED WHITE ASTER
0.30%	EUPATORIUM FISTULOSUM	JOE PYE WEED
0.30%	PENTHORUM SEDOIDES	DITCH STONECROP

NATIVE FLOODPLAIN SEED MIX COMPOSITION

% COMPOSITION	BOTANICAL NAME	COMMON NAME
20.00 %	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
14.40 %	PANICUM CLANDESTINUM	DEERTONGUE
14.00 %	ANDROPOGON GERARDII	BIG BLUESTEM
14.00 %	SORGHASTRUM NUTANS	INDIANGRASS
10.00 %	CAREX VULPINOIDEA	FOX SEDGE
5.00 %	CAREX LURIDA	LURID SEDGE
5.00 %	CAREX SCOPARIA	BLUNT BROOM SEDGE
4.00 %	VERBENA HASTATA	BLUE VERVAIN
3.00 %	CAREX LUPULINA	HOP SEDGE
2.00 %	ASCLEPIAS INCARNATA	SWAMP MILKWEED
2.00 %	JUNCUS EFFUSUS	SOFT RUSH
2.00 %	ZIZIA AUREA	GOLDEN ALEXANDERS
1.60 %	ASTER NOVAE–ANGLIAE	NEW ENGLAND ASTER
0.70 %	SOLIDAGO RUGOSA	WRINKLELEAF GOLDENROD
0.40 %	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA
0.40 %	MONARDA FISTULOSA	WILD BERGAMOT
0.30 %	HELENIUM AUTUMNALE	COMMON SNEEZEWEED
0.30 %	MIMULUS RINGENS	SQUARE STEMMED MONKEYFLOWER
0.30 %	SCIRPUS CYPERINUS	WOOLGRASS
0.20 %	EUPATORIUM PERFOLIATUM	BONESET
0.20 %	EUTHAMIA GRAMINIFOLIA	GRASSLEAF GOLDENROD
0.10 %	ASTER LANCEOLATUS	LANCE LEAVED ASTER
0.10 %	ASTER PRENANTHOIDES	ZIGZAG ASTER

ZONE B: COASTAL PLAIN STREAMSIDE FOREST PLANTING SCHEDULE – 52,213 SF

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SIZE	TYPE	MIN SPACING/LOCATION	QUANTITY
OVERSTORY TREES						
BETULA NIGRA	RIVER BIRCH	FACW	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	42
DIOSPYROS VIRGINIANA	COMMON PERSIMMON	FAC	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	15
NYSSA SYLVATICA	BLACK GUM	FAC	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	30
PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FACW	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	30
QUERCUS BICOLOR	SWAMP WHITE OAK	FACW	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	32
QUERCUS MICHAUXII	SWAMP CHESTNUT OAK	FACW	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	12
QUERCUS PHELLOS	WILLOW OAK	FACW	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	32
ULMUS AMERICANA	AMERICAN ELM	FAC	4–5 FT	#5P5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	16
UNDERSTORY TREES						
AMELANCHIER CANADENSIS	SERVICEBERRY	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	8
ASIMINA TRILOBA	PAW PAW	FAC	2–3 FT	#5P5 CONTAINER	NATURALIZED AT 9' OC THROUGHOUT ZONE IN GROUPS OF 3	24
CARPINUS CAROLINIANA	IRONWOOD	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	22
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	10
ILEX OPACA	AMERICAN HOLLY	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	18
SHRUBS						
ARONIA ARBUTIFOLIA	RED CHOKEBERRY	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	14
ARONIA MELANOCARPA	BLACK CHOKEBERRY	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	14
CORNUS AMOMUM	SILKY DOGWOOD	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	12
LINDERA BENZOIN	SPICEBUSH	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	28
VACCINIUM CORYMNBOSUM	HIGHBUSH BLUEBERRY	FACW	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	15
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	3–4 FT	#5P5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	15
HERBACEOUS						
PLUGS						
CAREX CRINIITA	FRINGED SEDGE	FACW	DP50	TRAY/CONTAINER	RANDOM AT 3' O.C. ALONG POOLS	50
LOBELIA CARDINALIS	CARDINAL FLOWER	FACW	DP50	TRAY/CONTAINER	RANDOM AT 3' O.C. ALONG POOLS	50
SEEDING						
NATIVE SEED MIX (ERNMX 154 OR EQUIVALENT)	NATIVE FLOODPLAIN SEED MIX	N/A	N/A	SEED	THROUGHOUT ZONE	30.0 LBS
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	FACU	N/A	SEED	THROUGHOUT ZONE	0.5 LB
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES					THROUGHOUT ZONE	N/A

COVER/NURSE CROP SEEDING TABLE

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

60% DESIGN DRAWINGS

BayLand Consultants & Designers, Inc.
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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG–SWMENG– XXXXXX–XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
LANDSCAPING DETAILS

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : AS SHOWN

DATE : 05/06/24

DRAWING NO. LD–01 OF LD–02

SHEET NO. 43 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

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ZONE C: MID-ATLANTIC MESIC MIXED FOREST PLANTING SCHEDULE - 29,998 SF

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SIZE	TYPE	MIN SPACING/LOCATION	QUANTITY
OVERSTORY TREES						
CARYA GLABRA	PIGNUT HICKORY	FACU	2-3 FT	#SP5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	8
CARYA TOMENTOSA	MOCKERNUT HICKORY	FACU	2-3 FT	#SP5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	8
FAGUS GRANDIFOLIA	AMERICAN BEECH	FACU	4-5 FT	#SP5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	20
NYSSA SYLVATICA	BLACK GUM	FAC	4-5 FT	#SP5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	8
QUERCUS ALBA	WHITE OAK	FACU	4-5 FT	#SP5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	40
QUERCUS COCCINEA	SCARLET OAK	NI	4-5 FT	#SP5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	8
QUERCUS FALCATA	SOUTHERN RED OAK	FACU	4-5 FT	#SP5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	10
QUERCUS RUBRA	NORTHERN RED OAK	FACU	4-5 FT	#SP5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	38
QUERCUS VELUTINA	BLACK OAK	FAC	4-5 FT	#SP5 CONTAINER	NATURALIZED AT 12' OC THROUGHOUT ZONE	10
SASSAFRAS ALBIDUM	SASSAFRAS	FACU	2-3 FT	#SP5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	8
UNDERSTORY TREES						
ASIMINA TRILOBA	PAW PAW	FAC	2-3 FT	#SP5 CONTAINER	NATURALIZED AT 9' OC THROUGHOUT ZONE IN GROUPS OF 3	18
CARPINUS CAROLINIANA	IRONWOOD	FAC	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	12
CORNUS FLORIDA	FLOWERING DOGWOOD	FACU	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	10
ILEX OPACA	AMERICAN HOLLY	FAC	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 10' OC THROUGHOUT ZONE	15
SHRUBS						
HAMAMELIS VIRGINIANA	WITCHHAZEL	FACU	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	10
LINDERA BENZOIN	SPICEBUSH	FACW	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	5
VACCINIUM CORYMNBOSUM	HIGHBUSH BLUEBERRY	FACW	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	5
VIBURNUM ACERIFOLIUM	MAPLE LEAF VIBURNUM	FACU	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	10
VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	FAC	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	10
VIBURNUM PRUNIFOLIUM	BLACKHAW	FACU	3-4 FT	#SP5 CONTAINER	NATURALIZED AT 8' OC THROUGHOUT ZONE	15
HERBACEOUS						
QUARTS						
ATHYRIUM FILIX-FEMINA	LADY FERN	NI	6-12 IN.	4" POT	RANDOM AT A MIN OF 3' O.C. IN PARTIAL TO FULL SHADE	20
POLYSTICHUM ACROSTICHOIDES	CHRISTMAS FERN	FACU	6-12 IN.	4" POT	RANDOM AT A MIN OF 3' O.C. IN PARTIAL TO FULL SHADE	20
SEEDING						
NATIVE UPLAND SEED MIX (ERNMX 140 OR EQUIVALENT)	NATIVE UPLAND SEED MIX	N/A	N/A	SEED	THROUGHOUT ZONE	17.0 LBS
COVER/NURSE CROP, SEE TABLE FOR RATE & DATES					THROUGHOUT ZONE	NA

NATIVE UPLAND SEED MIX COMPOSITION

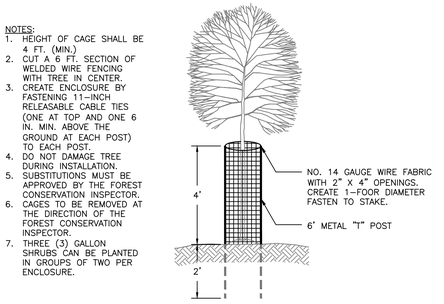
% COMPOSITION	BOTANICAL NAME	COMMON NAME
51.90 %	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
16.80 %	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
9.00 %	ECHINACEA PURPUREA	PURPLE CONEFLOWER
6.50 %	ELYMUS HYSTRIX	BOTTLEBRUSH GRASS
3.50 %	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
3.00 %	RUDBECKIA HIRTA	BLACKEYED SUSAN
2.00 %	HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1.20 %	PYCNANTHEMUM TENUIFOLIUM	NARROWLEAF MOUNTAINMINT
1.00 %	PENSTEMON DIGITALIS	TALL WHITE BEARDTONGUE
0.60 %	LIATRIS SPICATA	MARSH BLAZING STAR
0.50 %	BAPTISIA AUSTRALIS	BLUE FALSE INDIGO
0.50 %	GEUM CANADENSE	WHITE AVENS
0.40 %	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED
0.40 %	ASTER LATERIFLORUS	CALICO ASTER
0.40 %	ASTER MACROPHYLLUS	BIGLEAF ASTER
0.40 %	MONARDA FISTULOSA	WILD BERGAMOT
0.30 %	ASCLEPIAS SYRIACA	COMMON MILKWEED
0.30 %	OENOTHERA FRUTICOSA	SUNDROPS
0.20 %	AQUILEGIA CANADENSIS	EASTERN COLUMBINE
0.20 %	ASTER PRENANTHOIDES	ZIGZAG ASTER
0.20 %	PENSTEMON LAEVIGATUS	APPALACHIAN BEARDTONGUE
0.20 %	SOLIDAGO BICOLOR	WHITE GOLDENROD
0.10 %	ASTER PILOSUS	HEATH ASTER
0.10 %	PENSTEMON HIRSUTUS	HAIRY BEARDTONGUE
0.10 %	SOLIDAGO JUNCEA	EARLY GOLDENROD
0.10 %	SOLIDAGO NEMORALIS	GRAY GOLDENROD
0.10 %	SOLIDAGO ODORA	LICORICE SCENTED GOLDENROD

ZONE D: FLOODPLAIN POOL PLANTING SCHEDULE - 1,293 SF

BOTANICAL NAME/ TECHNICAL DESCRIPTION	COMMON NAME	INDICATOR STATUS	SIZE	TYPE	MIN SPACING/LOCATION	QUANTITY
HERBACEOUS						
QUARTS						
DECODON VERTICILLATUS	SWAMP LOOSESTRIFE	OBL	6-12 IN.	4" POT	RANDOM AT 6' O.C. 6-9" OF WATER	5
PLUGS						
PONTEDERIA CORDATA	PICKERELWEED	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 6-12" OF WATER	50
SAGITTARIA LATIFOLIA	DUCK POTATO	OBL	DP50	TRAY/CONTAINER	RANDOM AT 36" O.C. 6-12" OF WATER	50

FOREST CONSERVATION/LANDSCAPING TREE PLANTING SUMMARY

ZONE	AREA		TREES	
ZONE A: COASTAL PLAIN FLOODPLAIN SWAMP	125,704	SF	531	TREES
ZONE B: COASTAL PLAIN STREAMSIDE FOREST	52,213	SF	291	TREES
ZONE C: MID-ATLANTIC MESIC MIXED FOREST	29,998	SF	213	TREES
ZONE D: FLOODPLAIN POOL	1,293	SF	0	TREES
TOTAL	209,208	SF	1,035	TREES



NOTES:
1. HEIGHT OF CAGE SHALL BE 4 FT. (MIN.)
2. CUT A 6 FT. SECTION OF WELDED WIRE FENCING WITH TREE IN CENTER.
3. CREATE ENCLOSURE BY FASTENING 11-INCH RELEASABLE CABLE TIES (ONE AT TOP AND ONE 6 IN. MIN. ABOVE THE GROUND AT EACH POST) TO EACH POST.
4. DO NOT DAMAGE TREE DURING INSTALLATION.
5. SUBSTITUTIONS MUST BE APPROVED BY THE FOREST CONSERVATION INSPECTOR.
6. CAGES TO BE REMOVED AT THE DIRECTION OF THE FOREST CONSERVATION INSPECTOR.
7. THREE (3) GALLON SHRUBS CAN BE PLANTED IN GROUPS OF TWO PER ENCLOSURE.

TREE/SHRUB PLANTING DEER PROTECTION

NOT TO SCALE

STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

A. SEEDING

1. SPECIFICATIONS
   a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
   b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
   c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
   d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
   a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
      i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
      ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
   b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
      i. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
      ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
   c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
      i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
      ii. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
      iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
      iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
   a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
   b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
      i. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
      ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
      iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
      iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
      v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
2. APPLICATION
   a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
   b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
   c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
3. ANCHORING
   a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
      i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
      ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
      iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRATACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
      iv. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION LANDSCAPING DETAILS

