MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

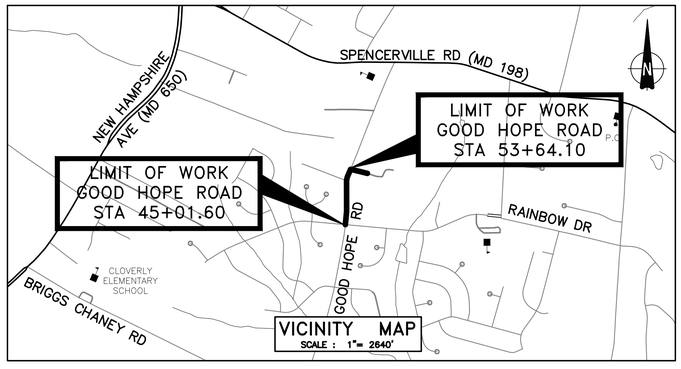
GOOD HOPE ROAD
SHARED USE PATH EXTENSION

RAINBOW DRIVE TO
SPENCERVILLE LOCAL PARK

C. I. P. PROJECT NO. 507596

70% DESIGN SUBMISSION

INDEX OF SHEETS



MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION MAINTENANCE CERTIFICATION

I HEREBY CERTIFY THAT THE DEPARTMENT OF TRANSPORTATION WILL ASSUME MAINTENANCE RESPONSIBILITIES FOR ALL STORMWATER MANAGEMENT FACILITIES AS LISTED AND SHOWN, HEREON, IN ACCORDANCE WITH THE MEMORANDUM OF UNDERSTANDING BETWEEN THIS DEPARTMENT AND THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DATED SEPTEMBER 1, 1986. IF, FOR ANY REASON, FUTURE IMPROVEMENTS TO THE ROADWAY ARE PLANNED THAT WOULD IMPACT ANY OF THE STORMWATER MANAGEMENT FACILITIES INCLUDED HEREIN, THIS DEPARTMENT WILL NOTIFY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DURING THE PLANNING OR EARLY DESIGN STAGE FOR SUCH IMPROVEMENTS.

DATE

TIM CUPPLES
CHIEF, DIVISION OF
TRANSPORTATION ENGINEERING

OWNER'S CERTIFICATION

I HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

DATE

TIM CUPPLES
CHIEF, DIVISION OF
TRANSPORTATION ENGINEERING

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL," MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES EXECUTIVE REGULATIONS 5-90, 7-02AM AND 36-90, AND MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION "STORM DRAIN CRITERIA" DATED AUGUST, 1988.

DATE

MICHAEL ROTHENHEBER, P.E.
MD. REGISTRATION NO. 18589

CERTIFICATION OF THE QUANTITIES

I HEREBY CERTIFY THAT THE ESTIMATED TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO 240 CUBIC YARDS OF EXCAVATION, 832 CUBIC YARDS OF FILL AND THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE 42,250 SQUARE FEET OR 0.97 ACRES.

DATE

MICHAEL ROTHENHEBER, P.E.
MD. REGISTRATION NO. 18589

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. 18589 EXPIRATION DATE 02/10/2024

DATE

MICHAEL ROTHENHEBER, P.E.
MD. REGISTRATION NO. 18589

ATTENTION

THIS SITE IS WITHIN THE ENVIRONMENTALLY SENSITIVE

UPPER PAINT BRANCH SPECIAL PROTECTION AREA

TO HELP PROTECT THE DELICATE AQUATIC HABITAT FROM THE IMPACTS OF LAND DEVELOPMENT THESE PLANS MUST BE STRICTLY ADHERED TO

IF THERE IS A PROBLEM CALL

ANDREW KOHLER AT 240-777-6275

AND THE MCDPS STAFF MEMBER WILL ASSIST YOU IN DEVELOPING A SOLUTION BEFORE STREAM IMPACTS OCCUR

(MENTION THAT THE SITE IS WITHIN A SPECIAL PROTECTION AREA WHEN YOU CALL)

"LET'S WORK TOGETHER TO KEEP IT CLEAN"

ACKNOWLEDGED MONTGOMERY COUNTY DEPT. OF TRANSPORTATION
OWNER/DEVELOPER

LOD IN SPA = 0 . 97 AC.

OWNER / ADDRESS:

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MD 20878

CONTACT:
REBECCA PARK, P.E.
240-777-7263

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

TI-01
TITLE SHEET

GOOD HOPE ROAD SHARED USE PATH EXTENSION

DATE: OCTOBER 2023

CIP No. : 507596 SHEET 1 of 45

RELATED REQUIRED PERMITS

To be completed by the consultant and placed on the first sheet of the Sediment Control / Stormwater Management plan set for **all** projects.

IT IS THE RESPONSIBILITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT

TYPE OF PERMIT	REQD	NOT REQD	PERMIT #	EXPIRATION DATE	WORK RESTRICTION DATES
MCDPS Floodplain District		X			
WATERWAYS/WETLAND(S):					
a. Corps of Engineers		X			
b. MDE		X			
c. MDE Water Quality Certification		X			
MDE Dam Safety		X			
DNR Roadside Tree Care Permit	X			Approval Date	
DPS Roadside Tree Protection Plan		X		Approval Date	
N.P.D.E.S. NOTICE OF INTENT	X				DATE FILED
M-NCPPC Park Construction Permit	X				
OTHERS (Please List):					

JUNE 2014

TREE CANOPY REQUIREMENTS TABLE

To be completed by the consultant and placed on the first sheet of the Sediment Control / Stormwater Management plan set for all projects.

Exempt: Yes ☐ No ☒ If exempt under Section 55-5 of the Code, please check the applicable exemption category below.

Total Property Area	Total Disturbed Area
578,600 square feet	42,250 square feet

Shade Trees Required	Shade Trees Proposed to be Planted
16	6

Fee in Lieu
(Trees Required – Trees Planted) x $250 — $ 2,500.00

Required Number of Shade Trees

Area (sq. ft.) of the Limits of Disturbance FROM	TO	Number of Shade Trees Required
1	6,000	3
6,001	8,000	6
8,001	12,000	9
12,001	14,000	12
14,001	40,000	15

If the square footage of the limits of disturbance is more than 40,000, then the number of shade trees required must be calculated using the following formula:

(Number of Square Feet in Limits of Disturbance ÷ 40,000) × 15

EXEMPTION CATEGORIES:

☐ 55-5(a) any activity that is subject to Article II of Chapter 22A;
☐ 55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A;
☐ 55-5(f) any activity conducted by the County Parks Department;
☐ 55-5(g) routine or emergency maintenance of an existing stormwater management facility, including an existing access road, if the person performing the maintenance has obtained all required permits;
☐ 55-5(h) any stream restoration project if the person performing the work has obtained all necessary permits;
☐ 55-5(i) cutting or clearing any tree to comply with applicable provisions of any federal, state, or local law governing safety of dams;
☐ OTHER: Specify per Section 55-5 of the Code.

TECHNICAL REVIEW OF SEDIMENT CONTROL	ADMINISTRATIVE REVIEW	
REVIEWED DATE	REVIEWED DATE	DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.
TECHNICAL REVIEW OF STORMWATER MANAGEMENT	**SMALL LOT DRAINAGE APPROVAL**	XXXXXX **SEDIMENT CONTROL PERMIT NO.**
	N/A: ☐ OR	#XXXXXX **SM. FILE NO.**
REVIEWED DATE	REVIEWED DATE	STORMWATER MANAGEMENT: Bioswale (BS-1 and BS-1)
MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.	NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.	

ABBREVIATIONS

ABAN.	Abandoned
A.A.S.H.T.O.	American Association of State Highway Transportation Officials
APPROX.	Approximate
ASTM	American Society for Testing and Materials
B or B/L	Baseline
BIT.	Bituminous
BOA	Beginning of Alignment
BVCE	Beginning of Vertical Curve Elevation
BVCS	Beginning of Vertical Curve Station
BLDG..	Building
BOT.	Bottom
C.A.	Center of Curve
C or C/L	Centerline
C.I.P.	Cast Iron Pipe
C.M.P.	Corrugated Metal Pipe
C.O.	Cleanout
COMB.	Combination
CONC.	Concrete
CONSTR.	Construction
CPI	Curve Point of Intersection
C.P.P.	Corrugated Polyethylene Pipe
CRZ	Critical Root Zone
D.B.H.	Diameter Breast Height
DC	Degree of Curve
DIA.	Diameter
D.O.T. or DOT	Department Of Transportation
D.P.W. or DPW	Department of Public Works
D.H.V.	Design Hour Volume
DWS	Detectable Warning Surface
D.I.	Drop Inlet
D.I.	Ductile Iron
D.O.	Double Opening
E	East
Elec.	Electric
EA.	Each
E.B.	Eastbound
EB	Electric Box
EM	Electric Meter
ELEV. or EL..	Elevation
E.R.C.C.P.	Elliptical Reinforced Cement Concrete Pipe
ES	End Section
EVCE	End of Vertical Curve Elevation
EVCS	End of Vertical Curve Station
EX. or EXIST.	Existing
FT	Foot or Feet
F or FL	Flowline
FWD	Forward
G	Gas
GM	Gas Meter
Guy	Guy Wire
HBX	Handbox
H.D.P.E.	High-Density Polyethylene
H.E.R.C.P.	Horizontal Elliptical Reinforced Concrete Pipe
HGL	Hydraulic Grade Line
HP	High Point
HMA	Hot Mix Asphalt
HT	Height
IN	Inch
INV	Invert
L	Length
LANDSC.	Landscaped
L.F.	Linear Feet
LOD	Limit of Disturbance
LOW	Limit of Work
LP	Low Point
LT	Left
LVC	Length of Vertical Curve
Maint.	Maintenance
MH	Manhole
MAX.	Maximum
MCDPS Services	Montgomery County Department of Permitting
MOD.	Modified
MIN.	Minimum
M-NCPPC Commission	Maryland-National Capital Park and Planning
N	North
NAD	North American Datum
NAVD	North American Vertical Datum
NB	Northbound
NE	Northeast
NO.	Number
N.T.S. or NTS	Not To Scale
O.C.	On Center
PVMT.	Pavement
PED.	Pedestrian
P.C.	Point of Curvature
P.C.C.	Point of Compound Curve
P/C	Point of Crown
PE	Perpetual Easement
PGA	Point of Grade Application
P/GE	Profile Grade Elevation
P.G.E.	Profile Ground Elevation
P.G.L.	Profile Grade Line
P/GL	Profile Ground Line
P/R	Point of Rotation
P.I.	Point of Intersection
P.O.C.	Point on Curve
P.O.T.	Point on Tangent
PROP.	Proposed
P.S.F.	Pounds per Square Foot
PT.	Point
P.T.	Point of Tangency
P.V.C.	Point of Vertical Curve
PVC	Polyvinyl Chloride
PVI	Point of Vertical Intersection
R	Radius
RET. WALL	Retaining Wall
RP	Root Pruning
RT	Right
RW or R/W	Right of Way
R.C.P.	Reinforced Concrete Pipe
R.C.C.P.	Reinforced Concrete Cylinder Pipe
SIG.	Signal Pole
SHA. or S.H.A.	State Highway Administration
S	South
S or SS or SAN.	Sanitary Sewer
SB	Southbound
S.D.	Storm Drain
SDP	Shrub Deer Protection
S.E.	Superelevation
SF	Silt Fence
SFOP	Silt Fence On Pavement
SF	Square Feet
SHC	Sewer House Connection
SSD	Stopping Sight Distance
SSF	Super Silt Fence
SSMH	Sewer Manhole
STA.	Station
STD.	Standard
SO.	Single Opening
S.Y.	Square Yards
SWM	Stormwater Management
SW	Sidewalk
T	Tangent
T or Tele.	Telephone
TBA	To Be Abandoned
TCE	Temporary Construction Easement
T.C.P.	Terra Cotta Pipe
TPF	Tree Protection Fence
T.S.	Top of Structure Elevation
TRAV.	Traverse
TYP.	Typical
UG	Underground
UNK.	Unknown
U.P.	Utility Pole
VAR.	Varies
V.C.L.	Vertical Curve Length
W	Water
W	West
W.B. or WB	Westbound
WHC	Water House Connection
WM	Water Meter
WSSC Commission	Washington Suburban Sanitary
W/O	Without
YR	Year

