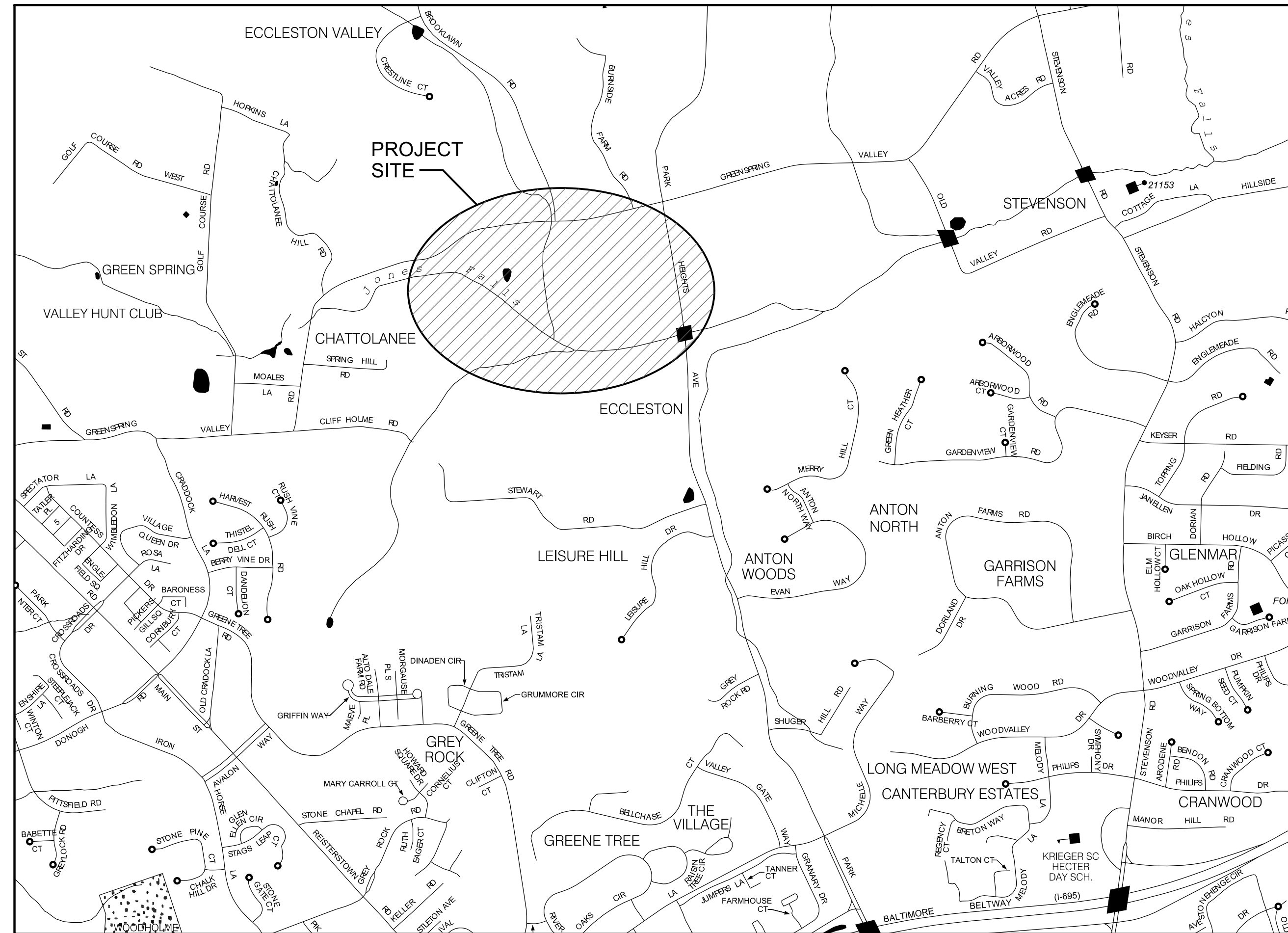


ECCLESTON MITIGATION SITE

MDTA CONTRACT NO.: KH-3038-0000

SHEET INDEX

SHEET #	DWG. #	DRAWING TITLE
1	—	TITLE SHEET
2	GN-1	ABBREVIATIONS /GENERAL NOTES
3	EC-1	EXISTING CONDITIONS PLAN
4	KM-1	KEY MAP - STREAM RESTORATION PLANS
5	KM-2	KEY MAP - ESC AND PLANTING PLANS
6-9	GS-1 - GS-4	GEOMETRY SHEETS
10-19	SRV-1 - SRV-10	STREAM RESTORATION PROFILES
20-30	SR-1 - SR-11	STREAM RESTORATION GRADING PLANS
31-34	SRD-1 - SRD-4	STREAM RESTORATION DETAILS
35	TS-1	TYPICAL SECTIONS
36-44	PS-1 - PS-9	PLANTING PLANS
45	PD-1	PLANTING NOTES AND DETAILS
46-50	EN-1 - EN-5	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
51-81	EP-1 - EP-31	EROSION AND SEDIMENT CONTROL PLANS
82	DF-1	DEER FENCING LOCATION PLANS
83-86	MT-1 - MT-4	MAINTENANCE OF TRAFFIC PLANS



SCALE: 1"=1,000'

RIGHT OF WAY

RIGHT OF WAY AND EASEMENT LINES SHOWN ON THESE PLANS ARE FOR ASSISTANCE IN INTERPRETING THE PLANS. THEY ARE NOT OFFICIAL. FOR OFFICIAL FEE RIGHT OF WAY AND EASEMENT INFORMATION, SEE APPROPRIATE RIGHT OF WAY PLATS.

UTILITIES

THE LOCATION OF THE UNDERGROUND AND SURFACE UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE AS TO THE ACCURACY OF SAID LOCATIONS. CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO EXCAVATION FOR MARKING AND LOCATION OF UTILITIES.

ENVIRONMENTAL INFORMATION

MDE # 21-SF-0044

STANDARD STABILIZATION NOTE:

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SEVEN DAYS (7) AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

SEDIMENT AND EROSION CONTROL REGULATIONS WILL BE STRICTLY ENFORCED DURING CONSTRUCTION

APPROVAL STAMP

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. 31163. EXPIRATION DATE: 1/13/2023.

BY: BARRANGER

JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®

Maryland Transportation Authority
Engineering Division

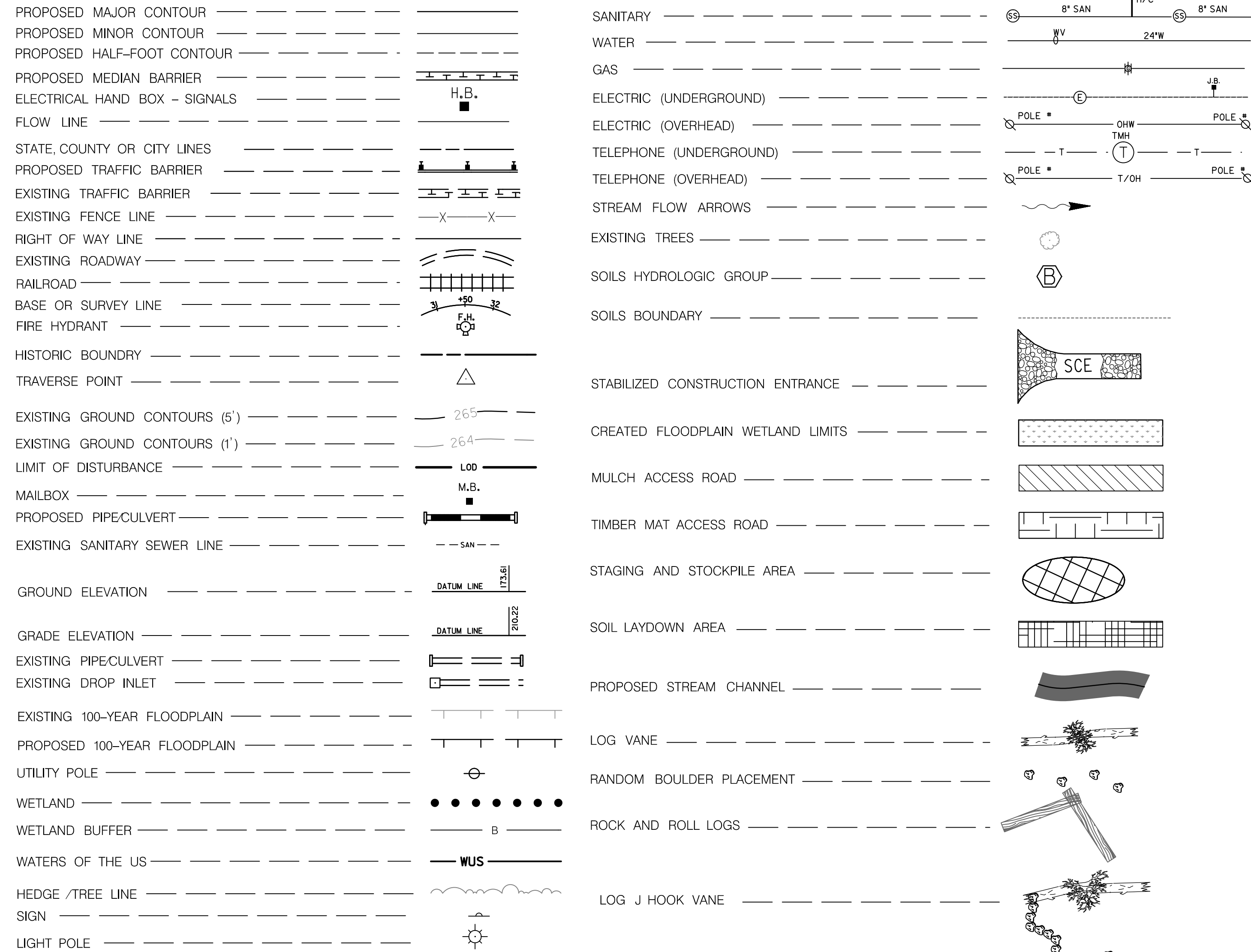
ABBREVIATIONS

ACCEL - ACCELERATION
 A.A.S.H.T.O. - AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS
 ADT - AVERAGE DAILY TRAFFIC
 AHD - AHEAD
 APPROX. - APPROXIMATE
 B : BL - BASELINE
 BK - BACK
 BIT - BITUMINOUS
 B.C. - BITUMINOUS CONCRETE
 B.M. - BENCH MARK
 BOT. - BOTTOM
 CC - CENTER OF CURVE
 CATV - CABLE TELEVISION
 C.B.R. - CALIFORNIA BEARING RATIO
 CL : CL - CENTERLINE
 CL - CLASS
 CLF - CHAINLINK FENCE
 CMP - CORRUGATED METAL PIPE
 C.O. - CLEANOUT
 COMB. - COMBINATION
 CONC. - CONCRETE
 CONSTR. - CONSTRUCTION
 COR. - CORNER
 CORR. - CORRECTION
 CPP-SP - CORRUGATED POLYETHYLENE PIPE - TYPE 'S'
 DATR - DRAWN ACCORDING TO RECORD
 DC - DEGREE OF CURVE
 D.H.V. - DESIGN HOURLY VOLUME
 D.I. - DROP INLET
 DIA. - DIAMETER
 D.O. - DOUBLE OPENING
 ELEC. - ELECTRIC
 E - EXTERNAL DISTANCE
 EA. - EACH
 E.B. - EASTBOUND
 ELEV. - ELEVATION
 E.R.C.C.P. - ELLIPTICAL REINFORCED CEMENT CONCRETE PIPE
 ES - END SECTION
 EX. - EXISTING
 FT. - FEET
 F : FL - FLOWLINE
 F.B.D. - FLAT BOTTOM DITCH
 F.H. - FIRE HYDRANT
 FWD. - FORWARD
 G - GAS
 GAB - GRADED AGGREGATE BASE
 G.V. - GAS VALVE
 H.B. - HANDBOX
 H.D.P. - HIGH DENSITY POLYETHYLENE
 HDWL. - HEADWALL
 H.E.R.C.P. - HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
 HMA - HOT MIX ASPHALT
 H.P. - HIGH POINT
 IN. - INCH
 I.S.T. - INLET SEDIMENT TRAP
 INV. - INVERT
 J.B. - JUNCTION BOX
 K - K INLET
 L - LENGTH
 L.F. - LINEAR FEET
 L.L. - LIQUID LIMIT
 L.P. - LIGHT POLE
 MAC. - MACADAM
 LT. - LEFT
 M.C. - MOISTURE CONTENT
 MAX. - MAXIMUM
 M.D.D. - MAXIMUM DRY DENSITY
 MOD. - MODIFIED
 MIN. - MINIMUM
 N - NORTH
 N.B. - NORTHBOUND
 N.E. - NORTHEAST
 N.P. - NON-PLASTIC
 O.C. - ON CENTER
 OCF - ORANGE CONSTRUCTION FENCE
 OHE - OVERHEAD ELECTRIC
 O.M. - OPTIMUM MOISTURE
 PAV.T. - PAVEMENT
 PC - POINT OF CURVATURE
 PCC - POINT OF COMPOUND CURVATURE
 PC - POINT OF CROWN
 PGE - PROFILE GRADE ELEVATION
 P.G.L. - PROFILE GRADE LINE
 PGL - PROFILE GROUND LINE
 PR - POINT OF ROTATION
 PI - POINT OF INTERSECTION
 P.O.C. - POINT ON CURVE
 P.O.T. - POINT ON TANGENT
 PPWP - POLYVINYL CHLORIDE PROFILE WALL PIPE
 PROP. - PROPOSED
 P.R.C. - POINT OF REVERSE CURVE
 PT. - POINT
 PT - POINT OF TANGENCY
 PVC - POINT OF VERTICAL CURVATURE
 PVI - POINT OF VERTICAL INTERSECTION
 PVRC - POINT OF VERTICAL REVERSE CURVE
 PVT - POINT OF VERTICAL CURVE TANGENCY
 R - RADIUS
 R.F. - ROCK FRAGMENTS
 RT. - RIGHT
 RW : RW - RIGHT OF WAY
 RCP - REINFORCED CONCRETE PIPE
 R.C.C.P. - REINFORCED CEMENT CONCRETE PIPE
 R.Q.D. - ROCK QUALITY DESIGNATION
 R.M. - ROOTMAT
 S - SOUTH
 SAN. - SANITARY SEWER
 SB : SB - SOUTH BOUND
 S.D. - STORM DRAIN
 S.D.D. - SURFACE DRAIN DITCH
 SE - SUPER ELEVATION
 SF - SILT FENCE
 SHT. - SHEET
 S.P.P. - STRUCTURAL PLATE PIPE
 S.P.T. - STANDARD PENETRATION TESTING
 SSD - STOPPING SIGHT DISTANCE
 SSF - SUPER SILT FENCE
 STD. - STANDARD
 STA. - STATION
 SO. - SINGLE OPENING
 S.Y. - SQUARE YARDS
 SWM - STORMWATER MANAGEMENT
 T - TANGENT
 TEL. - TELEPHONE
 T.C. - TOP OF COVER
 T.G. - TOP OF GRATE
 TL : TL - TRAVERSE LINE
 T.M. - TOP OF MANHOLE
 TP - TRAVERSE POINT
 TS - TEMPORARY SWALE
 T.S. - TOP OF SLAB
 TYP. - TYPICAL
 U.G. - UNDERGROUND
 U.P. - UTILITY POLE
 U.S.D.A. - UNITED STATES DEPARTMENT OF AGRICULTURE
 VCL - VERTICAL CLEARANCE
 V.C.L. - VERTICAL CURVE LENGTH
 W - WATER
 W.B. - WESTBOUND
 WB - WETLAND BUFFER
 W.M. - WATER METER
 W.S. - WRAPPED STEEL
 W.V. - WATER VALVE

GENERAL NOTES

- TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM: USE III (NONTIDAL COLD WATER). IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD OF OCTOBER 1 TO APRIL 30, INCLUSIVE, DURING ANY YEAR.
- WHERE REFERENCE IS MADE TO STANDARD PLATES IT IS TO BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE IN HIS POSSESSION THE LATEST UP TO DATE MDOT SHA STANDARD PLATES AND SHA STANDARD DETAILS FOR CONSTRUCTION AS OF THE DATE OF THESE PLANS.
- HORIZONTAL CONTROL: THIS PROJECT IS ORIENTED TO CONFORM TO THE MARYLAND GRID SYSTEM. (NAD 8391)
- VERTICAL CONTROL: THE LOCATION AND ELEVATION OF BENCHMARKS ARE SHOWN ON THE PLANS. ALL ELEVATIONS ARE IN FEET AND ARE BASED ON NAVD 88 DATUM.
- MATERIALS SALVAGED: MATERIAL SALVAGED DURING CONSTRUCTION TO BECOME THE CONTRACTOR'S PROPERTY UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
- THE CONTRACTOR IS TO USE 2" TOPSOIL FOR ALL GRADED AREAS THAT HAS A SLOPE OF 3:1 OR STEEPER. FOR ALL OTHER GRADED AREAS, 4" TOPSOIL SHOULD BE USED UNLESS OTHERWISE NOTED.
- CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AT ALL TIMES.
- UTILITIES: THE LOCATIONS OF UNDERGROUND UTILITIES AND AERIAL UTILITY APPURTENANCES SHOWN ON THE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS TO VERIFY ALL UTILITY LOCATIONS PRIOR TO GRADING.
- THE CONTRACTOR IS TO ADHERE TO THE PROPOSED BEST MANAGEMENT PRACTICES TO LIMIT THE INCIDENTAL TAKE OF FISH AS DETAILED IN THE SPECIFICATIONS.
- FISH RELOCATIONS AND BEST MANAGEMENT PRACTICES ARE REQUIRED AS PART OF A FISH RECOVERY AND RELOCATION PLAN. SEE SPECIFICATIONS.
- FISH PASSAGE SHALL BE MAINTAINED THROUGH THE STRUCTURES INSTALLED ON THIS PROJECT.
- TOPOGRAPHIC SURVEY CONDUCTED BY JMT (2018). TOPOGRAPHY OUTSIDE OF THE SURVEYED LIMITS WAS OBTAINED FROM THE BALTIMORE COUNTY GIS OPEN DATA PORTAL.
- PRIOR TO CONSTRUCTION /SITE DISTURBANCE, THE CONTRACTOR SHALL WALK THE SITE WITH THE ENGINEER TO REVIEW THE LOD AND REVIEW WHAT TREES WITHIN THE LOD ARE TO BE PRESERVED. THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL WORK WITH THE ENGINEER TO REVIEW EACH GRADING UNIT PRIOR TO DISTURBANCE AND ADDRESS THE PRESERVATION OF EXISTING SITE FEATURES, TREES, AND IN-CHANNEL HABITATS PRIOR TO DISTURBANCE. CHANNEL AND FLOODPLAIN STAKEOUT SHALL BE REVIEWED SIMILARLY WITH THE CONTRACTOR PRIOR TO SITE DISTURBANCE.
- THE CONTRACTOR, AT THE DIRECTION OF THE ENGINEER, WILL PLACE EXCESS WOODY DEBRIS UPON THE FINAL FINISHED GRADING SURFACE. NO WOODY DEBRIS FROM THE PROJECT SHALL BE CHIPPED FOR MULCH. NO WOODY DEBRIS SHALL BE EXPORTED, OR OTHERWISE DISPOSED OF OFFSITE.
- PLACED WOODY DEBRIS SHALL NOT BE EXCAVATED INTO THE FLOODPLAIN SURFACE, BUT PLACED AGAINST OTHER PIECES TO BE ELEVATED ABOVE THE FLOODPLAIN. STANDING WOODY DEBRIS IS PREFERRED PLACEMENT WHERE SIZE AND TYPE OF MATERIALS ALLOW.
- WHERE THE LOD CROSSES EXISTING WETLANDS, THE ENGINEER SHALL DIRECT GRADING TO MINIMIZE THE RISK OF SECONDARY IMPACTS TO WETLANDS OUTSIDE OF THE LOD. THE ENGINEER MAY DIRECT THE USE OF SMALL BERMS, GRADING DIFFERENCES, DRAINAGE BLOCKAGES, AND OTHER MINOR CHANGES TO GRADING OR PLACEMENT OF LOGS AND EROSION AND SEDIMENT CONTROL MATTING TO ACCOUNT FOR PRESENT SITE CONDITIONS.
- THE CONTRACTOR SHALL LEAVE GRADED AREAS ROUGH; SMALL DIVOTS, BUMPS, AND DEPRESSIONS NO MORE THAN 0.5' HIGHER OR 1.0' LOWER THAN PROPOSED GRADE IS ACCEPTABLE AND SHALL BE CONSIDERED MICROTOPOGRAPHY. BACK-DRAGGED GRADING IS NOT NECESSARY AND DISCOURAGED. THE ENGINEER WILL PROVIDE GUIDANCE IN THE FIELD AS TO ACCEPTABLE MICROTOPOGRAPHY.
- SMALL FLOODPLAIN DEPRESSIONS ARE INCORPORATED AS PART OF THIS GRADING PLAN, AND DESIGNED TO INTERACT WITH WOODY DEBRIS PLACEMENT PER THE DIRECTION OF THE ENGINEER.
- FESCUES, ANNUAL RYE, AND LESPEDEZA SPECIES SHALL NOT BE USED ON THIS PROJECT, EVEN THOUGH THEY ARE IN THE APPROVED MDE SEED MIXES. ONLY NATIVE SPECIES SHALL BE USED TO STABILIZE THE SITE. SEE PERMANENT SEEDING SPECIFICATIONS.
- MULTIPLE STRUCTURES REQUIRE THE USE OF SALVAGED SITE LOGS WHICH MEET SPECIFIED REQUIREMENTS. IN THE EVENT THAT NO SALVAGED MATERIAL FROM THE SITE IS AVAILABLE MEETING SPECIFICATION, THE CONTRACTOR SHALL FURNISH THESE MATERIALS FROM APPROVED OFFSITE SOURCES AT NO ADDITIONAL COST.
- THE OWNER /ENGINEER WILL HAVE MONITORING APPARATUS TO MONITOR ENVIRONMENTAL VARIABLES ACTIVE DURING CONSTRUCTION. THESE MAY ONLY BE DISTURBED IN COORDINATION WITH THE OWNER /ENGINEER.