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : AS SHOWN

DATE : 05/06/24

DRAWING NO. LD-02 OF LD-02

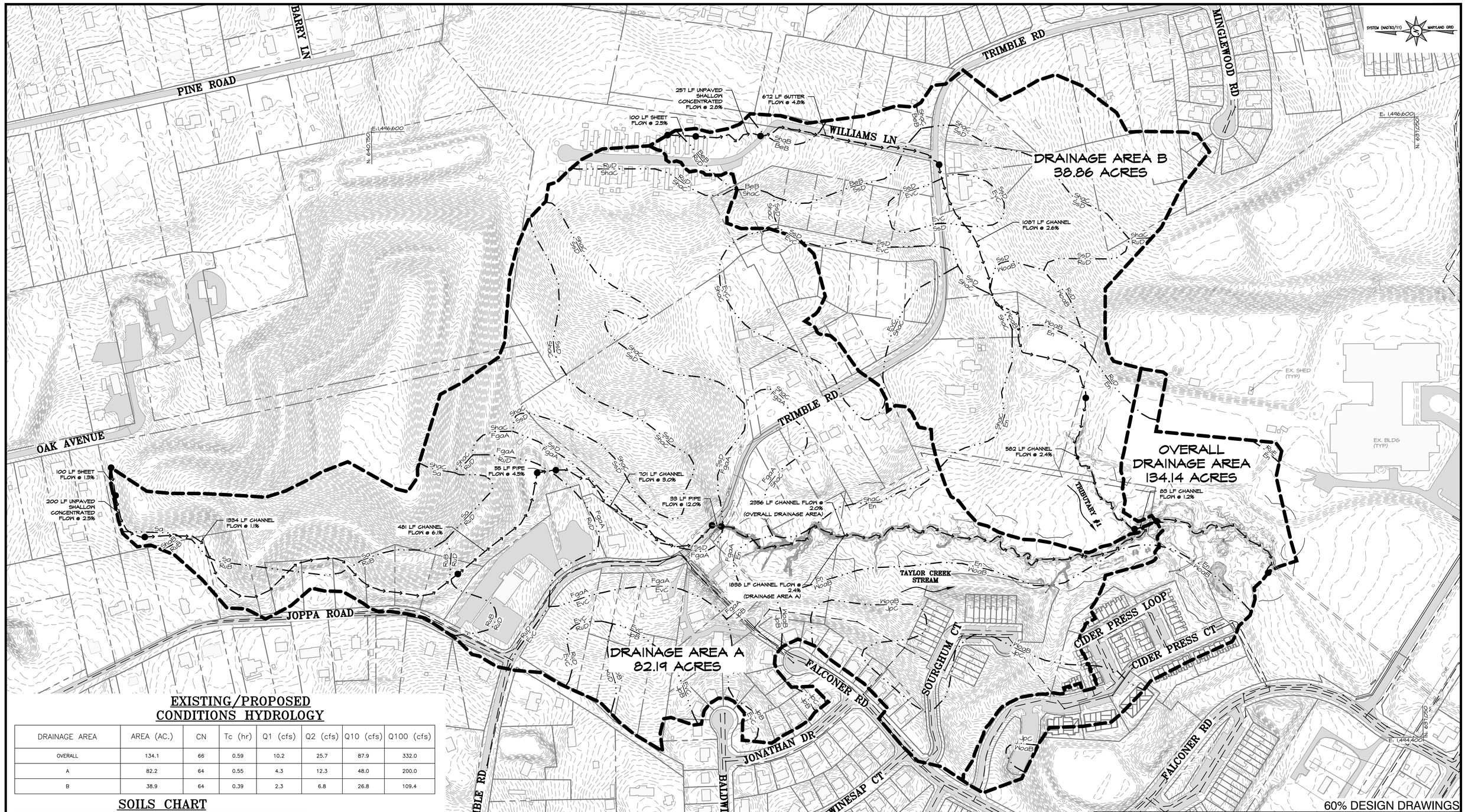
SHEET NO. 44 OF 55

BID No.:

HCG DWG ID No.:

SCALE 1" = 10'

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60% DESIGN DRAWINGS

EXISTING/PROPOSED CONDITIONS HYDROLOGY

DRAINAGE AREA	AREA (AC.)	CN	Tc (hr)	Q1 (cfs)	Q2 (cfs)	Q10 (cfs)	Q100 (cfs)
OVERALL	134.1	66	0.59	10.2	25.7	87.9	332.0
A	82.2	64	0.55	4.3	12.3	48.0	200.0
B	38.9	64	0.39	2.3	6.8	26.8	109.4

SOILS CHART

SYMBOL	SOIL	HSG	K FACTOR
BeB	BELTSVILLE SILT LOAM (SLOPES 2–5%)	C	0.37
En	ELKTON SILT LOAM	C/D	0.43
EvC	EVESBORO LOAMY SAND (SLOPES 5–15%)	A	0.05
FgaA	FALLSINGTON LOAMS (SLOPES 0–2%)	C/D	N/A
JpB	JOPPA GRAVELLY SANDY LOAM (SLOPES 2–5%)	A	0.10
JpC	JOPPA GRAVELLY SANDY LOAM (SLOPES 5–10%)	A	0.10
RuB	RUSSETT FINE SANDY LOAM (SLOPES 0–5%)	C	0.32
RuD	RUSSETT FINE SANDY LOAM (SLOPES 5–15%)	C	0.32
RuE	RUSSETT FINE SANDY LOAM (SLOPES 15–30%)	C	0.32
Sa	SAND AND GRAVEL PITS	A	N/A
ShaB	SASSAFRAS SANDY LOAM (SLOPES 2–5%)	B	0.20
ShaC	SASSAFRAS SANDY LOAM (SLOPES 5–10%)	B	0.20
SsD	SASSAFRAS AND JOPPA SOILS (SLOPES 10–15%)	B	0.32
WoaB	WOODSTOWN LOAM (SLOPES 2–5%)	C	0.37

DRAINAGE AREA MAP

SCALE: 1" = 150'

0 75 150 300

1 INCH = 150 FEET

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EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A	REVISIONS
GP # N/A	

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
DRAINAGE AREA MAP

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 150'
DATE : 05/06/24

DRAWING NO. DA-01 OF DA-01

SHEET NO. 45 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

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SEQUENCE OF CONSTRUCTION

NOTES:

- STREAM CLOSURE PERIOD FOR USE I STREAMS IN MARYLAND IS MARCH 1 – JUNE 15.
- TREE FELLING AND REMOVAL SHALL NOT IMPACT TREES THAT ARE TO REMAIN.
- NOTIFY THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS (410)-638-3122 AT LEAST 48 HOURS BEFORE COMMENCING WORK. WORK MAY NOT COMMENCE UNTIL THE PERMITTEE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS.
- THE CONTRACTOR SHALL CONTACT THE MARYLAND DEPARTMENT OF THE ENVIRONMENT COMPLIANCE PROGRAM AT (301)-665-2850 AT LEAST 5 DAYS IN ADVANCE OF THE PRE-CONSTRUCTION MEETING.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT (800)-257-7777 OR 811, AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- THE CONTRACTOR SHALL NOTIFY THE HARFORD COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) PROJECT MANAGER, THE DPW SEDIMENT CONTROL INSPECTOR, THE MDE SEDIMENT CONTROL INSPECTOR, AND THE DESIGN ENGINEER AT LEAST 48 HOURS PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES TO SCHEDULE A PRE-CONSTRUCTION MEETING AT THE PROJECT SITE. THE LOCATIONS OF THE LOD, HIGH VISIBILITY FENCE, TREE PROTECTION, PERIMETER CONTROLS, AND TREES DESIGNATED FOR REMOVAL SHALL BE CLEARLY MARKED PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING. AT THE PRE-CONSTRUCTION MEETING THE CONTRACTOR MUST PROVIDE THE NAME OF THE PERSON ON SITE WHO IS RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES, AND A COPY OF THEIR GREEN CARD TO THE SEDIMENT CONTROL INSPECTOR.
- LOD AND NON-TIDAL WETLANDS MUST BE FIELD MARKED PRIOR TO CLEARING OF TREES AND/OR OTHER LAND DISTURBANCES. THE APPROVAL OF THE EROSION AND SEDIMENT CONTROL INSPECTOR IS REQUIRED UPON INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCES OR GRADING.
- CLEAR MINIMUM AREA NECESSARY TO INSTALL SEDIMENT CONTROLS AND THE STAGING/LAYDOWN AREAS. MECHANICAL STABILIZATION WILL BE REQUIRED ON THE STAGING/LAYDOWN AREAS AND HEAVY USE AREAS, INCLUDING TRAVEL LANES.
- INSTALL SEDIMENT CONTROL DEVICES ACCORDING TO THE STAGING OPERATIONS. ONCE SEDIMENT CONTROLS HAVE BEEN INSTALLED, CONTACT THE INSPECTOR FOR APPROVAL OF SEDIMENT CONTROL INSTALLATION PRIOR TO COMMENCING WORK; INSPECTIONS AND PERMITS MAY REQUIRE THAT AN INSPECTION AND CERTIFICATION OF THE INSTALLATION OF SEDIMENT CONTROL ALSO BE PERFORMED BY A DESIGN PROFESSIONAL PRIOR TO CONSTRUCTION COMMENCING.
- WORK SHALL BE LIMITED TO AREAS THAT CAN BE COMPLETED AND STABILIZED AT THE END OF EACH WORKING DAY. NO UNSTABILIZED AREAS SHALL BE LEFT OVERNIGHT.
- EXISTING TOPSOIL, SPOIL MATERIAL, STREAMBED MATERIAL AND ROCK SHALL BE SALVAGED AND STOCKPILED SEPARATELY ON SITE. UNSUITABLE MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR.
- ANY MATERIAL TAKEN OFF SITE MUST GO TO A SITE WITH AN ACTIVE AND APPROVED SEDIMENT AND EROSION CONTROL PLAN.
- THE CONTRACTOR MUST PROTECT AND REPAIR/REPLACE EXISTING INFRASTRUCTURE IN-KIND IF DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL EXPENSE TO THE COUNTY.
- AREAS OUTSIDE OF THE LOD SHALL NOT BE DISTURBED DURING PLACEMENT OF DIVERSION PIPE. NO MECHANICAL EQUIPMENT SHALL BE USED FOR PLACEMENT OF DIVERSION PIPE.
- WETLAND PROTECTION MATTING WITH A MINIMUM OF 12" OF MULCH SHOULD BE UTILIZED TO PROVIDE ACCESS ANYWHERE THE CONSTRUCTION ACCESS ROAD CROSSES OVER WETLANDS OR WHEN CROSSING WITHIN 5' OF OR DIRECTLY OVERTOP OF EXISTING UTILITIES.
- STOCKPILE AREAS NOT TO EXCEED 15 FT IN HEIGHT OR HAVE SIDE SLOPES STEEPER THAN 2:1. IF ADDITIONAL STOCKPILE AREAS ARE NEEDED WITHIN THE EXISTING LIMIT OF DISTURBANCE, THE CONTRACTOR MUST GET APPROVAL FROM THE INSPECTOR AND WRAP THE STOCKPILES WITH FILTER LOGS OR REINFORCED SILT FENCE. STOCKPILE AREAS #3, #4, #5, AND #6 ARE LOCATED WITHIN THE 100-YEAR FLOODPLAIN. EROSIVE MATERIAL OR MATERIAL DEEMED HAZARDOUS TO THE ENVIRONMENT, SUCH AS EXCAVATED SEDIMENT OR FUEL, MAY NOT BE STOCKPILED WITHIN THE 100-YEAR FLOODPLAIN.
- ONCE EACH AREA IS 95% STABILIZED AND WITH SEDIMENT CONTROL INSPECTOR'S APPROVAL, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROLS AND STABILIZE ANY AREAS DISTURBED WITH PERMANENT SEED MIX. IMMEDIATELY STABILIZE ANY DISTURBED AREAS THAT RESULT FROM THE REMOVAL OF THE EROSION AND SEDIMENT CONTROLS.
- THE SEQUENCE OF CONSTRUCTION IS INTENDED TO CONVEY THE INSTALLATION OF SEDIMENT CONTROLS AND GENERAL INSTRUCTION TO THE CONTRACTOR. THE SEQUENCE MAY BE ADJUSTED IN THE FIELD WITH THE SEDIMENT CONTROL INSPECTOR'S PERMISSION TO ACCOMMODATE CONTRACTOR'S MEANS AND METHODS. ANY CHANGES TO THE PLANS MUST BE APPROVED BY HARFORD COUNTY SCD.
- STAGES MAY BE CONSTRUCTED IN ANY ORDER, SEPARATELY OR CONCURRENTLY WITH WRITTEN APPROVAL FROM THE COUNTY.
- PUMP AROUND PRACTICES SHALL CONSIST OF CLEAR WATER DIVERSION (CWD) AND DIRTY WATER (DEWATERING) PUMP AROUND SETUPS, SUMP PITS (IF REQUIRED), SANDBAG DIVERSIONS (DIKES), VELOCITY DISSIPATERS (ROCK OUTLET PROTECTION), FILTER BAGS, AND HOSES AND ALL ITEMS NECESSARY TO PERFORM PUMP AROUND OPERATIONS AS SPECIFIED ON THE CONTRACT DOCUMENTS.
- PUMP AROUND PRACTICE COMPONENTS THAT ARE SHOWN ON THE CONTRACT DRAWINGS SHALL BE FIELD LOCATED BY THE CONTRACTOR AND ARE SHOWN ON THE CONTRACT DRAWINGS TO ILLUSTRATE THE POTENTIAL ALIGNMENT AND PLACEMENT ONLY. STREAM PUMP AROUND MUST BE INSTALLED TO DIVERT STREAM FLOW AROUND THE WORK AREA AND ISOLATE THE WORK AREA FROM STREAM FLOW.
- PUMP AROUND PRACTICE AND DEWATERING OPERATIONS MAY BE INSTALLED IN SHORTER SECTIONS THAN SHOWN ON THE PLANS TO ACCOMMODATE PROPOSED WORK.

SEQUENCE:

	APPROXIMATE DAYS
1. DEMARCATE LOD, NON-TIDAL WETLANDS TO BE PROTECTED, AND TREES TO BE PROTECTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.	3
2. INSTALL TREE PROTECTION FENCES AND/OR TREE PLANKING AT THE LOCATIONS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE COUNTY.	3
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE #1 OFF OF HINTON ROAD AND MOT CONTROLS INCLUDING SIGNAGE.	2
4. INSTALL HIGH VISIBILITY FENCE AS INDICATED ON THE CONSTRUCTION DRAWINGS.	5
5. CLEAR AND GRUB THE MINIMUM AREA REQUIRED FOR THE INSTALLATION OF STOCKPILE/STAGING AREAS #1 AND #2 AND SEDIMENT CONTROL DEVICES REQUIRED FOR STOCKPILE/STAGING AREAS #1 AND #2, INCLUDING REINFORCED SILT FENCE, WETLAND PROTECTION MATTING, AND MOUNTABLE BERMS. IMMEDIATELY STABILIZE ANY DISTURBED AREA.	2
6. INSTALL THE CONSTRUCTION ACCESS ROAD FROM THE SCE TO MAINSTEM STA 20+00 INCLUDING TEMPORARY ACCESS BRIDGES AND WETLAND PROTECTION MATTING, STOCKPILE/STAGING AREAS #1 AND #2, AND SEDIMENT CONTROL DEVICES REQUIRED FOR STOCKPILE/STAGING AREAS #1 AND #2 INCLUDING REINFORCED SILT FENCE, WETLAND PROTECTION MATTING, AND MOUNTABLE BERMS. IMMEDIATELY STABILIZE ANY DISTURBED AREA.	3

STAGE 1 (MAIN STEM-DOWNSTREAM END TO STA 15+75)

1. INSTALL CLEAR WATER DIVERSION (CWD) PUMP AROUND PRACTICES AND DEWATERING PRACTICES IN THE MAIN STEM REQUIRED TO ISOLATE THE WORK AREA FROM STREAM FLOW AND DEWATER THE WORK AREA, INCLUDING SAND BAG DIKES, ROCK OUTLET PROTECTIONS, DEWATERING/DIVERSION PUMPS AND PIPES, AND FILTER BAGS. RELOCATE AS NEEDED TO COMPLETE PROPOSED WORK.	2
2. ONCE APPROVAL HAS BEEN OBTAINED FROM THE INSPECTOR, FROM STA 20+00 TO STA 15+75 OF THE MAINSTEM, COMPLETE PROPOSED EARTHWORK OPERATIONS ALONG RIGHT FLOODPLAIN IN ACCORDANCE WITH THE PLANS. STOCKPILE MATERIAL IN STAGING AREA(S).	6
3. INSTALL THE REMAINDER OF THE CONSTRUCTION ACCESS ROAD FROM STA 20+00 TO STA 15+75 INCLUDING TEMPORARY ACCESS BRIDGES AND WETLAND PROTECTION MATTING.	2
4. AFTER THE AREA HAS BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, SHUTDOWN AND REMOVE/RELOCATE CWD PUMP AROUND AND DEWATERING PRACTICES AS NEEDED TO COMPLETE REMAINING STAGES.	1
STAGE 1 SUBTOTAL DAYS:	11