LEGEND

EB	ELECTRIC BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
HBX	HANDBOX
CO	CLEAN OUT
MB	MAIL BOX
G	GAS MANHOLE
GM	GAS METER
GV	GAS VALVE
W	WATER MANHOLE
WV	WATER VALVE
WM	WATER METER
	FIRE HYDRANT
SS	SANITARY MANHOLE
SD	STORM DRAIN MANHOLE
T	TELEPHONE MANHOLE
TEL	TELEPHONE RISER
TV	TV (CABLE) RISER
MH	UNKNOWN MANHOLE
	SIGN
	TREE
	HEDGE/BUSHES
JMT00	TRAVERSE POINT
	DETECTABLE WARNING SURFACE (DWS)
	EXISTING LIGHT POLE
	EXISTING UTILITY POLE
GUY	EXISTING GUY WIRE
PEPCO	EXISTING UTILITY POLE WITH PROPOSED LEASE LIGHT
	PROPOSED PEDESTRIAN LIGHT POLE
	PROPOSED UTILITY POLE
	PROPOSED UTILITY POLE WITH PROPOSED LEASE LIGHT
	PROPOSED SIGNAL POLE
434.0	SPOT ELEVATION
	WIRE FENCE / CHAIN LINK FENCE
	INDEX CONTOUR
430	INTERVAL CONTOUR
OHW	OVERHEAD WIRES
	ABANDONED GAS LINE
G	EXISTING GAS
E	EXISTING ELECTRIC
T	EXISTING TELEPHONE
SAN	EXISTING SANITARY SEWER
CTV	EXISTING CABLE TV
FL	EXISTING FIRE LINE
FO	EXISTING FIBER OPTIC
W	EXISTING WATER
	PROPERTY LINE
	EXISTING RIGHT OF WAY
F	TOE OF FILL
C	TOP OF CUT
LOD	LIMIT OF DISTURBANCE
TCE	TEMPORARY CONSTRUCTION EASEMENT
RSE	REVERTIBLE SLOPE EASEMENT
PE	PERPETUAL EASEMENT
	WOODEN RAILING / WOOD FENCE
	CURB AND GUTTER
	GUARDRAIL

DRAINAGE BUBBLES

INLET	I 1
MANHOLE	MH 1
JUNCTION BOX	JB 1
FIELD CONNECTION	C 1
ENDWALL	EW 1
END SECTION	ES 1
CLEANOUT	CO 1

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

GN-02
GENERAL NOTES

GOOD HOPE ROAD SHARED USED PATH EXTENSION

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 2 of 45

GENERAL NOTES

1. THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE MARYLAND STATE HIGHWAY ADMINISTRATION DATED JULY 2022, ALL ERRATA AND ADDENDA THERETO, THE MARYLAND STATE HIGHWAY ADMINISTRATION BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES, WASHINGTON SUBURBAN SANITARY COMMISSION (W.S.S.C.) STANDARDS, MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION STANDARDS, AND SOIL CONSERVATION SERVICE POND CONSTRUCTION SPECIFICATIONS FOR MARYLAND.
2. FOR CONSTRUCTION, ALL HORIZONTAL SHALL BE BASED ON NAD 83/91, NAVD 88 DATUM.
3. TYPES OF STORM DRAIN STRUCTURES REFER TO THE "DESIGN STANDARDS" OF MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION, UNLESS OTHERWISE NOTED.
4. WHEN THE DROP ON THE MAIN LINE THROUGH A STORM DRAIN STRUCTURE CAN BE ACCOMMODATED BY AN INVERT SLOPE OF 1.5:1 OR FLATTER, A ROUNDED CHANNEL LINED WITH SEWER BRICK ON EDGE SHALL BE BUILT TO THE CROWN OF THE PIPES. WHEN THE INVERT SLOPES WOULD BE GREATER THAN 1.5:1 A SPECIAL INVERT SHALL BE CONSTRUCTED AS NOTED.
5. ALL STORM DRAIN PIPE SHALL BE INSTALLED WITH CLASS "C" BEDDING UNLESS OTHERWISE SPECIFIED.
6. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORM DRAIN STRUCTURES, WHEN NECESSARY, TO MEET EXISTING CONDITIONS, AS APPROVED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR.
7. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE LINES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SHOWN OR SIX (6) INCHES, WHICHEVER IS LESS, CONTACT MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR AND THE APPROPRIATE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
8. REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
9. CALL "MISS UTILITY" AT 1-800-257-7777 FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING EXCAVATION TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES.
10. CLEARING IS TO BE LIMITED TO THE "LIMIT OF DISTURBANCE" AS SHOWN ON THE PLANS.
11. ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.
12. ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE SEEDED AND MULCHED.
13. THE CONTRACTOR SHALL MAINTAIN THE APPROVED ROADSIDE TREE PERMIT FOR ANY MAINTENANCE, TREATMENT, PLANTING, REMOVAL, OR ROOT CUTTING ON TREES WITHIN THE PUBLIC RIGHT OF WAY. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES, MARYLAND FOREST, PARK AND WILDLIFE SERVICE, TELEPHONE 301-854-6060
14. THE LOCATION OF RIGHT-OF-WAY AND EASEMENT LINES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE AS TO THE ACCURACY OF SAID LOCATIONS. PLEASE REFER TO THE APPROPRIATE RIGHT-OF-WAY PLATS.
15. ALL UTILITY POLES AND GUY WIRES NOTED FOR RELOCATION SHALL BE PERFORMED BY OTHERS.
16. CONTACT THE WASHINGTON SUBURBAN SANITARY COMMISSION SYSTEM MAINTENANCE ENGINEER BEFORE EXCAVATING BENEATH OR IN THE VICINITY OF EXISTING WATER OR SEWER LINES. BACKFILL TO BE DONE UNDER SUPERVISION OF W.S.S.C. CALL 301-699-4420
17. THE CONTRACTOR SHALL INSTALL PEDESTRIAN DETECTABLE WARNING SURFACES AT ALL SIDEWALK & PEDESTRIAN CROSSINGS. LOCATIONS AS DIRECTED BY THE ENGINEER. THE WARNING SURFACES SHALL BE IN CONFORMANCE WITH ADA REQUIREMENTS AND THE PROJECT SPECIAL PROVISION.
18. THE CONTRACTOR SHALL BE AWARE THAT OVERHEAD UTILITY WIRES EXIST WITHIN THE PROJECT SITE. LOCATIONS OF WIRES SHOULD BE NOTED IN FIELD WITH SIGNAGE TO AVOID CONFLICTS DURING CONSTRUCTION.
19. CONTRACTOR SHALL TAKE EXTRA PRECAUTION WHERE THE CONSTRUCTION ACTIVITIES AND EXCAVATIONS WILL BE PERFORMED WITHIN 5 FEET OF THE EXISTING WASHINGTON GAS FACILITIES AND PIPELINES. IT IS RECOMMENDED THAT FIELD VERIFICATIONS OF THE EXISTING WASHINGTON GAS FACILITIES SHOULD BE PERFORMED BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY WASHINGTON GAS AT (703) 750-1000 TO SCHEDULE PERSONNEL FOR DAMAGE PREVENTION 10 BUSINESS DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES. ANY EXPOSURE OF THE EXISTING GAS MAINS DURING THE CONSTRUCTION SHALL BE PERFORMED UNDER SUPERVISION OF ONSITE WASHINGTON GAS PERSONNEL(S). ALL EXPOSED GAS MAINS SHALL BE PROTECTED BY A WGL APPROVED PROTECTIVE SHIELD.
20. CONTRACTOR TO PERFORM TEST PITS ON EXISTING WASHINGTON GAS FACILITIES AT THE ONSET OF ROADWAY CONSTRUCTION. INFORMATION GATHERED FROM THE TEST PITS (LOCATION AND ELEVATION OF FACILITY AT EACH TEST PIT) MUST BE PROVIDED TO WASHINGTON GAS PRIOR TO ANY ADDITIONAL CONSTRUCTION ACTIVITIES WITHIN 5 FEET HORIZONTAL CLEARANCE OF EXISTING WASHINGTON GAS FACILITIES. WASHINGTON GAS WILL REVIEW THE INFORMATION PROVIDED TO DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO AVOID CONFLICT WITH THEIR EXISTING FACILITIES.
21. FOR ALL LOCATIONS WHERE PROPOSED FACILITIES CROSS OVER/UNDER EXISTING WASHINGTON GAS FACILITIES SMALLER THAN 16-INCHES IN DIAMETER, THE CONTRACTOR MUST MAINTAIN A MINIMUM 12-INCH VERTICAL SEPARATION BETWEEN THE OUTER EDGE OF THE PROPOSED FACILITY AND THE OUTER EDGE OF THE EXISTING WASHINGTON GAS FACILITY.
22. FOR ALL LOCATIONS WHERE PROPOSED FACILITIES CROSS OVER/UNDER EXISTING WASHINGTON GAS FACILITIES THAT ARE 16-INCHES OR LARGER IN DIAMETER, THE CONTRACTOR MUST MAINTAIN A MINIMUM 24-INCHVERTICAL SEPARATION BETWEEN THE OUTER EDGE OF THE PROPOSED FACILITY AND THE OUTER EDGE OF THE EXISTING WASHINGTON GAS FACILITY.