CONVENTIONAL SIGNS



OWNER /DEVELOPER INFORMATION
 MARYLAND TRANSPORTATION AUTHORITY
 2310 BRIDGING HWY
 BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR: NAD 8391 MD STATE PLANE VERT: NAVD 88

GREENSPRING VALLEY ROAD
 SW CORNER PARK HEIGHTS AVE
 OWINGS MILLS, MD 21117

ABBREVIATIONS /GENERAL NOTES

SCALE N/A DATE APRIL 2021 PROJECT NO. 17-10977-002
 MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
 DESIGNED BY PVC COUNTY BALTIMORE COUNTY
 DRAWN BY PVC LOGMILE
 CHECKED BY JMM /MRG HORIZONTAL SCALE N/A
 F.A.P. NO. N/A VERTICAL SCALE N/A

DRAWING NO. GN- 1 OF 1 SHEET NO. 2 OF 86

ECCLESTON MITIGATION SITE

DESIGN PROFESSIONAL
 JEREMY KOSER
 JOHNSON, MIRIRAN & THOMPSON, INC.
 40 WIGHT AVENUE, HUNT VALLEY, MD 21030
 TEL: 410-316-2360
 EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

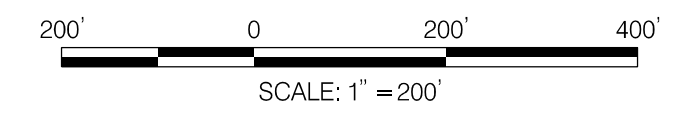


BY: barranger

C:\2017\170977_002 Eccleston PRM_Turner\CAD\DWG\4-N001_ECCLESTON.DWG
 Wednesday, April 28, 2021 AT 06:20 AM



PLAN
SCALE: 1" = 200'



OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BRACING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117

EXISTING CONDITIONS MAP

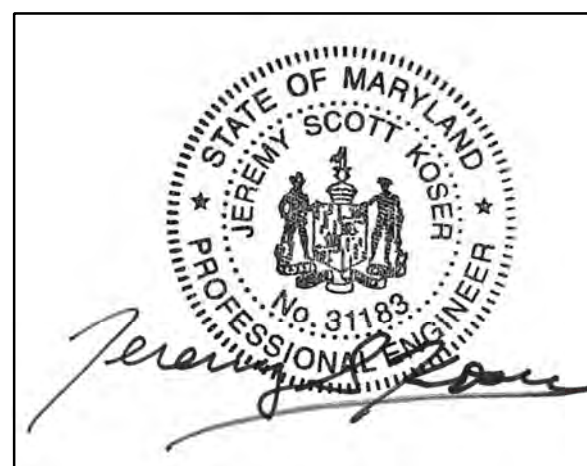
SCALE AS SHOWN	DATE APRIL, 2021	PROJECT NO. 17-10977-002
MDE PROJECT NO. 21-SF-0044		CONTRACT NO. KH-3038-0000
DESIGNED BY PVC		COUNTY BALTIMORE COUNTY
DRAWN BY PVC		LOGMILE
CHECKED BY JJM /MRG		HORIZONTAL SCALE N/A
F.A.P. NO. N/A		VERTICAL SCALE N/A

DRAWING NO. **EC - 1** OF **1** SHEET NO. 3 OF 86

ECCLESTON MITIGATION SITE

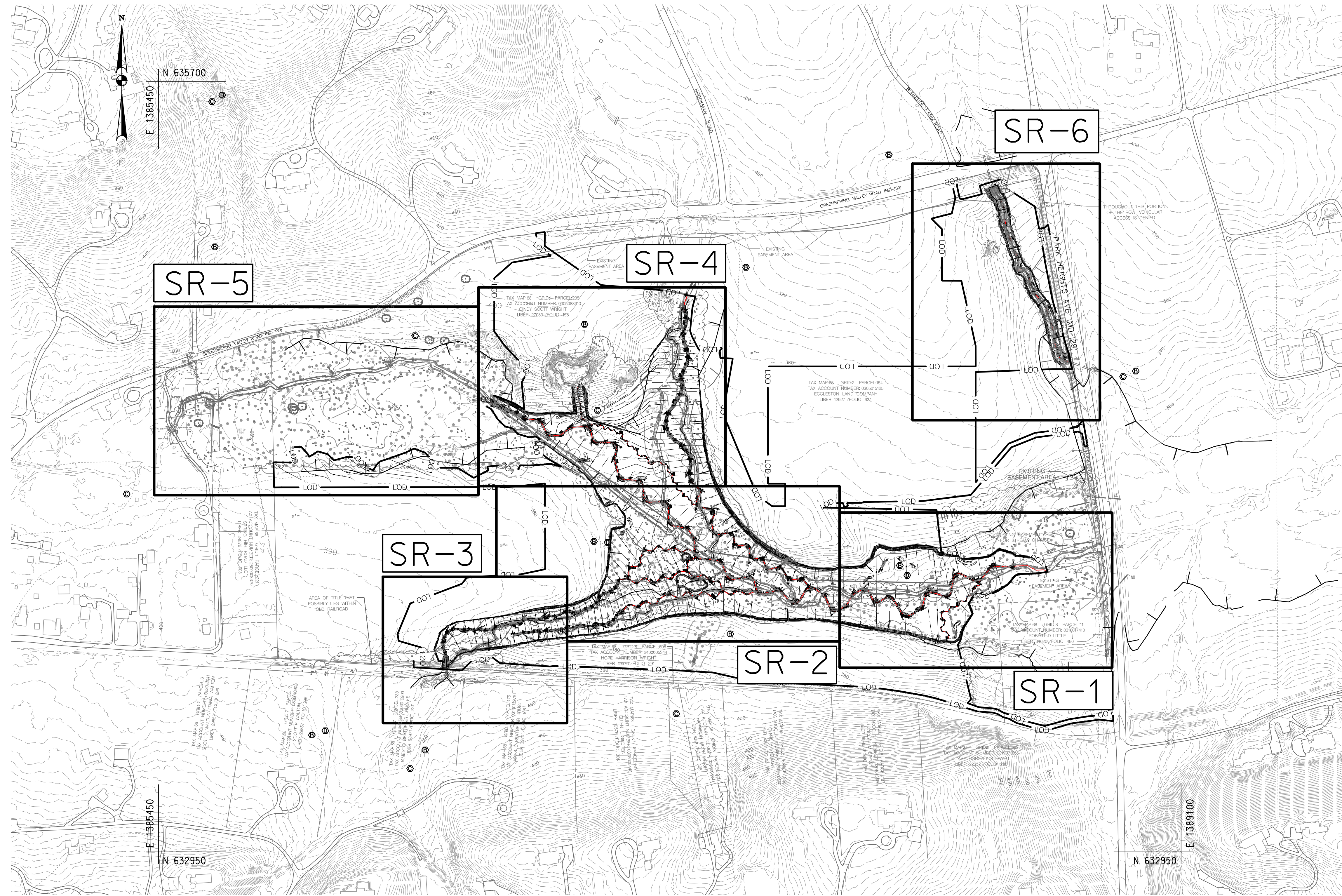
DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON MIRMIRAN & THOMPSON INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.



BY: barranger -

C:\2021\1710977_002_Eccleston_PRM_Turnkey\CADD\DEC E001_ECCLESTON_2D.dwg
Wednesday, April 28, 2021 AT 10:21 AM



PLAN
SCALE: 1" = 200'



OWNER / DEVELOPER INFORMATION

MARYLAND TRANSPORTATION AUTHORITY
2310 BRACING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117

ECCLESTON MITIGATION SITE

DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON, MIRIRAN & THOMPSON, INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com



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. 31183, EXPIRATION DATE: 1/13/2023.

REVISIONS

100%
SUBMISSION

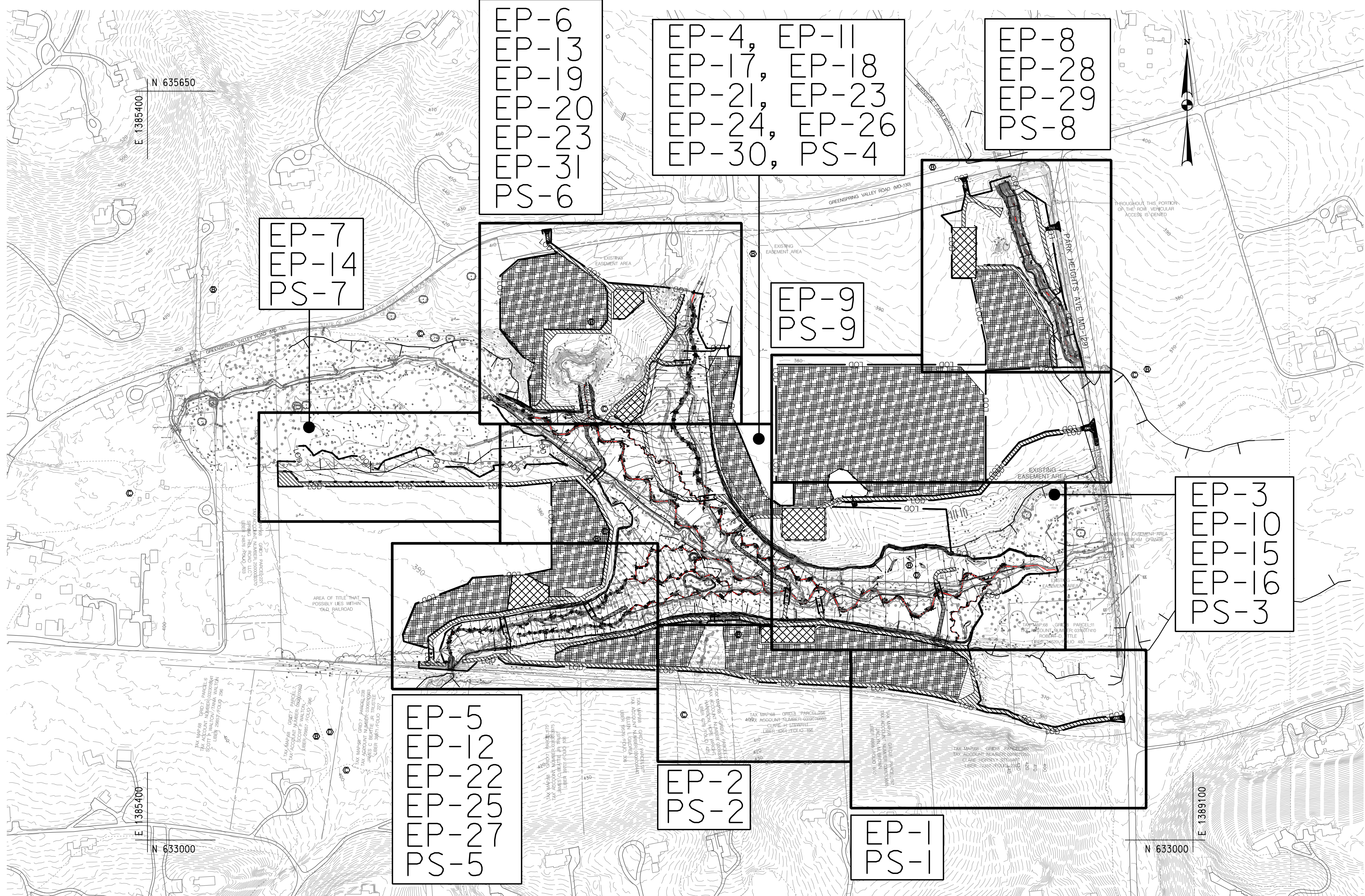
NOT FOR
CONSTRUCTION

KEY MAP

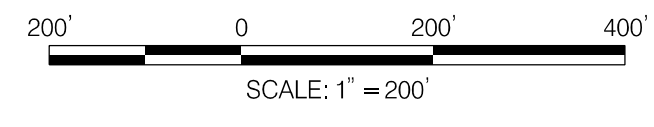
SCALE AS SHOWN DATE APRIL, 2021 PROJECT NO. 17-10977-002
MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
DESIGNED BY PVC COUNTY BALTIMORE COUNTY
DRAWN BY PVC LOGMILE
CHECKED BY JMM /MRG HORIZONTAL SCALE N/A
F.A.P. NO. N/A VERTICAL SCALE N/A

DRAWING NO. **KM- 1** OF **2** SHEET NO. 4 OF 86





PLAN
SCALE: 1" = 200'



OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BRACING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88
GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117

DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON MIRMIRAN & THOMPSON INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

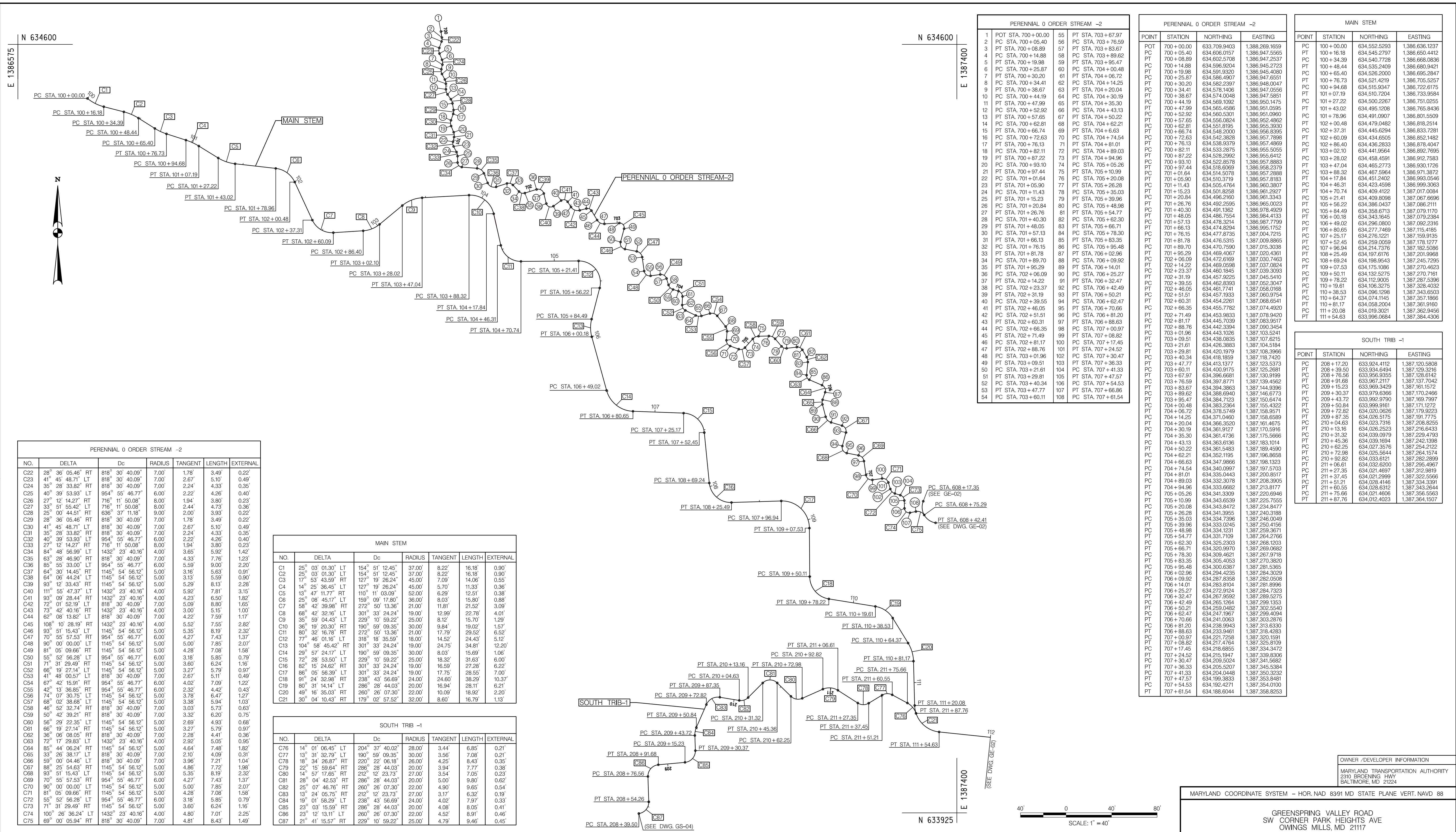
REVISIONS
100% SUBMISSION
NOT FOR CONSTRUCTION

EROSION AND SEDIMENT CONTROL KEY MAP			
SCALE AS SHOWN	DATE APRIL 2021	PROJECT NO. 17-10977-002	
MDE PROJECT NO. 21-SF-0044		CONTRACT NO. KH-3038-0000	
DESIGNED BY PVC		COUNTY BALTIMORE COUNTY	
DRAWN BY PVC		LOGMILE	
CHECKED BY JMM /MRG		HORIZONTAL SCALE N/A	
F.A.P. NO. N/A		VERTICAL SCALE N/A	
DRAWING NO. KM- 2	OF 2	SHEET NO. 5	OF 86



BY: K Higgins

C:\2017\170977_002_Eccleston_PRM_Turnin\CAD\DWG\PKM_P002_ECCELSTON.dwg
Wednesday, April 28, 2021 AT 01:38 PM



PERENNIAL 0 ORDER STREAM -2						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C22	28° 36' 05.46" RT	818° 30' 40.09"	7.00'	3.49'	0.22'	1.78'
C23	41° 45' 48.71" LT	818° 30' 40.09"	7.00'	2.67'	5.10'	0.49'
C24	35° 28' 33.82" RT	818° 30' 40.09"	7.00'	2.24'	4.33'	0.35'
C25	40° 39' 53.93" LT	954° 55' 46.77"	6.00'	2.22'	4.26'	0.40'
C26	27° 12' 14.27" RT	716° 11' 50.08"	8.00'	1.94'	3.80'	0.23'
C27	33° 51' 55.42" LT	716° 11' 50.08"	8.00'	2.44'	4.73'	0.36'
C28	25° 00' 44.51" RT	636° 37' 11.16"	9.00'	2.00'	3.93'	0.22'
C29	28° 36' 05.46" RT	818° 30' 40.09"	7.00'	1.78'	3.49'	0.22'
C30	41° 45' 48.71" LT	818° 30' 40.09"	7.00'	2.67'	5.10'	0.49'
C31	35° 28' 33.82" RT	818° 30' 40.09"	7.00'	2.24'	4.33'	0.35'
C32	40° 39' 53.93" LT	954° 55' 46.77"	6.00'	2.22'	4.26'	0.40'
C33	27° 12' 14.27" RT	716° 11' 50.08"	8.00'	1.94'	3.80'	0.23'
C34	84° 48' 56.99" LT	1432° 23' 40.16"	4.00'	3.65'	5.92'	1.42'
C35	63° 28' 46.90" RT	818° 30' 40.09"	7.00'	4.33'	7.76'	1.23'
C36	85° 55' 33.00" LT	954° 55' 46.77"	6.00'	5.59'	9.00'	2.20'
C37	64° 30' 14.45" RT	1145° 54' 56.12"	5.00'	3.16'	5.63'	0.91'
C38	64° 06' 44.24" LT	1145° 54' 56.12"	5.00'	3.13'	5.59'	0.90'
C39	93° 12' 33.43" RT	1145° 54' 56.12"	5.00'	5.29'	8.13'	2.28'
C40	111° 55' 47.37" LT	1432° 23' 40.16"	4.00'	5.92'	7.81'	3.15'
C41	93° 09' 28.44" RT	1432° 23' 40.16"	4.00'	4.23'	6.50'	1.82'
C42	72° 01' 52.19" RT	818° 30' 40.09"	7.00'	5.09'	8.80'	1.65'
C43	73° 42' 40.16" RT	1432° 23' 40.16"	4.00'	3.00'	5.15'	1.00'
C44	68° 08' 13.82" LT	818° 30' 40.09"	7.00'	4.22'	7.59'	1.17'
C45	108° 10' 28.19" LT	1432° 23' 40.16"	4.00'	5.52'	7.55'	2.82'
C46	93° 51' 15.43" LT	1145° 54' 56.12"	5.00'	5.35'	8.19'	2.32'
C47	70° 55' 57.53" RT	954° 55' 46.77"	6.00'	4.27'	7.43'	1.37'
C48	90° 00' 00.00" LT	1145° 54' 56.12"	5.00'	5.00'	7.85'	2.07'
C49	81° 05' 09.66" RT	1145° 54' 56.12"	5.00'	4.28'	7.08'	1.58'
C50	55° 52' 56.28" LT	954° 55' 46.77"	6.00'	3.18'	5.85'	0.79'
C51	71° 31' 29.69" RT	1145° 54' 56.12"	5.00'	4.41'	6.24'	1.16'
C52	66° 19' 27.14" LT	1145° 54' 56.12"	5.00'	3.27'	5.79'	0.97'
C53	41° 48' 00.57" RT	818° 30' 40.09"	7.00'	2.67'	5.11'	0.49'
C54	67° 42' 15.91" RT	954° 55' 46.77"	6.00'	4.02'	7.09'	1.22'
C55	42° 13' 36.85" RT	954° 55' 46.77"	6.00'	2.32'	4.42'	0.43'
C56	74° 07' 30.75" LT	1145° 54' 56.12"	6.00'	3.78'	6.47'	1.27'
C57	68° 02' 38.68" LT	1145° 54' 56.12"	5.00'	3.38'	5.94'	1.03'
C58	46° 52' 32.74" RT	818° 30' 40.09"	7.00'	3.03'	5.73'	0.63'
C59	50° 42' 39.21" RT	818° 30' 40.09"	7.00'	3.32'	6.20'	0.75'
C60	56° 29' 22.35" LT	1145° 54' 56.12"	5.00'	2.89'	4.93'	0.68'
C61	66° 19' 27.14" RT	1145° 54' 56.12"	5.00'	3.27'	5.79'	0.97'
C62	06° 08' 05.05" RT	818° 30' 40.09"	7.00'	2.28'	4.41'	0.36'
C63	72° 17' 29.83" LT	1432° 23' 40.16"	4.00'	2.92'	5.05'	0.95'
C64	85° 44' 06.24" RT	1145° 54' 56.12"	5.00'	4.64'	7.48'	1.82'
C65	33° 26' 38.17" LT	818° 30' 40.09"	7.00'	2.10'	4.09'	0.31'
C66	59° 00' 04.46" LT	818° 30' 40.09"	7.00'	3.96'	7.21'	1.04'
C67	88° 25' 54.63" RT	1145° 54' 56.12"	5.00'	7.72'	12.98'	3.86'
C68	93° 51' 15.43" LT	1145° 54' 56.12"	5.00'	5.35'	8.19'	2.32'
C69	70° 55' 57.53" RT	954° 55' 46.77"	6.00'	4.27'	7.43'	1.37'
C70	90° 00' 00.00" LT	1145° 54' 56.12"	5.00'	5.00'	7.85'	2.07'
C71	81° 05' 09.66" RT	1145° 54' 56.12"	5.00'	4.28'	7.08'	1.58'
C72	55° 52' 56.28" LT	954° 55' 46.77"	6.00'	3.18'	5.85'	0.79'
C73	71° 31' 29.69" RT	1145° 54' 56.12"	5.00'	3.60'	6.24'	1.16'
C74	100° 26' 36.24" LT	1432° 23' 40.16"	4.00'	4.80'	7.01'	2.25'
C75	69° 00' 05.94" RT	818° 30' 40.09"	7.00'	4.81'	8.43'	1.49'