STAGE 2 (MAIN STEM-UPSTREAM END TO STA 4+50; HEADCUT 2A UPSTREAM END TO DOWNSTREAM END; HEADCUT 2B UPSTREAM END TO DOWNSTREAM END)

1. CLEAR AND GRUB THE MINIMUM AREA REQUIRED FOR THE INSTALLATION OF REMAINDER OF CONSTRUCTION ACCESS ROAD FROM STA 15+75 TO MAINSTEM-UPSTREAM END, STOCKPILE/STAGING AREAS #3, #4, #5, AND #6, AND SEDIMENT CONTROL DEVICES REQUIRED FOR STOCKPILE/STAGING AREAS #3, #4, #5, AND #6, INCLUDING REINFORCED SILT FENCE, WETLAND PROTECTION MATTING, AND MOUNTABLE BERMS. IMMEDIATELY STABILIZE ANY DISTURBED AREA.	4
2. INSTALL REMAINDER OF CONSTRUCTION ACCESS ROAD FROM STA 15+75 TO MAINSTEM-UPSTREAM END, INCLUDING TEMPORARY ACCESS BRIDGES AND WETLAND PROTECTION MATTING, STOCKPILE/STAGING AREAS #3, #4, #5, AND #6, AND SEDIMENT CONTROL DEVICES REQUIRED FOR STOCKPILE/STAGING AREAS #3, #4, #5, AND #6 INCLUDING REINFORCED SILT FENCE, WETLAND PROTECTION MATTING, AND MOUNTABLE BERMS. IMMEDIATELY STABILIZE ANY DISTURBED AREA.	6
3. INSTALL CLEAR WATER DIVERSION (CWD) PUMP AROUND PRACTICES AND DEWATERING PRACTICES REQUIRED TO ISOLATE THE WORK AREA FROM STREAM FLOW AND DEWATER THE WORK AREA, INCLUDING SAND BAG DIKES, ROCK OUTLET PROTECTIONS, DEWATERING/DIVERSION PUMPS AND PIPES, AND FILTER BAGS. RELOCATE AS NEEDED TO COMPLETE PROPOSED WORK.	3
4. ONCE APPROVAL HAS BEEN OBTAINED FROM THE INSPECTOR, FROM MAIN STEM-UPSTREAM END TO STA 4+50, HEADCUT 2A, AND HEADCUT 2B, COMPLETE PROPOSED WORK INCLUDING EARTHWORK OPERATIONS AND INSTALLATION OF RIFFLE-WEIRS AND RIPRAP. COMPLETE OUTFALL WORK DURING FORECASTED DRY WEATHER PERIODS. INSTALL WOOD IN POOLS AND THE FLOODPLAIN AT THE DIRECTION OF THE ENGINEER/COUNTY.	11
5. REMOVE THE ACCESS ROAD AS NEEDED TO COMPLETE PROPOSED WORK IN ACCORDANCE WITH THE PLANS. AFTER ALL PROPOSED WORK HAS BEEN COMPLETED, REMOVE STOCKPILE AREA #6 AND THE REMAINDER OF THE ACCESS ROAD INCLUDING TEMPORARY ACCESS BRIDGES, WETLAND PROTECTION MATTING, SILT FENCES, AND MOUNTABLE BERMS.	2
6. AFTER THE AREA HAS BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, SHUTDOWN AND REMOVE/RELOCATE CWD PUMP AROUND AND DEWATERING PRACTICES AS NEEDED TO COMPLETE REMAINING STAGES.	1
7. COMPLETE PERMANENT STABILIZATION IN ACCORDANCE WITH THE PLANS. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLAN.*	5
STAGE 2 SUBTOTAL DAYS:	32

STAGE 3 (MAIN STEM STA 4+50 TO STA 9+20 AND HEADCUT 4 UPSTREAM END TO DOWNSTREAM END)

1. INSTALL CLEAR WATER DIVERSION (CWD) PUMP AROUND PRACTICES AND DEWATERING PRACTICES REQUIRED TO ISOLATE THE WORK AREA FROM STREAM FLOW AND DEWATER THE WORK AREA, INCLUDING SAND BAG DIKES, ROCK OUTLET PROTECTIONS, DEWATERING/DIVERSION PUMPS AND PIPES, AND FILTER BAGS. RELOCATE AS NEEDED TO COMPLETE PROPOSED WORK.	2
2. ONCE APPROVAL HAS BEEN OBTAINED FROM THE INSPECTOR, FROM MAIN STEM STA 4+50 TO STA 9+20 AND HEADCUT 4, COMPLETE PROPOSED WORK INCLUDING EARTHWORK OPERATIONS AND INSTALLATION OF RIFFLE-WEIRS. INSTALL WOOD IN POOLS AND THE FLOODPLAIN AT THE DIRECTION OF THE ENGINEER/COUNTY.	11
3. REMOVE THE ACCESS ROAD AS NEEDED TO COMPLETE PROPOSED WORK IN ACCORDANCE WITH THE PLANS. AFTER ALL PROPOSED WORK HAS BEEN COMPLETED, REMOVE STOCKPILE AREAS #4, #5, AND THE REMAINDER OF THE ACCESS ROAD INCLUDING WETLAND PROTECTION MATTING, SILT FENCES, AND MOUNTABLE BERMS.	2
4. AFTER THE AREA HAS BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, SHUTDOWN AND REMOVE/RELOCATE CWD PUMP AROUND AND DEWATERING PRACTICES AS NEEDED TO COMPLETE REMAINING STAGES.	1
5. COMPLETE PERMANENT STABILIZATION IN ACCORDANCE WITH THE PLANS. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLAN.*	5
STAGE 3 SUBTOTAL DAYS:	21

STAGE 4 (TRIBUTARY #1 UPSTREAM END TO DOWNSTREAM END)

1. CLEAR AND GRUB THE MINIMUM AREA REQUIRED FOR THE INSTALLATION OF THE CONSTRUCTION ACCESS ROAD ALONG TRIBUTARY #1. IMMEDIATELY STABILIZE ANY DISTURBED AREA.	3
2. INSTALL THE CONSTRUCTION ACCESS ROAD FROM TRIBUTARY #1 DOWNSTREAM END TO UPSTREAM END INCLUDING WETLAND PROTECTION MATTING. IMMEDIATELY STABILIZE ANY DISTURBED AREA.	1
3. INSTALL CLEAR WATER DIVERSION (CWD) PUMP AROUND PRACTICES AND DEWATERING PRACTICES REQUIRED TO ISOLATE THE WORK AREA FROM STREAM FLOW AND DEWATER THE WORK AREA, INCLUDING SAND BAG DIKES, ROCK OUTLET PROTECTIONS, DEWATERING/DIVERSION PUMPS AND PIPES, AND FILTER BAGS. RELOCATE AS NEEDED TO COMPLETE PROPOSED WORK.	10
4. ONCE APPROVAL HAS BEEN OBTAINED FROM THE INSPECTOR, COMPLETE PROPOSED WORK INCLUDING EARTHWORK OPERATIONS AND INSTALLATION OF RIFFLE-WEIRS, LOG GRADE CONTROLS, AND VALLEY-WIDE GRADE CONTROLS. INSTALL WOOD IN POOLS AND THE FLOODPLAIN AT THE DIRECTION OF THE ENGINEER/COUNTY.	2
5. REMOVE THE ACCESS ROAD AS NEEDED TO COMPLETE PROPOSED WORK IN ACCORDANCE WITH THE PLANS. AFTER ALL PROPOSED WORK HAS BEEN COMPLETED, REMOVE THE REMAINDER OF THE ACCESS ROAD INCLUDING TEMPORARY ACCESS BRIDGES AND WETLAND PROTECTION MATTING.	1
6. AFTER THE AREA HAS BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, SHUTDOWN AND REMOVE/RELOCATE CWD PUMP AROUND AND DEWATERING PRACTICES AS NEEDED TO COMPLETE REMAINING STAGES.	5
7. COMPLETE PERMANENT STABILIZATION IN ACCORDANCE WITH THE PLANS. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLAN.*	4
STAGE 4 SUBTOTAL DAYS:	24

STAGE 5 (MAINSTEM STA 9+20 TO STA 16+10, HEADCUT 5A UPSTREAM END TO DOWNSTREAM END, HEADCUT 5B UPSTREAM END TO DOWNSTREAM END)

1. INSTALL CLEAR WATER DIVERSION (CWD) PUMP AROUND PRACTICES AND DEWATERING PRACTICES REQUIRED TO ISOLATE THE WORK AREA FROM STREAM FLOW AND DEWATER THE WORK AREA, INCLUDING SAND BAG DIKES, ROCK OUTLET PROTECTIONS, DEWATERING/DIVERSION PUMPS AND PIPES, AND FILTER BAGS. RELOCATE AS NEEDED TO COMPLETE PROPOSED WORK.	2
2. ONCE APPROVAL HAS BEEN OBTAINED FROM THE INSPECTOR, FROM MAINSTEM STA 9+20 TO STA 16+10, HEADCUT 5A, AND HEADCUT 5B, COMPLETE PROPOSED WORK INCLUDING EARTHWORK OPERATIONS AND INSTALLATION OF RIFFLE-WEIRS, LOG GRADE CONTROLS, CLAY CHANNEL BLOCKS, AND VALLEY-WIDE GRADE CONTROLS. INSTALL WOOD IN THE FLOODPLAIN AT THE DIRECTION OF THE ENGINEER/COUNTY.	16
3. REMOVE THE ACCESS ROAD AS NEEDED TO COMPLETE PROPOSED WORK IN ACCORDANCE WITH THE PLANS. AFTER ALL PROPOSED WORK HAS BEEN COMPLETED, REMOVE STOCKPILE AREA #3 AND THE REMAINDER OF THE ACCESS ROAD INCLUDING TEMPORARY ACCESS BRIDGES, WETLAND PROTECTION MATTING, SILT FENCES, AND MOUNTABLE BERMS.	4
4. AFTER THE AREA HAS BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, SHUTDOWN AND REMOVE/RELOCATE CWD PUMP AROUND AND DEWATERING PRACTICES AS NEEDED TO COMPLETE REMAINING STAGES.	1
5. COMPLETE PERMANENT STABILIZATION IN ACCORDANCE WITH THE PLANS. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLAN.*	5
STAGE 5 SUBTOTAL DAYS:	28

STAGE 6 (MAINSTEM STA 16+10 TO STA 18+90)

1. INSTALL CLEAR WATER DIVERSION (CWD) PUMP AROUND PRACTICES AND DEWATERING PRACTICES REQUIRED TO ISOLATE THE WORK AREA FROM STREAM FLOW AND DEWATER THE WORK AREA, INCLUDING SAND BAG DIKES, ROCK OUTLET PROTECTIONS, DEWATERING/DIVERSION PUMPS AND PIPES, AND FILTER BAGS. RELOCATE AS NEEDED TO COMPLETE PROPOSED WORK.	1
2. ONCE APPROVAL HAS BEEN OBTAINED FROM THE INSPECTOR, FROM MAINSTEM STA 16+10 TO STA 18+90, COMPLETE PROPOSED WORK INCLUDING EARTHWORK OPERATIONS AND INSTALLATION OF LOG GRADE CONTROLS, CLAY CHANNEL BLOCKS, VALLEY-WIDE GRADE CONTROLS, AND RIPRAP. INSTALL WOOD IN THE FLOODPLAIN AT THE DIRECTION OF THE ENGINEER/COUNTY.	2
3. REMOVE THE ACCESS ROAD AS NEEDED TO COMPLETE PROPOSED WORK IN ACCORDANCE WITH THE PLANS. AFTER ALL PROPOSED WORK HAS BEEN COMPLETED, REMOVE THE REMAINDER OF THE ACCESS ROAD INCLUDING WETLAND PROTECTION MATTING AND MOUNTABLE BERMS.	6
4. AFTER THE AREA HAS BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, SHUTDOWN AND REMOVE/RELOCATE CWD PUMP AROUND AND DEWATERING PRACTICES AS NEEDED TO COMPLETE REMAINING STAGES.	1
5. COMPLETE PERMANENT STABILIZATION IN ACCORDANCE WITH THE PLANS. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLAN.*	5
STAGE 6 SUBTOTAL DAYS:	15

STAGE 7 (MAINSTEM DOWNSTREAM END TO STA 18+90)

1. INSTALL CLEAR WATER DIVERSION (CWD) PUMP AROUND PRACTICES AND DEWATERING PRACTICES REQUIRED TO ISOLATE THE WORK AREA FROM STREAM FLOW AND DEWATER THE WORK AREA, INCLUDING SAND BAG DIKES, ROCK OUTLET PROTECTIONS, DEWATERING/DIVERSION PUMPS AND PIPES, AND FILTER BAGS. RELOCATE AS NEEDED TO COMPLETE PROPOSED WORK.	1
2. ONCE APPROVAL HAS BEEN OBTAINED FROM THE INSPECTOR, FROM MAINSTEM-DOWNSTREAM END TO STA 18+90, COMPLETE PROPOSED WORK INCLUDING EARTHWORK OPERATIONS AND INSTALLATION OF VALLEY-WIDE WEIR, RIFFLE-WEIRS, AND VALLEY-WIDE GRADE CONTROL. COMPLETE OUTFALL WORK DURING FORECASTED DRY WEATHER PERIODS. INSTALL WOOD IN POOLS AND THE FLOODPLAIN AT THE DIRECTION OF THE ENGINEER/COUNTY.	6
3. REMOVE THE ACCESS ROAD AS NEEDED TO COMPLETE PROPOSED WORK IN ACCORDANCE WITH THE PLANS. AFTER ALL PROPOSED WORK HAS BEEN COMPLETED, REMOVE THE REMAINDER OF THE ACCESS ROAD INCLUDING TEMPORARY ACCESS BRIDGES AND WETLAND PROTECTION MATTING.	8
4. AFTER THE AREA HAS BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, SHUTDOWN AND REMOVE CWD PUMP AROUND AND DEWATERING PRACTICES.	1
5. COMPLETE PERMANENT STABILIZATION IN ACCORDANCE WITH THE PLANS. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLAN.*	5
6. FROM THE MAINSTEM-DOWNSTREAM END TO THE STABILIZED CONSTRUCTION ENTRANCE, REMOVE THE ACCESS AND STOCKPILE AREAS #1 AND #2, INCLUDING WETLAND PROTECTION MATTING, SILT FENCES, AND MOUNTABLE BERMS. ONCE AREA IS 95% STABILIZED AND WITH SEDIMENT CONTROL INSPECTOR APPROVAL, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROLS AND STABILIZE ANY AREAS DISTURBED. REMOVE STABILIZED CONSTRUCTION ENTRANCE #1 AND MOT DEVICES. RESTORE PAVEMENT TO EQUAL THAN OR BETTER THAN PRE-CONSTRUCTION CONDITIONS.	4
STAGE 7 SUBTOTAL DAYS:	25
TOTAL APPROXIMATE DAYS:	174

* NOTE: WITH THE APPROVAL FROM THE EROSION AND SEDIMENT CONTROL INSPECTOR, ALL PLANT MATERIAL CAN BE INSTALLED AFTER CONSTRUCTION IS COMPLETE USING LOW DISTURBANCE METHODS, ANY AREAS DISTURBED DURING PLANTING SHALL BE IMMEDIATELY STABILIZED. PLANTINGS MUST ALSO OCCUR DURING THE APPROPRIATE CALENDAR PERIOD AS SPECIFIED ON THE CONTRACT DRAWINGS.