GENERAL NOTES FOR WORK ON M-NCPPC PROPERTY

1. ALL NOTES SHOWN ON THE DRAWINGS ARE TYPICAL UNLESS OTHERWISE SHOWN OR NOTED.
2. A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED BY THE M-NCPPC CONSTRUCTION MANAGER PRIOR TO START OF ANY CONSTRUCTION RELATED ACTIVITY AT THE PROJECT SITE. CONTACT JAY CHILDS (301-495-2574) TO SCHEDULE.
3. NO CLEARING, GRUBBING, OR GRADING SHALL COMMENCE UNTIL THE LIMITS OF DISTURBANCE ARE STAKED IN THE FIELD AND ARE APPROVED BY THE M-NCPPC CONSTRUCTION MANAGER AS WELL AS ANY OTHER APPLICABLE PERMITTING AGENCIES. AFTER THE LIMITS ARE APPROVED, NO DISTURBANCE WILL BE ALLOWED OUTSIDE OF THE APPROVED LIMITS. ANY ITEMS DISTURBED OUTSIDE OF THE APPROVED LIMITS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
4. THE ENTIRE LOD SHALL BE FENCED AS DIRECTED BY THE PARK CONSTRUCTION MANAGER. WHERE SILT FENCE, SUPER SILT FENCE, OR TREE PROTECTION FENCE IS NOT REQUIRED, ORANGE BLAZE SAFETY FENCE MAY BE USED.
5. FIELD RUN TOPOGRAPHIC SURVEY PROVIDED BY JMT IN DECEMBER 2018 AND JANUARY 2019. SURVEY COORDINATES ARE REFERENCED TO THE MARYLAND STATE PLAN COORDINATE SYSTEM NAD 83(2011). ELEVATIONS ARE REFERENCED TO THE NORTHERN AMERICAN VERTICAL DATUM OF 1988 (NAVD88). BOUNDARIES SHOWN ARE DERIVED FROM DEED AND PLAT INFORMATION.
6. M-NCPPC RESERVES THE RIGHT TO ADJUST AND MODIFY THE LIMITS OF DISTURBANCE IN THE FIELD TO MINIMIZE IMPACTS OF WORK.
7. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING SAFE FACILITY ACCESS THROUGHOUT CONSTRUCTION AND PROVIDE ANY APPROPRIATE DETOURS, TEMPORARY FACILITIES, AND SIGNAGE AS REQUESTED BY THE M-NCPPC CONSTRUCTION MANAGER.
8. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS AND REPORT TO M-NCPPC CONSTRUCTION MANAGER ANY ERROR OR INCONSISTENCY WITH THE ACTUAL CIRCUMSTANCES IN THE FIELD BEFORE COMMENCING WORK.
9. THE CONTRACTOR SHALL STAKE-OUT THE LOCATION OF FACILITIES AND MEET WITH THE M-NCPPC CONSTRUCTION MANAGER TO REVIEW THE LOCATION. M-NCPPC RESERVES THE RIGHT TO ADJUST THE LOCATIONS AS NECESSARY.
10. SITE RESTORATION AND REPAIR/REPLACEMENT OF DAMAGED INFRASTRUCTURE SHALL BE IN ACCORDANCE WITH M-NCPPC DETAILS, STANDARDS, AND SPECIFICATIONS AT THE DIRECTION OF THE PARK INSPECTOR AT NO COST TO M-NCPPC.
11. TREE PROTECTION FENCING SHALL BE PER TREE PROTECTION FENCE DETAIL SHOWN ON PLANS. TREE PROTECTION FENCE SHALL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY M-NCPPC CONSTRUCTION MANAGER PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH M-NCPPC CONSTRUCTION MANAGER AND M-NCPPC URBAN FORESTER PRIOR TO PLACEMENT OF ALL TREE PROTECTION.
12. ALL PLANTING SUBSTITUTIONS SHALL BE APPROVED BY M-NCPPC CONSTRUCTION MANAGER. PLANT MATERIALS AND LOCATIONS MUST BE INSPECTED BY M-NCPPC PRIOR TO INSTALLATION.
13. PROVIDE DEER PROTECTION FENCING PER M-NCPPC SPECIFICATIONS FOR ALL LANDSCAPE AND REFORESTATION TREES AND SHRUBS TO PREVENT DAMAGE FROM DEER. TUBEX SHALL NOT BE USED AS A SUBSTITUTE.
14. STAGING AREAS AND ACCESS ROUTES SHALL BE DETERMINED IN FIELD AND APPROVED BY THE M-NCPPC CONSTRUCTION MANAGER TO MINIMIZE IMPACTS.
15. M-NCPPC MAY INSPECT CONDITION OF TREES THROUGHOUT CONSTRUCTION AND REQUIRE REPAIR, REMOVAL, AND/OR REPLACEMENT OF ANY DAMAGED TREES AT NO COST TO M-NCPPC.
16. CONSTRUCTION MANAGER MAY AUTHORIZE SPECIAL TREE AND TREE ROOT PROTECTION MEASURES OTHER THAN SHOWN ON THESE PLANS DURING CONSTRUCTION. THESE MAY INCLUDE, BUT NOT BE LIMITED TO 12-INCH THICK MULCH LAYER ACCESS BEDDING, MATTING, ADDITIONAL TREE PROTECTION FENCING, AND ADDITIONAL SEDIMENT CONTROLS.
17. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR IDENTIFYING THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF THE CONSTRUCTION RELATED WORK AND SHALL COORDINATE THE WORK WITH M-NCPPC CONSTRUCTION MANAGER. THE CONTRACTOR SHALL MAINTAIN PROPER CLEARANCES BETWEEN ALL EXISTING AND PROPOSED UTILITIES AT ALL TIMES AS REQUIRED BY THE UTILITY COMPANIES.
18. UTILITIES SHOWN HEREON ARE BASED ON BEST AVAILABLE INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF THIS INFORMATION. ANY COST ASSOCIATED WITH THE REPAIR OR REPLACEMENT OF UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY DAMAGE MADE TO THE UTILITY SHALL BE REPAIRED ON AN EMERGENCY BASIS PER THE LATEST SPECIFICATIONS OF THE CONCERNED UTILITY AND COMPLETED WORK SHALL BE APPROVED BY THE CONCERNED UTILITY. ANY DAMAGE SHALL BE REPORTED AND DOCUMENTED IMMEDIATELY TO THE M-NCPPC CONSTRUCTION MANAGER. REPAIR APPROVALS SHALL BE PROVIDED TO THE M-NCPPC CONSTRUCTION MANAGER.
19. DISCREPANCIES, OMISSION, AMBIGUITIES, OR CONFLICTS IN OR AMONG THE CONSTRUCTION DOCUMENTS OR DOUBT ABOUT THEIR MEANING SHALL BE BROUGHT TO THE ATTENTION OF THE M-NCPPC CONSTRUCTION MANAGER FOR DIRECTION BEFORE PROCEEDING WITH WORK. IF CONFLICTS EXIST, THE MOST STRINGENT REQUIREMENT SHALL GOVERN UNLESS OTHERWISE STATED IN WRITING BY THE M-NCPPC CONSTRUCTION MANAGER.
20. PRIOR TO VEGETATIVE STABILIZATION, ALL DISTURBED AREAS MUST BE TOPSOILED PER THE MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL." IF ON-SITE MATERIALS DO NOT MEET REQUIREMENTS OF TOPSOIL, COORDINATE WITH M-NCPPC REGARDING TILLING-IN OF CERTIFIED COMPOST TO ON-SITE SOILS IN ORDER TO MEET SPECIFICATIONS.
21. PAVEMENT REMOVAL SHALL INCLUDE REMOVAL OF GRAVEL SUBBASE AND SCARIFICATION OF SUBGRADE, UNLESS OTHERWISE DIRECTED BY M-NCPPC.
22. THIS SITE IS LOCATED IN THE ANACOSTIA RIVER WATERSHED OF MONTGOMERY COUNTY. RUNOFF FROM THIS SITE DRAINS INTO THE PAINT BRANCH TRIBUTARY.
23. NEITHER METAL SOD STAKES NOR TURF REINFORCEMENT MATTING WITH PLASTIC ARE PERMITTED ON PARK LAND.
24. CONSTRUCTION STAGING AREAS SHALL NOT BE ESTABLISHED ON M-NCPPC OWNED PROPERTY.

EARTHWORK SUMMARY

			PROPOSAL QUANTITY
CLASS I EXCAVATION			
CUT (FROM CROSS SECTIONS)	120	CY	
TOPSOIL UNDER FILL	–	CY	
ROOT MAT UNDER FILL	–	CY	
PLUS CUT (FROM SWM AREA)	120	CY	
TOTAL CLASS I EXCAVATION	240	CY	240 CY
CLASS IA EXCAVATION (ESTIMATED)			
MUCK REMOVAL (IF ANY)	–	CY	
UNDERCUTTING	–	CY	
TOTAL CLASS IA EXCAVATION	–	CY	– CY
CLASS 2 EXCAVATION			
CUT (FROM CROSS SECTIONS)	–	CY	
TOTAL CLASS 2 EXCAVATION	–	CY	– CY
CLASS 3 EXCAVATION			
CUT (STRUCTURE EXCAVATION)	–	CY	
TOTAL CLASS 3 EXCAVATION	–	CY	– CY
EXCAVATION AVAILABLE FOR EMBANKMENT			
TOTAL CLASS I EXCAVATION + CLASS 2 EXCAVATION	240	CY	
MINUS:			
TOPSOIL (REMOVED IN CUT)	–	CY	
TOPSOIL (REMOVED UNDER FILL)	–	CY	
ROOT MAT (REMOVED IN CUT)	–	CY	
ROOT MAT (REMOVED IN FILL)	–	CY	
CUT ADJUSTED	240	CY	
CUT DENSIFIED (x 0.83)	200	CY	
TOTAL EXCAVATION AVAILABLE FOR EMBANKMENT	200	CY	
EMBANKMENT REQUIRED			
FILL (FROM CROSS SECTIONS)	712	CY	
REFILL FOR TOPSOIL UNDER FILL	–	CY	
REFILL FOR ROOT MAT UNDER FILL	–	CY	
FILL (FROM SWM AREA)	120	CY	
TOTAL	832	CY	
MINUS EXCAVATION AVAILABLE FOR EMBANKMENT	(200)	CY	
ADJUSTED TOTAL	632	CY	
PLUS DENSIFICATION FACTOR (x 1.20)	760	CY	
MINUS SELECT BORROW	–	CY	
COMMON BORROW	760	CY	760 CY
SELECT BORROW	–	CY	– CY