MAIN STEM						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C1	25° 03' 01.30" LT	154° 51' 12.45"	37.00'	8.22'	16.18'	0.90'
C2	25° 03' 01.30" LT	154° 51' 12.45"	37.00'	8.22'	16.18'	0.90'
C3	17° 53' 43.59" RT	127° 19' 26.24"	45.00'	7.09'	14.06'	0.55'
C4	14° 25' 36.45" LT	127° 19' 26.24"	45.00'	5.70'	11.33'	0.36'
C5	13° 47' 11.77" RT	110° 11' 03.09"	52.00'	6.29'	12.51'	0.38'
C6	25° 08' 45.17" LT	159° 09' 17.80"	36.00'	8.03'	15.80'	0.88'
C7	58° 42' 39.98" RT	272° 50' 13.36"	21.00'	11.81'	21.52'	3.09'
C8	68° 42' 32.16" LT	301° 33' 24.24"	19.00'	12.99'	22.78'	4.01'
C9	35° 59' 04.43" LT	1229° 10' 59.22"	25.00'	8.12'	15.70'	1.29'
C10	36° 19' 20.30" RT	190° 59' 09.35"	30.00'	9.84'	19.02'	1.57'
C11	80° 32' 16.78" RT	272° 50' 13.36"	21.00'	17.79'	29.89'	6.52'
C12	77° 46' 01.16" LT	316° 18' 35.59"	18.00'	14.52'	24.43'	5.12'
C13	104° 58' 45.42" RT	301° 33' 24.24"	19.00'	24.75'	34.81'	12.20'
C14	29° 57' 24.17" LT	190° 59' 09.35"	30.00'	8.03'	15.69'	1.06'
C15	72° 28' 53.50" LT	229° 10' 59.22"	25.00'	18.32'	31.63'	6.00'
C16	82° 15' 24.62" RT	301° 33' 24.24"	19.00'	16.59'	27.28'	6.22'
C17	86° 05' 56.99" LT	301° 33' 24.24"	19.00'	17.75'	28.55'	7.00'
C18	91° 24' 32.98" RT	238° 43' 56.69"	24.00'	24.60'	38.29'	10.37'
C19	80° 31' 14.14" LT	286° 28' 44.03"	20.00'	16.94'	28.11'	6.21'
C20	49° 16' 35.03" RT	260° 26' 07.30"	22.00'	10.99'	18.92'	2.20'
C21	30° 04' 10.43" RT	179° 02' 57.52"	32.00'	8.60'	16.79'	1.13'

SOUTH TRIB -1						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C76	14° 01' 06.45" LT	204° 37' 40.02"	28.00'	3.44'	6.85'	0.21'
C77	13° 31' 32.79" LT	190° 59' 09.35"	30.00'	3.56'	7.08'	0.21'
C78	18° 34' 26.87" RT	220° 22' 06.18"	26.00'	4.25'	8.43'	0.35'
C79	28° 05' 59.64" RT	286° 28' 44.03"	20.00'	3.94'	7.77'	0.86'
C80	14° 57' 17.65" RT	238° 43' 56.69"	27.00'	3.54'	7.05'	0.23'
C81	28° 04' 42.53" RT	286° 28' 44.03"	20.00'	5.00'	9.80'	0.62'
C82	25° 07' 46.76" RT	260° 26' 07.30"	22.00'	4.90'	9.65'	0.54'
C83	13° 24' 05.75" RT	212° 12' 23.73"	27.00'	3.17'	6.32'	0.19'
C84	19° 01' 58.29" LT	238° 43' 56.69"	24.00'	4.02'	7.97'	0.33'
C85	23° 03' 15.59" RT	286° 28' 44.03"	20.00'	4.08'	8.05'	0.41'
C86	23° 12' 13.11" LT	260° 26' 07.30"	22.00'	4.52'	8.91'	0.46'
C87	21° 41' 15.57" RT	229° 10' 59.22"	25.00'	4.79'	9.46'	0.45'

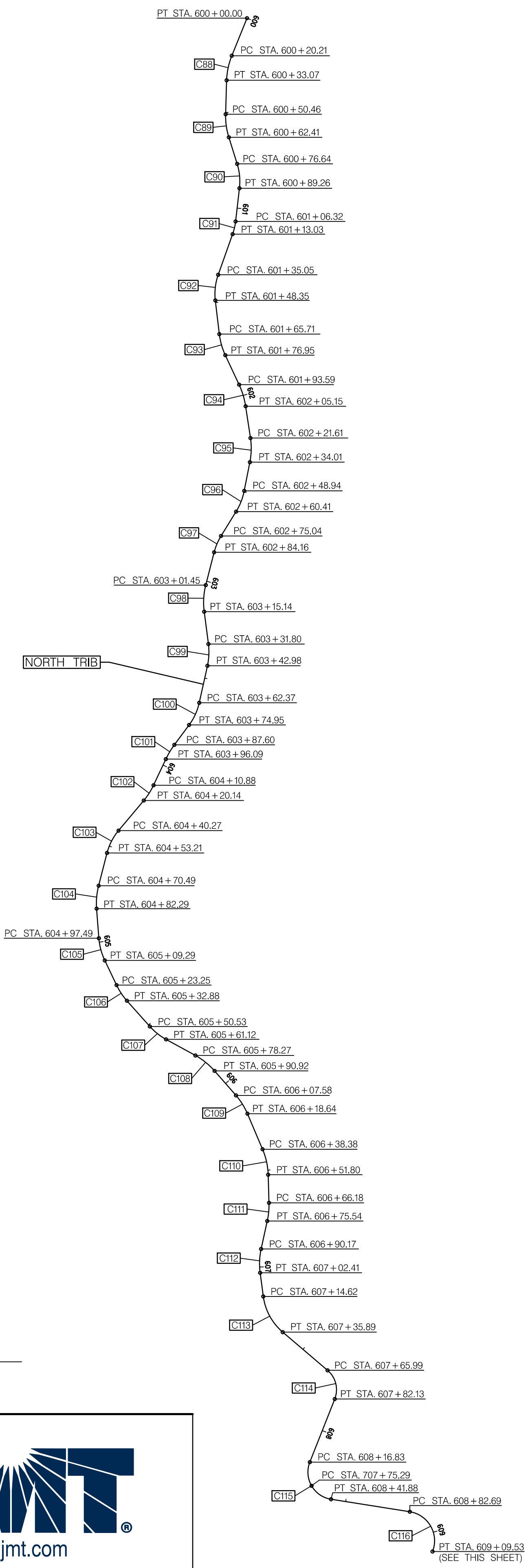
PERENNIAL 0 ORDER STREAM -2			
POINT	STATION	NORTHING	EASTING
POT	700+00.00	633,709.9403	1,388,269.1659
PC	700+05.40	634,606.0157	1,386,947.5565
PT	700+08.89	634,602.5708	1,386,947.2537
PC	700+14.88	634,596.8204	1,386,945.2723
PT	700+19.98	634,591.9320	1,386,945.2703
PC	700+25.87	634,586.4907	1,386,947.6551
PT	700+30.20	634,582.2397	1,386,948.0047
PC	700+34.41	634,578.1406	1,386,947.0556
PT	700+38.67	634,574.0048	1,386,947.5851
PC	700+44.19	634,569.1092	1,386,950.1475
PT	700+47.99	634,565.4586	1,386,951.5359
PC	700+52.92	634,561.0360	1,386,951.0860
PT	700+57.65	634,556.0824	1,386,952.4862
PC	700+62.81	634,551.8195	1,386,955.3930
PT	700+66.74	634,548.2000	1,386,956.8395
PC	700+72.63	634,542.3828	1,386,957.7890
PT	700+76.13	634,538.9379	1,386,957.4869
PC	700+82.11	634,533.2875	1,386,955.5055
PT	700+87.22	634,528.2992	1,386,955.6412
PC	700+93.10	634,522.8578	1,386,957.8883
PT	700+97.44	634,518.6069	1,386,958.2379
PC	700+101.64	634,514.5078	1,386,957.2888
PT	700+105.90	634,510.4262	1,386,957.8163
PC	700+111.43	634,505.4764	1,386,960.3807
PT	700+115.23	634,501.8258	1,386,961.2927
PC	700+120.84	634,496.2160	1,386,961.3243
PT	700+125.76	634,492.2595	1,386,965.0023
PC	700+131.43	634,488.3369	1,386,961.0380
PT	700+136.05	634,484.7554	1,386,964.4133
PC	700+141.73	634,478.3214	1,386,967.7759
PT	700+146.41	634,474.8294	1,386,965.1792
PC	700+152.13	634,471.8735	1,387,004.7217
PT	700+157.83	634,468.3715	1,387,004.7217
PC	700+163.53	634,465.3715	1,387,009.8865
PT	700+169.23	634,462.3715	1,387,015.3038
PC	700+175.93	634,459.3715	1,387,020.4361
PT	700+181.63	634,456.3715	1,387,030.7463
PC	700+187.33	634,453.3715	1,387,041.0565
PT	700+193.03	634,450.3715	1,387,051.3667
PC	700+198.73	634,447.3715	1,387,061.6769
PT	700+204.43	634,444.3715	1,387,071.9871
PC	700+210.13	634,441.3715	1,387,082.2973
PT	700+215.83	634,438.3715	1,387,092.6075
PC	700+221.53	634,435.3715	1,387,102.9177
PT	700+227.23	634,432.3715	1,387,113.2279
PC	700+232.93	634,429.3715	1,387,123.5381
PT	700+238.63	634,426.3715	1,387,133.8483
PC	700+244.33	634,423.3715	1,387,144.1585
PT	700+250.03	634,420.3715	1,387,154.4687
PC	700+255.73	634,417.3715	1,387,164.7789
PT	700+261.43	634,414.3715	1,387,175.0891
PC	700+267.13	634,411.3715	1,387,185.4003
PT	700+272.83	634,408.3715	1,387,195.7105
PC	700+278.53	634,405.3715	1,387,206.0207
PT	700+284.23	634,402.3715	1,387,216.3309
PC	700+289.93	634,399.3715	1,387,226.6411
PT	700+295.63	634,396.3715	1,387,236.9513
PC	700+301.33	634,393.3715	1,387,247.2615
PT	700+307.03	634,390.3715	1,387,257.5717
PC	700+312.73	634,387.3715	1,387,267.8819
PT	700+318.43	634,384.3715	1,387,278.1921
PC	700+324.13	634,381.3715	1,387,288.5023
PT	700+329.83	634,378.3715	1,387,298.8125
PC	700+335.53	634,375.3715	1,387,309.1227
PT	700+341.23	634,372.3715	1,387,319.4329
PC	700+346.93	634,369.3715	1,38

N 634950

E 1387175

E 1387175

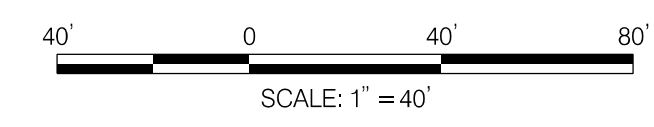
N 634250



NORTH TRIB						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C88	20° 28' 16.33"	159° 09' 17.80"	36.00	6.50	12.86	0.58
C89	19° 01' 31.83"	159° 09' 17.80"	36.00	6.03	11.95	0.50
C90	24° 06' 02.82"	190° 59' 09.35"	30.00	6.40	12.62	0.66
C91	12° 49' 20.81"	190° 59' 09.35"	30.00	3.37	6.71	0.19
C92	26° 15' 36.07"	197° 34' 17.95"	29.00	6.76	13.29	0.78
C93	18° 23' 36.05"	163° 42' 08.02"	35.00	5.67	11.24	0.46
C94	16° 33' 57.22"	143° 14' 22.02"	40.00	5.82	11.57	0.42
C95	19° 44' 50.39"	159° 09' 17.80"	36.00	6.27	12.41	0.54
C96	20° 31' 46.73"	179° 02' 57.52"	32.00	5.80	11.47	0.52
C97	17° 24' 30.27"	190° 59' 09.35"	30.00	4.59	9.12	0.35
C98	21° 47' 38.64"	159° 09' 17.80"	36.00	6.93	13.69	0.66
C99	20° 01' 21.14"	179° 02' 57.52"	32.00	5.65	11.18	0.49
C100	24° 01' 05.85"	190° 59' 09.35"	30.00	6.38	12.58	0.67
C101	11° 18' 23.77"	133° 14' 45.80"	43.00	4.26	8.49	0.21
C102	14° 44' 55.90"	159° 09' 17.80"	36.00	4.66	9.27	0.30
C103	25° 34' 39.46"	197° 34' 17.95"	29.00	6.58	12.95	0.74
C104	18° 47' 29.58"	159° 09' 17.80"	36.00	5.96	11.81	0.49
C105	21° 07' 20.47"	179° 02' 57.52"	32.00	5.97	11.80	0.55
C106	16° 13' 16.95"	178° 31' 01.89"	34.00	4.85	9.83	0.34
C107	19° 34' 03.72"	184° 49' 30.34"	31.00	5.35	10.59	0.46
C108	20° 08' 13.91"	159° 09' 17.80"	36.00	6.39	12.65	0.56
C109	18° 06' 07.45"	163° 42' 08.02"	35.00	5.58	11.06	0.44
C110	21° 21' 33.40"	159° 09' 17.80"	36.00	6.79	13.42	0.63
C111	14° 06' 35.40"	150° 46' 42.12"	38.00	4.70	9.36	0.29
C112	20° 01' 24.10"	163° 42' 08.02"	35.00	6.18	12.23	0.54
C113	42° 01' 34.84"	197° 34' 17.95"	29.00	11.14	21.27	2.07
C114	71° 09' 25.16"	440° 44' 12.36"	13.00	9.30	16.15	2.98
C115	102° 32' 50.36"	409° 15' 20.04"	14.00	17.46	25.06	8.38
C116	102° 32' 50.36"	381° 58' 18.71"	15.00	18.71	26.85	8.98
C117	32° 55' 33.27"	249° 06' 43.51"	23.00	6.80	13.22	0.98
C118	86° 13' 03.52"	381° 58' 18.71"	15.00	14.04	22.57	5.55
C119	91° 10' 49.92"	410° 44' 12.36"	13.00	13.27	20.69	5.58
C120	90° 11' 21.74"	477° 27' 53.99"	12.00	12.04	18.83	5.00
C121	95° 03' 04.41"	440° 44' 12.36"	13.00	14.20	21.57	6.25
C122	92° 07' 27.28"	477° 27' 53.99"	12.00	12.45	19.29	5.29
C123	70° 54' 01.12"	381° 58' 18.71"	15.00	10.68	18.56	3.41
C124	91° 42' 30.01"	440° 44' 12.36"	13.00	11.24	18.54	4.19
C125	75° 20' 42.97"	409° 15' 20.04"	14.00	10.81	18.41	3.89
C126	68° 02' 04.30"	301° 33' 24.24"	19.00	12.82	22.56	3.92
C127	57° 38' 11.72"	381° 58' 18.71"	15.00	8.25	15.09	2.12
C128	43° 18' 15.70"	249° 06' 43.51"	23.00	9.13	17.38	1.75

MAIN STEM						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C129	82° 29' 19.63"	238° 43' 56.69"	24.00	21.04	34.55	7.92
C130	62° 47' 20.15"	220° 22' 06.18"	26.00	15.87	28.49	4.46
C131	79° 29' 32.51"	260° 26' 07.30"	22.00	18.29	30.52	6.61
C132	84° 13' 40.33"	272° 50' 13.36"	21.00	18.98	30.87	7.31
C133	86° 45' 05.51"	301° 33' 24.24"	19.00	17.95	28.77	7.14
C134	59° 48' 52.76"	280° 26' 07.30"	22.00	12.65	22.97	3.38
C135	104° 41' 14.34"	301° 33' 24.24"	19.00	24.62	34.72	12.10

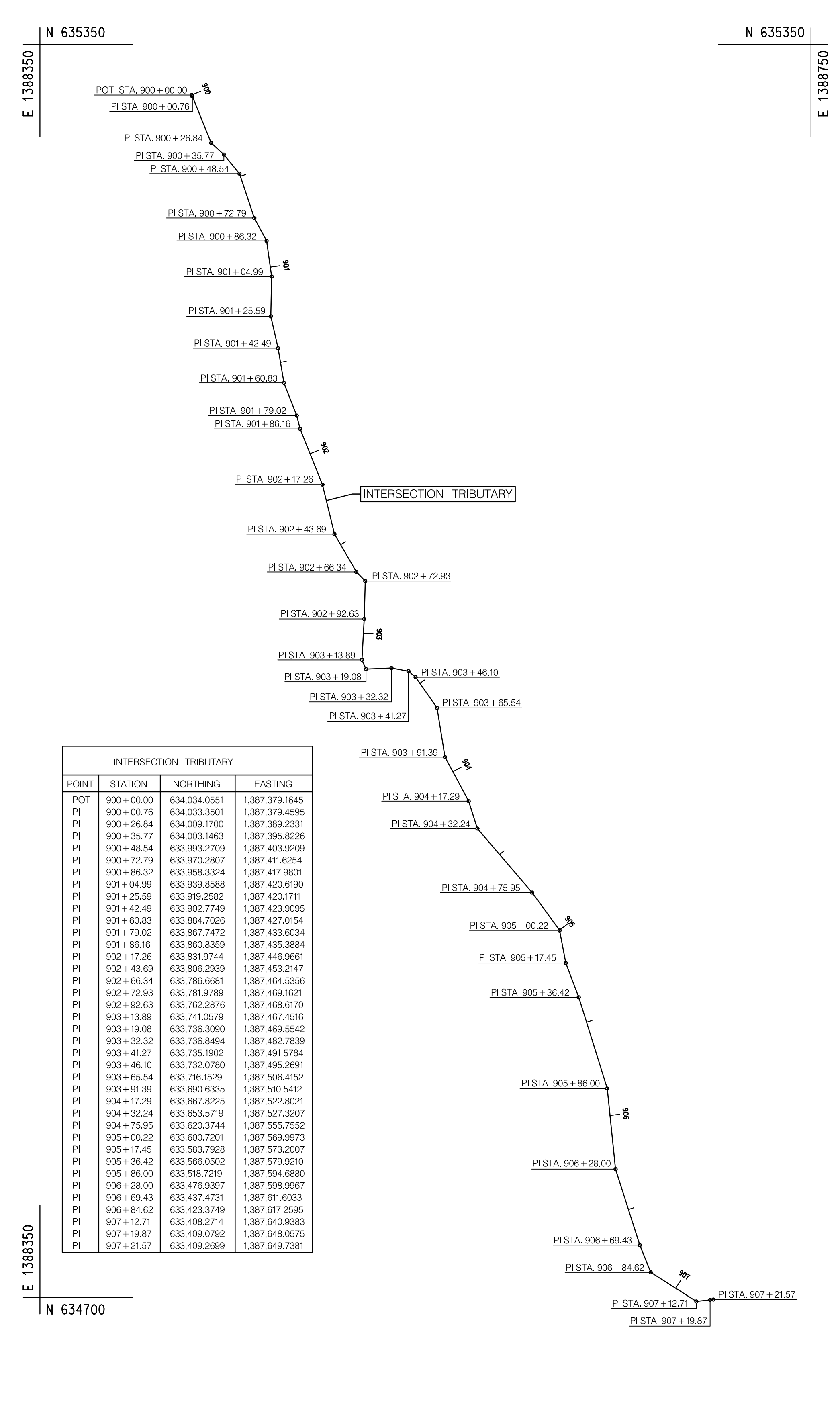
SOUTH TRIB -4						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C136	48° 38' 26.62"	358° 05' 55.04"	16.00	7.23	13.58	1.56
C137	66° 27' 55.09"	381° 58' 18.71"	15.00	9.83	17.40	2.93
C138	68° 14' 05.74"	520° 52' 14.60"	11.00	7.45	13.10	2.29
C139	52° 43' 58.38"	358° 05' 55.04"	16.00	7.93	14.73	1.86
C140	79° 51' 54.80"	636° 37' 11.81"	9.00	7.53	12.55	2.74
C141	44° 01' 23.78"	358° 05' 55.04"	16.00	6.47	12.29	1.26