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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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
SEQUENCE OF CONSTRUCTION

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : N/A
DATE : 05/06/24

DRAWING NO. SC-01 OF SC-01

SHEET NO. 46 OF 55

BID No.:

HCG DWG ID No.:

SCALE 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_SC01.dwg

BEST MANAGEMENT PRACTICES FOR WORKING IN NON TIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS AND 100 YEAR FLOODPLAINS

1. NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NON TIDAL WETLANDS, NON TIDAL 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 NON TIDAL WETLANDS, NON TIDAL WETLAND BUFFERS, WATERWAYS OR THE 100 YEAR FLOODPLAIN.
3. DO NOT USE EXCAVATED MATERIAL AS BACK FILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACK FILL IS REQUIRED, USE CLEAN MATERIAL FREE OF 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 NON TIDAL WETLANDS, NON TIDAL WETLAND BUFFERS, OR WATERWAYS OR THE 100 YEAR FLOOD PLAIN.
5. REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NON TIDAL WETLANDS, NON TIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100 YEAR FLOOD PLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
6. RECTIFY ANY NON TIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS OR 100 YEAR FLOOD PLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
7. ALL STABILIZATION IN THE NON TIDAL WETLAND AND NON TIDAL 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 NON TIDAL 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.
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: USE I WATERS.
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 RIP RAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

HARFORD COUNTY SEDIMENT CONTROL NOTES

1. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. FURTHER, NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED.
2. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO GRADING OF THE SITE TO ENSURE COMPLIANCE WITH APPROVED PLANS. ALL FOREST RETENTION AREAS WILL BE DELINEATED WITH BLAZE ORANGE FENCE AS WELL AS ANY SWM INFILTRATION PRACTICE PRIOR TO ANY CLEARING. WORK BEYOND THE LIMITS OF DISTURBANCE AND IN ANY AREA INSIDE THE FOREST RETENTION AND SWM INFILTRATION AREA IS CONSIDERED TO BE A VIOLATION OF THIS PLAN.
3. ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF THE INSTALLATION OF PERIMETER SEDIMENT CONTROL PRACTICES THE SITE MUST BE INSPECTED BY THE DEPARTMENT OF PUBLIC WORKS (DPW). NO ADDITIONAL CONSTRUCTION ACTIVITY WILL BE AUTHORIZED WITHOUT THE APPROVAL OF DPW.
4. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WARS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION. IF NECESSARY A WASH RACK MAY NEED TO BE ESTABLISHED.
5. EARTH DIKES, SEDIMENT TRAPS, ETC. WILL BE LOCATED AS SHOWN ON THESE DRAWINGS. FIELD CHANGES AND MINOR ADJUSTMENT ARE PERMISSIBLE AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS. THE SITE INSPECTOR PRIOR TO INSTALLATION MUST APPROVE ALL SUCH CHANGES. MAJOR CHANGES TO THE APPROVED PLAN WILL REQUIRE RE-APPROVAL BY THE HARFORD SOIL CONSERVATION DISTRICT.
6. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

   A. THREE CALENDAR DAYS ON SLOPES GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS.

   B. SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT SITE.
7. DUST CONTROL MUST BE MANAGED AS PART OF ALL SEDIMENT CONTROL PLANS. FAILURE TO DO SO IS A VIOLATION OF THIS PLAN.
8. SEDIMENT BASINS MUST BE BUILT TO DESIGN SPECIFICATIONS SHOWN ON THE PLAN. IF THE BASIN IS TO BE USED AS A FUTURE SWM FACILITY, THE BASIN WILL BE BUILT IN ACCORDANCE WITH THE LATEST MD-378 STANDARDS AND SPECIFICATIONS. SPECIFIED MATERIALS MUST BE USED. NO CHANGES OR MODIFICATIONS WILL BE MADE WITHOUT WRITTEN AUTHORIZATION OF THE HARFORD SOIL CONSERVATION DISTRICT.
9. TEMPORARY FENCING SHALL BE PLACED AROUND ALL SEDIMENT BASINS, TRAPS, AND PONDS DURING CONSTRUCTION AND SITE GRADING.
10. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH NOI/NPDES REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
11. ENSURE POSITIVE DRAINAGE TO ALL ROAD INLETS DURING ALL PHASES OF ROAD CONSTRUCTION TO ENSURE POSITIVE FLOW TO TRAPS AND OR BASINS.
12. CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 2020 EROSION AND SEDIMENT CONTROL STANDARD AND SPECIFICATIONS FOR LAND GRADING.
13. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO SAFELY CONVEY WATER DOWN SLOPES WITHOUT CAUSING EROSION.
14. OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO/FROM THE PROJECT SITE.
15. ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED.
16. STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 2020 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
17. TOPSOIL, LIMING, FERTILIZING, SEEDING, MULCHING, SOD, ETC. ARE ALL AN ESSENTIAL PART OF THE SEDIMENT CONTROL PLAN AND MUST BE COMPLETED ALONG WITH ALL OTHER PRACTICES.
18. TRAPS TO BE REMOVED SHALL BE DEWATERED AS PER THE 2020 EROSION AND SEDIMENT AND EROSION CONTROL STANDARDS AND SPECIFICATIONS.
19. PRIOR TO REMOVAL OF TRAPS OR CONVERSION OF SEDIMENT BASINS TO SWM FACILITIES, THE STORM DRAINS WILL BE FLUSHED.
20. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH THE PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. SEDIMENT CONTROL PRACTICES MAY BE REMOVED ONLY WITH THE AUTHORIZATION OF THE DPW INSPECTOR. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY. REMOVAL PRIOR TO INSPECTOR'S APPROVAL CONSTITUTES A VIOLATION.

HARFORD COUNTY PERMANENT VEGETATIVE STABILIZATION

ALL DISTURBED AREAS WHICH ARE NOT TO BE PAVED, SHALL BE PERMANENTLY STABILIZED AS FOLLOWS:

A). SEED BED PREPARATION:
LOOSEN UPPER THREE INCH BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS AFTER SPREADING FOUR INCHES OF TOP SOIL.

B). SOIL AMENDMENTS:
APPLY 500 LBS. PER ACRE OF 10-10-10 FERTILIZER AND TWO TONS PER ACRE OF LIME.

C). SEEDING:*
FOR PERIODS MARCH 1 TO MAY 15 AND AUGUST 15 TO OCTOBER 15, SEED WITH 125 LBS. PER ACRE OF TALL FESCUE, 15 LBS. PER ACRE OF PERENNIAL RYEGRASS, AND 10 LBS. PER ACRE OF KENTUCKY BLUEGRASS.

FOR PERIOD OF MARCH 16 TO AUGUST 14, SEED WITH 110 LBS. PER ACRE OF TALL FESCUE AND 3 LBS. PER ACRE OF WEEPING LOVEGRASS.

FOR PERIOD OF OCTOBER 16 TO FEBRUARY 28, PROTECT SITE BY: OPTIONS (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, (2) USE SOD OR (3) SEED WITH 60 LBS. PER ACRE OF TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW. NOTE: FOR QUICK COVER WITH TALL FESCUE, ADD 2 LBS. OF SMALL GRAIN PER 1,000 SQ. FT..

D). MULCHING SPECIFICATIONS:
MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

APPLY 2 TONS PER ACRE OF STRAW OVER ALL SEEDED AREAS. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHALL BE INCREASED TO 2.5 TONS PER ACRE.**

MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND AND WATER. THE TYPE OF MULCH ANCHORING USED MUST COMPLY WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS.

* IF OTHER SEED MIXES ARE TO BE SUBSTITUTED, THEY MUST COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS, CHAPTER 20, TABLE 25.
** IF A DIFFERENT TYPE OF MULCH IS TO BE USED, IT MUST COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS, CHAPTER 20.

EXCAVATION NOTES

1. AT A MINIMUM ANY SATURATED SEDIMENT TO BE REMOVED SHALL BE PARTIALLY DEWATERED ON-SITE BEFORE ANY TRANSPORT ACTIVITY.
2. EXCAVATED STREAM BED MATERIAL SHALL BE SAVED AND STOCKPILED SEPARATELY ON SITE, AND REUSED WHERE APPROPRIATE. ALL SALVAGED STREAMBED MATERIAL MUST BE APPROVED BY THE COUNTY.
3. UNUSABLE EXCAVATED STREAM BED MATERIAL SHALL BE TRANSPORTED TO A DISPOSAL SITE IN LINED TRUCKS.
4. THE DISPOSAL SITE SHALL HAVE AN ACTIVE GRADING PERMIT.
5. CONTRACTOR SHALL KEEP STREET FREE OF ANY EXCAVATED MATERIAL. IF NECESSARY, CONTRACTOR MAY BE REQUIRED TO PERFORM ROUTINE STREET SWEEPING AND/OR STREET CLEANING.

SITE ANALYSIS

(NOT FOR BIDDING PURPOSES)

TOTAL AREA TO BE STABILIZED	=	6.15 AC
TOTAL DISTURBED AREA	=	6.15 AC
TOTAL AREA TO BE PAVED	=	0.00 AC
TOTAL CUT	=	5,527 CY
TOTAL FILL	=	4,372 CY
NPDES ID POINT:		

HARFORD COUNTY TEMPORARY VEGETATIVE STABILIZATION

A). SEED BED PREPARATION:
LOOSEN UPPER THREE INCHES BY DISCING, RAKING OR OTHER ACCEPTABLE MEANS.

B). SOIL AMENDMENTS:
APPLY 600 LBS. PER ACRE OF 10-10-10 FERTILIZER AND TWO TONS PER ACRE OF LIME.

C). SEEDING:
FOR PERIOD OF MARCH 11 TO APRIL 30 AND AUGUST 15 TO NOVEMBER 15, SEED WITH 2.5 BU PER ACRE OF CEREAL RYE PLUS 30 LBS. PER ACRE OF TALL FESCUE OR 5 LBS. PER ACRE OF REDTOP OR 20 LBS. PER ACRE OF PERENNIAL RYEGRASS.

FOR PERIODS OF MAY 1 TO AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS OR 40 LBS. PER ACRE OF JAPANESE OR FOXTAIL MILLET.

FOR PERIODS OF NOVEMBER 16 TO FEBRUARY 28, PROTECT THE SITE BY APPLYING TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

D). MULCHING SPECIFICATIONS:
MULCH SHALL BE APPLIED TO ALL SEEDED AREAS. IMMEDIATELY AFTER SEEDING, APPLY TWO TONS PER ACRE OF STRAW OVER ALL SEEDED AREAS. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHALL BE INCREASED TO 25 TONS PER ACRE.**
MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND AND WATER. THE MULCH ANCHORING TOOL MUST COMPLY WITH THE 1994 MARYLAND STANDARDS SPECIFICATIONS.

* IF OTHER SEED MIXES ARE TO BE SUBSTITUTED, THEY MUST COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS, CHAPTER 20, TABLE 25.
** IF A DIFFERENT TYPE OF MULCH IS TO BE USED, IT MUST COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS, CHAPTER 20.

CARE OF WATER DURING CONSTRUCTION

1. CLEAR WATER DIVERSIONS FROM POINT SOURCES MAY BE OMITTED IF NO BASE FLOW IS PRESENT.
2. BECAUSE OF SEASONAL VARIATIONS IN FLOW, THE SIZE OF PUMP, AND THE SIZE AND TYPE OF PIPING NECESSARY TO CONVEY CLEAR WATER FOR ANY PUMPED CLEAR WATER DIVERSIONS, SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE SEDIMENT CONTROL INSPECTOR. CARE SHOULD BE TAKEN BY THE CONTRACTOR AS TO NOT OVER OR UNDERSIZE THE PUMP/PIPING NECESSARY TO CONVEY ANY BASE FLOW.
3. DIVERSION PIPES, PUMPS, SUMP PITS, AND ASSOCIATED SEDIMENT FILTRATION DEVICES SHALL BE FIELD LOCATED BY THE CONTRACTOR AND ARE SHOWN ON THE PLANS TO ILLUSTRATE POTENTIAL ALIGNMENTS AND PLACEMENT.
4. WITH THE SEDIMENT CONTROL INSPECTORS APPROVAL, ANY DIVERSION PIPES, PUMPS, SUMP PITS, AND ASSOCIATED SEDIMENT FILTRATION DEVICES MAY BE RELOCATED WITHIN THE LIMIT OF DISTURBANCE TO ACCOMMODATE CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST.
5. THE CONTRACTOR SHALL SUFFICIENTLY DEWATER THE WORK AREA BEFORE COMMENCING ANY GRADING OPERATIONS. ADDITIONAL SUMP PITS, AT NO ADDITIONAL COST, MAY BE NECESSARY AT LOCATIONS WHERE GROUNDWATER IS INFILTRATING THE WORK AREA.
6. DEWATERING OF THE WORK AREA MAY REQUIRE ADDITIONAL TREATMENT BEYOND AN APPROVED DEWATERING PRACTICE TO REDUCE TURBIDITY IN THE DISCHARGE TO RECEIVING WATERS.
7. ANY FUEL SHALL BE STORED ABOVE THE 100-YR FLOOD ELEVATION.
8. THE CONTRACTOR SHALL ENSURE THAT ALL SEDIMENT CONTROLS ARE IN WORKING CONDITION AT THE END OF EACH WORKING DAY TO PREVENT SEDIMENT LADEN MATERIAL FROM DISCHARGING FROM THE WORK AREA.

DEVELOPER'S/LANDOWNER'S CERTIFICATION

I/WE CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWING(S) WILL BE ACCOMPLISHED PURSUANT TO THESE PLANS. I/WE ALSO UNDERSTAND THAT IT IS MY/OUR RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE SUBMITTAL OF "AS-BUILT" PLANS WITHIN 30 DAYS OF COMPLETION, BY A REGISTERED PROFESSIONAL ENGINEER.

OWNER/DEVELOPER SIGNATURE _____ DATE _____

PRINTED NAME _____

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL AND STORM WATER MANAGEMENT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED WITH THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

ENGINEER'S SIGNATURE _____ DATE _____

SEAN CRAWFORD — PRINTED NAME

200966 — MD PE REGISTRATION NO.