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

GN-03
GENERAL NOTES

GOOD HOPE ROAD SHARED USED PATH EXTENSION

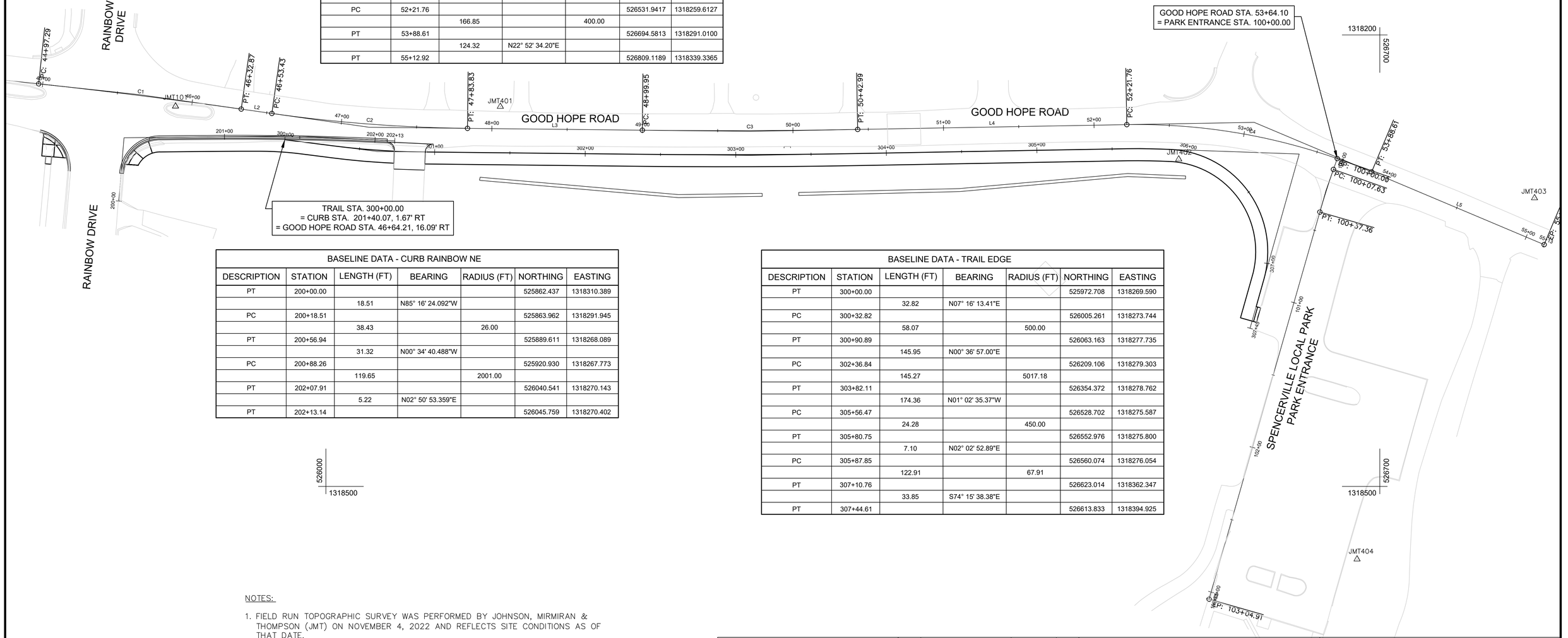
DATE: OCTOBER 2023

CIP No. : 507596 SHEET 3 of 45

BASELINE DATA - GOOD HOPE ROAD						
DESCRIPTION	STATION	LENGTH (FT)	BEARING	RADIUS (FT)	NORTHING	EASTING
PT	44+00.00				525712.5072	1318222.0752
		97.29	N06° 08' 43.58"E			
PC	44+97.29				525809.2408	1318232.4907
		135.58		4000.00		
PT	46+32.87				525943.7696	1318249.2864
		20.55	N08° 05' 14.91"E			
PC	46+53.43				525964.1192	1318252.1780
		130.41		1000.00		
PT	47+83.83				526094.0559	1318262.0658
		116.12	N00° 36' 57.00"E			
PC	48+99.95				526010.2181	1318263.3144
		143.04		5000.00		
PT	50+42.99				526353.1984	1318262.8053
		178.77	N01° 01' 23.75"W			
PC	52+21.76				526531.9417	1318259.6127
		166.85		400.00		
PT	53+88.61				526694.5813	1318291.0100
		124.32	N22° 52' 34.20"E			
PT	55+12.92				526809.1189	1318339.3365

BASELINE DATA - PARK ENTRANCE						
DESCRIPTION	STATION	LENGTH (FT)	BEARING	RADIUS (FT)	NORTHING	EASTING
PT	100+00.00				526671.7289	1318282.1822
		7.63	S70° 38' 00.58"E			
PC	100+07.63				5226669.1991	13182889.3795
		29.73		500.00		
PT	100+37.36				526660.1786	1318317.7077
		267.55	S74° 02' 26.81"E			
PT	103+04.91				526586.6145	1318574.9471

TRAVERSE CONTROL				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
JMT101	525900.12	1318247.38	480.46	CTRAV, R&C
JMT401	526115.86	1318247.58	481.87	TRAV, R&C
JMT402	526566.42	1318282.57	483.47	TRAV, R&C
JMT403	526802.75	1318308.36	499.16	TRAV, R&C
JMT404	526684.87	1318548.36	491.86	TRAV, R&C



BASELINE DATA - CURB RAINBOW NE						
DESCRIPTION	STATION	LENGTH (FT)	BEARING	RADIUS (FT)	NORTHING	EASTING
PT	200+00.00				525862.437	1318310.389
		18.51	N85° 16' 24.092"W			
PC	200+18.51				525863.962	1318291.945
		38.43		26.00		
PT	200+56.94				525889.611	1318268.089
		31.32	N00° 34' 40.488"W			
PC	200+88.26				525920.930	1318267.773
		119.65		2001.00		
PT	202+07.91				526040.541	1318270.143
		5.22	N02° 50' 53.359"E			
PT	202+13.14				526045.759	1318270.402

BASELINE DATA - TRAIL EDGE						
DESCRIPTION	STATION	LENGTH (FT)	BEARING	RADIUS (FT)	NORTHING	EASTING
PT	300+00.00				525972.708	1318269.590
		32.82	N07° 16' 13.41"E			
PC	300+32.82				526005.261	1318273.744
		58.07		500.00		
PT	300+90.89				526063.163	1318277.735
		145.95	N00° 36' 57.00"E			
PC	302+36.84				526209.106	1318279.303
		145.27		5017.18		
PT	303+82.11				526354.372	1318278.762
		174.36	N01° 02' 35.37"W			
PC	305+56.47				526528.702	1318275.587
		24.28		450.00		
PT	305+80.75				526552.976	1318275.800
		7.10	N02° 02' 52.89"E			
PC	305+87.85				526560.074	1318276.054
		122.91		67.91		
PT	307+10.76				526623.014	1318362.347
		33.85	S74° 15' 38.38"E			
PT	307+44.61				526613.833	1318394.925

NOTES:

1. FIELD RUN TOPOGRAPHIC SURVEY WAS PERFORMED BY JOHNSON, MIRMIRAN & THOMPSON (JMT) ON NOVEMBER 4, 2022 AND REFLECTS SITE CONDITIONS AS OF THAT DATE.
2. COORDINATES ARE REFERENCED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD83(2011) ZONE 1900 EPOCH 2010 AS DETERMINED BY MULTIPLE GPS RYN (KEYNET) OBSERVATIONS ON SEPTEMBER 29, 2018.
3. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)(GEOID 12B) AS DETERMINED BY MULTIPLE GPS RTN OBSERVATIONS ON SEPTEMBER 29, 2018.

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JRR

GS-01
GEOMETRIC LAYOUT

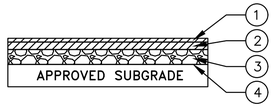
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No.: 507596

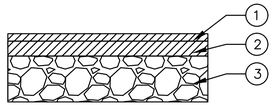
SHEET 4 of 45



1. 1.5" HMA SUPERPAVE 9.5MM FOR SURFACE, PG64S–22, LEVEL–2
2. 2.5" HMA SUPERPAVE 19.0MM FOR BASE, PG64S–22, LEVEL–2
3. 5" CR–6 GRADED AGGREGATE BASE COURSE
4. LIMIT OF CLASS I EXCAVATION

ASPHALT SIDEPATH DETAIL

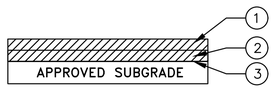
NTS



1. 2" HMA SUPERPAVE 9.5MM FOR SURFACE, PG64S–22, LEVEL–2
2. 6" HMA SUPERPAVE 19.0MM FOR BASE, PG64S–22, LEVEL–2 (2 – 3" LIFTS)
3. 12" GRADED AGGREGATE BASE COURSE (2 – 6" LIFTS)

FULL DEPTH PAVEMENT DETAIL

NTS



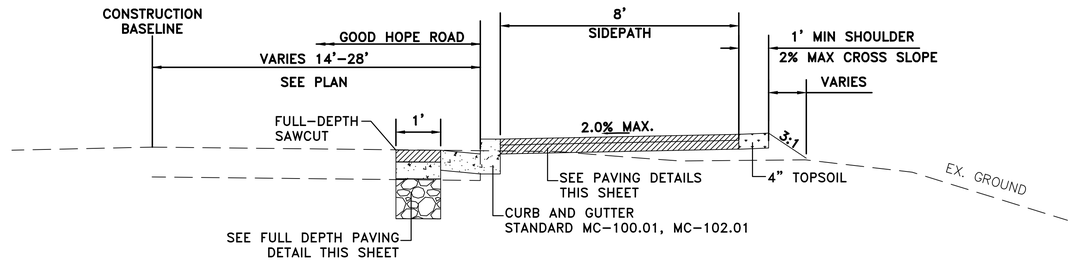
1. 3" HMA SUPERPAVE 9.5MM FOR SURFACE, PG64S–22, LEVEL 2
2. 3" HMA SUPERPAVE 19.0MM FOR BASE, PG64S–22, LEVEL 2
3. LIMIT OF CLASS I EXCAVATION