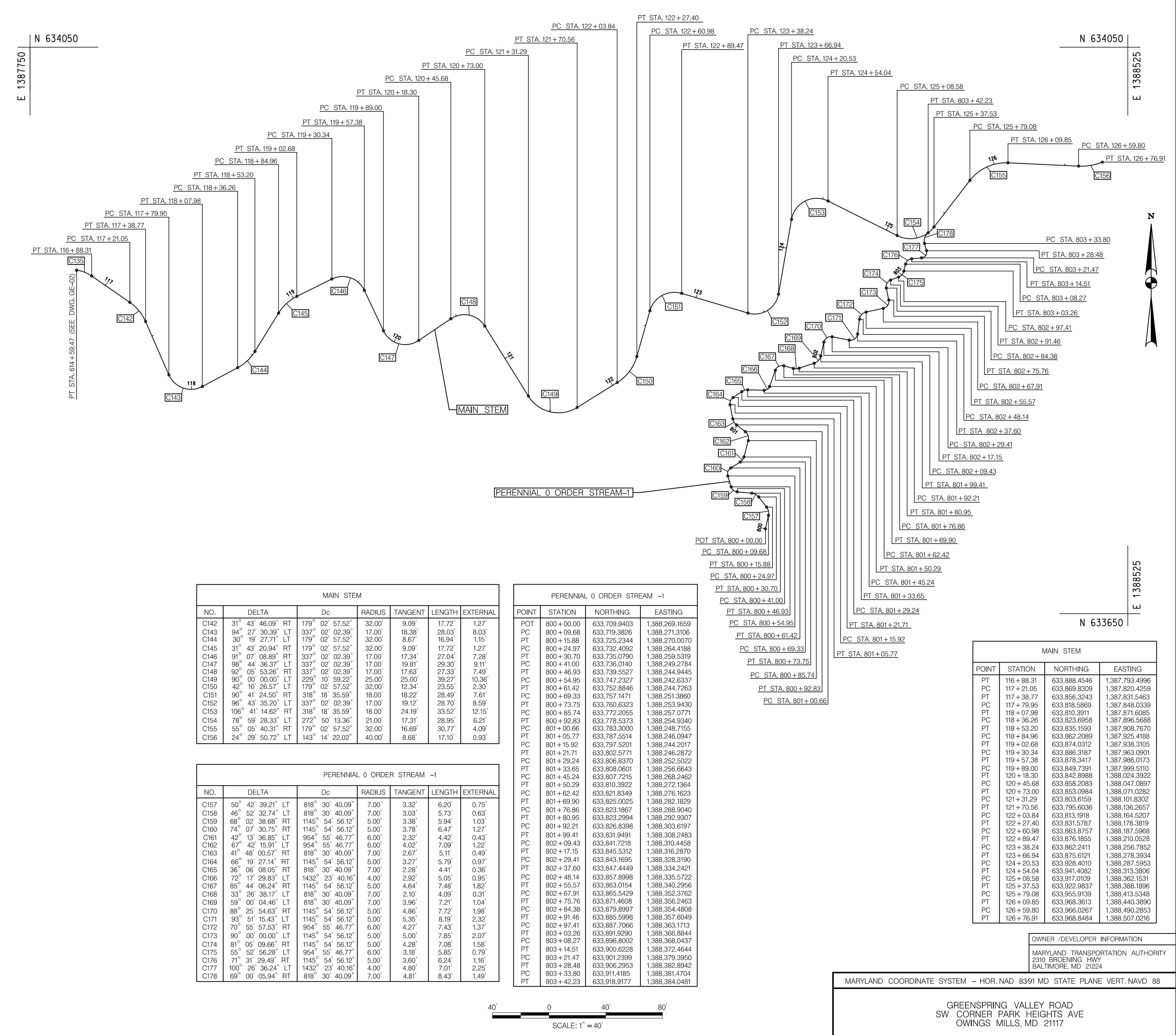
NORTH TRIB			
POINT	STATION	NORTHING	EASTING
POT	600+00.00	634,936.8169	1,387,338.3346
PC	600+20.21	634,917.6050	1,387,330.5342
PT	600+33.07	634,905.0841	1,387,327.3042
PC	600+50.46	634,891.7031	1,387,327.4105
PT	600+62.41	634,875.9164	1,387,329.0430
PC	600+76.64	634,862.3448	1,387,333.2957
PT	600+89.26	634,849.8730	1,387,334.4632
PC	601+06.32	634,832.9290	1,387,332.4721
PT	601+13.03	634,826.4039	1,387,330.9520
PC	601+35.05	634,805.6462	1,387,323.5912
PT	601+48.35	634,792.5529	1,387,322.1238
PC	601+65.71	634,775.3062	1,387,324.1606
PT	601+76.95	634,764.5483	1,387,327.2315
PC	601+93.59	634,749.4852	1,387,328.2968
PT	602+05.15	634,738.4548	1,387,337.6367
PC	602+21.61	634,722.1822	1,387,340.0868
PT	602+34.01	634,709.8392	1,387,339.8044
PC	602+48.94	634,695.1973	1,387,336.9093
PT	602+60.41	634,684.5825	1,387,332.7388
PC	602+75.04	634,672.1299	1,387,325.0437
PT	602+84.16	634,663.7124	1,387,321.4844
PC	603+01.45	634,647.0171	1,387,317.2217
PT	603+15.14	634,633.4300	1,387,316.4124
PC	603+31.80	634,616.9153	1,387,318.5851
PT	603+42.98	634,605.8002	1,387,318.0934
PC	603+62.37	634,586.8751	1,387,313.8859
PT	603+74.95	634,575.5190	1,387,308.7002
PC	603+87.60	634,565.3528	1,387,301.1631
PT	603+96.09	634,558.0835	1,387,296.8126
PC	604+10.88	634,544.7064	1,387,290.5048
PT	604+20.14	634,536.9227	1,387,285.3230
PC	604+40.27	634,521.5076	1,387,272.5906
PT	604+53.21	634,510.0894	1,387,266.7209
PC	604+70.49	634,493.3587	1,387,262.4198
PT	604+82.29	634,481.6496	1,387,261.3900
PC	604+97.49	634,466.4972	1,387,263.5500
PT	605+09.29	634,455.1633	1,387,265.5733
PC	605+23.25	634,442.5564	1,387,271.5855
PT	605+32.88	634,434.5662	1,387,276.8957
PC	605+50.53	634,421.3822	1,387,288.6408
PT	605+61.12	634,414.8338	1,387,296.8864
PC	605+78.27	634,406.5941	1,387,311.9275
PT	605+90.32	634,398.7096	1,387,321.7399
PC	606+07.58	634,386.1628	1,387,332.7039
PT	606+18.64	634,376.8340	1,387,338.5553
PC	606+38.38	634,358.6660	1,387,346.2845
PT	606+51.63	634,345.6328	1,387,349.1421
PC	606+66.18	634,331.2597	1,387,349.5655
PT	606+75.54	634,321.9663	1,387,348.6923
PC	606+90.17	634,307.6747	1,387,345.5442
PT	607+02.41	634,295.5160	1,387,345.0322
PC	607+14.62	634,283.4097	1,387,346.6477
PT	607+35.89	634,265.1520	1,387,356.6079
PC	607+65.99	634,245.6564	1,387,379.5371
PT	607+82.13	634,230.9816	1,387,383.2031
PC	608+16.83	634,198.7098	1,387,370.4775
PT	608+41.88	634,179.7437	1,387,381.3147
PC	608+82.69	634,173.3726	1,387,421.6193
PT	609+09.53	634,153.0518	1,387,433.2307
PC	609+29.30	634,134.6618	1,387,425.9756
PT	609+42.52	634,121.6765	1,387,424.8242
PC	609+69.94	634,094.7970	1,387,430.2421
PT	609+92.51	634,082.8931	1,387,446.9338
PC	610+34.23	634,088.4196	1,387,488.2705
PT	610+54.91	634,076.9908	1,387,502.9190
PC	610+79.36	634,052.6959	1,387,505.6583
PT	610+98.25	634,042.1205	1,387,518.9667
PC	611+24.26	634,045.1193	1,387,544.7964
PT	611+45.82	634,032.5625	1,387,559.2908
PC	611+71.26	634,007.1295	1,387,559.9884
PT	611+90.56	633,995.4835	1,387,572.7574
PC	612+13.16	633,986.9402	1,387,586.3109
PT	612+31.72	633,987.7830	1,387,610.1062
PC	612+54.98	633,966.3371	1,387,619.1191
PT	612+73.52	633,958.7890	1,387,634.3594
PC	613+01.81	633,965.8714	1,387,661.7419
PT	613+20.22	633,959.1387	1,387,677.4739
PC	613+52.93	633,930.5743	1,387,693.4107
PT	613+75.49	633,920.9811	1,387,712.3819
PC	614+02.67	633,924.3851	1,387,739.3547
PT	614+17.76	633,919.0557	1,387,752.7978
PC	614+41.57	633,900.7044	1,387,767.9557
PT	614+58.95	633,892.5299	1,387,782.8301

MAIN STEM			
POINT	STATION	NORTHING	EASTING
PC	112+13.04	633,989.9679	1,387,442.5216
PT	112+41.54	633,973.5192	1,387,464.0439
PC	112+81.99	633,935.8031	1,387,478.6862
PT	113+12.52	633,922.1477	1,387,503.2819
PC	113+62.01	633,931.3444	1,387,551.9144
PT	113+92.88	633,916.6676	1,387,575.9537
PC	114+24.92	633,894.6394	1,387,585.4632
PT	114+55.05	633,871.5339	1,387,607.9975
PC	115+01.86	633,882.2477	1,387,653.5609
PT	115+24.92	633,875.9525	1,387,674.5767
PC	115+71.74	633,841.8747	1,387,706.6222
PT	116+06.45	633,844.8948	1,387,736.7544
PC	116+49.45	633,881.3968	1,387,759.4709

SOUTH TRIB -4			
POINT	STATION	NORTHING	EASTING
PC	500+00.00	633,951.2055	1,387,330.4508
PT	500+13.58	633,946.5503	1,387,342.7801
PC	500+31.08	633,934.1775	1,387,355.1505
PT	500+48.48	633,930.8229	1,387,371.2458
PC	500+88.09	633,937.9968	1,387,389.4955
PT	500+81.19	633,935.2328	1,387,401.5352
PC	501+02.95	633,918.2722	1,387,416.1650
PT	501+17.28	633,914.7714	1,387,429.4845
PC	501+32.71	633,916.3731	1,387,444.8327
PT	501+45.25	633,909.9164	1,387,454.4142
PC	501+66.06	633,889.9288	1,387,460.1805



INTERSECTION TRIBUTARY			
POINT	STATION	NORTHING	EASTING
POT	900+00.00	634,034.0551	1,387,379.1645
PI	900+00.76	634,033.3501	1,387,379.4595
PI	900+26.84	634,009.1700	1,387,389.2331
PI	900+35.77	634,003.1463	1,387,395.8226
PI	900+48.54	633,993.2709	1,387,403.9209
PI	900+72.79	633,970.2807	1,387,411.6254
PI	900+86.32	633,958.3324	1,387,417.9801
PI	901+04.99	633,939.8588	1,387,420.6190
PI	901+25.59	633,919.2582	1,387,420.1711
PI	901+42.49	633,902.7749	1,387,423.9095
PI	901+60.83	633,884.7026	1,387,427.0154
PI	901+79.02	633,867.7472	1,387,433.6034
PI	901+86.16	633,860.8359	1,387,435.3884
PI	902+17.26	633,831.9744	1,387,446.9661
PI	902+43.69	633,806.2939	1,387,453.2147
PI	902+66.34	633,786.6681	1,387,464.5356
PI	902+72.93	633,781.9789	1,387,469.1621
PI	902+92.63	633,762.2876	1,387,468.6170
PI	903+13.89	633,741.0579	1,387,467.4516
PI	903+19.08	633,736.3090	1,387,469.5452
PI	903+32.32	633,736.8494	1,387,482.7839
PI	903+41.27	633,735.1902	1,387,491.5784
PI	903+46.10	633,732.0780	1,387,495.2691
PI	903+65.54	633,716.1529	1,387,506.1152
PI	903+91.39	633,690.6335	1,387,510.5412
PI	904+17.29	633,667.8225	1,387,522.8021
PI	904+32.24	633,653.5719	1,387,527.3207
PI	904+75.95	633,620.3744	1,387,555.7552
PI	905+00.22	633,600.7201	1,387,569.9973
PI	905+17.45	633,583.7928	1,387,573.2007
PI	905+36.42	633,566.0502	1,387,579.9210
PI	905+86.00	633,518.7219	1,387,594.6880
PI	906+28.00	633,476.9397	1,387,598.9667
PI	906+69.43	633,437.4731	1,387,611.6033
PI	906+84.62	633,423.4749	1,387,617.2595
PI	907+12.71	633,408.2714	1,387,640.9383
PI	907+19.87	633,409.0792	1,387,648.0575
PI	907+21.57	633,409.2699	1,387,649.7381



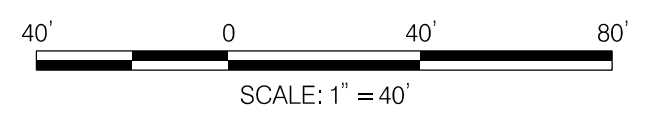
MAIN STEM						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C142	31° 43' 46.09" RT	179° 02' 57.52"	32.00	9.09	17.72	1.27
C143	94° 27' 30.39" LT	337° 02' 02.39"	17.00	18.38	28.03	8.03
C144	30° 19' 27.71" LT	179° 02' 57.52"	32.00	8.67	16.94	1.15
C145	31° 43' 20.94" RT	179° 02' 57.52"	32.00	9.09	17.72	1.27
C146	91° 07' 08.89" RT	337° 02' 02.39"	17.00	17.34	27.04	7.28
C147	98° 44' 36.37" LT	337° 02' 02.39"	17.00	19.81	29.30	9.11
C148	92° 05' 53.26" RT	337° 02' 02.39"	17.00	17.63	27.33	7.49
C149	90° 00' 00.00" LT	229° 10' 59.22"	25.00	25.00	39.27	10.36
C150	42° 10' 26.57" LT	179° 02' 57.52"	32.00	12.34	23.55	2.30
C151	90° 41' 24.50" RT	318° 18' 35.59"	18.00	18.22	28.49	7.61
C152	96° 43' 35.20" LT	337° 02' 02.39"	17.00	19.12	28.70	8.59
C153	106° 41' 14.62" RT	318° 18' 35.59"	18.00	24.19	33.52	12.15
C154	78° 59' 28.33" LT	272° 50' 13.36"	21.00	17.31	28.95	6.21
C155	55° 05' 40.31" RT	179° 02' 57.52"	32.00	16.69	30.77	4.09
C156	24° 29' 50.72" LT	143° 14' 22.02"	40.00	8.68	17.10	0.93

PERENNIAL 0 ORDER STREAM -1			
POINT	STATION	NORTHING	EASTING
POT	800+00.00	633,709.9403	1,388,269.1659
PC	800+09.68	633,719.3626	1,388,271.3106
PT	800+15.88	633,725.2344	1,388,270.0070
PC	800+24.97	633,732.4092	1,388,264.4188
PT	800+30.70	633,735.0790	1,388,259.5319
PC	800+41.00	633,736.0140	1,388,249.2784
PT	800+46.93	633,739.5527	1,388,244.9445
PC	800+54.95	633,747.2327	1,388,242.6337
PT	800+61.42	633,752.8846	1,388,244.7263
PC	800+69.33	633,757.1471	1,388,251.3860
PT	800+73.75	633,760.6323	1,388,253.9430
PC	800+85.74	633,772.2055	1,388,257.0771
PT	800+92.83	633,778.5373	1,388,254.9340
PC	801+00.66	633,783.3000	1,388,248.7155
PT	801+05.77	633,787.5514	1,388,246.0947
PC	801+15.92	633,797.5201	1,388,244.2017
PT	801+21.71	633,802.5771	1,388,246.2872
PC	801+29.24	633,806.8370	1,388,252.5022
PT	801+33.65	633,808.0601	1,388,256.6643
PC	801+45.24	633,807.7215	1,388,268.2462
PT	801+50.29	633,810.3922	1,388,272.1364
PC	801+62.42	633,821.8349	1,388,276.1623
PT	801+69.90	633,825.0025	1,388,282.1929
PC	801+76.86	633,823.1867	1,388,288.9140
PT	801+80.95	633,823.2994	1,388,292.9307
PC	801+92.21	633,826.8398	1,388,303.6197
PT	801+99.41	633,831.9491	1,388,308.2483
PC	802+09.43	633,841.7218	1,388,310.4458
PT	802+17.15	633,845.5312	1,388,316.2970
PC	802+29.41	633,843.1695	1,388,328.9190
PT	802+37.60	633,847.4449	1,388,334.2421
PC	802+48.14	633,857.8998	1,388,335.5722
PT	802+55.57	633,863.0154	1,388,340.2956
PC	802+67.91	633,865.5429	1,388,352.3762
PT	802+75.76	633,871.4608	1,388,356.2463
PC	802+84.38	633,879.8997	1,388,354.4808
PT	802+91.46	633,885.5998	1,388,357.6049
PC	802+97.41	633,887.7066	1,388,363.1713
PT	803+03.26	633,891.9290	1,388,366.8844
PC	803+08.27	633,896.8002	1,388,368.0437
PT	803+14.51	633,902.6228	1,388,372.4644
PC	803+21.47	633,901.2399	1,388,379.3950
PT	803+28.48	633,906.2953	1,388,382.8942
PC	803+33.80	633,911.4185	1,388,381.7074
PT	803+42.23	633,918.9177	1,388,384.0481

PERENNIAL 0 ORDER STREAM -1						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C157	50° 42' 39.21" LT	818° 30' 40.09"	7.00	3.32	6.20	0.75
C158	46° 52' 32.74" LT	818° 30' 40.09"	7.00	3.03	5.73	0.63
C159	68° 02' 38.68" RT	1145° 54' 56.12"	5.00	3.38	5.94	1.03
C160	74° 07' 30.75" RT	1145° 54' 56.12"	5.00	3.78	6.47	1.27
C161	42° 13' 36.85" LT	954° 55' 46.77"	6.00	2.32	4.42	0.43
C162	67° 42' 15.91" LT	954° 55' 46.77"	6.00	4.02	7.09	1.22
C163	41° 48' 00.57" RT	818° 30' 40.09"	7.00	2.67	5.11	0.49
C164	66° 19' 27.14" RT	1145° 54' 56.12"	5.00	3.27	5.79	0.97
C165	36° 06' 08.05" RT	818° 30' 40.09"	7.00	2.28	4.41	0.36
C166	72° 17' 29.83" LT	1432° 23' 40.16"	4.00	2.92	5.05	0.95
C167	85° 44' 06.24" RT	1145° 54' 56.12"	5.00	4.64	7.48	1.82
C168	33° 26' 38.17" LT	818° 30' 40.09"	7.00	2.10	4.09	0.31
C169	59° 00' 04.46" LT	818° 30' 40.09"	7.00	3.96	7.21	1.04
C170	88° 25' 54.63" RT	1145° 54' 56.12"	5.00	4.86	7.72	1.98
C171	93° 51' 15.43" LT	1145° 54' 56.12"	5.00	5.35	8.19	2.32
C172	70° 55' 57.53" RT	954° 55' 46.77"	6.00	4.27	7.43	1.37
C173	90° 00' 00.00" LT	1145° 54' 56.12"	5.00	5.00	7.85	2.07
C174	81° 05' 09.66" RT	1145° 54' 56.12"	5.00	4.28	7.08	1.58
C175	55° 52' 56.28" LT	954° 55' 46.77"	6.00	3.18	5.85	0.79
C176	71° 31' 29.49" RT	1145° 54' 56.12"	5.00	3.60	6.24	1.16
C177	100° 26' 36.24" LT	1432° 23' 40.16"	4.00	4.80	7.01	2.25
C178	69° 00' 05.94" RT	818° 30' 40.09"	7.00	4.81	8.43	1.49