60% DESIGN DRAWINGS

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
7455 New Ridge Road, Suite T
Hanover, Maryland 21076
Phone: (410) 694-9401
Fax: (410) 694-9105
www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EROSION AND SEDIMENT CONTROL NOTES

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. EN-01 OF EN-01

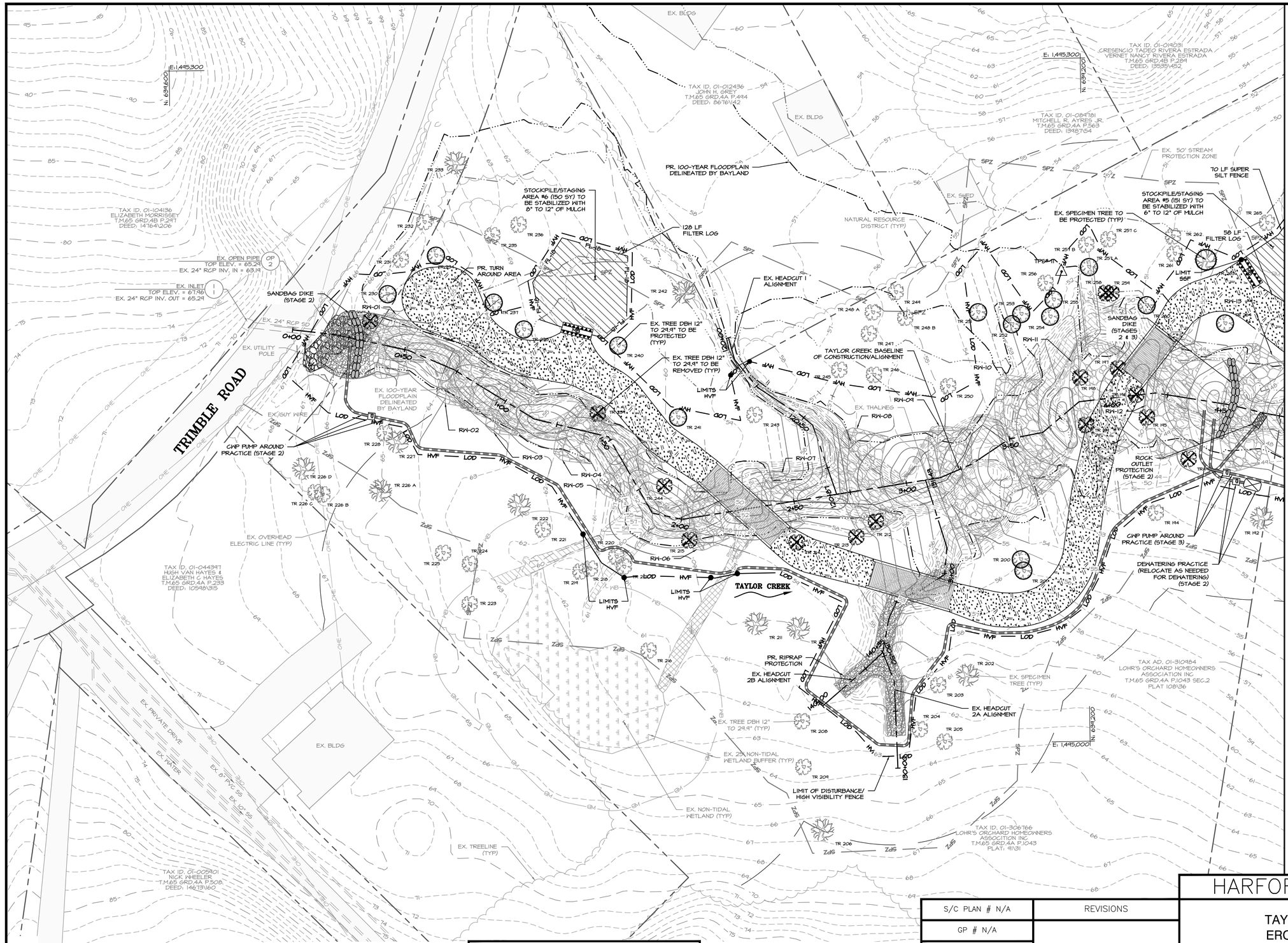
SHEET NO. 47 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_DTL03.dwg



SYSTEM (NAD'83/11) MARYLAND GRID

SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE — LOD
- LOD/HIGH VISIBILITY FENCE — LOD — HVF
- SUPER SILT FENCE — SSF
- 18" FILTER LOG — FL-18
- CWD PUMP AROUND/DEWATERING PIPE
- SAND BAG DIKE
- CWD PUMP AROUND/DEWATERING PUMP — P
- ROCK OUTLET PROTECTION
- TREE PROTECTION (PLANKING)
- CONSTRUCTION ACCESS ROAD (MULCH)
- TEMPORARY ACCESS BRIDGE
- MOUNTABLE BERM
- FILTER BAG
- STOCKPILE AREA

SUMMARY OF ESC QUANTITIES

STABILIZED CONSTRUCTION ENTRANCE:	1	EA
STAGING STOCKPILE AREA #1:	1574	SY
STAGING STOCKPILE AREA #2:	311	SY
STAGING STOCKPILE AREA #3:	172	SY
STAGING STOCKPILE AREA #4:	154	SY
STAGING/STOCKPILE AREA #5 (MULCH):	151	SY
STAGING/STOCKPILE AREA #5 (MATS):	17	SY
STAGING/STOCKPILE AREA #6:	150	SY
CONSTRUCTION ACCESS ROAD:	5009	SY
WETLAND PROTECTION MATTING:	405	SY
SILT FENCE:	633	LF
SUPER SILT FENCE:	145	LF
FILTER LOG:	373	LF
TEMPORARY ACCESS BRIDGE:	8	EA
HIGH VISIBILITY FENCE:	8107	LF
MOUNTABLE BERM:	12	EA
STAGE 2		
PUMP AROUND/DEWATERING PIPE:	641	LF
FILTER BAG:	1	EA
PUMP AROUND/DEWATERING PUMP:	2	EA
SANDBAG DIKE:	66	LF
ROCK OUTLET PROTECTION	1	EA

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- TEMPORARY ACCESS CULVERT MAY BE USED IN PLACE OF TEMPORARY ACCESS BRIDGE WITH APPROVAL FROM THE COUNTY IN WRITING AT NO ADDITIONAL COST TO THE COUNTY.

MATCHLINE REFER TO SHEET 49/DWG ES-02

BID No.:

HCG DWG ID No.:

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION EROSION & SEDIMENT CONTROL PLAN

EROSION AND SEDIMENT CONTROL

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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S/C PLAN # N/A	REVISIONS
GP # N/A	

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 20'

DATE : 05/06/24

DRAWING NO. ES-01 OF ES-06

SHEET NO. 48 OF 55

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_ESC01.dwg

SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE — LOD
- LOD/HIGH VISIBILITY FENCE — LOD — HVF
- SUPER SILT FENCE — SSF
- FILTER LOG — FL-18
- CWD PUMP AROUND/DEWATERING PIPE
- SAND BAG DIKE
- CWD PUMP AROUND/DEWATERING PUMP
- ROCK OUTLET PROTECTION
- TREE PROTECTION (PLANKING)
- CONSTRUCTION ACCESS ROAD (MULCH)
- TEMPORARY ACCESS BRIDGE
- CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH)
- MOUNTABLE BERM
- FILTER BAG
- STOCKPILE AREA

SUMMARY OF ESC QUANTITIES

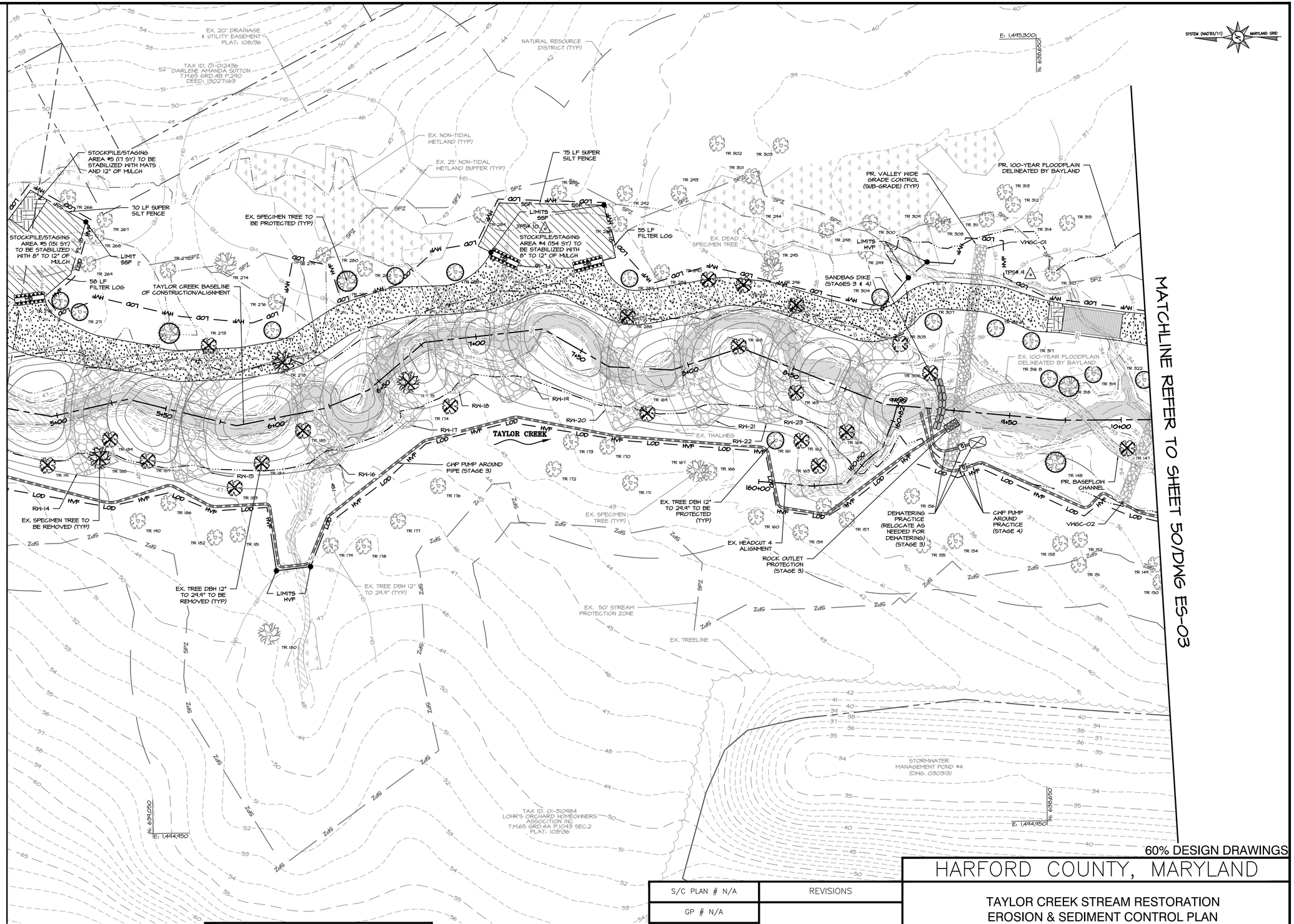
STAGE 3		
PUMP AROUND/DEWATERING PIPE:	598	LF
FILTER BAG:	1	EA
PUMP AROUND/DEWATERING PUMP:	2	EA
SANDBAG DIKE:	60	LF
ROCK OUTLET PROTECTION	1	EA
STAGE 4		
PUMP AROUND/DEWATERING PIPE:	1146	LF
FILTER BAG:	1	EA
PUMP AROUND/DEWATERING PUMP:	3	EA
SANDBAG DIKE:	73	LF
ROCK OUTLET PROTECTION	1	EA

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MATCHLINE REFER TO SHEET 48/DWG ES-01

MATCHLINE REFER TO SHEET 50/DWG ES-03



60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EROSION & SEDIMENT CONTROL PLAN

EROSION AND SEDIMENT CONTROL

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A	REVISIONS
GP # N/A	

DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/06/24
REVIEWED BY : SMC/CMS	
DRAWING NO. ES-02 OF ES-06	SHEET NO. 49 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_ESC02.dwg

SUMMARY OF ESC QUANTITIES

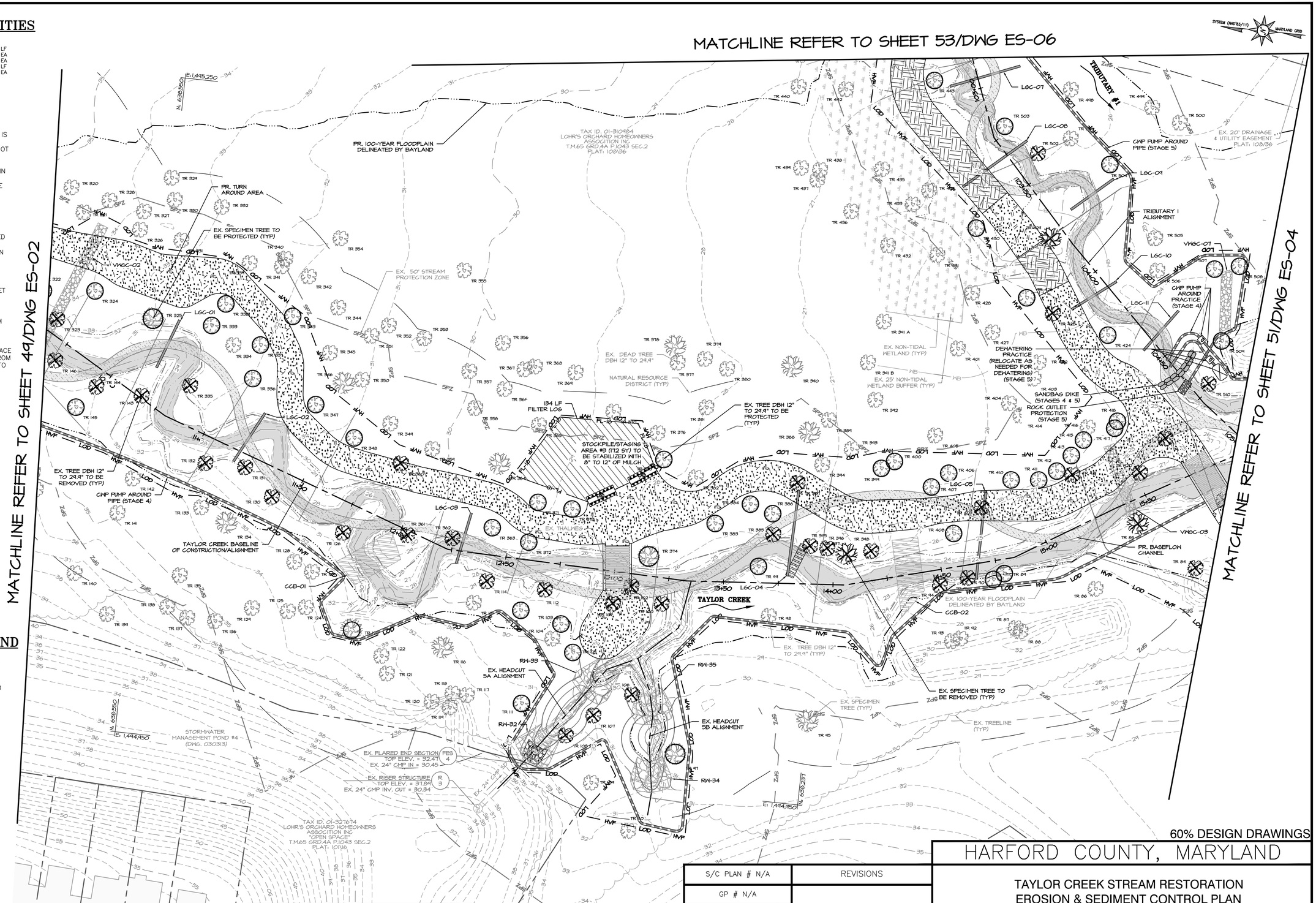
STAGE 5		
PUMP AROUND/DEWATERING PIPE:	495	LF
FILTER BAG:	1	EA
PUMP AROUND/DEWATERING PUMP:	2	EA
SANDBAG DIKE:	46	LF
ROCK OUTLET PROTECTION	1	EA