PAVEMENT DETAIL– DRIVEWAYS

NTS

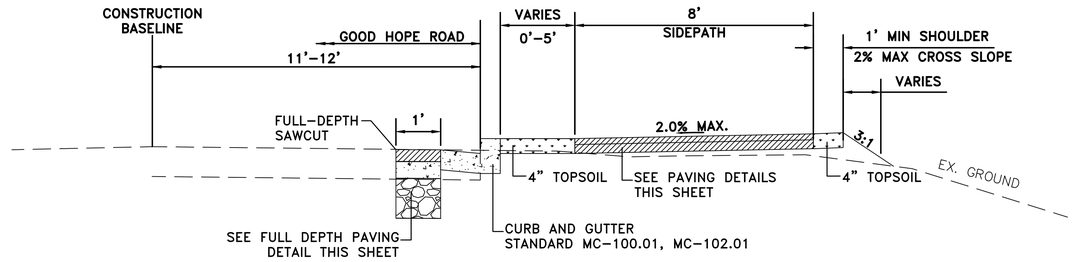
NOTES:

1. FOR GRADING SIDE SLOPES REFER TO STANDARD MC–811.01.



CLOSED SECTION – 8' ASPHALT SIDEPATH

GOOD HOPE ROAD STA. 45+78.08 RT TO STA. 46+64.21 RT



CLOSED SECTION – 8' ASPHALT SIDEPATH WITH BUFFER

GOOD HOPE ROAD STA. 46+64.21 RT TO STA. 47+30.70 RT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____

APPROVED

Chief, Division of Transportation Engineering _____ Date _____

Designed by: ADH Drawn by: TRS Checked by: JJR

TS–01
TYPICAL SECTIONS & DETAILS
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 5 of 45

THE FOLLOWING MONTGOMERY COUNTY STANDARDS ARE REQUIRED FOR THIS PROJECT:

MC-100.01 – COMBINATION CONCRETE CURB AND GUTTER – TYPE A
MC-110.01 – RESIDENTIAL SIDEWALK
MC-301.01 – RESIDENTIAL DRIVEWAY
MC-504.01 – E INLET
MC-505.01 – E-4 INLET
MC-506.01 – J INLET
MC-506.02 – J INLET AS A TERMINUS

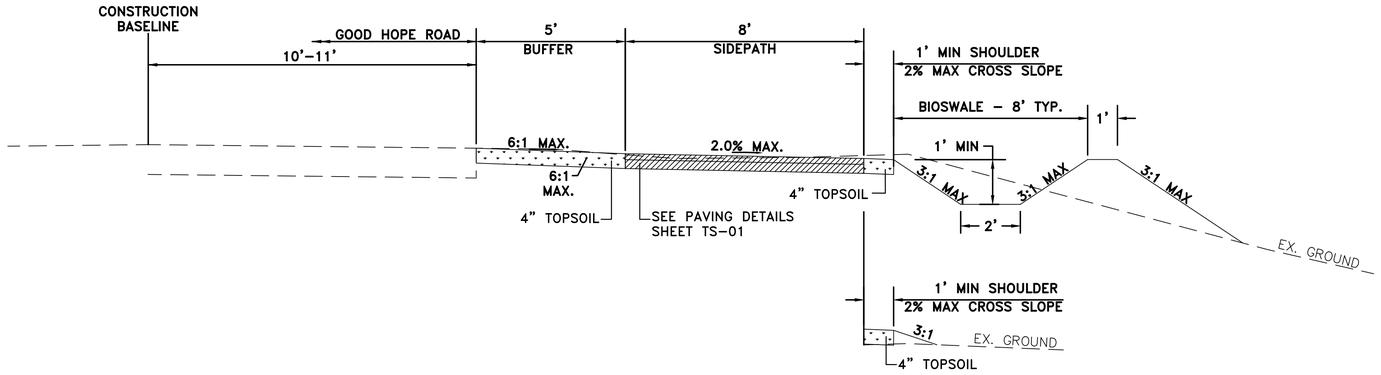
THE MOST CURRENT VERSION OF THESE STANDARDS CAN BE ACCESSED AT:
https: //www.montgomerycountymd.gov/dot-dte/common/standards.html

THE FOLLOWING MARYLAND STATE HIGHWAY DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED FOR THIS PROJECT:

MD-368.01 – STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE
MD-383.01 – STANDARD MANHOLE
MD-384.05 – 72" DIAMETER PRECAST MANHOLE FOR 42" TO 48" PIPES
MD-386.11 – STANDARD JUNCTION BOX
MD-655.40 – DETECTABLE WARNING SURFACES

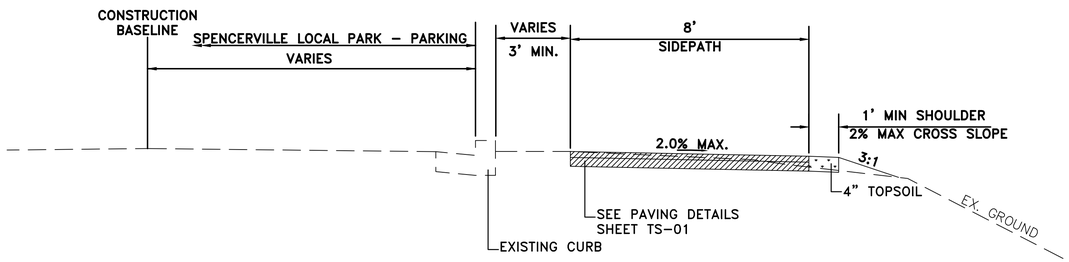
FOR ALL SHA STANDARDS REFERRED TO ON THE PLANNED, THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT:
https: //apps.roads.maryland.gov/businesswithsha/bizstdsspecs/desmanualstdpub/publicationsonline/ohd/bookstd/index.asp

ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE TIME OF CONSTRUCTION.



OPEN SECTION – 8' ASPHALT SIDEPATH WITH BUFFER

GOOD HOPE ROAD STA. 47+30.70 RT TO STA. 52+65.00 RT
SEE PLAN FOR LIMITS OF BIOSWALE GRADING



PARK ENTRANCE – 8' ASPHALT SIDEPATH WITH BUFFER

PARK ENTRANCE STA. 100+24 RT TO STA. 101+19.30 RT

NOTES:

1. FOR GRADING SIDE SLOPES REFER TO STANDARD MC-811.01.

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

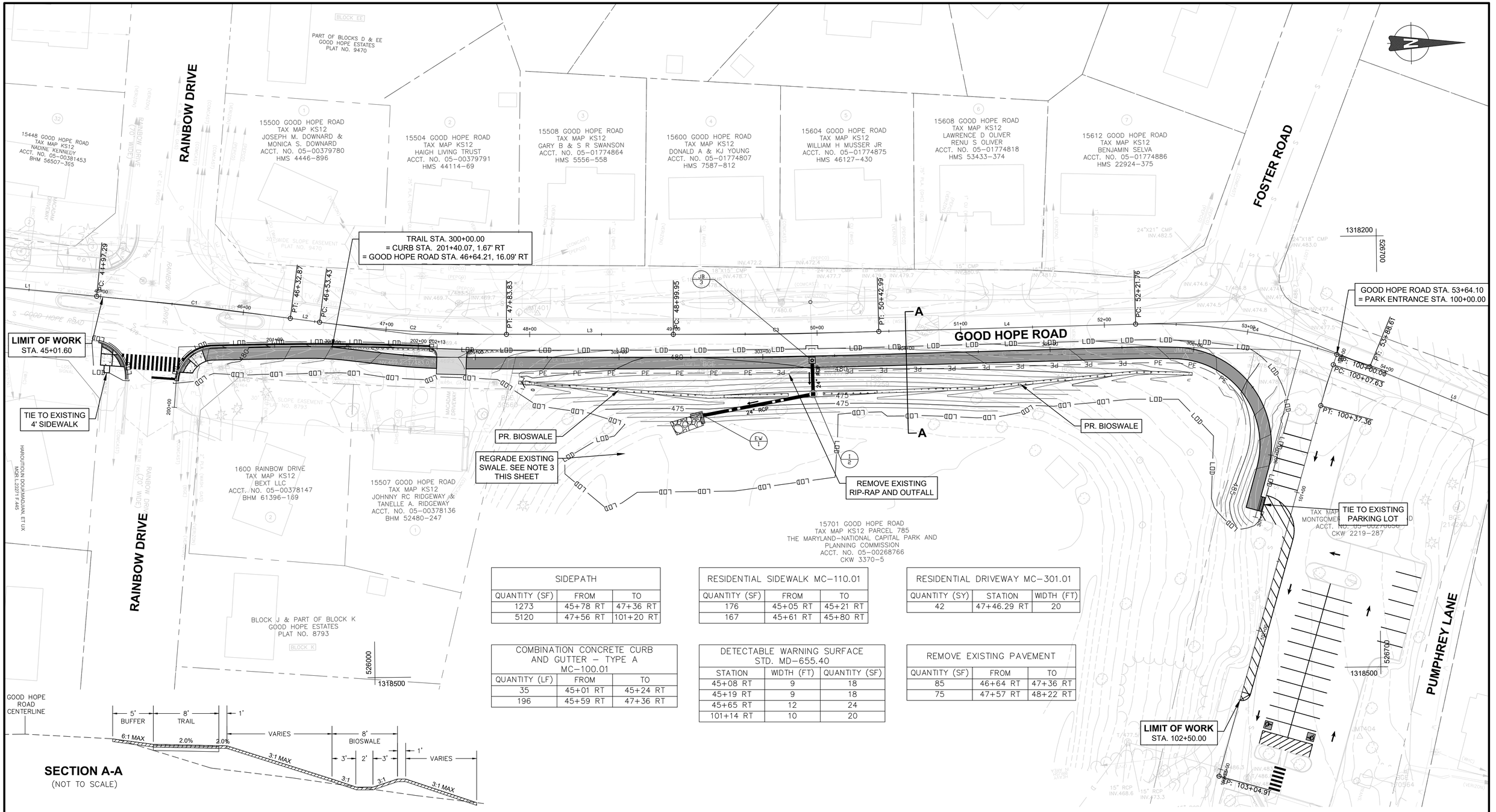
Designed by: ADH Drawn by: TRS Checked by: JJR

TS-02
TYPICAL SECTIONS & DETAILS
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'
SCALE: 1"=30'
DATE: OCTOBER 2023

CIP No. : 507596
SHEET 6 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pDT-0001_GHExt_Details.dwg LAYOUT NAME: TS-02 PLOTTED: Tuesday, October 31, 2023 – 2:03pm USER: TSroczynski



SIDEPATH		
QUANTITY (SF)	FROM	TO
1273	45+78 RT	47+36 RT
5120	47+56 RT	101+20 RT

RESIDENTIAL SIDEWALK MC-110.01		
QUANTITY (SF)	FROM	TO
176	45+05 RT	45+21 RT
167	45+61 RT	45+80 RT

RESIDENTIAL DRIVEWAY MC-301.01		
QUANTITY (SY)	STATION	WIDTH (FT)
42	47+46.29 RT	20

COMBINATION CONCRETE CURB AND GUTTER - TYPE A MC-100.01		
QUANTITY (LF)	FROM	TO
35	45+01 RT	45+24 RT
196	45+59 RT	47+36 RT