MAIN STEM			
POINT	STATION	NORTHING	EASTING
PT	116+88.31	633,888.4546	1,387,793.4996
PC	117+21.05	633,869.8309	1,387,820.4259
PT	117+38.77	633,856.3243	1,387,831.5463
PC	117+79.95	633,818.5869	1,387,848.0339
PT	118+07.98	633,810.3911	1,387,871.6085
PC	118+36.26	633,823.6968	1,387,896.8688
PT	118+53.20	633,835.1593	1,387,908.7670
PC	118+84.96	633,862.2089	1,387,925.4188
PT	119+02.68	633,874.0312	1,387,938.3105
PC	119+30.34	633,896.3187	1,387,963.0901
PT	119+57.38	633,978.3417	1,387,986.0173
PC	119+89.00	633,849.7391	1,387,999.5110
PT	120+18.30	633,842.8988	1,388,024.3922
PC	120+45.68	633,858.2083	1,388,047.0897
PT	120+73.00	633,853.0984	1,388,071.0282
PC	121+31.29	633,803.6159	1,388,101.8302
PT	121+70.56	633,795.6036	1,388,136.2657
PC	122+03.84	633,813.1918	1,388,164.5207
PT	122+27.40	633,831.5787	1,388,178.3819
PC	122+60.98	633,863.8757	1,388,187.5968
PT	122+88.47	633,876.1855	1,388,210.0528
PC	123+38.24	633,862.2411	1,388,256.7852
PT	123+66.94	633,875.6121	1,388,278.3934
PC	124+20.53	633,928.4010	1,388,287.5953
PT	124+54.04	633,941.4082	1,388,313.3806
PC	125+08.58	633,917.0100	1,388,362.1531
PT	125+37.53	633,922.9837	1,388,388.1896
PC	125+79.08	633,955.9139	1,388,413.5348
PT	126+09.85	633,968.3613	1,388,440.3890
PC	126+59.80	633,966.0267	1,388,490.2853
PT	126+76.91	633,968.8484	1,388,507.0216

OWNER / DEVELOPER INFORMATION
 MARYLAND TRANSPORTATION AUTHORITY
 2310 BRUCEING HWY
 BALTIMORE, MD 21224



DESIGN PROFESSIONAL
 JEREMY KOSER
 JOHNSON, MIRMIRAN & THOMPSON, INC.
 40 WIGHT AVENUE, HUNT VALLEY, MD 21030
 TEL: 410-316-2360
 EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS

100% SUBMISSION

NOT FOR CONSTRUCTION

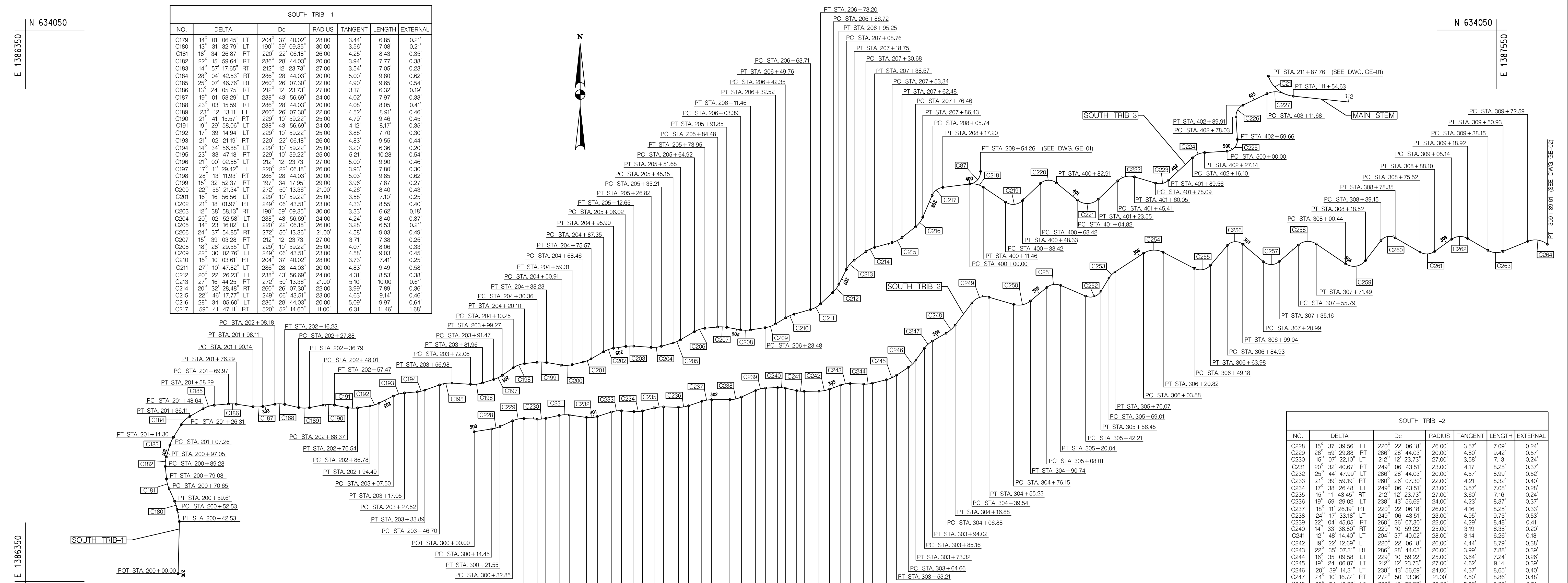
GEOMETRY SHEET

SCALE AS SHOWN DATE APRIL 2021 PROJECT NO. 17-10977-002
 MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
 DESIGNED BY PVC COUNTY BALTIMORE COUNTY
 DRAWN BY PVC LOGMILE
 CHECKED BY JMM /MRG HORIZONTAL SCALE N/A
 F.A.P. NO. N/A VERTICAL SCALE N/A

DRAWING NO. **GS-3** OF **4** SHEET NO. 8 OF 86

BY: barranger

C:\2017\170977_002_Eccleston_PRRM_Turnover\CAD\DWG_P003_ECCLESTON.dwg
 Wednesday, April 28, 2021 AT 06:27 AM

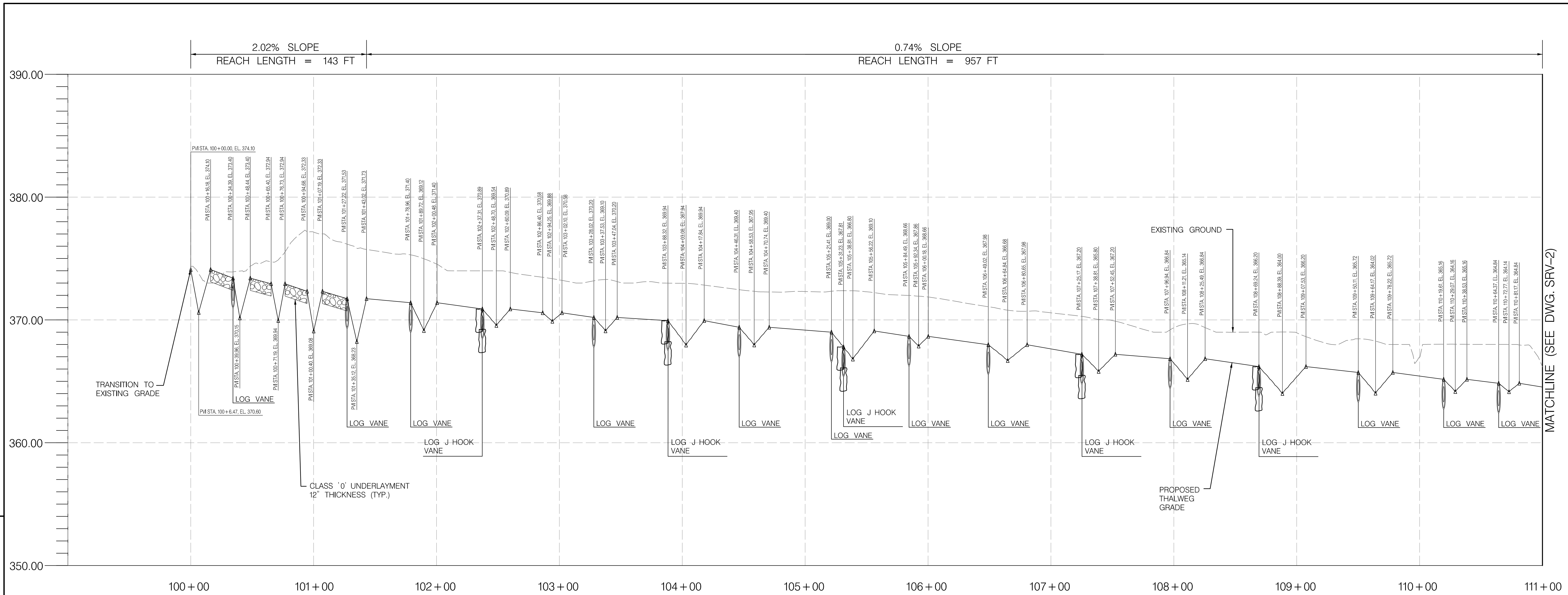


SOUTH TRIB -1						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C179	14° 01' 06.45"	LT	204' 37' 40.02"	3.44'	28.00'	0.21'
C180	13° 31' 32.79"	LT	190' 59' 09.35"	3.56'	7.08'	0.21'
C181	18° 34' 26.87"	RT	220' 22' 06.18"	4.25'	8.43'	0.35'
C182	22° 15' 59.64"	RT	286' 28' 44.03"	20.00'	3.94'	7.77'
C183	14° 57' 17.65"	RT	216' 12' 23.73"	27.00'	3.58'	7.05'
C184	28° 04' 42.53"	RT	286' 28' 44.03"	20.00'	5.00'	9.80'
C185	25° 07' 46.76"	RT	260' 26' 07.30"	22.00'	4.90'	9.65'
C186	13° 24' 05.75"	RT	212' 12' 23.73"	27.00'	3.17'	6.32'
C187	19° 01' 58.29"	RT	238' 43' 56.69"	24.00'	4.02'	7.97'
C188	23° 03' 15.59"	RT	286' 28' 44.03"	20.00'	4.08'	8.05'
C189	23° 12' 13.11"	LT	260' 26' 07.30"	22.00'	4.52'	8.91'
C190	19° 29' 58.06"	LT	238' 43' 56.69"	24.00'	4.12'	8.17'
C191	17° 39' 14.94"	LT	229' 10' 59.22"	25.00'	3.88'	7.70'
C192	21° 02' 21.19"	RT	220' 22' 06.18"	26.00'	4.83'	9.55'
C193	14° 34' 56.88"	LT	229' 10' 59.22"	25.00'	3.20'	6.36'
C194	23° 33' 47.18"	RT	229' 10' 59.22"	25.00'	5.21'	10.28'
C195	21° 00' 02.55"	LT	212' 12' 23.73"	27.00'	5.00'	9.90'
C196	17° 11' 29.42"	LT	220' 22' 06.18"	26.00'	3.93'	7.80'
C197	28° 13' 11.93"	RT	286' 28' 44.03"	20.00'	5.03'	9.85'
C198	15° 32' 52.37"	RT	197' 34' 17.95"	29.00'	3.96'	7.87'
C199	22° 55' 21.34"	LT	272' 50' 13.36"	21.00'	4.26'	8.40'
C200	16° 16' 56.56"	LT	229' 10' 59.22"	25.00'	3.58'	7.10'
C201	18° 18' 01.97"	RT	249' 06' 43.51"	23.00'	4.33'	8.55'
C202	12° 38' 58.13"	LT	190' 59' 09.35"	30.00'	3.33'	6.62'
C203	20° 02' 52.58"	LT	238' 43' 56.69"	24.00'	4.24'	8.40'
C204	14° 23' 16.02"	LT	220' 22' 06.18"	26.00'	3.28'	6.53'
C205	24° 37' 54.85"	RT	272' 50' 13.36"	21.00'	4.58'	9.03'
C206	15° 39' 03.28"	RT	212' 12' 23.73"	27.00'	3.71'	7.38'
C207	18° 29' 23.55"	RT	229' 10' 59.22"	25.00'	4.07'	8.13'
C208	22° 30' 02.76"	LT	249' 06' 43.51"	23.00'	4.58'	9.03'
C209	15° 10' 03.61"	RT	204' 37' 40.02"	28.00'	3.73'	7.41'
C210	27° 10' 47.82"	LT	286' 28' 44.03"	20.00'	4.83'	9.49'
C211	20° 22' 26.23"	LT	238' 43' 56.69"	24.00'	4.31'	8.53'
C212	16° 16' 44.25"	LT	229' 10' 59.22"	25.00'	5.10'	10.00'
C213	20° 32' 28.48"	RT	260' 26' 07.30"	22.00'	3.99'	7.89'
C214	22° 46' 17.77"	LT	249' 06' 43.51"	23.00'	4.63'	9.14'
C215	28° 34' 05.60"	LT	286' 28' 44.03"	20.00'	5.09'	9.97'
C216	59° 41' 47.17"	RT	520' 52' 14.60"	11.00'	6.31'	11.46'
C217						

SOUTH TRIB -2						
NO.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C228	15° 37' 39.56"	LT	220' 22' 06.18"	26.00'	3.57'	7.09'
C229	26° 59' 29.88"	RT	286' 28' 44.03"	20.00'	4.80'	9.42'
C230	15° 07' 22.10"	LT	212' 12' 23.73"	27.00'	3.58'	7.13'
C231	20° 32' 40.67"	RT	249' 06' 43.51"	23.00'	4.17'	8.25'
C232	25° 44' 47.99"	LT	286' 28' 44.03"	20.00'	4.57'	8.99'
C233	21° 39' 59.19"	RT	260' 26' 07.30"	22.00'	4.21'	8.32'
C234	17° 38' 26.48"	LT	249' 06' 43.51"	23.00'	3.57'	7.08'
C235	11° 43' 45.87"	RT	229' 10' 59.22"	25.00'	3.60'	7.16'
C236	19° 59' 29.02"	LT	238' 43' 56.69"	24.00'	4.23'	8.37'
C237	18° 11' 26.19"	LT	220' 22' 06.18"	26.00'	4.16'	8.25'
C238	24° 17' 33.18"	LT	249' 06' 43.51"	23.00'	4.95'	9.75'
C239	22° 04' 45.05"	RT	260' 26' 07.30"	22.00'	4.28'	8.48'
C240	14° 33' 38.80"	RT	229' 10' 59.22"	25.00'	3.19'	6.35'
C241	12° 48' 14.40"	LT	204' 37' 40.02"	28.00'	3.14'	6.26'
C242	19° 22' 12.69"	LT	220' 22' 06.18"	26.00'	4.44'	8.79'
C243	22° 35' 07.31"	RT	286' 28' 44.03"	20.00'	3.99'	7.88'
C244	16° 35' 09.58"	LT	229' 10' 59.22"	25.00'	3.64'	7.24'
C245	19° 24' 06.87"	LT	212' 12' 23.73"	27.00'	4.62'	9.14'
C246	20° 39' 14.31"	LT	238' 43' 56.69"	24.00'	4.37'	8.65'
C247	24° 10' 16.72"	RT	272' 50' 13.36"	21.00'	4.50'	8.86'
C248	22° 54' 16.62"	LT	229' 10' 59.22"	25.00'	5.06'	9.99'
C249	69° 08' 13.13"	RT	440' 44' 12.36"	13.00'	9.96'	15.69'
C250	55° 44' 32.59"	LT	381' 58' 18.71"	15.00'	7.93'	14.59'
C251	62° 40' 21.69"	RT	520' 52' 14.60"	11.00'	6.70'	12.03'
C252	81° 33' 32.56"	LT	572' 57' 28.06"	10.00'	8.63'	14.23'
C253	25° 17' 09.88"	RT	358' 05' 55.04"	16.00'	3.59'	7.06'
C254	60° 39' 02.37"	RT	358' 05' 55.04"	16.00'	9.36'	16.94'
C255	77° 04' 54.50"	LT	520' 52' 14.60"	11.00'	8.76'	14.60'
C256	89° 49' 28.63"	RT	636' 37' 11.08"	9.00'	8.97'	14.11'
C257	81° 09' 35.38"	LT	572' 57' 28.06"	10.00'	8.56'	14.17'
C258	74° 59' 59.94"	LT	477' 27' 53.39"	12.00'	9.21'	15.71'
C259	86° 18' 14.24"	LT	477' 27' 53.39"	12.00'	11.25'	18.08'
C260	82° 07' 51.66"	RT	636' 37' 11.08"	9.00'	7.84'	12.90'
C261	65° 31' 08.53"	LT	520' 52' 14.60"	11.00'	2.08'	4.28'
C262	65° 48' 33.36"	LT	477' 27' 53.39"	12.00'	7.76'	13.78'
C263	52° 18' 37.13"	LT	409' 15' 20.34"	14.00'	6.88'	12.78'
C264	60° 56' 13.96"	RT	358' 05' 55.04"	16.00'	9.41'	17.02'

SOUTH TRIB -2							
POINT	STATION	NORTHING	EASTING	POINT	STATION	NORTHING	EASTING
POT	300+00.00	633,722.2737	1,386,716.2007	PC	303+84.66	633,774.7049	1,387,070.3436
PC	300+14.45	633,724.4884	1,386,730.4946	PC	303+73.32	633,780.6726	1,387,076.5427
PT	300+21.55	633,726.5114	1,386,737.2588	PC	303+85.16	633,790.2851	1,387,083.4659
PC	300+32.85	633,731.8922	1,386,747.5513	PT	303+94.02	633,796.1865	1,387,089.9853
PT	300+42.27	633,732.9617	1,386,756.7164	PC	304+06.88	633,802.6311	1,387,101.1179
PC	300+53.05	633,732.4820	1,386,767.4852	PT	304+16.88	633,809.2117	1,387,108.5111
PT	300+60.18	633,733.1027	1,386,774.5638	PC	304+39.54	633,827.3051	1,387,122.2000
PC	300+71.40	633,735.5443	1,386,785.5119	PT	304+55.23	633,831.9622	1,387,136.1978
PT	300+79.64	633,735.8735	1,386,793.7083	PC	304+76.15	633,826.1377	1,387,156.2899
PC	300+93.84	633,733.9044	1,386,807.7689	PT	304+90.74	633,828.9829	1,387,170.0228
PT	301+02.83	633,734.6658	1,386,816.6482	PC	305+08.01	633,839.9855	1,387,183.3340
PC	301+14.88	633,738.3442	1,386,826.1225	PT	305+20.04	633,841.6252	1,387,194.6572
PT	301+23.20	633,739.3436	1,386,836.3317	PC	305+42.21	633,832.9294	1,387,215.0476
PC	301+33.35	633,738.6548	1,386,846.4667	PT	305+56.45	633,836.8973	1,387,227.9344
PT	301+40.43	633,739.2607	1,386,853.4841	PC	305+69.01	633,847.6035	1,387,234.0638
PC	301+50.83	633,741.7329	1,386,863.5879	PT	305+76.07	633,852.6264	1,387,238.9451
PT	301+57.99	633,742.4979	1,386,870.6865	PC	306+03.88	633,867.8461	1,387,262.2241
PC	301+70.15	633,742.1910	1,386,882.8592	PT	306+10.38	633,868.6498	1,387,278.3612
PT	301+78.52	633,743.4295	1,386,891.0782	PC	306+49.18	633,855.5643	1,387,303.5258
PC	301+88.81	633,747.0198	1,386,901.7807	PT	306+63.98	633,858.1954	1,387,316.9785
PT	301+96.06	633,748.3694	1,386,909.8892	PC	306+84.93	633,874.1537	1,387,330.5564
PC	302+12.95	633,748.4614	1,386,924.7752	PT	306+99.04	633,875.1940	1,387,343.2222
PT	302+22.70	633,750.5563	1,386,934.2245	PC	307+20.82	633,861.0221	1,387,358.9822
PC	302+35.39	633,755.8494	1,386,945.7608	PT	307+35.16	633,861.1045	1,387,372.9921
PT	302+43.87	633,757.8316	1,386,953.3491	PC	307+55.79	633,874.6227	1,387,388.5744
PC	302+53.64	633,758.2690	1,386,963.7049	PT	307+71.49	633,875.5001	1,387,403.1583
PT	302+59.99	633,757.7484	1,386,970.0198	PC	308+00.44	633,859.2894	1,387,427.1399
PC	302+69.44	633,755.7840	1,386,979.2667	PT	308+18.52	633,861.8840	1,387,443.3480
PT	302+75.70	633,755.1756	1,386,985.4811	PC	308+39.15	633,878.1983	1,387,455.9814
PC	302+87.68	633,755.9451	1,386,997.4662	PT	308+52.05	633,880.4913	1,387,467.5815
PT	302+96.47	633,756.9387	1,387,006.6579	PC	308+75.52	633,868.7974	1,387,487.9307
PC	303+06.26	633,760.3179	1,387,015.2519	PT	308+88.10	633,869.3545	1,387,498.8203
PT	303+14.15	633,761.5282	1,387,022.9907	PC	309+05.14	633,879.3203	1,387,513.6666
PC	303+25.09	633,761.0692	1,387,033.9220	PT	309+18.92	633,879.9413	1,387,526.6897
PT	303+32.32	633,761.8090	1,387,041.0558	PC	309+38.15	633,870.2771	1,387,543.3113
PC	303+44.07	633,764.6867	1,387,052.4635	PT	309+50.93	633,869.4120	1,387,555.6234
PT	303+53.21	633,768.3706	1,387,060.8037	PC	309+72.59	633,871.5739	1,387,576.6878
				PT	309+89.61	633,875.2224	1,387,591.7428

SOUTH TRIB-3			
POINT	STATION	NORTHING	EASTING
PC	400+00.00	633,924.4112	1,387,120.5808
PT	400+11.46	633,921.8269	1,387,131.4979
PC	400+33.42	633,909.5974	1,387,149.7377
PT	400+48.33	633,910.7929	1,387,163.4755
PC	400+68.42	633,924.7000	1,387,177.9636
PT	400+82.91	633,925.2281	1,387,191.2268
PC	401+04.82	633,911.3744	1,387,208.2001
PT	401+23.55	633,911.9881	1,387,225.3397
PC	401+45.41	633,926.9876	1,387,241.2440
PT	401+60.05	633,930.2199	1,387,254.8468
PC	401+78.09	633,925.0691	1,387,272.1358
PT	401+89.56	633,927.5879	1,387,282.8011
PC	402+16.10	633,945.7412	1,387,302.1565
PT	402+27.14	633,950.0389	1,387,312.0877
PC	402+45.53	633,951.2052	1,387,330.4457
PT	402+59.66	633,960.7478	1,3



MAIN STEM LONGITUDINAL PROFILE
 SCALE: HOR. 1" = 40'
 VERT. 1" = 4'

MATCHLINE (SEE DWG. SRV-2)

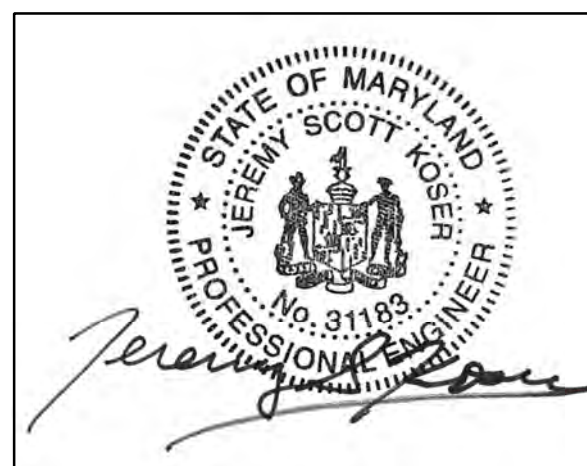
OWNER / DEVELOPER INFORMATION
 MARYLAND TRANSPORTATION AUTHORITY
 2310 BRICENING HWY
 BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88
 GREENSPRING VALLEY ROAD
 SW CORNER PARK HEIGHTS AVE
 OWINGS MILLS, MD 21117

BY: barranger -



LEGEND
 EXISTING GROUND -----
 PROPOSED THALWEG GRADE _____



DESIGN PROFESSIONAL
 JEREMY KOSER
 JOHNSON, MIRMIRAN & THOMPSON, INC.
 40 WIGHT AVENUE, HUNT VALLEY, MD 21030
 TEL: 410-316-2360
 EMAIL: JKoser@jmt.com
 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. 31183, EXPIRATION DATE: 1/13/2023.