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SEDIMENT CONTROL LEGEND

- LOD/HIGH VISIBILITY FENCE — LOD — HVF —
- FILTER LOG — FL-18 —
- CWD PUMP AROUND/DEWATERING PIPE
- SAND BAG DIKE
- CWD PUMP AROUND/DEWATERING PUMP — P
- ROCK OUTLET PROTECTION
- TREE PROTECTION (PLANKING)
- CONSTRUCTION ACCESS ROAD (MULCH)
- TEMPORARY ACCESS BRIDGE
- CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH)
- MOUNTABLE BERM
- FILTER BAG
- STOCKPILE AREA



EROSION AND SEDIMENT CONTROL

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

S/C PLAN # N/A	REVISIONS
GP # N/A	

TAYLOR CREEK STREAM RESTORATION
EROSION & SEDIMENT CONTROL PLAN

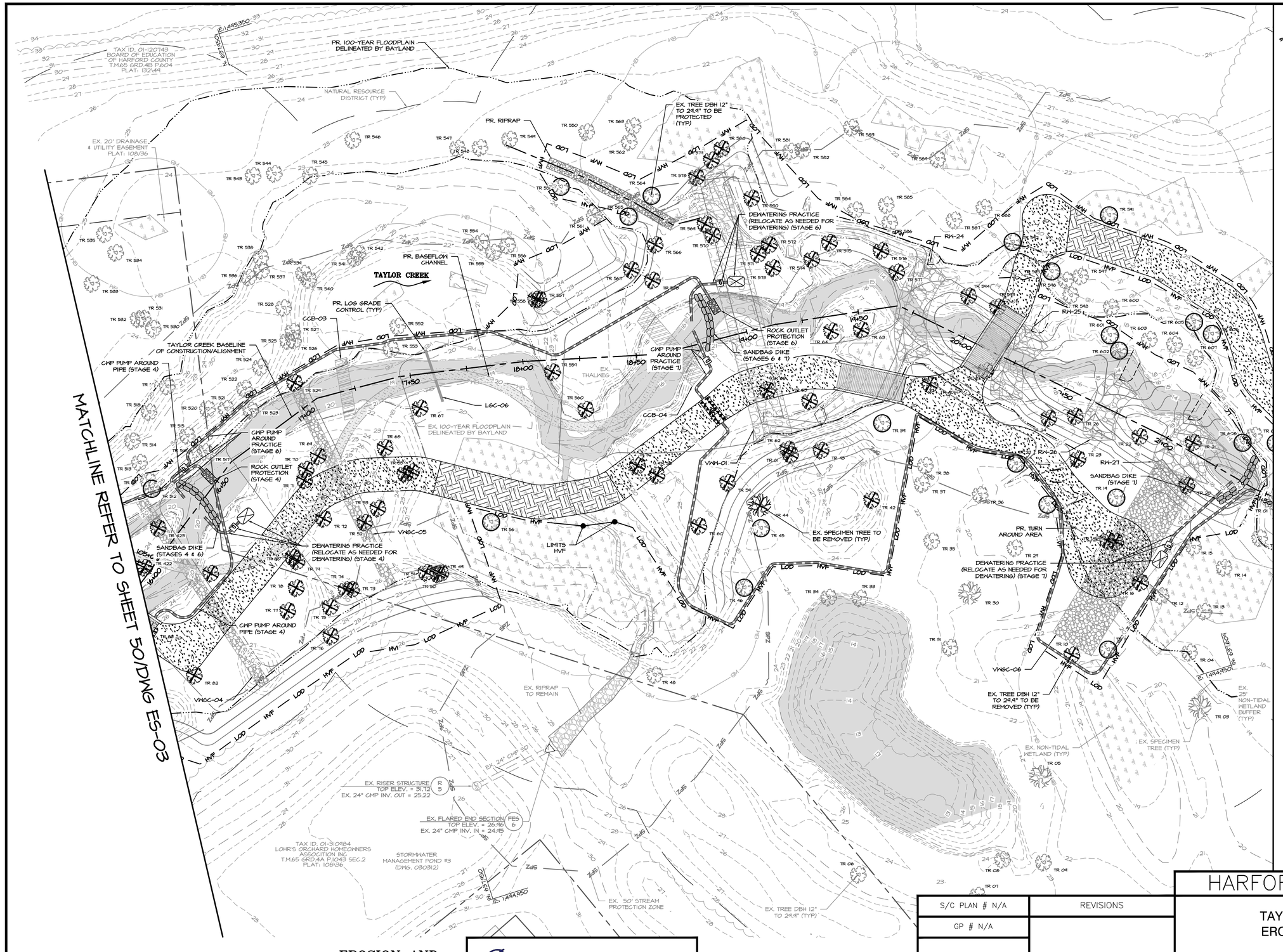
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/06/24
REVIEWED BY : SMC/CMS	
DRAWING NO. ES-03 OF ES-06	SHEET NO. 50 OF 55

BID No.:

HCG DWG ID No.:

SCALE 1" = 20'

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_ESC03.dwg



SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE — LOD
- LOD/HIGH VISIBILITY FENCE — LOD — HVF —
- CWD PUMP AROUND/DEWATERING PIPE
- SAND BAG DIKE
- CWD PUMP AROUND/DEWATERING PUMP
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- TREE PROTECTION (PLANKING)
- CONSTRUCTION ACCESS ROAD (MULCH)
- TEMPORARY ACCESS BRIDGE
- CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH)
- MOUNTABLE BERM
- FILTER BAG

SUMMARY OF ESC QUANTITIES

STAGE 6		
PUMP AROUND/DEWATERING PIPE:	311	LF
FILTER BAG:	1	EA
PUMP AROUND/DEWATERING PUMP:	2	EA
SANDBAG DIKE:	53	LF
ROCK OUTLET PROTECTION	1	EA
STAGE 7		
PUMP AROUND/DEWATERING PIPE:	612	LF
FILTER BAG:	1	EA
PUMP AROUND/DEWATERING PUMP:	2	EA
SANDBAG DIKE:	53	LF
ROCK OUTLET PROTECTION	0	EA

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60% DESIGN DRAWINGS

EROSION AND SEDIMENT CONTROL

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EROSION & SEDIMENT CONTROL PLAN

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : 1" = 20'

DATE : 05/06/24

DRAWING NO. ES-04 OF ES-06

SHEET NO. 51 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

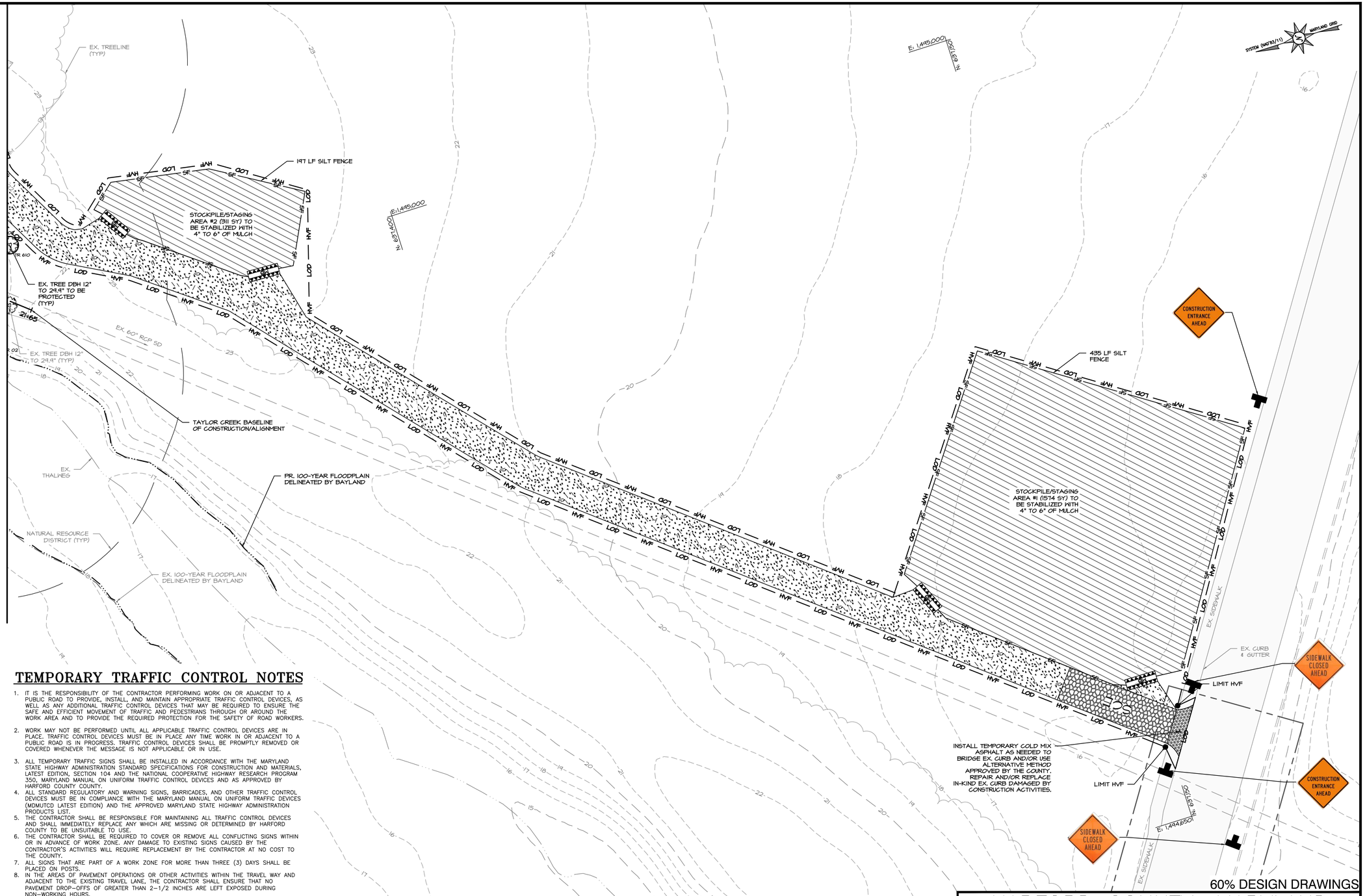
Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_ESC04.dwg

MATCHLINE REFER TO SHEET 51/DWG ES-04

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- TEMPORARY ACCESS CULVERT MAY BE USED IN PLACE OF TEMPORARY ACCESS BRIDGE WITH APPROVAL FROM THE COUNTY IN WRITING AT NO ADDITIONAL COST TO THE COUNTY.

SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE — LOD
- LOD/HIGH VISIBILITY FENCE — LOD — HVF —
- SILT FENCE — SF —
- CONSTRUCTION ACCESS ROAD (MULCH)
- MOUNTABLE BERM — MB
- STABILIZED CONSTRUCTION ENTRANCE — SCE
- TREE PROTECTION (PLANKING)
- COLD MIX ASPHALT



TEMPORARY TRAFFIC CONTROL NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING WORK ON OR ADJACENT TO A PUBLIC ROAD TO PROVIDE, INSTALL, AND MAINTAIN APPROPRIATE TRAFFIC CONTROL DEVICES, AS WELL AS ANY ADDITIONAL TRAFFIC CONTROL DEVICES THAT MAY BE REQUIRED TO ENSURE THE SAFE AND EFFICIENT MOVEMENT OF TRAFFIC AND PEDESTRIANS THROUGH OR AROUND THE WORK AREA AND TO PROVIDE THE REQUIRED PROTECTION FOR THE SAFETY OF ROAD WORKERS.
2. WORK MAY NOT BE PERFORMED UNTIL ALL APPLICABLE TRAFFIC CONTROL DEVICES ARE IN PLACE. TRAFFIC CONTROL DEVICES MUST BE IN PLACE ANY TIME WORK IN OR ADJACENT TO A PUBLIC ROAD IS IN PROGRESS. TRAFFIC CONTROL DEVICES SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR IN USE.
3. ALL TEMPORARY TRAFFIC SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION, SECTION 104 AND THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM 350, MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND AS APPROVED BY HARFORD COUNTY COUNTY.
4. ALL STANDARD REGULATORY AND WARNING SIGNS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN COMPLIANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC DEVICES (MDMUTCD LATEST EDITION) AND THE APPROVED MARYLAND STATE HIGHWAY ADMINISTRATION PRODUCTS LIST.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES AND SHALL IMMEDIATELY REPLACE ANY WHICH ARE MISSING OR DETERMINED BY HARFORD COUNTY TO BE UNSUITABLE TO USE.
6. THE CONTRACTOR SHALL BE REQUIRED TO COVER OR REMOVE ALL CONFLICTING SIGNS WITHIN OR IN ADVANCE OF WORK ZONE. ANY DAMAGE TO EXISTING SIGNS CAUSED BY THE CONTRACTOR'S ACTIVITIES WILL REQUIRE REPLACEMENT BY THE CONTRACTOR AT NO COST TO THE COUNTY.
7. ALL SIGNS THAT ARE PART OF A WORK ZONE FOR MORE THAN THREE (3) DAYS SHALL BE PLACED ON POSTS.
8. IN THE AREAS OF PAVEMENT OPERATIONS OR OTHER ACTIVITIES WITHIN THE TRAVEL WAY AND ADJACENT TO THE EXISTING TRAVEL LANE, THE CONTRACTOR SHALL ENSURE THAT NO PAVEMENT DROP-OFFS OF GREATER THAN 2-1/2 INCHES ARE LEFT EXPOSED DURING NON-WORKING HOURS.
9. THE CONTRACTOR AT THE END OF THE WORKING DAY SHALL CLEAN OFF ALL DIRT, CRUSHED STONE AND ALL CONSTRUCTION MATERIAL FROM THE PAVEMENT SURFACE WITHIN THE RIGHT-OF-WAY, AND SHALL RESTORE THE EXISTING TRAFFIC PATTERNS.
10. PART-TIME FLAGGER(S) ARE REQUIRED TO CONTROL VEHICLE INGRESS/EGRESS AT ACCESS POINTS AND TURN AROUND AREAS INCLUDING MATERIAL DELIVERY. FLAGGERS SHALL COMPLY WITH ALL FEDERAL HIGHWAY ADMINISTRATION (FWA) AND OCCUPATIONAL SAFETY HEALTH ADMINISTRATION (OSHA) GUIDELINES.