DETECTABLE WARNING SURFACE STD. MD-655.40		
STATION	WIDTH (FT)	QUANTITY (SF)
45+08 RT	9	18
45+19 RT	9	18
45+65 RT	12	24
101+14 RT	10	20

REMOVE EXISTING PAVEMENT		
QUANTITY (SF)	FROM	TO
85	46+64 RT	47+36 RT
75	47+57 RT	48+22 RT

LEGEND

- LOD — LIMIT OF DISTURBANCE
- LIMIT OF GRADING
- PROPOSED PAVEMENT MARKINGS
- TPF — TREE PROTECTION FENCE
- TCE — TEMPORARY CONSTRUCTION EASEMENT
- PE — PERPETUAL EASEMENT
- PROPOSED ASPHALT PATH/TRAIL-IMPERVIOUS
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- PROPOSED PERVIOUS PAVEMENT
- PROPOSED PAVEMENT REMOVAL
- PROPOSED RIP-RAP SLOPE STABILIZATION
- PROPOSED CONCRETE SIDEWALK

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN THE UPPER PAINT BRANCH SPECIAL PROTECTION AREA.
2. BGE UTILITY POLES ALONG SOUTH SIDE OF GOOD HOPE ROAD TO REMAIN IN EXISTING LOCATIONS.
3. THIS PLAN SHOWS A CONSERVATIVE LIMIT OF DISTURBANCE SURROUNDING THE PROPOSED DRAINAGE OUTFALL PIPE AND EXISTING PERIMETER SWALE THAT WILL BE REGRADED TO ADDRESS NUISANCE PONDING PER REQUEST FROM M-NCPPC PARKS. LOD WILL BE REFINED AS DESIGN OF THESE ELEMENTS CONTINUES TO PROGRESS.

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

PS-01
ROADWAY PLAN

GOOD HOPE ROAD SHARED USED PATH EXTENSION

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 7 of 45

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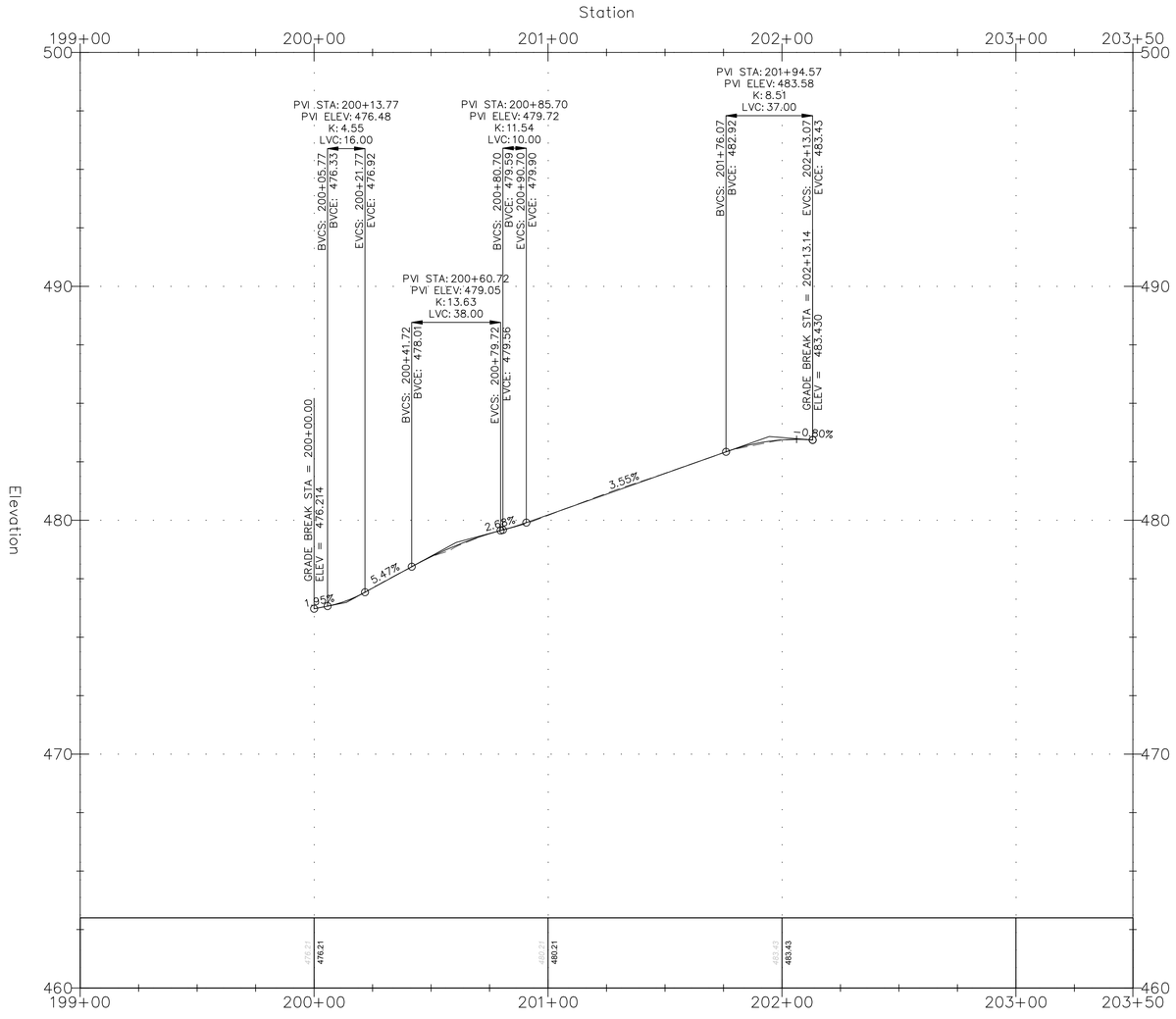
MCPB L:23271 F:445



CURB PROFILE

GOOD HOPE ROAD STA. 45+60 TO STA. 47+36

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

PS-03
PROFILE SHEET

GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

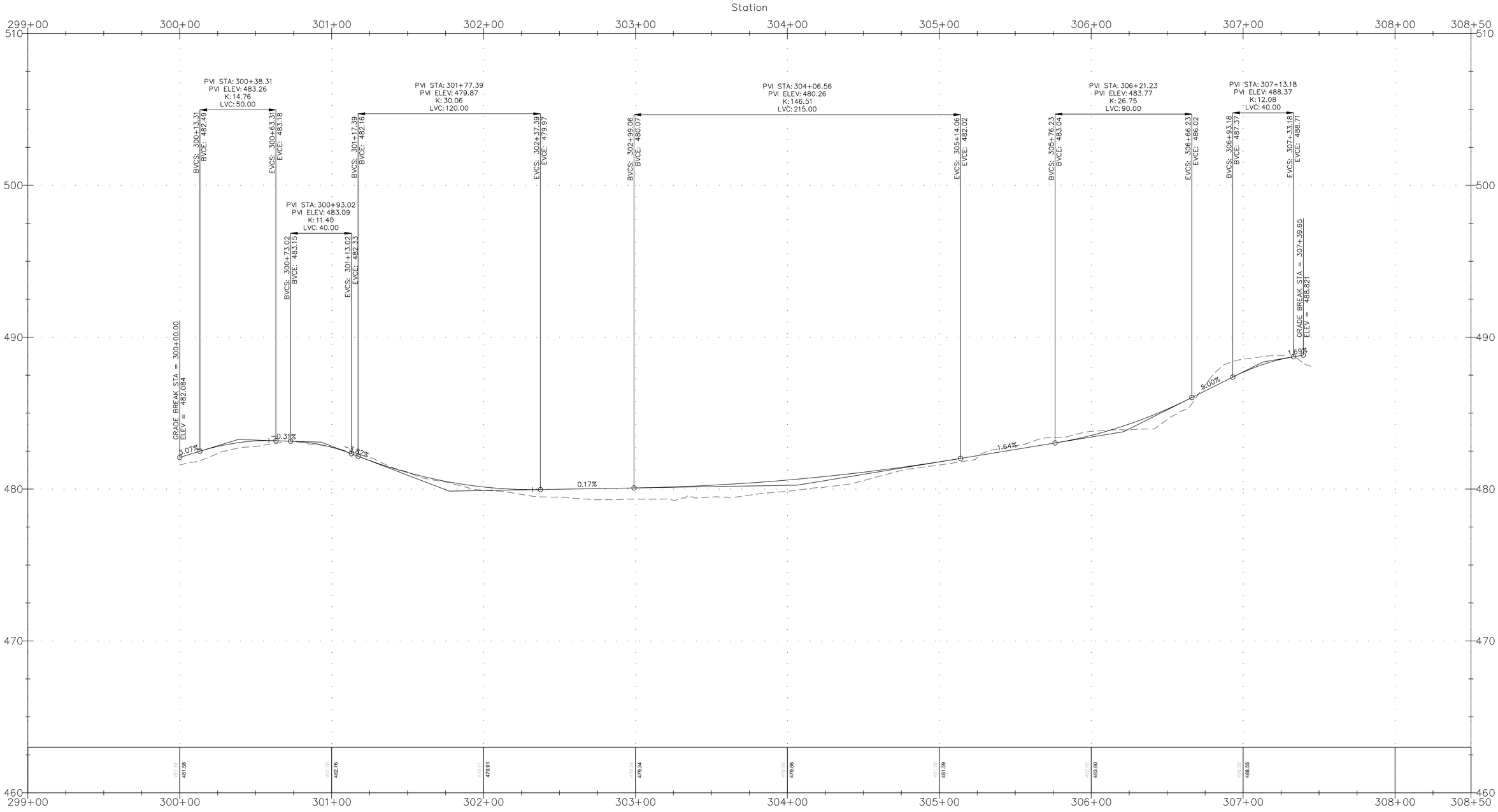
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 8 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHD-0003_GHExt_Profile.dwg LAYOUT NAME: Profile Curb PLOTTED: Tuesday, October 31, 2023 - 2:06pm USER: TSroczynski