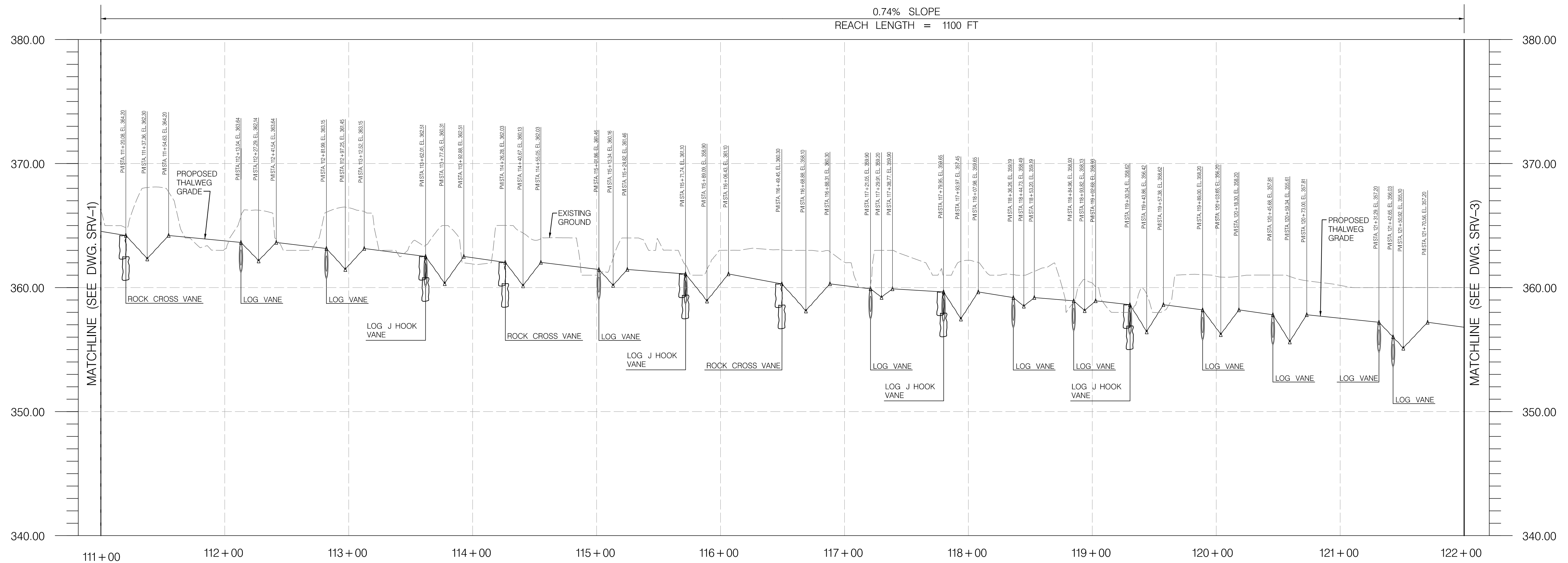
ECCLESTON MITIGATION SITE

REVISIONS
 100% SUBMISSION
 NOT FOR CONSTRUCTION

STREAM RESTORATION PROFILE
 SCALE AS SHOWN DATE APRIL, 2021 PROJECT NO. 17-10977-002
 MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
 DESIGNED BY PVC COUNTY BALTIMORE COUNTY
 DRAWN BY PVC LOGMILE
 CHECKED BY JMM /MRG HORIZONTAL SCALE 1" = 40'
 F.A.P. NO. N/A VERTICAL SCALE 1" = 4'

DRAWING NO. **SRV - 1** OF **10** SHEET NO. 10 OF 86

C:\2017\170977_002_Eccleston PRM_Turnin\CAD\DWG\SRV_001_ECCLESTON_2D.dwg
 Wednesday, April 28, 2021 AT 06:29 AM



MAIN STEM LONGITUDINAL PROFILE
 SCALE: HOR. 1" = 40'
 VERT. 1" = 4'

OWNER / DEVELOPER INFORMATION
 MARYLAND TRANSPORTATION AUTHORITY
 2310 BRIDGING HWY
 BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
 SW CORNER PARK HEIGHTS AVE
 OWINGS MILLS, MD 21117

DESIGN PROFESSIONAL
 JEREMY KOSER
 JOHNSON, MIRMIRAN & THOMPSON, INC.
 40 WIGHT AVENUE, HUNT VALLEY, MD 21030
 TEL: 410-316-2360
 EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

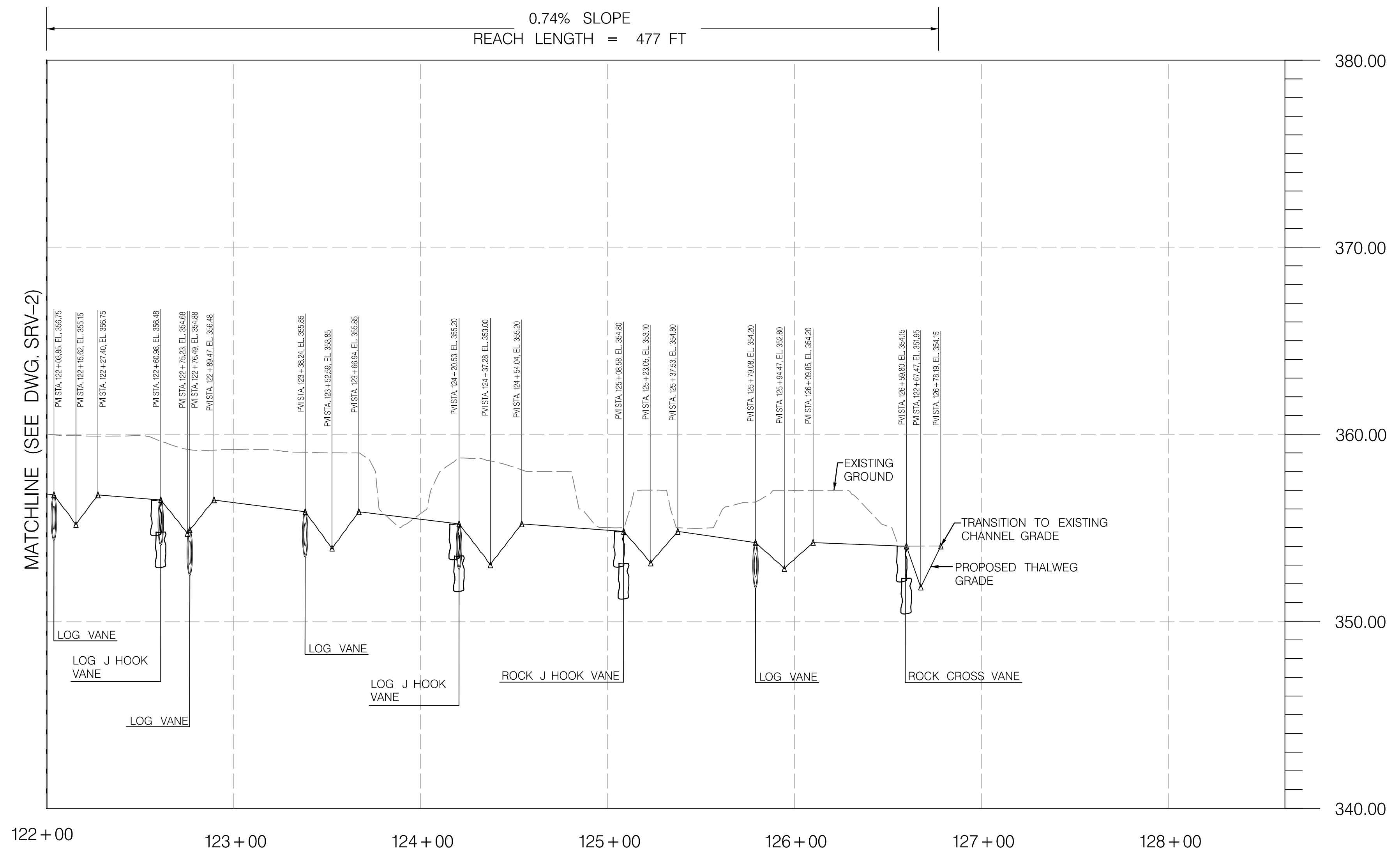
REVISIONS
 100% SUBMISSION
 NOT FOR CONSTRUCTION

STREAM RESTORATION PROFILE			
SCALE AS SHOWN	DATE APRIL, 2021	PROJECT NO.	17-10977-002
MDE PROJECT NO.	21-SF-0044	CONTRACT NO.	KH-3038-0000
DESIGNED BY	PVC	COUNTY	BALTIMORE COUNTY
DRAWN BY	PVC	LOGMILE	
CHECKED BY	JJM /MRG	HORIZONTAL SCALE	1" = 40'
F.A.P. NO.	N/A	VERTICAL SCALE	1" = 4'
DRAWING NO.	SRV - 2	OF	10
SHEET NO.	11	OF	86



BY: barranger -

C:\2017\170977_002_Eccleston PRM_Turnkey\CADD\PSR_V001a_ECCLESTON_2D.dgn
 Wednesday, April 28, 2021 AT 06:30 AM



MAIN STEM LONGITUDINAL PROFILE
SCALE: HOR. 1" = 40'
VERT. 1" = 4'

OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BRICENING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88
GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117



DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON, MIRMIRAN & THOMPSON, INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com

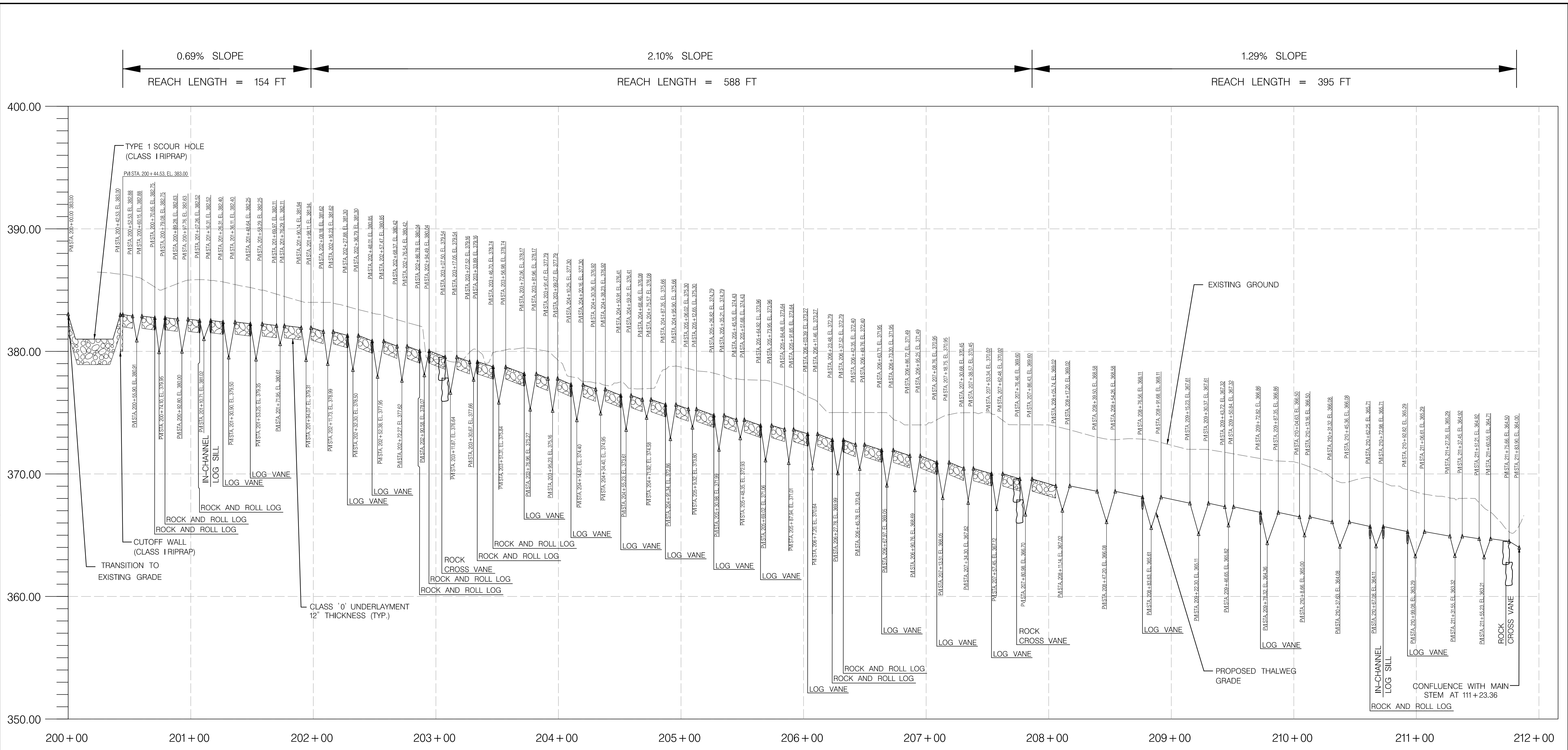
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS	STREAM RESTORATION PROFILE	
100% SUBMISSION	SCALE AS SHOWN	DATE APRIL, 2021
NOT FOR CONSTRUCTION	MDE PROJECT NO. 21-SF-0044	PROJECT NO. 17-10977-002
	DRAWN BY PVC	COUNTY BALTIMORE COUNTY
	CHECKED BY JJM /MRG	HORIZONTAL SCALE 1" = 40'
	F.A.P. NO. N/A	VERTICAL SCALE 1" = 4'
	DRAWING NO. SRV - 3 OF 10	SHEET NO. 12 OF 86

BY: barranger -

C:\2021\1710977_002_Eccleston_PRM_Turnin\CADD\SRV_M0010_ECCLESTON_2D.dgn
Wednesday, April 28, 2021 AT 10:51 AM



SOUTH TRIBUTARY 1 LONGITUDINAL PROFILE
 SCALE: HOR. 1" = 40'
 VERT. 1" = 4'

OWNER / DEVELOPER INFORMATION
 MARYLAND TRANSPORTATION AUTHORITY
 2310 BRONING HWY
 BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88
 GREENSPRING VALLEY ROAD
 SW CORNER PARK HEIGHTS AVE
 OWINGS MILLS, MD 21117

LEGEND
 EXISTING GROUND
 PROPOSED THALWEG GRADE



DESIGN PROFESSIONAL
 JEREMY KOSER
 JOHNSON, MIRIRAN & THOMPSON, INC.
 40 WIGHT AVENUE, HUNT VALLEY, MD 21030
 TEL: 410-316-2360
 EMAIL: JKoser@jmt.com
 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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

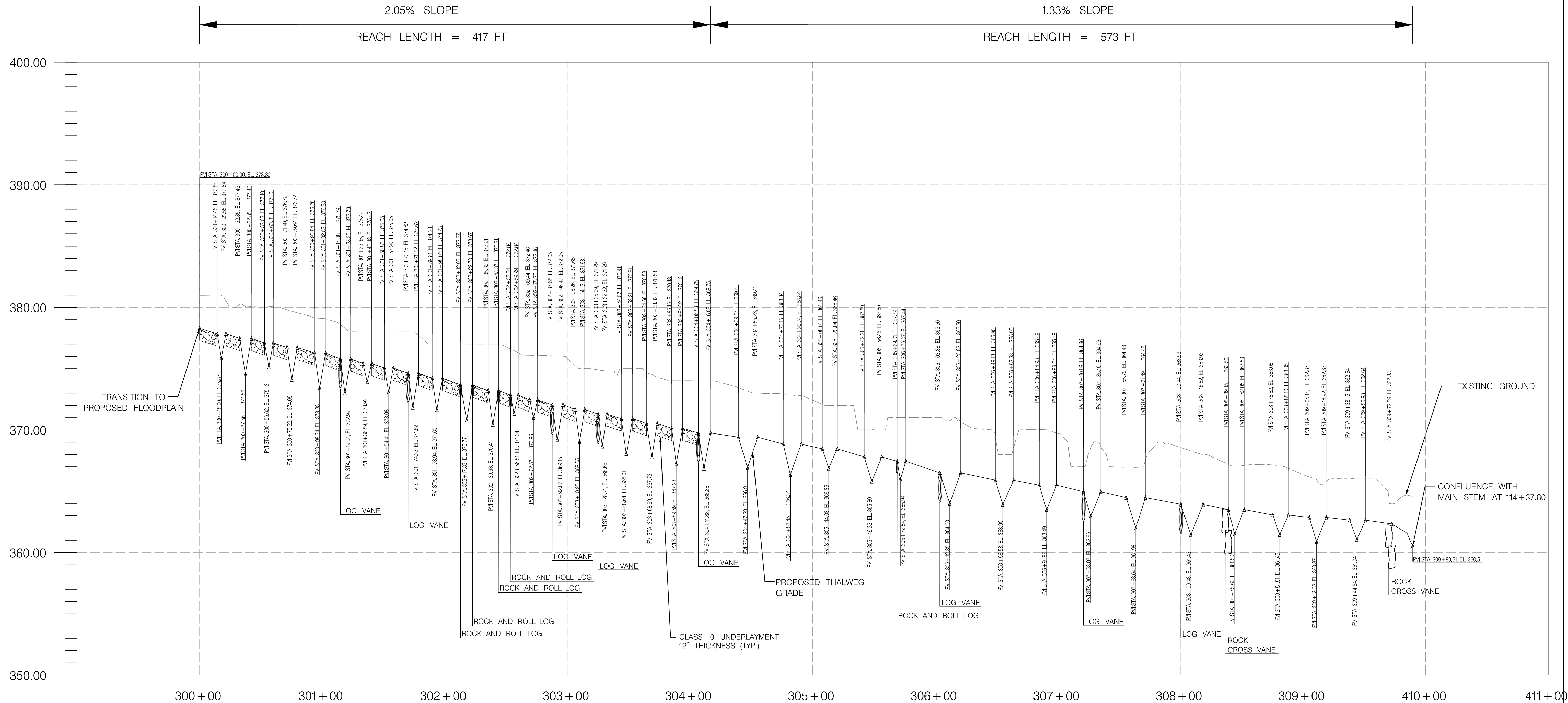
REVISIONS
 100% SUBMISSION
 NOT FOR CONSTRUCTION

STREAM RESTORATION PROFILE			
SCALE AS SHOWN	DATE APRIL 2021	PROJECT NO. 17-10977-002	
MDE PROJECT NO. 21-SF-0044		CONTRACT NO. KH-3038-0000	
DESIGNED BY PVC		COUNTY BALTIMORE COUNTY	
DRAWN BY PVC		LOGMILE	
CHECKED BY JMM /MRG		HORIZONTAL SCALE 1" = 40'	
F.A.P. NO.		VERTICAL SCALE 1" = 4'	
DRAWING NO. SRV - 4	OF 10	SHEET NO. 13	OF 86