EROSION AND SEDIMENT CONTROL

SCALE: 1" = 20'

0 10 20 40

1 INCH = 20 FEET

BayLand Consultants & Designers, Inc.
"Integrating Engineering and Environment"
7455 New Ridge Road, Suite T
Hanover, Maryland 21076
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www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EROSION & SEDIMENT CONTROL PLAN

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. ES-05 OF ES-06

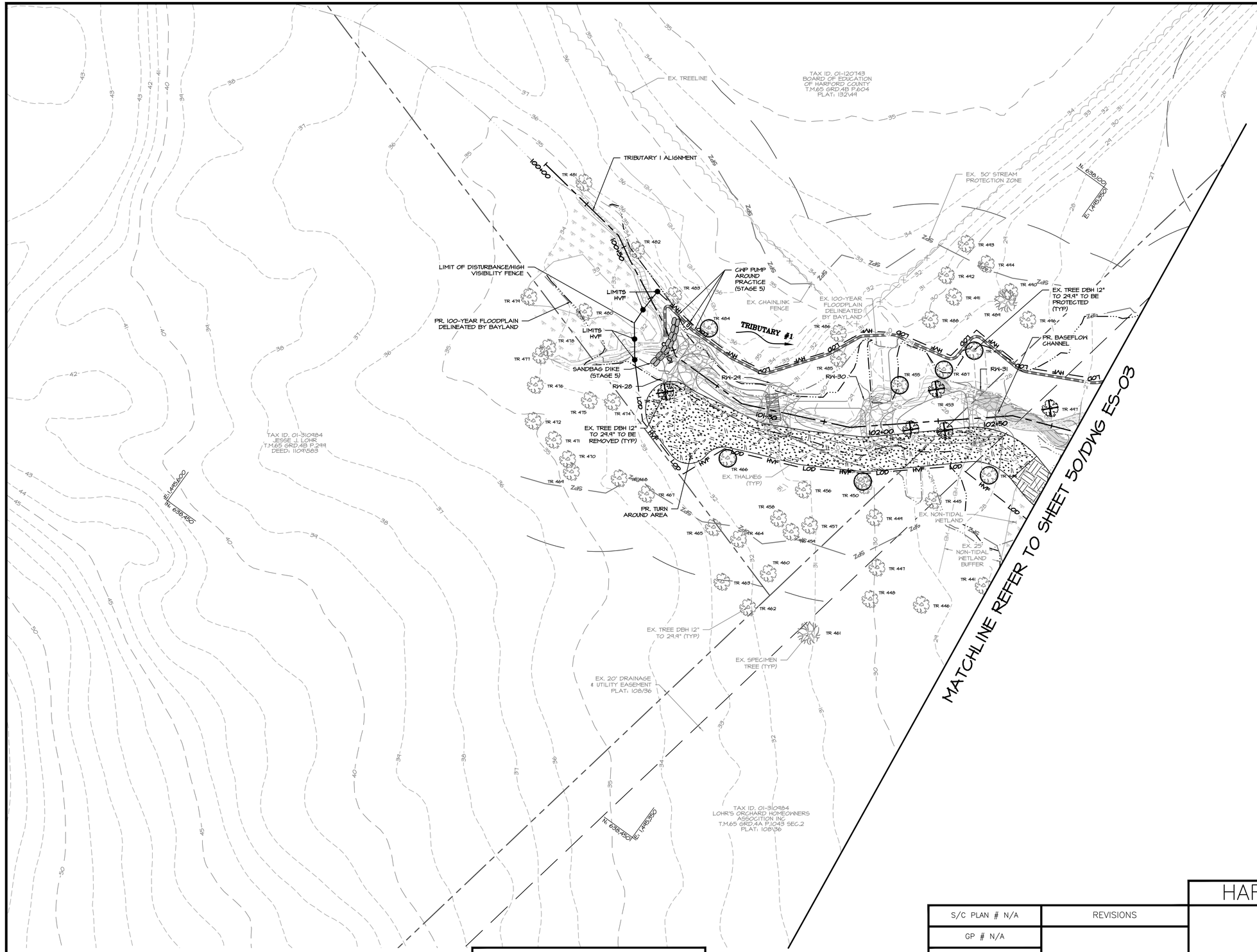
SHEET NO. 52 OF 55

BID No.:

HCG DWG ID No.:

SCALE: 1 inch

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SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE — LOD —
- LOD/HIGH VISIBILITY FENCE — LOD — HVF —
- CWD PUMP AROUND/DEWATERING PIPE
- SAND BAG DIKE
- CWD PUMP AROUND/DEWATERING PUMP (P)
- TREE PROTECTION (PLANKING)
- CONSTRUCTION ACCESS ROAD (MULCH)
- CONSTRUCTION ACCESS ROAD (MATS WITH 12" MULCH)

NOTE:

- THIS SUMMARY OF SEDIMENT CONTROL QUANTITIES IS FOR USE BY THE HARFORD COUNTY SOIL CONSERVATION DISTRICT ONLY. THIS SUMMARY IS NOT INTENDED TO BE USED BY THE CONTRACTOR FOR ESTIMATING AND BIDDING PURPOSES.
- IF ADDITIONAL STOCKPILE AREAS ARE NEEDED WITHIN THE LOD, THE CONTRACTOR MUST GET APPROVAL FROM INSPECTOR. ADDITIONAL STOCKPILES MUST BE WRAPPED WITH FILTER LOOS OR SILT FENCE.
- STOCKPILE MAX HEIGHT CANNOT EXCEED 15 FT. STOCKPILE MAX SLOPE CANNOT EXCEED 2:1.
- NO DISTURBED AREA SHALL BE LEFT OVERNIGHT. STABILIZE ON DAILY BASIS USING TEMPORARY STABILIZATION METHODS.
- SAND BAG DIKES AND FILTER BAGS MAY BE REUSED AT CONTRACTOR'S DISCRETION.
- WETLAND PROTECTION MATTING SHOULD BE USED IN PLACE OF CONSTRUCTION ACCESS ROAD WHEN CROSSING OVERTOP OF EXISTING WETLANDS AND WITHIN 5' OF UTILITIES.
- FOR ALL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS, SEE SHEET 54/DWG ED-01 TO SHEET 55/ DWG ED-02.
- CONTRACTOR MAY ADD DIVERSION PRACTICES FOR STORM DRAIN OUTFALLS AND INTERMITTENT AND EPHEMERAL CHANNELS FOR SEASONAL/POST STORM FLOW AT NO ADDITIONAL COST TO THE COUNTY. CONTRACTOR MUST PROVIDE A STABLE DISCHARGE POINT FOR DIVERSION PRACTICES.
- TEMPORARY ACCESS CULVERT MAY BE USED IN PLACE OF TEMPORARY ACCESS BRIDGE WITH APPROVAL FROM THE COUNTY IN WRITING AT NO ADDITIONAL COST TO THE COUNTY.

EROSION AND SEDIMENT CONTROL

SCALE: 1" = 20'

0 10 20 40

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EROSION & SEDIMENT CONTROL PLAN

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : 1" = 20'
DATE : 05/06/24

DRAWING NO. ES-06 OF ES-06

SHEET NO. 53 OF 55

BID No.:

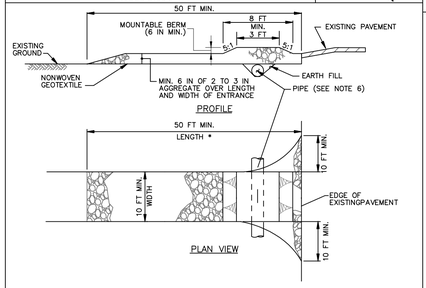
HCG DWG ID No.:

SCALE: 1 inch

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DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

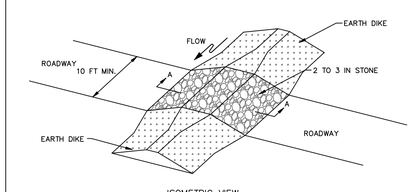
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*)0 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

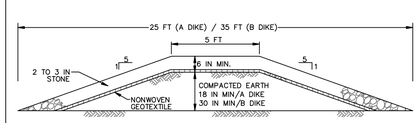
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL C-8 MOUNTABLE BERM

STANDARD SYMBOL: MB





CONSTRUCTION SPECIFICATIONS

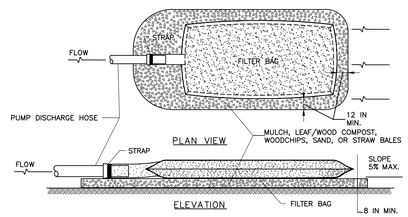
1. USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
3. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL F-4 FILTER BAG

STANDARD SYMBOL: ☒FB



CONSTRUCTION SPECIFICATIONS

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

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

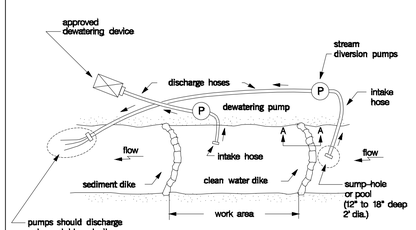
6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

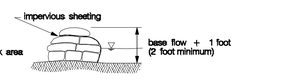
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Maryland's Guidelines To Waterway Construction
DETAIL 1.2: PUMP-AROUND PRACTICE

PLAN VIEW



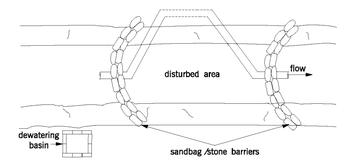
SECTION A-A



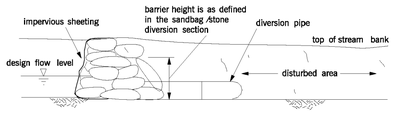
TEMPORARY INSTREAM CONSTRUCTION MEASURES	REVISED NOVEMBER 2000 PAGE 1.2 - 2 (MODIFIED)	MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Maryland's Guidelines To Waterway Construction
DETAIL 1.4: DIVERSION PIPE

PLAN VIEW



LONGITUDINAL SECTION VIEW



NOTE:
MAY BE USED ON EPHEMERAL/INTERMITTENT OUTFALLS/CHANNELS AT CONTRACTOR'S DISCRETION AND EXPENSE.

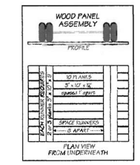
TEMPORARY INSTREAM CONSTRUCTION MEASURES	REVISED NOVEMBER 2000 PAGE 1.4 - 2	MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

WETLAND PROTECTION MATTING DETAIL

SCALE: NONE



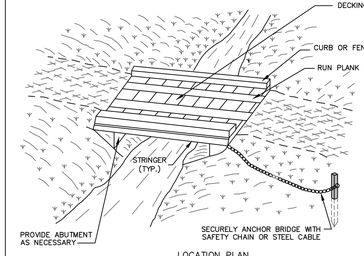
1. MINIMIZE SPACING BETWEEN PANELS OR PALLETS. CONNECT WITH QUICK LINKS OR OTHER HEAVY-DUTY CONNECTORS FOR EXTRA STABILITY. (SOME WOOD PALLETS ARE DESIGNED TO INTERCONNECT DURING INSTALLATION.
2. IF ADDITIONAL TRACTION IS NEEDED, USE EXPANDED METAL GRATING OR SIMILAR MATERIALS ON TOP OF THE WOOD PANELS OR PALLETS.
3. SIZE: WOOD PANELS AND PALLETS TO MEET ANTICIPATED LOADS, SOIL STRENGTH, AND INSTALLATION EQUIPMENT. YOU MAY NEED ADDITIONAL SIZE ON VERY WEAK SOILS WITH LOW BEARING STRENGTH (E.G., MUCK OR PEAT) TO SPREAD WEIGHT OVER A LARGER AREA.



1. USE 3-INCH THICK BY 10-INCH WIDE BY 12-FEET LONG LUMBER FOR PLANKS. ALIGN PLANKS PARALLEL TO EACH OTHER.
2. NAIL 2 OR 3 BOARDS, EACH MEASURING 3 INCHES BY 10 INCHES BY 9 FEET, PERPENDICULAR TO THE PLANKS (USE RING-SHANK OR SPIRAL SPIKES). THESE ARE RUNNERS.
3. LEAVE A 1-INCH GAP BETWEEN THE PLANKS TO ALLOW WATER TO RUN THROUGH. USE AN AIR GUN OR COUNTERSUNK BOLTS TO REDUCE NAIL WITHDRAWAL DURING USE.
4. ADD EYE HOOKS AND LOOPED CABLES OR OTHER MATERIALS TO THE WOOD PANEL. THIS FACILITATES LIFTING AND INTERCONNECTION ONCE THEY ARE INSTALLED.

DETAIL H-4-1 TEMPORARY ACCESS BRIDGE

STANDARD SYMBOL: TB



NOTE:
TIME OF YEAR RESTRICTIONS DO NOT APPLY TO THE CONSTRUCTION OR REMOVAL OF A TEMPORARY ACESS BRIDGE UNLESS THERE IS DISTURBANCE TO THE STREAM CHANNEL.

1 OF 2

DETAIL H-4-1 TEMPORARY ACCESS BRIDGE

STANDARD SYMBOL: TB

CONSTRUCTION SPECIFICATIONS

1. CONSTRUCT TEMPORARY BRIDGE STRUCTURE AT OR ABOVE THE BANK ELEVATION TO PREVENT IMPACTS FROM FLOATING MATERIALS AND DEBRIS.
2. PLACE ABUTMENTS PARALLEL TO, AND ON, STABLE BANKS.
3. CONSTRUCT BRIDGE TO SPAN ENTIRE CHANNEL UNLESS OTHERWISE INDICATED ON APPROVED PLAN.
4. USE STRINGERS CONSISTING OF LOGS, SAWN TIMBER, PRESTRESSED CONCRETE BEAMS, METAL BEAMS, OR OTHER APPROVED MATERIALS.
5. SELECT DECKING MATERIALS TO PROVIDE SUFFICIENT STRENGTH TO SUPPORT THE ANTICIPATED LOAD. PLACE ALL DECKING MEMBERS PERPENDICULAR TO THE STRINGERS, BUTT TIGHTLY, AND SECURELY FASTEN. DECKING MATERIALS MUST BE BUTTED TIGHTLY TO PREVENT ANY SOIL MATERIAL TRACKED ONTO THE BRIDGE FROM FALLING INTO THE WATERWAY BELOW.
6. SECURELY FASTEN OPTIONAL RUN PLANKING FOR THE LENGTH OF THE SPAN. PROVIDE A RUN PLANK FOR EACH TRACK OF THE EQUIPMENT WHEELS. ALTHOUGH RUN PLANKS ARE OPTIONAL, THEY MAY BE NECESSARY TO PROPERLY DISTRIBUTE LOADS.
7. INSTALL CURBS THE ENTIRE LENGTH OF THE OUTER SIDES OF THE DECK TO PREVENT SEDIMENT FROM ENTERING THE STREAM CHANNEL.
8. ANCHOR BRIDGE SECURELY AT ONLY ONE END USING STEEL CABLE OR CHAIN. ANCHORING AT ONLY ONE END WILL PREVENT CHANNEL OBSTRUCTION IN THE EVENT THAT FLOODWATERS FLOAT THE BRIDGE. ACCEPTABLE ANCHORS ARE LARGE TREES, LARGE BOULDERS, OR DRIVEN STEEL POSTS. ANCHOR MUST BE SUFFICIENT TO PREVENT THE BRIDGE FROM FLOATING DOWNSTREAM.
9. AREAS DISTURBED DURING BRIDGE INSTALLATION AND\OR REMOVAL MUST NOT BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.
10. STABILIZE APPROACH TO BRIDGE AND KEEP FREE OF EROSION. CLEAN SEDIMENT FROM DECKING AND CURBS DAILY BY SCRAPING, SWEEPING, AND/OR VACUUMING. ENSURE THAT DECKING AND CURBS REMAIN TIGHTLY BUTTED WITHOUT GAPS. REMOVE DEBRIS TRAPPED BY BRIDGE. MAINTAIN AREAS ADJACENT TO CROSSING TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
11. AFTER THE TEMPORARY CROSSING IS NO LONGER NEEDED, REMOVE IT WITHIN 14 CALENDAR DAYS. IF SUBJECT TO THE USE DESIGNATION CLOSURE, REMOVE AT THE END OF CLOSURE PERIOD. PROTECT STREAM BANKS DURING BRIDGE REMOVAL AND STABILIZE ALL DISTURBED AREAS WITH EROSION CONTROL MATTING. ACCOMPLISH REMOVAL OF THE BRIDGE AND CLEAN UP OF THE AREA WITHOUT CONSTRUCTION EQUIPMENT WORKING IN THE WATERWAY CHANNEL. STORE ALL REMOVED MATERIALS IN AN APPROVED STAGING AREA.