TRAIL PROFILE

GOOD HOPE ROAD STA. 46+64 TO STA. 53+40

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

PS-02
PROFILE SHEET

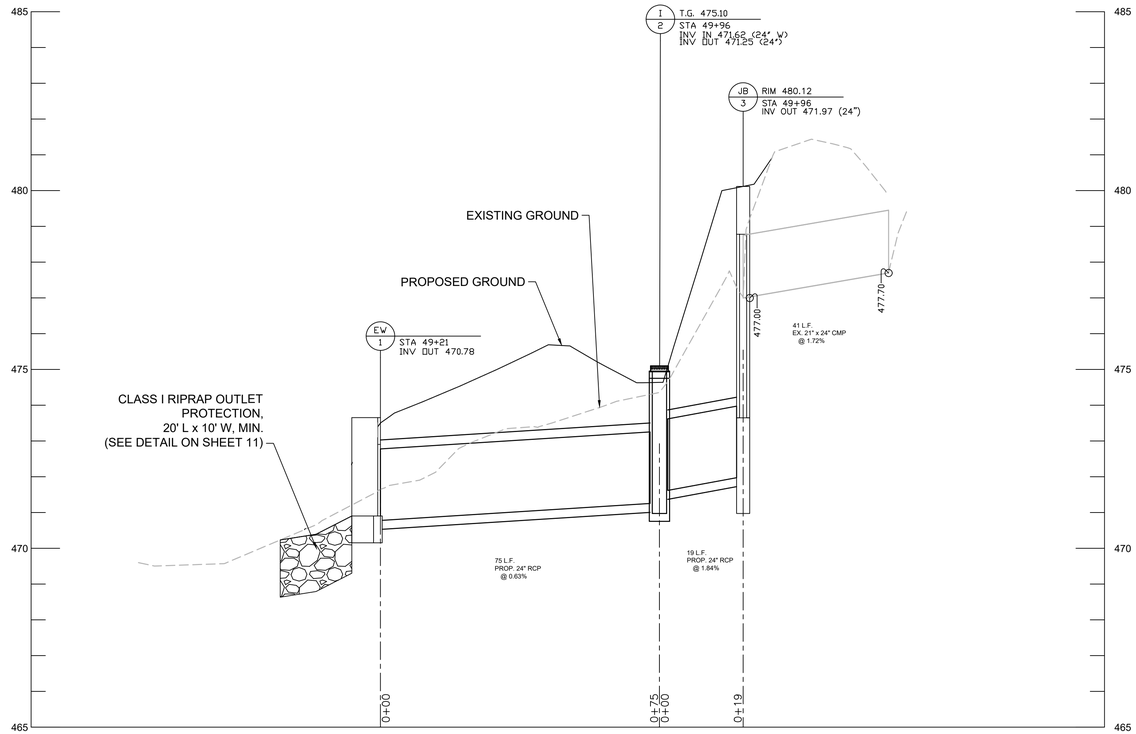
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 9 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHD-0003_GHExt_Profile.dwg LAYOUT NAME: Profile Trail PLOTTED: Tuesday, October 31, 2023 - 2:06pm USER: TSroczynski



JB-3 TO EW-1

SCALE: HORIZ. 1"=20' VERT. 1"=2'

STRUCTURE SCHEDULE												
STRUCTURE	NORTHING	EASTING	STATION	OFFSET	BASELINE	T.S./RIM ELEV.	STD. NO.	TYPE	CONNECTED PIPES	INVERT IN	INVERT OUT	NOTES
EW–1	526230.4	1318319.9	49+20.5	56.5 RT	GOOD HOPE ROAD	473.15	MD 356.01	TYPE G	1	470.78'		
I–2	526307.1	1318305.8	49+96.5	42.4 RT	GOOD HOPE ROAD	475.10	MC–506.01	J INLET	2	471.62'	471.25'	
JB–3	526306.6	1318282.5	49+96.2	19.0 RT	GOOD HOPE ROAD	480.12	MD 386.11	JUNCTION BOX	2	477.00'	471.97'	MANHOLE FRAME CAST INTO TOP SLAB

PIPE SCHEDULE							
FROM	TO	INV. UP	INV. DOWN	LENGTH	SLOPE	SIZE	TYPE
I–2	EW–1	471.25	470.78	75'	0.63%	24"	REINFORCED CONCRETE PIPE, CLASS IV
JB–3	I–2	471.97	471.62	19'	1.84%	24"	REINFORCED CONCRETE PIPE, CLASS IV

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

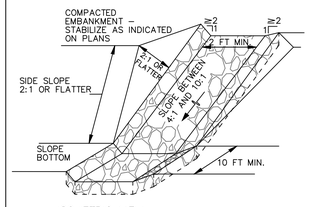
DD–01
DRAINAGE PROFILES

GOOD HOPE ROAD SHARED USE PATH EXTENSION

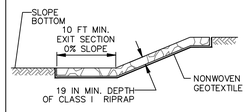
SCALE: AS NOTED DATE: OCTOBER 2023

CIP No.: 507596 SHEET 10 of 45

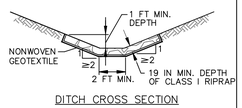
RIPRAP OUTLET PROTECTION DETAIL



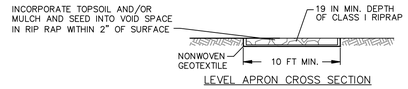
ISOMETRIC VIEW



PROFILE ALONG CENTERLINE



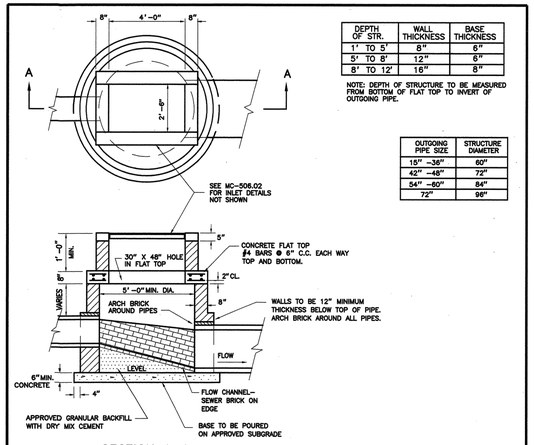
DITCH CROSS SECTION



LEVEL APRON CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. PROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG SIDES OF ALL RIPRAP.
2. CONSTRUCT DITCH WITH CLASS I RIPRAP LINING TO A MINIMUM DEPTH OF 19 INCHES ($2 \times D_{50}$) AND A 1 FOOT DEEP FLOW CHANNEL. RIPRAP PROTECTION DITCH MUST HAVE A TRAPEZOIDAL CROSS SECTION WITH 3:1 OR FLATTER SIDE SLOPES AND A 2 FOOT MINIMUM BOTTOM WIDTH (SEE SCHEDULE).
3. INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE.
4. BLEND RIPRAP INTO EXISTING GROUND.
5. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION.



SECTION A-A

DEPTH OF STR.	WALL THICKNESS	BASE THICKNESS
1' TO 5'	8"	8"
5' TO 8'	12"	8"
8' TO 12'	16"	8"

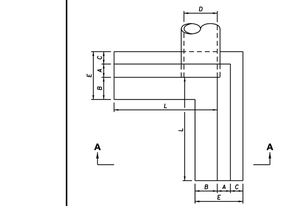
NOTE: DEPTH OF STRUCTURE TO BE MEASURED FROM BOTTOM OF FLAT TOP TO INVERT OF OUTGOING PIPE.

OUTGOING PIPE SIZE	STRUCTURE DIAMETER
15" –36"	60"
42" –48"	72"
54" –60"	84"
72"	96"

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS. USE OF M.C.D.O.T. APPROVED PRECAST CONCRETE STRUCTURES MAY BE USED IN PLACE OF BRICK MASONRY.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
4. PROVIDE STEPS IN CHANNELS OF STRUCTURES. REFER TO MC-520.01 FOR DETAILS.
5. f'c = 3,500 P.S.I. AT 28 DAYS.
6. TWO 4" ø WEEP HOLES TO BE PLACED OPPOSITE EACH OTHER AT CROWN OF CHANNEL. COVER OPENING WITH 1/2" HARDWARE CLOTH.
7. INSTALL FOUNDATION DRAINAGE MATERIAL 1' MINIMUM THICKNESS AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF FINISHED GRADE.
8. PARGE OUTSIDE WALLS.

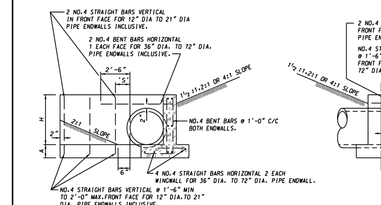
APPROVED JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.		"J" INLET
CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-506.01



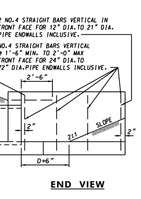
PLAN

QUANTITIES FOR ESTIMATING PURPOSES ONLY

OPENING		DIMENSIONS						QUANTITIES	
D INCHES	AREA SQ.FT	A	B	C	E	H	L	CONC. C.Y.	STEEL LBS.
12	0.79	9"	6"	6"	1'-9"	1'-9"	3'-6"	0.76	55
15	1.23	9"	6"	6"	1'-9"	2'-0"	4'-3"	0.99	61
18	1.77	9"	6"	6"	1'-9"	2'-3"	5'-0"	1.17	68
21	2.40	9"	6"	6"	1'-9"	2'-6"	5'-9"	1.38	77
24	3.14	9"	14"	6"	2'-5"	2'-9"	6'-6"	1.84	106
27	3.98	9"	14"	6"	2'-5"	3'-0"	7'-3"	2.11	115
30	4.91	9"	14"	6"	2'-5"	3'-6"	8'-0"	2.57	140
33	5.94	9"	14"	6"	2'-5"	3'-9"	8'-9"	2.92	148
36	7.07	12"	16"	10"	3'-2"	4'-0"	9'-6"	4.99	235
42	9.62	12"	16"	10"	3'-2"	4'-6"	11'-0"	6.12	303
48	12.57	12"	16"	10"	3'-2"	5'-0"	12'-6"	7.34	341
54	15.90	12"	20"	12"	3'-8"	5'-6"	14'-0"	9.17	438
60	19.64	12"	20"	12"	3'-8"	6'-0"	15'-6"	10.86	496
72	28.27	12"	20"	12"	3'-8"	7'-0"	17'-0"	12.69	597



SECTION A-A



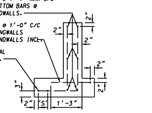
END VIEW

'S' DISTANCES

4" FOR 12" DIA. TO 21" DIA. PIPES INCLUSIVE.
6" FOR 24" DIA. TO 36" DIA. PIPES INCLUSIVE.
8" FOR 42" DIA. TO 72" DIA. PIPES INCLUSIVE.

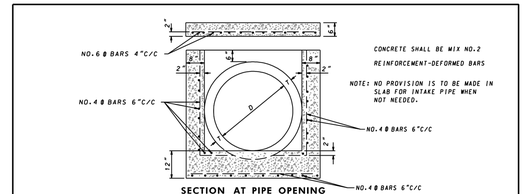
GENERAL NOTES

SPECIFICATIONS: LATEST S.H.A
CONCRETE SHALL BE MIX NO.2
REINFORCING: DEFORMED STEEL BARS - NO.4
CHAMFER: ALL EXPOSED EDGES 1"x 1" OR AS DIRECTED.