BY: barranger -

C:\2017\170977_002 Eccleston PRM_Turnkey\CAD\USER_V002_ECCLESTON_2D.dwg
 Wednesday, April 28, 2021 AT 06:32 AM



SOUTH TRIBUTARY 2 LONGITUDINAL PROFILE

SCALE: HOR. 1" = 40'
VERT. 1" = 4'

OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BRIDGING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117

STREAM RESTORATION PROFILE

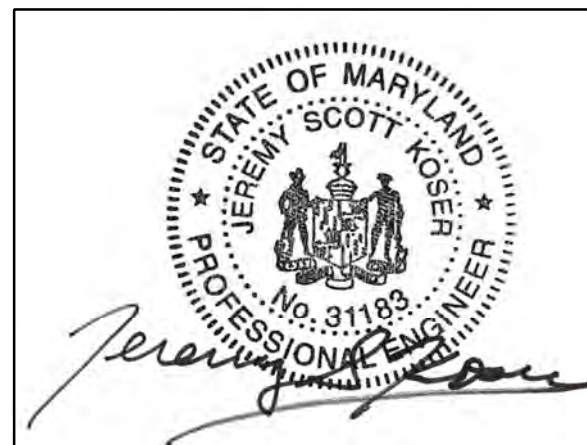
SCALE AS SHOWN DATE APRIL 2021 PROJECT NO. 17-10977-002
MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
DESIGNED BY PVC COUNTY BALTIMORE COUNTY
DRAWN BY PVC LOGMILE
CHECKED BY JJM /MRG HORIZONTAL SCALE 1" = 40'
F.A.P. NO. VERTICAL SCALE 1" = 4'

DRAWING NO. **SRV - 5** OF 10 SHEET NO. 14 OF 86

LEGEND

EXISTING GROUND

PROPOSED THALWEG GRADE



DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON, MIRMIRAN & THOMPSON, INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com

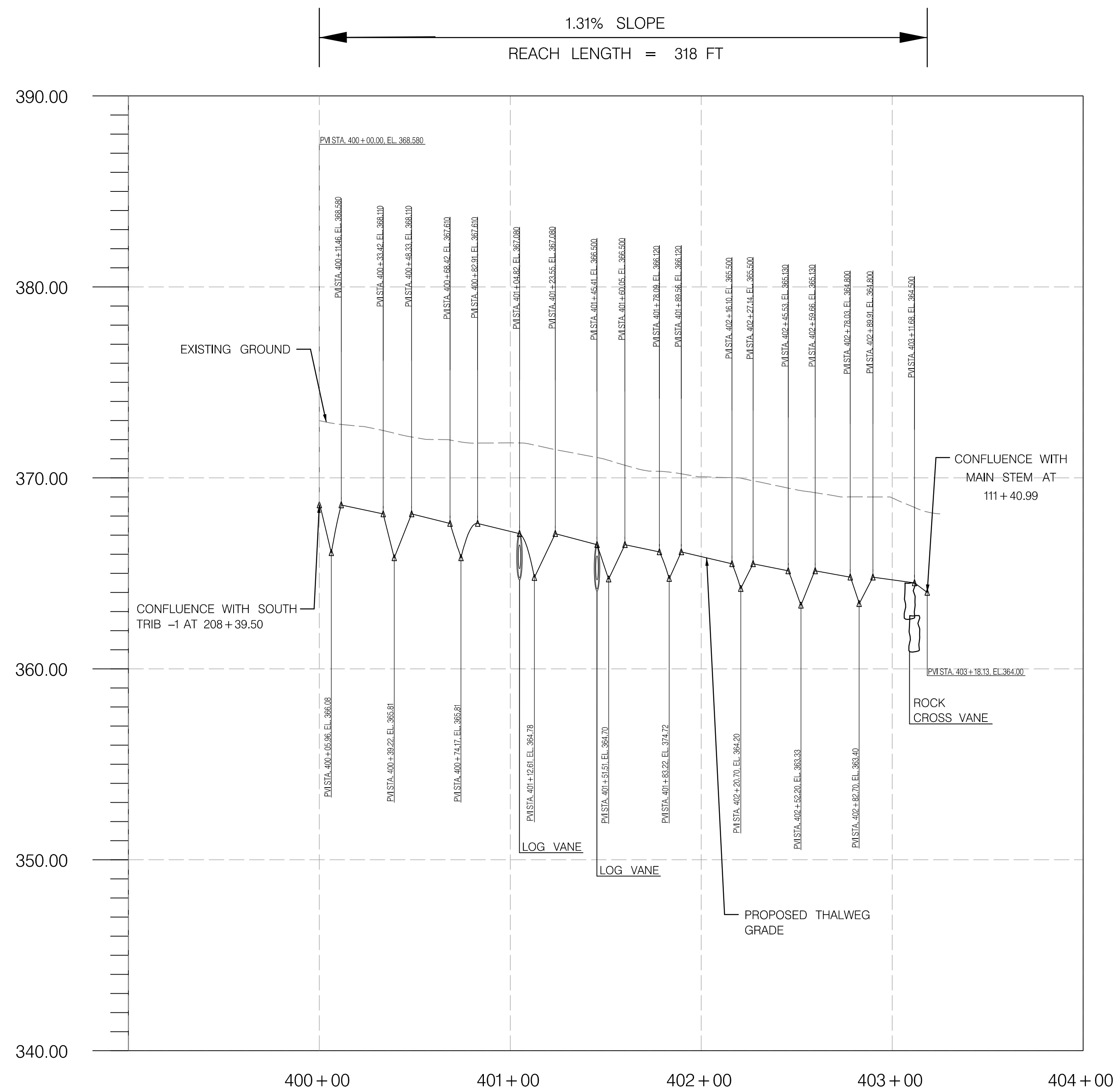
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

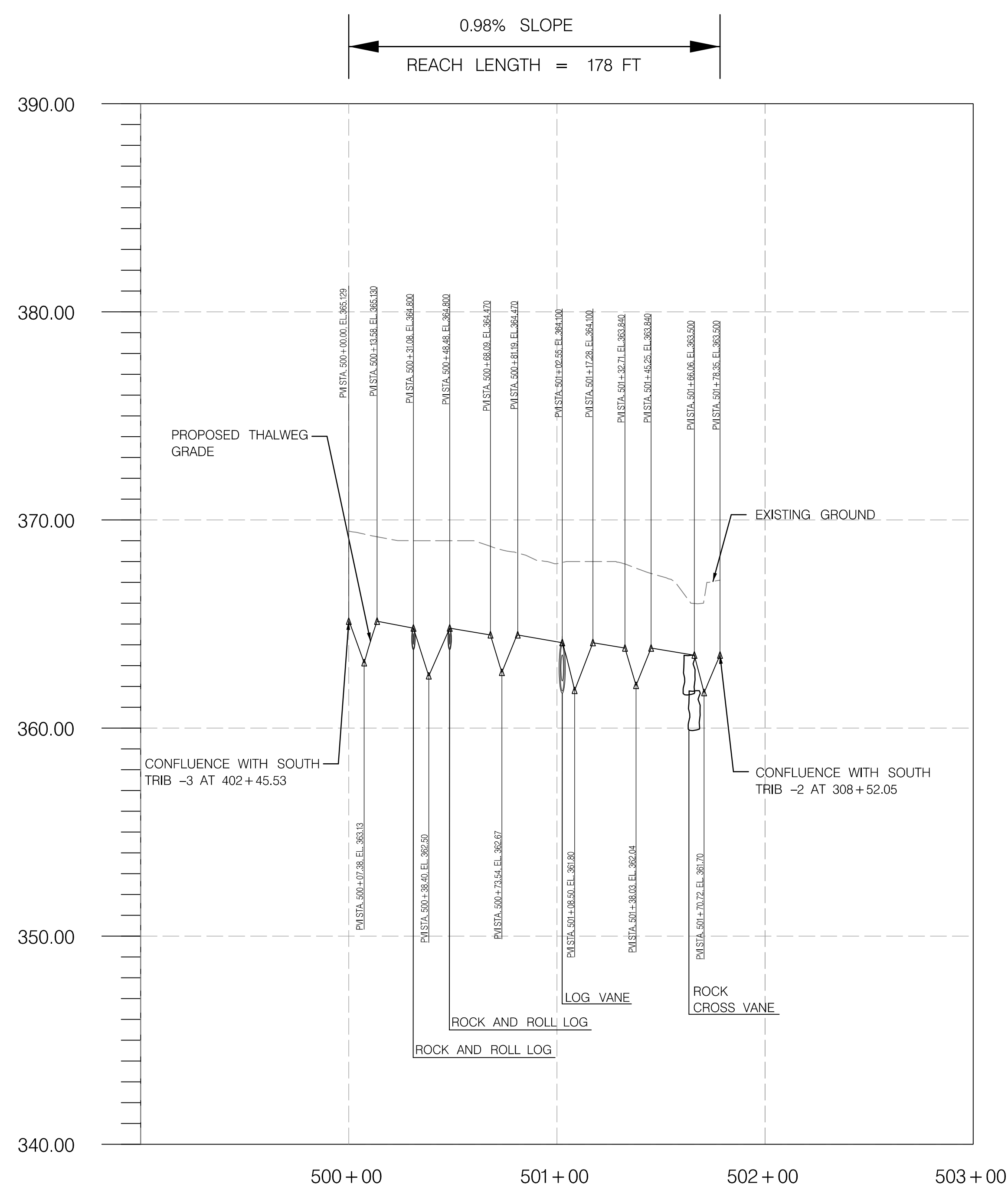
REVISIONS
100% SUBMISSION
NOT FOR CONSTRUCTION

BY: barranger -

C:\2021\1710977_002_Eccleston_PRM_Turnin\CADD\ISRF_0003_ECCELESTON_2D.dgn
Wednesday, April 28, 2021 AT 06:33 AM



SOUTH TRIBUTARY 3 LONGITUDINAL PROFILE
 SCALE: HOR. 1" = 40'
 VERT. 1" = 4'



SOUTH TRIBUTARY 4 LONGITUDINAL PROFILE
 SCALE: HOR. 1" = 40'
 VERT. 1" = 4'

OWNER / DEVELOPER INFORMATION
 MARYLAND TRANSPORTATION AUTHORITY
 2310 BRIDGING HWY
 BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
 SW CORNER PARK HEIGHTS AVE
 OWINGS MILLS, MD 21117



LEGEND

- EXISTING GROUND -----
- PROPOSED THALWEG GRADE _____



DESIGN PROFESSIONAL

JEREMY KOSER
 JOHNSON, MIRMIRAN & THOMPSON, INC.
 40 WIGHT AVENUE, HUNT VALLEY, MD 21030
 TEL: 410-316-2360
 EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS

100% SUBMISSION
 NOT FOR CONSTRUCTION

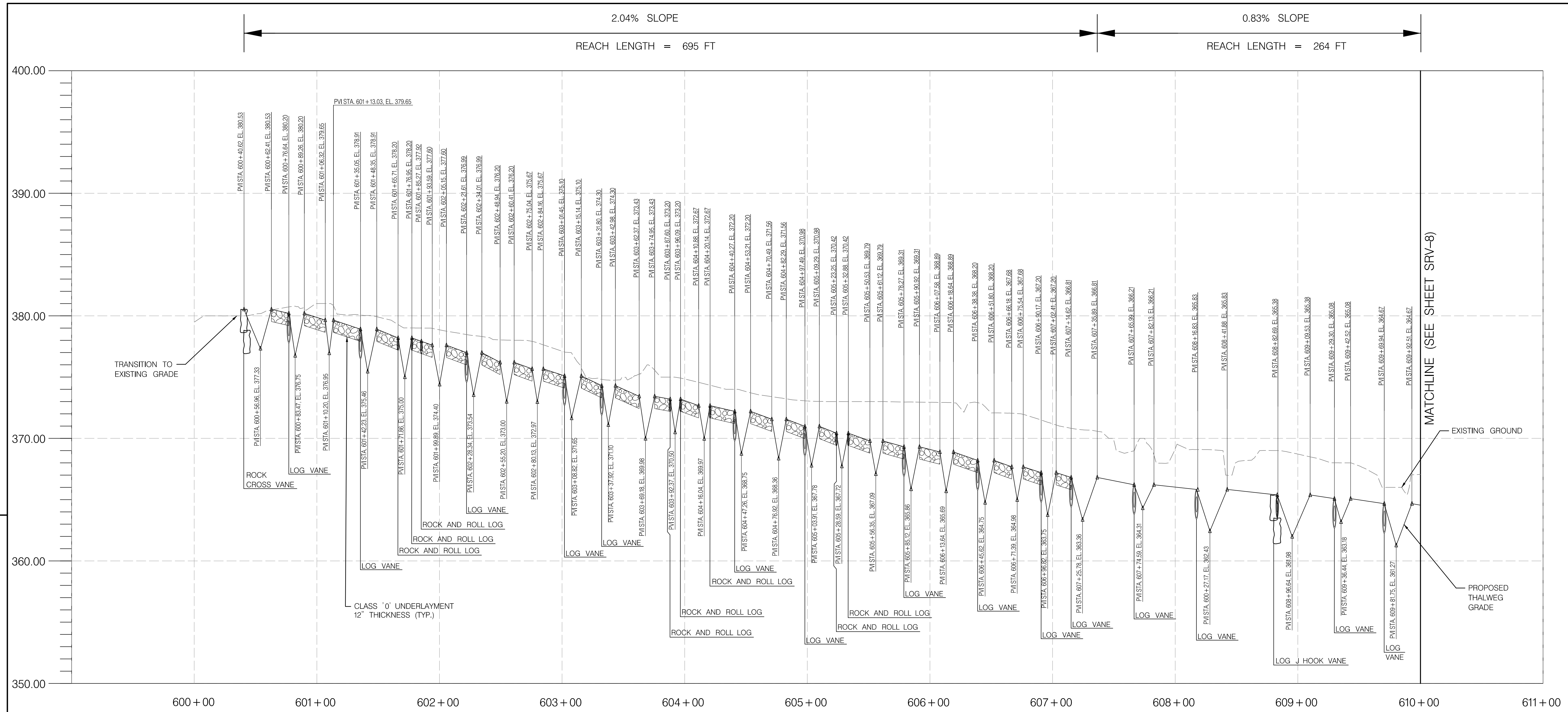
STREAM RESTORATION PROFILE

SCALE AS SHOWN DATE APRIL, 2021 PROJECT NO. 17-10977-002
 MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
 DESIGNED BY PVC COUNTY BALTIMORE COUNTY
 DRAWN BY PVC LOGMILE
 CHECKED BY JMM /MRG HORIZONTAL SCALE 1" = 40'
 F.A.P. NO. VERTICAL SCALE 1" = 4'

DRAWING NO. **SRV - 6** OF **10** SHEET NO. 15 OF 86

BY: barranger -

C:\2017\170977_002_Eccleston_PRM_Turnin\CAD\DSR_V004_ECCLESTON_2D.dgn
 Wednesday, April 28, 2021 AT 06:34 AM



NORTH TRIBUTARY LONGITUDINAL PROFILE
 SCALE: HOR. 1" = 40'
 VERT. 1" = 4'

BY: barranger -



LEGEND

EXISTING GROUND	---
PROPOSED THALWEG GRADE	—



DESIGN PROFESSIONAL
 JEREMY KOSER
 JOHNSON, MIRIRAN & THOMPSON, INC.
 40 WIGHT AVENUE, HUNT VALLEY, MD 21030
 TEL: 410-316-2360
 EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS

100% SUBMISSION
NOT FOR CONSTRUCTION

OWNER / DEVELOPER INFORMATION
 MARYLAND TRANSPORTATION AUTHORITY
 2310 BRIDGING HWY
 BALTIMORE, MD 21224

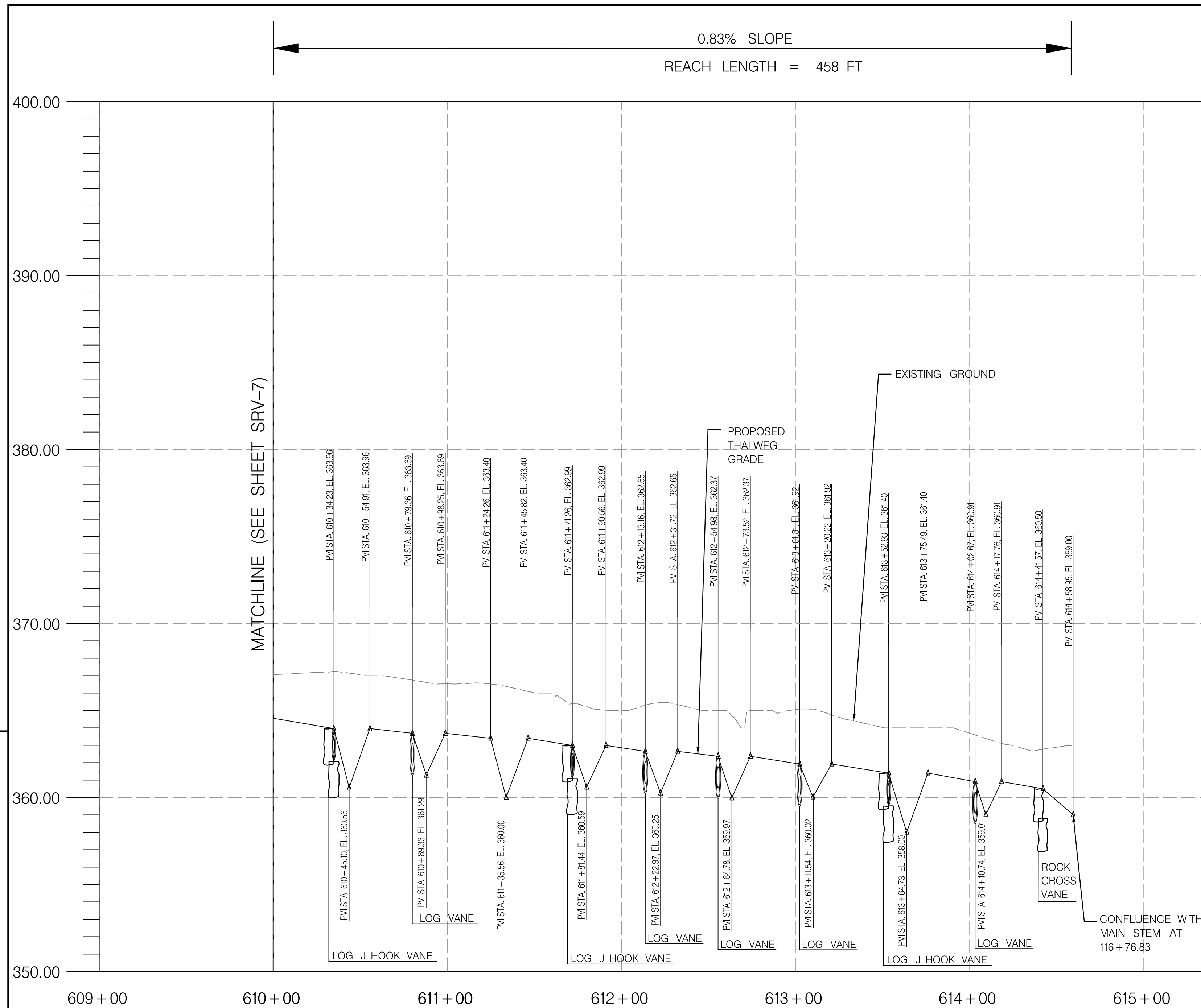
MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
 SW CORNER PARK HEIGHTS AVE
 OWINGS MILLS, MD 21117