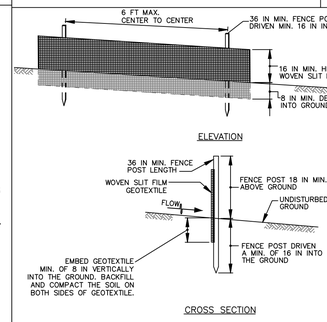
2 OF 2

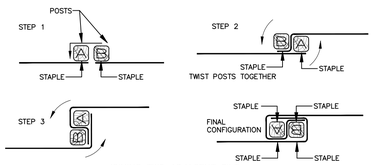
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF





1 OF 2

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1½ X 1½ ± X₈ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

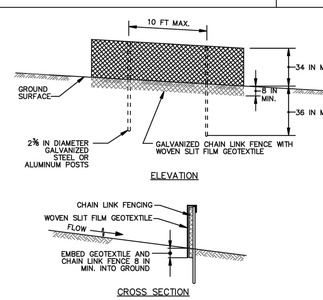
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



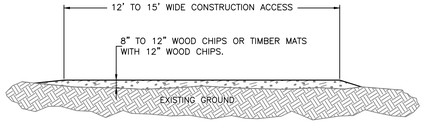
CONSTRUCTION SPECIFICATIONS

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

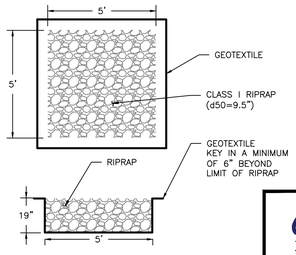
E.7



CONSTRUCTION ACCESS ROAD

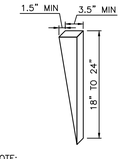
NOT TO SCALE

NOTES:
1. UPON COMPLETION OF CONSTRUCTION, WOOD CHIPS MAY BE INCORPORATED INTO THE PERMANENT STABILIZATION OF THE SITE. A MAXIMUM OF 3 INCHES OF WOOD CHIPS CAN REMAIN AT THE LOCATION OF THE CONSTRUCTION ACCESS ROAD. THE REMAINDER MAY BE PLACED IN FLOODPLAIN AREAS TO A MAXIMUM DEPTH OF 3 INCHES AT THE DIRECTION OF THE COUNTY. WOOD CHIPS SHALL NOT BE LEFT IN PLACE ALONG THE SCHOOL BASEBALL FIELD. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL OTHER MATERIALS OFF SITE.
2. WETLAND MATS SHALL BE IN ACCORDANCE WITH THE WETLAND PROTECTION MATTING DETAIL PROVIDED ON THIS SHEET OR APPROVED EQUIVALENT.
3. THE CONTRACTOR SHALL REPLENISH WOOD CHIPS AS DIRECTED BY THE COUNTY DURING CONSTRUCTION TO MAINTAIN MINIMUM DIMENSIONS AND TO PREVENT MUD, WATER, CONSTRUCTION DEBRIS AND OTHER MATERIALS FROM ACCUMULATING ON THE CONSTRUCTION ACCESS ROAD.
4. WETLAND PROTECTION MATTING WITH A MINIMUM OF 12" OF MULCH SHOULD BE UTILIZED TO PROVIDE ACCESS ANYWHERE THE CONSTRUCTION ACCESS ROAD CROSSES OVER WETLANDS OR WHEN CROSSING WITHIN 5' OF OR DIRECTLY OVERTOP OF EXISTING UTILITIES.
5. MATS MAY NOT BE REQUIRED OVERTOP OF EXISTING WETLANDS IF THE CONTRACTOR SUITABLY OPERATES EQUIPMENT TO PREVENT DAMAGE TO WETLANDS AND OBTAINS WRITTEN APPROVAL FROM THE MDE INSPECTOR PRIOR TO PERFORMING ANY WORK.
7. THE CONTRACTOR MAY ELECT TO INSTALL THE HAUL ROAD IN THE EXISTING CHANNEL WITH COUNTY APPROVAL AT NO ADDITIONAL COST TO THE COUNTY.
8. WETLAND PROTECTION MATTING TO BE UNDERLAIN WITH 12" MINIMUM OF WOOD CHIPS.



OUTLET PROTECTION FOR PUMP AROUND PRACTICE DETAIL

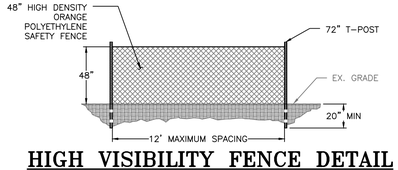
NOT TO SCALE



NOTE:
1. ANCHOR STAKES SHALL BE TAPERED TWO FOOT LONG WOODEN STAKES CONSISTING OF STANDARD 2" X 4" WOODEN BOARDS CUT DIAGONALLY.

ANCHOR STAKE DETAILS

NOT TO SCALE



HIGH VISIBILITY FENCE DETAIL

NOT TO SCALE

NOTES:
1. INSTALL HIGH VISIBILITY FENCE IN LOCATIONS SHOWN ON PLANS.
2. T-POST SHALL BE SPACED A MAXIMUM OF 12' O/C.
3. THE HIGH VISIBILITY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS WITH WIRE OR ZIP TIES.
4. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED.

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EROSION AND SEDIMENT CONTROL DETAILS

DRAWN BY : MJG
DESIGNED BY : MKS/KJM
REVIEWED BY : SMC/CMS

SCALE : AS SHOWN
DATE : 05/06/24

DRAWING NO. ED-01 OF ED-02

SHEET NO. 54 OF 55

BID No.:

HCG DWG ID No.:

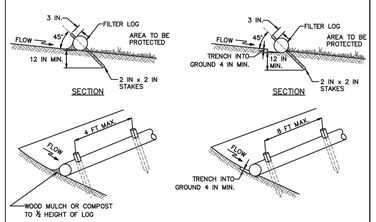
SCALE: 1" = 1'-0"

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DETAIL E-6 FILTER LOG

STANDARD SYMBOL FL-18

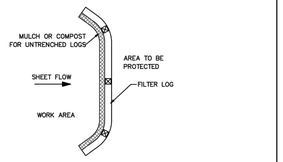
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG



UNTRENCHED INSTALLATION OR ENTRENCHED INSTALLATION*

*THIS APPLICATION MAY NOT BE USED WITH LOGS SMALLER THAN 12 IN.

ISOMETRIC VIEW



PLAN

1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

E.15

DETAIL E-6 FILTER LOG

STANDARD SYMBOL FL-18

DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG

CONSTRUCTION SPECIFICATIONS

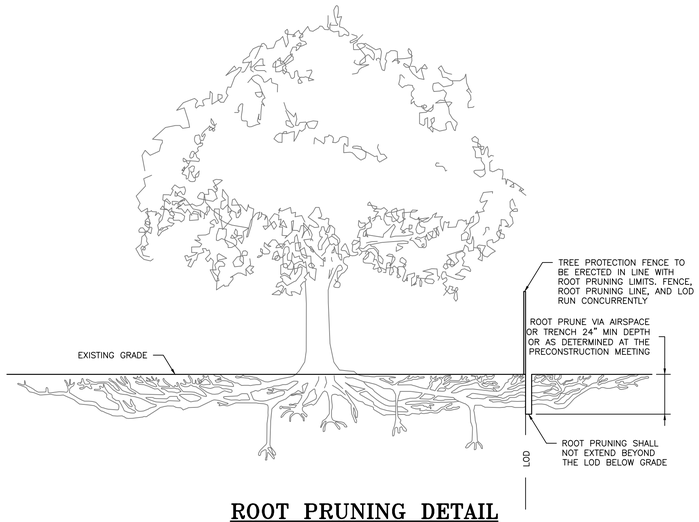
1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

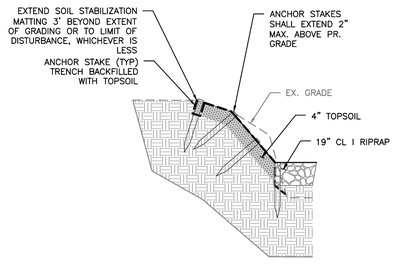
E.16



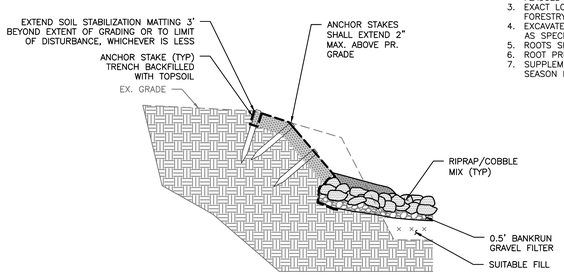
ROOT PRUNING DETAIL

SCALE: NOT TO SCALE

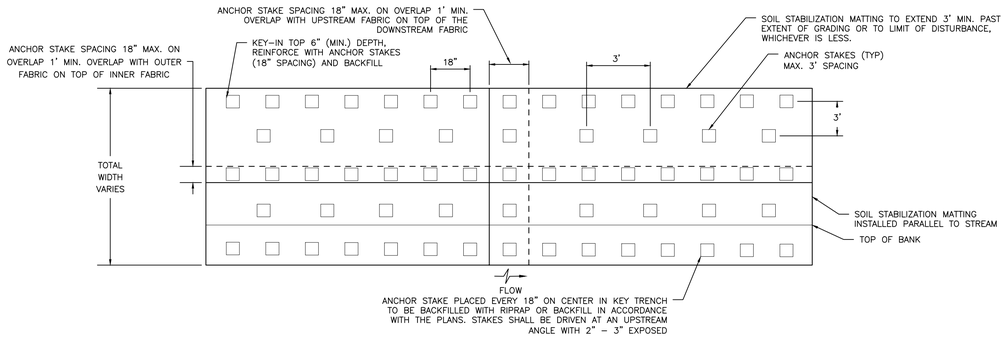
NOTES:
1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO ROOT PRUNING.
3. EXACT LOCATION OF ROOT PRUNING SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FORESTRY INSPECTOR.
4. EXCAVATED AREA MUST BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FORESTRY INSPECTOR.
5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
6. ROOT PRUNING MEANS AND METHODS MUST BE IN ACCORDANCE WITH ANSI STANDARD A3000.
7. SUPPLEMENTAL WATERING MAY BE REQUIRED FOR ROOT PRUNED TREES THROUGHOUT THE GROWING SEASON DURING CONSTRUCTION AND SUBSEQUENT WARRANTY AND MAINTENANCE PERIOD.



TYPICAL SECTION VIEW
(NON-RIFFLE-WEIR AREAS)
NOT TO SCALE



TYPICAL SECTION VIEW
NOT TO SCALE



NOTES:
1. ALL SLOPES GREATER THAN 3:1 AND/OR ADDITIONAL AREAS AT THE COUNTY'S DIRECTION SHALL BE STABILIZED WITH 4 INCHES OF TOPSOIL AND SOIL STABILIZATION MATTING INSTEAD OF COMPOST.
2. SOIL STABILIZATION MATTING SHALL BE A BIODEGRADABLE WOVEN MATTING OF COIR MADE FROM HIGH STRENGTH COCONUT FIBER.
3. SOIL STABILIZATION MATTING SHALL BE A MINIMUM OF 0.35 INCHES THICK, WITH A MINIMUM WEIGHT OF 20.6 OUNCES PER SQUARE YARD.
4. AREAS TO BE COVERED WITH SOIL STABILIZATION MATTING SHALL BE RAKED TO GRADE, AND ANY ROCKS OR OTHER DEBRIS LARGER THAN 2 IN. SHALL BE REMOVED. SEEDING SHALL BE APPLIED PER THE MIXES AND RATES SPECIFIED ON THE PLANS, AND STRAW MULCH SHALL BE PLACED IMMEDIATELY AFTER SEEDING.

SOIL STABILIZATION MATTING DETAILS

NOT TO SCALE

FOR TEMPORARY AND PERMANENT SEED MIXES, SEE PLANTING DETAILS.
PERMANENT STABILIZATION FOR DISTURBED FLOODPLAIN/TERRACE ADJACENT TO THE RESTORED STREAM CHANNEL WILL CONSIST OF PLACING A MINIMUM OF 4 INCHES OF TOPSOIL IN ACCORDANCE WITH THESE DETAILS. BIODEGRADABLE SOIL STABILIZATION MATTING WITH 4 INCHES OF TOPSOIL SHALL BE USED WHERE SLOPES ARE GREATER THAN 3:1, AT THE BASEFLOW CHANNEL AS SHOWN ON DWG DE-01/SHEET 16, AND AT THE DIRECTION OF THE COUNTY AND/OR ENGINEER.
PER THE CONSTRUCTION ACCESS ROAD DETAIL ON DWG ED-01/SHEET 54, A MAXIMUM OF 3 INCHES OF WOOD CHIPS CAN REMAIN AT THE CONSTRUCTION ACCESS ROAD AS PART OF FINAL STABILIZATION WITH COUNTY APPROVAL IN WRITING.

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

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S/C PLAN # N/A

GP # N/A

REVISIONS

60% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EROSION AND SEDIMENT CONTROL DETAILS

DRAWN BY : MJG

DESIGNED BY : MKS/KJM

REVIEWED BY : SMC/CMS

SCALE : AS SHOWN

DATE : 05/06/24

DRAWING NO. ED-02 OF ED-02

SHEET NO. 55 OF 55

BID No.:

HCG DWG ID No.:

SCALE 1 inch

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