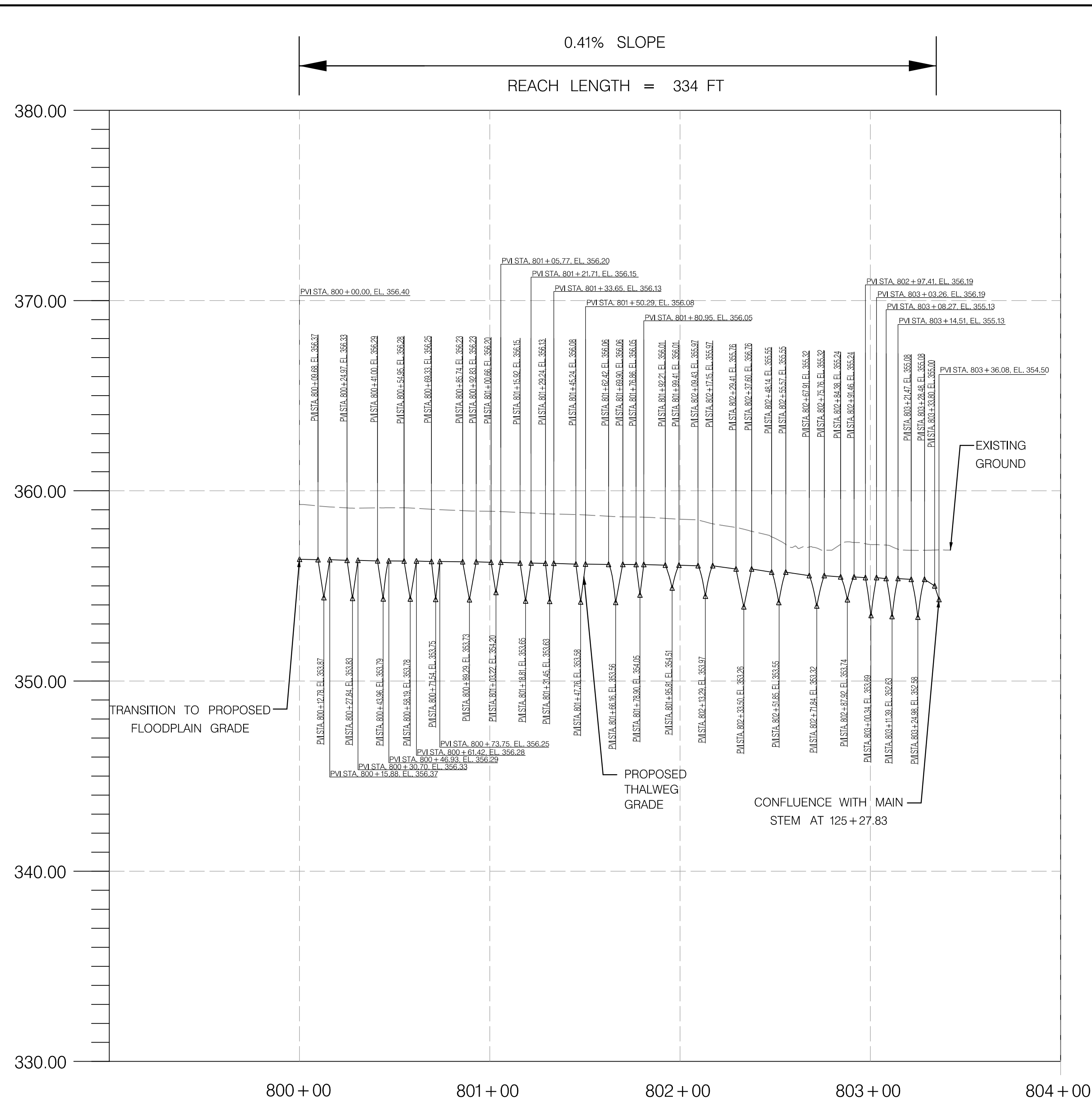
STREAM RESTORATION PROFILE

SCALE AS SHOWN	DATE APRIL 2021	PROJECT NO. 17-10977-002
MDE PROJECT NO. 21-SF-0044	CONTRACT NO. KH-3038-0000	
DESIGNED BY PVC	COUNTY BALTIMORE COUNTY	
DRAWN BY PVC	LOGMILE	
CHECKED BY JMM /MRG	HORIZONTAL SCALE 1" = 40'	
F.A.P. NO. N/A	VERTICAL SCALE 1" = 4'	
DRAWING NO. SRV - 7 OF 10	SHEET NO. 16 OF 86	

C:\2017\170977_002_Eccleston_PRM_Turnkey\CAD\DRW\005_ECCLESTON_2D.dwg
 Wednesday, April 28, 2021 AT 06:34 AM



NORTH TRIBUTARY LONGITUDINAL PROFILE
SCALE: HOR. 1" = 40'
VERT. 1" = 4'



PERENNIAL 0 ORDER STREAM - 1 LONGITUDINAL PROFILE
SCALE: HOR. 1" = 40'
VERT. 1" = 4'

BY: barranger -



LEGEND

- EXISTING GROUND -----
- PROPOSED THALWEG GRADE -----



DESIGN PROFESSIONAL

JEREMY KOSER
JOHNSON, MIRMIRAN & THOMPSON, INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS

100% SUBMISSION
NOT FOR CONSTRUCTION

OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BRIDGING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117

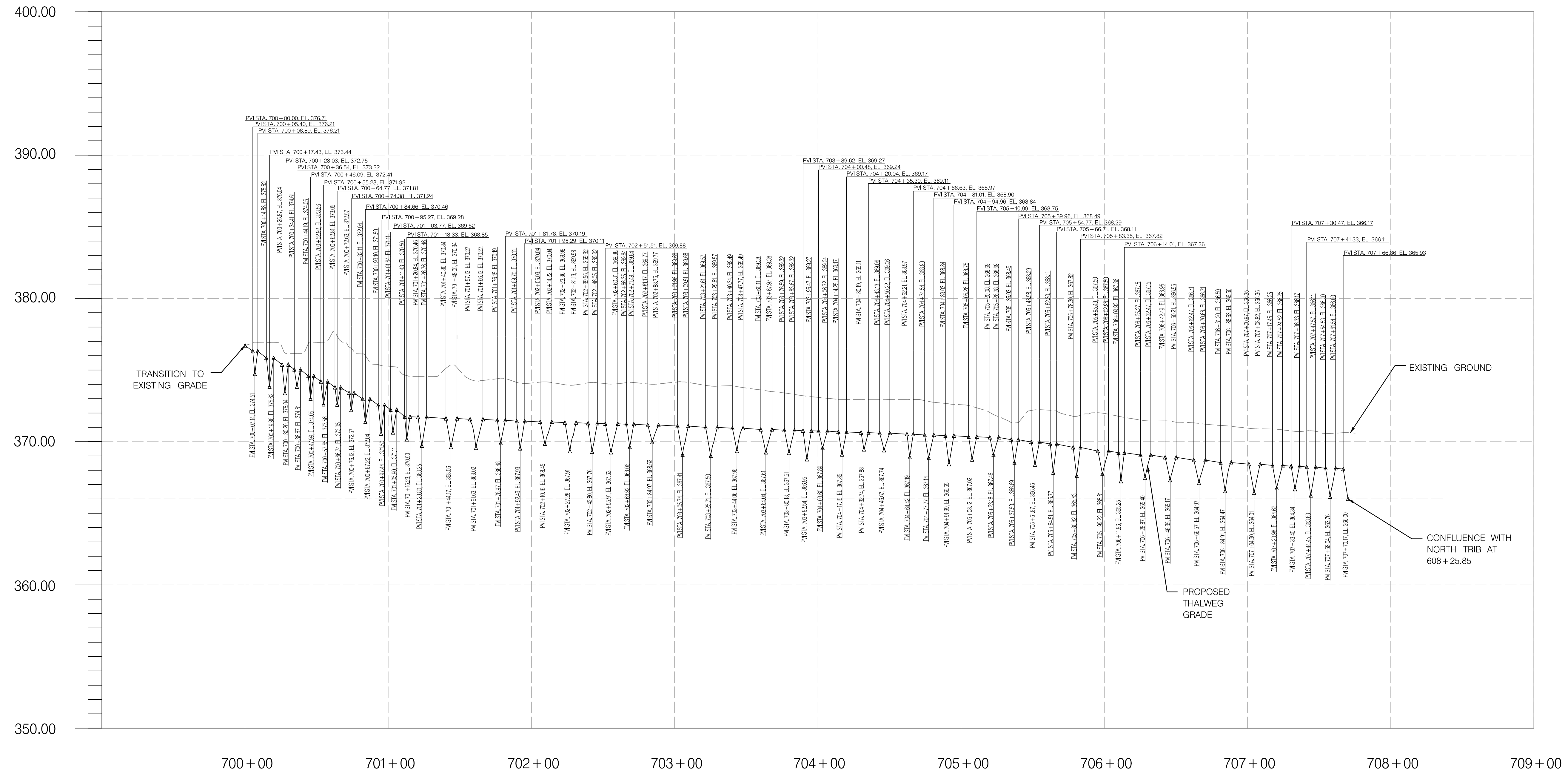
STREAM RESTORATION PROFILE

SCALE AS SHOWN DATE APRIL 2021 PROJECT NO. 17-10977-002
MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
DESIGNED BY PVC COUNTY BALTIMORE COUNTY
DRAWN BY PVC LOGMILE
CHECKED BY JMM /MRG HORIZONTAL SCALE 1" = 40'
F.A.P. NO. N/A VERTICAL SCALE 1" = 4'

DRAWING NO. SRV - 8 OF 10 SHEET NO. 17 OF 86

5.39% SLOPE
REACH LENGTH = 115 FT

0.70% SLOPE
REACH LENGTH = 655 FT



PERENNIAL 0 ORDER STREAM - 2 LONGITUDINAL PROFILE
SCALE: HOR. 1" = 40'
VERT. 1" = 4'

OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BOWENING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117

LEGEND

- EXISTING GROUND -----
- PROPOSED THALWEG GRADE _____



DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON, MIRMIRAN & THOMPSON, INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com
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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS

100% SUBMISSION
NOT FOR CONSTRUCTION

STREAM RESTORATION PROFILE

SCALE AS SHOWN DATE APRIL 2021 PROJECT NO. 17-10977-002
MDE PROJECT NO. 21-SF-0044 CONTRACT NO. KH-3038-0000
DESIGNED BY PVC COUNTY BALTIMORE COUNTY
DRAWN BY PVC LOGMILE
CHECKED BY JMM /MRG HORIZONTAL SCALE 1" = 40'
F.A.P. NO. N/A VERTICAL SCALE 1" = 4'

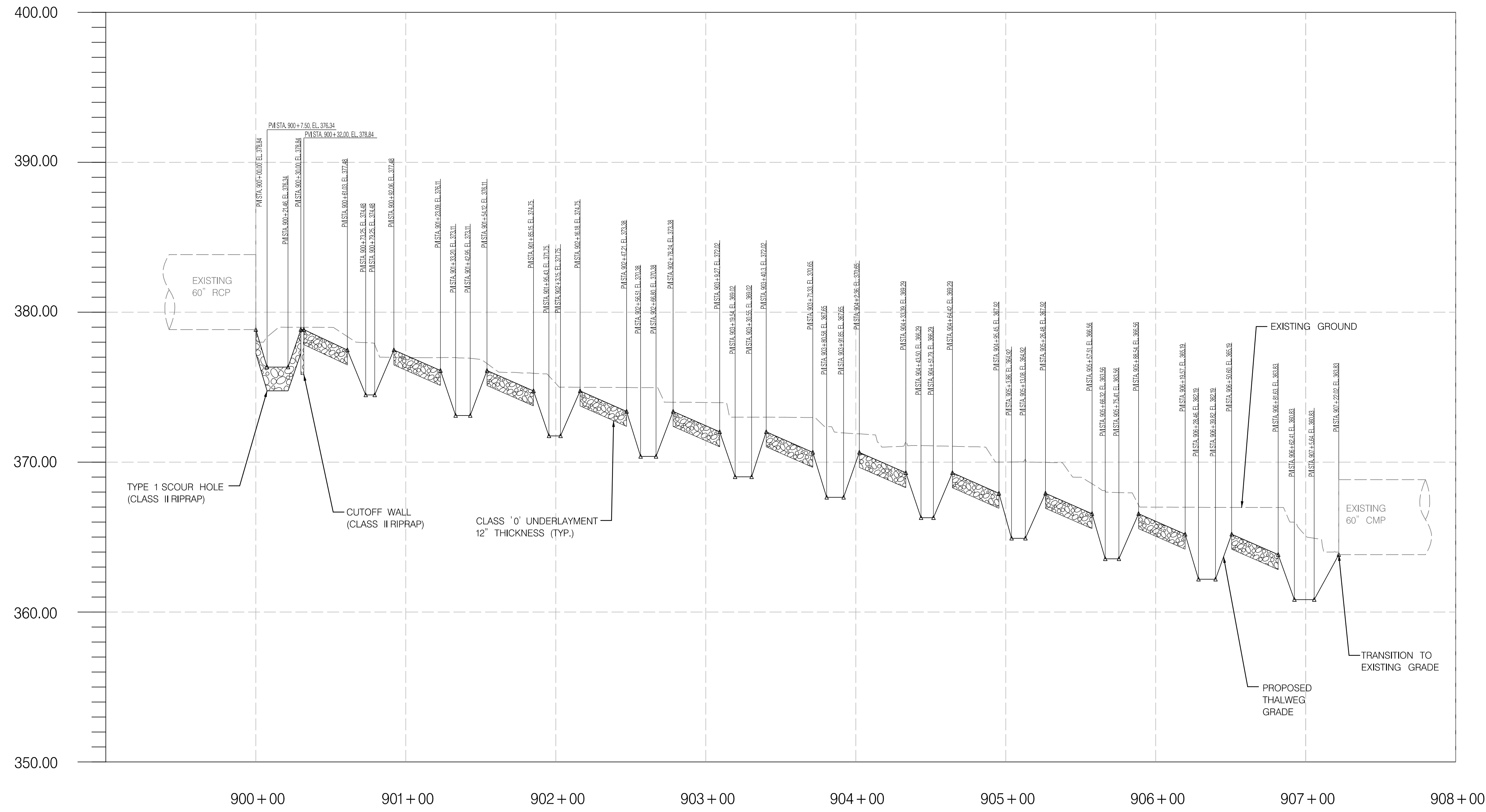
DRAWING NO. SRV - 9 OF 10 SHEET NO. 18 OF 86



BY: barranger -

Q:\2017\170977_002 Eccleston PRM_Turner\CADD\SRV_007_ECCLESTON_2D.dwg
Wednesday, April 28, 2021 AT 06:36 AM

2.18% AVERAGE SLOPE
REACH LENGTH = 722 FT



INTERSECTION TRIBUTARY LONGITUDINAL PROFILE
SCALE: HOR. 1" = 40'
VERT. 1" = 4'

LEGEND

- EXISTING GROUND -----
- PROPOSED THALWEG GRADE _____



DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON, MIRMIRAN & THOMPSON, INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21038
TEL: 410-316-2360
EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS

100% SUBMISSION

NOT FOR CONSTRUCTION

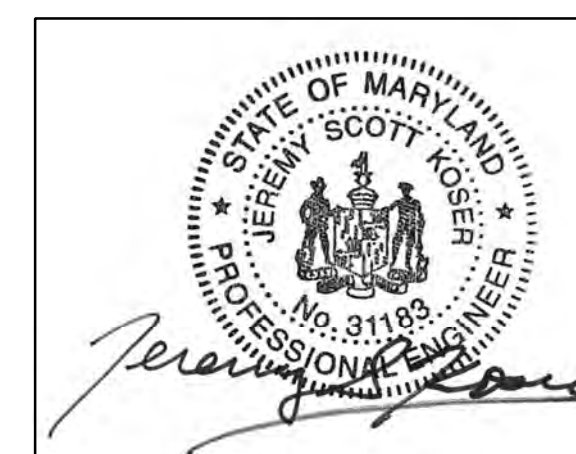
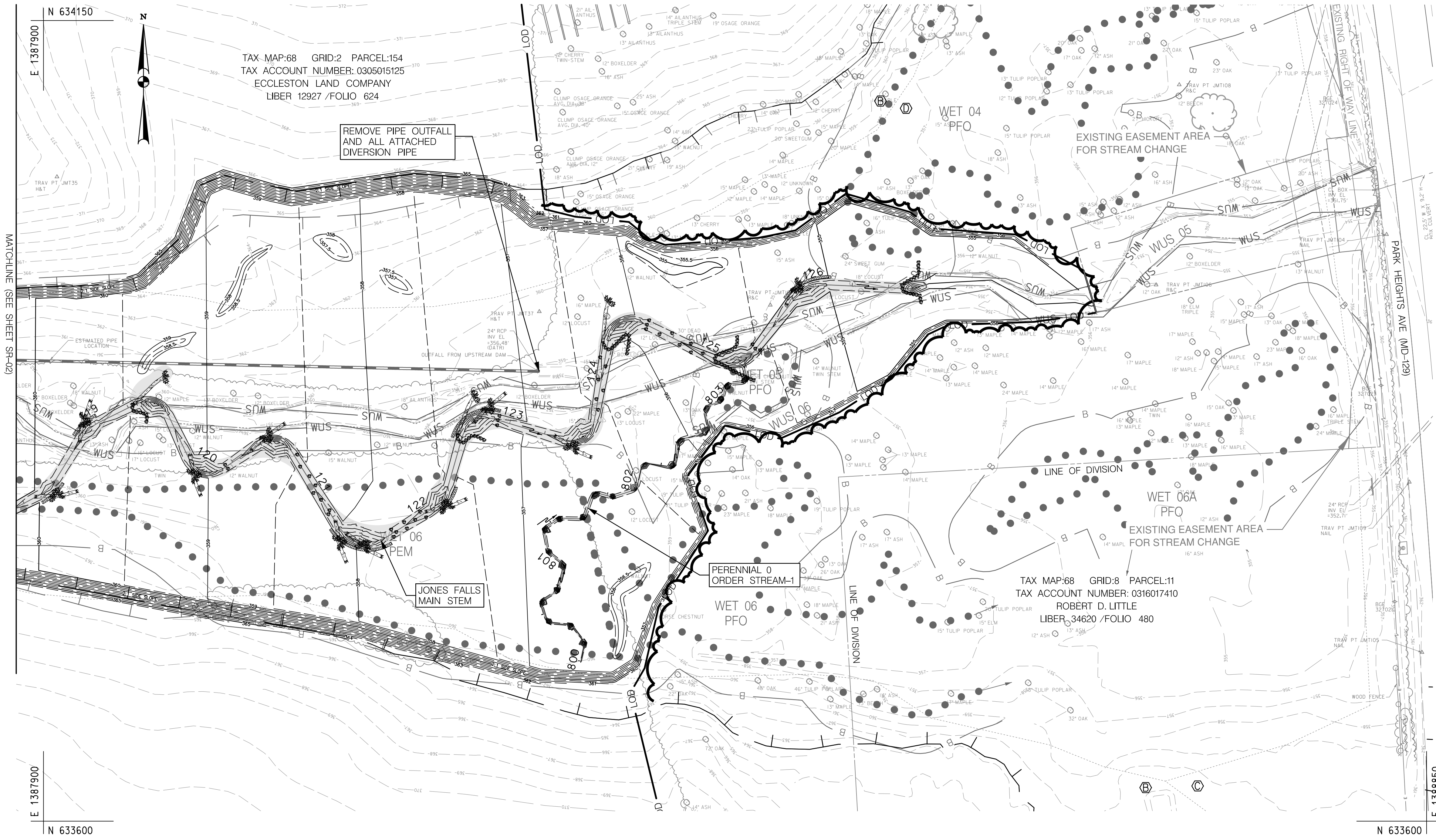
OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BRIDGING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88
GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117

STREAM RESTORATION PROFILE			
SCALE AS SHOWN	DATE APRIL 2021	PROJECT NO.	17-10977-002
MDE PROJECT NO.	21-SF-0044	CONTRACT NO.	KH-3038-0000
DESIGNED BY	PVC	COUNTY	BALTIMORE COUNTY
DRAWN BY	PVC	LOGMILE	
CHECKED BY	JJM /MRG	HORIZONTAL SCALE	1" = 40'
F.A.P. NO.	N/A	VERTICAL SCALE	1" = 4'
DRAWING NO.	SRV - 10	OF 10	SHEET NO. 19 OF 86

BY: barranger -

C:\2017\170977_002 Eccleston PRM_Turnkey\CAD\DWG\SRV_0008_ECCELESTON_2D.dwg
Wednesday, April 28, 2021 AT 10:37 AM



DESIGN PROFESSIONAL

JEREMY KOSER

JOHNSON MIRMIRAN & THOMPSON INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030

TEL: 410-316-2360
EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCELESTON MITIGATION SITE

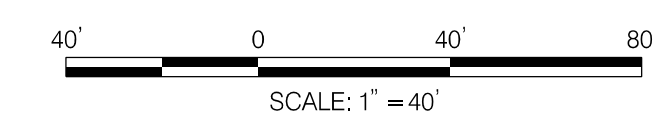
OWNER /DEVELOPER INFORMATION			
MDE PROJECT NO. 17-SF-0044			
CONTRACT NO. KH-3038-0000			
COUNTY BALTIMORE COUNTY			
LOGMILE			
HORIZONTAL SCALE N/A			
VERTICAL SCALE N/A			
DRAWING NO. SR-1 OF 11 SHEET NO. 20 OF 86			

BY: barranger -

C:\2017\170977_002_Eccleston_PRM_Turnkey\CAD\USER_P001_ECCELESTON_2D.dwg
Wednesday, April 24, 2021 AT 06:40 AM



NOTE:
1. REMOVE CLAY DRAIN TILE AS ENCOUNTERED. TRACE AND REMOVE THROUGH FLOODPLAIN.



OWNER / DEVELOPER INFORMATION
MARYLAND TRANSPORTATION AUTHORITY
2310 BRACING HWY
BALTIMORE, MD 21224

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

GREENSPRING VALLEY ROAD
SW CORNER PARK HEIGHTS AVE
OWINGS MILLS, MD 21117



DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON, MIRMIAN & THOMPSON, INC.
40 WIGHT AVENUE, HUNT VALLEY, MD 21030
TEL: 410-316-2360
EMAIL: JKoser@jmt.com

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. 31183, EXPIRATION DATE: 1/13/2023.

ECCLESTON MITIGATION SITE

REVISIONS
100% SUBMISSION
NOT FOR CONSTRUCTION

STREAM RESTORATION GRADING PLAN

SCALE AS SHOWN	DATE APRIL 2021	PROJECT NO. 17-10977-002
MDE PROJECT NO. 21-SF-0044		CONTRACT NO. KH-3038-0000
DESIGNED BY PVC		COUNTY BALTIMORE COUNTY
DRAWN BY PVC		LOGMILE
CHECKED BY JMM /MRG		HORIZONTAL SCALE N/A
F.A.P. NO. N/A		VERTICAL SCALE N/A

DRAWING NO. **SR-2** OF **11** SHEET NO. 21 OF 86

BY: barranger -

C:\2021\1710977_002_Eccleston_PRM_Turnin\CADD\SR_P002_ECCLESTON_20.dgn
Wednesday, April 28, 2021 AT 06:50 AM