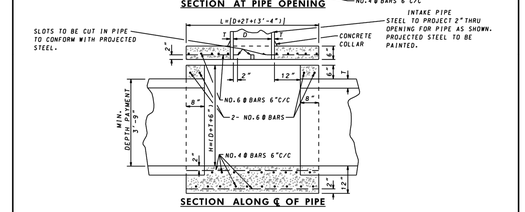


DISPOSITION OF BARS DETAIL

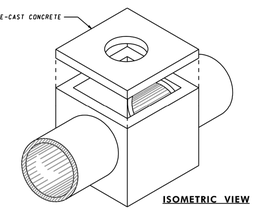
SPECIFICATION 305	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
APPROVED Kirk G. McCall, DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT		STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION: 9-29-88 / 12-12-88; REVISED 10-1-01	STANDARD TYPE E ENDWALL METAL OR CONCRETE ROUND PIPE
		STANDARD NO. MD 356.01



SECTION AT PIPE OPENING



SECTION ALONG ℄ OF PIPE



ISOMETRIC VIEW

SPECIFICATION 305	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
APPROVED Kirk G. McCall, DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT		STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION: 2-7-51 / 3-23-56; REVISED 10-1-01	STANDARD JUNCTION BOX
		STANDARD NO. MD 386.11

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

DD-02
DRAINAGE DETAILS

GOOD HOPE ROAD SHARED USE PATH EXTENSION

SCALE: AS NOTED DATE: OCTOBER 2023

CIP No. : 507596 SHEET 11 of 45

STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. The permittee shall notify the Department of Permitting Services (DPS) forty–eight (48) hours before commencing any land disturbing activity and, unless waived by the Department, shall be required to hold a pre–construction meeting between them or their representative, their engineer and an authorized representative of the Department.

2. The permittee must obtain inspection and approval by DPS at the following points:

   A. At the required pre–construction meeting.

   B. Following installation of sediment control measures and prior to any other land disturbing activity.

   C. During the installation of a sediment basin or stormwater management structure at the required inspection points (see Inspection Checklist on plan). Notification prior to commencing construction is mandatory.

   D. Prior to removal or modification of any sediment control structure(s).

   E. Prior to final acceptance.

3. The permittee shall construct all erosion and sediment control measures per the approved plan and construction sequence, shall have them inspected and approved by the Department prior to beginning any other land disturbances, shall ensure that all runoff from disturbed areas is directed to the sediment control devices, and shall not remove any erosion or sediment control measure without prior permission from the Department.

4. The permittee shall protect all points of construction ingress and egress to prevent the deposition of materials onto traversed public thoroughfare(s). All materials deposited onto public thoroughfare(s) shall be removed immediately.

5. The permittee shall inspect periodically and maintain continuously in effective operating condition, all erosion and sediment control measures until such time as they are removed with prior permission from the Department. The permittee is responsible for immediately repairing or replacing any sediment control measures which have been damaged or removed by the permittee or any other person.

6. Following initial soil disturbance or re–disturbance, permanent or temporary stabilization must be completed within:

   a) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes and all slopes steeper than 3 horizontal to 1 vertical (3:1); and

   b) Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.

   All areas disturbed outside of the perimeter sediment control system must be minimized and stabilized immediately. Maintenance must be performed as necessary to ensure continued stabilization.

7. The permittee shall apply sod, seed and anchored straw mulch, or other approved stabilization measures to all disturbed areas within seven (7) calendar days after stripping and grading activities have ceased on that area. Maintenance shall be performed as necessary to ensure continued stabilization. Active construction areas such as borrow or stockpile areas, roadway improvements, and areas within fifty (50) feet of a building under construction may be exempt from this requirement, provided that erosion and sediment control measures are installed and maintained to protect those areas.

8. Prior to removal of sediment control measures, the permittee shall stabilize all contributory disturbed areas with required soil amendments and topsoil, using sod or an approved permanent seed mixture and an approved anchored mulch. Wood fiber mulch may only be used in seeding season when the slope does not exceed 10% and grading has been done to promote sheet flow drainage. Areas brought to finished grade during the seeding season shall be permanently stabilized within seven (7) calendar days of establishment. When property is brought to finished grade during the months of November through February, and permanent stabilization is found to be impractical, an approved temporary seed and straw anchored mulch shall be applied to disturbed areas. The final permanent stabilization of such property shall be completed prior to the following April 15.

9. The site permit, work, materials, approved SC/SM plans, and test reports shall be available at the site for inspection by duly authorized officials of Montgomery County.

10. Surface drainage flows over unstabilized cut and fill slopes shall be controlled by either preventing drainage flows from traversing the slopes or by installing mechanical devices to lower the water down slope without causing erosion. Dikes shall be installed and maintained at the top of cut or fill slopes until the slope and drainage area to it are fully stabilized, at which time they must be removed and final grading done to promote sheet flow drainage. Mechanical devices must be provided at points of concentrated flow where erosion is likely to occur.

11. Permanent swales or other points of concentrated water flow shall be stabilized within 3 calendar days of establishment with sod or seed with an approved erosion control matting"or by other approved stabilization measures.
    *Note: Stabilization with turfgrass sod or Type A soil stabilization matting shall be provided for all swales unless otherwise noted.

12. Sediment control devices shall be removed, with permission of the Department, within thirty (30) calendar days following establishment of permanent stabilization in all contributory drainage areas. Stormwater management structures used temporarily for sediment control shall be converted to the permanent configuration within this time period as well.

13. No permanent cut or fill slope with a gradient steeper than 3:1 will be permitted in lawn maintenance areas or on residential lots. A slope gradient of up to 2:1 will be permitted in non– maintenance areas provided that those areas are indicated on the erosion and sediment control plan with a low–maintenance ground cover specified for permanent stabilization. Slope gradient steeper than 2:1 will not be permitted with vegetative stabilization.

14. The permittee shall install a splashblock at the bottom of each downspout unless the downspout is connected by a drain line to an acceptable outlet.

15. For finished grading, the permittee shall provide adequate gradients so as to prevent water from standing on the surface of lawns more than twenty–four (24) hours after the end of a rainfall, except in designated drainage courses and swale flow areas, which may drain as long as forty–eight (48) hours after the end of a rainfall.

16. Sediment traps or basins are not permitted within 20 feet of a building which is existing or under construction. No building may be constructed within 20 feet of a sediment trap or basin.

17. All inlets in non–sump areas shall have asphalt berms installed at the time of base paving establishment.

18. The sediment control inspector has the option of requiring additional sediment control measures, as deemed necessary.

19. All trap elevations are relative to the outlet elevation, which must be on existing undisturbed ground.

20. Vegetative stabilization shall be performed in accordance with the Standards and Specifications for Soil Erosion and Sediment Control.

21. Sediment trap(s)/basin(s) shall be cleaned out and restored to the original dimensions when sediment has accumulated to the point of one–half (1/2) the wet storage depth of the trap/basin (1/4 the wet storage depth for ST–III) or when required by the sediment control inspector.

22. Sediment removed from traps/basins shall be placed and stabilized in approved areas, but not within a floodplain.

23. All sediment basins and traps must be surrounded with a welded wire safety fence. The fence must be at least 42 inches high, have posts spaced no farther apart than 8 feet, have mesh openings no greater the two inches in width and four inches in height, with a minimum of 14 gauge wire. Safety fence must be maintained in good condition at all times.

24. No excavation in the areas of existing utilities is permitted unless their location has been determined. Call "Miss Utility" at 1–800–257–7777, 48 hours prior to the start of work.

25. Off–site spoil or borrow areas must have prior approval by DPS.

26. Sediment trap/basin dewatering for cleanout or repair may only be done with the DPS inspector's permission. The inspector must approve the dewatering method for each application. The following methods may be considered:

   A. Pump discharge may be directed to another on–site sediment trap or basin, provided it is of sufficient volume and the pump intake is floated to prevent agitation or suction of deposited sediments; or

   B. the pump intake may utilize a Removable Pumping Station and must discharge into an undisturbed area through a non–erosive outlet; or

   C. the pump intake may be floated and discharge into a Dirt Bag (12 oz. non–woven fabric), or approved equivalent, located in an undisturbed buffer area.
   Remember: Dewatering operation and method must have prior approval by the DPS inspector.

27. The permittee must notify the Department of all utility construction activities within the permitted limits of disturbance prior to the commencement of those activities.

28. Topsoil must be applied to all pervious areas within the limits of disturbance prior to permanent stabilization in accordance with MDE "Standards and Specifications for Soil Preparation, Topsoiling, and Soil Amendments".

STANDARD SYMBOLS

AT–GRADE INLET PROTECTION	AGIP	REMOVABLE PUMPING STATION	RPS
BAFFLE BOARDS	BB	RIPRAP INFLOW PROTECTION	RRP
BENCHING	BENCHING	RIPRAP OUTLET SEDIMENT TRAP ST III	ST–III
CATCH BASIN INSERT	CBI	ROCK OUTLET PROTECTION 1	ROP1
CLEAR WATER DIVERSION PIPE	CWD – 12 (DESIGNATION CWD–12 REFERS TO 12 INCH CLEAR WATER DIVERSION)	ROCK OUTLET PROTECTION II	ROPII
CLEAR WATER PIPE	CWP	ROCK OUTLET PROTECTION III	ROPIII
COMBINATION INLET PROTECTION	COIP	SILT FENCE	SF
CONCRETE WASHOUT STRUCTURE	CWS	SILT FENCE ON PAVEMENT	SFOP
CURB INLET PROTECTION	CIP	SOD	
DIVERSION FENCE	DF	STABILIZED CONSTRUCTION ENTRANCE	SCE
EARTH DIKE	A–1 (PLACE DESIGNATION (A–1, B–2, etc.) ON FLOW CHANNEL SIDE OF DIKE.)	STANDARD INLET PROTECTION	SIP
EMERGENCY SPILLWAY	ES	STOCKPILE AREA	
FILTER BAG	FB	STONE CHECK DAM	CD
FILTER BERM	FB–A / FB–B	STONE/RIPRAP OUTLET SEDIMENT TRAP ST II	ST–II
FILTER LOG	FL–18 (DESIGNATION FL–18 REFERS TO 18 INCH DIAMETER FILTER LOG)	SUBSURFACE DRAINS	SSD
GABION INFLOW PROTECTION	GP	SUMP PIT	SP
GABION INLET PROTECTION	GIP	SUPER SILT FENCE	SSF
HORIZONTAL DRAW–DOWN DEVICE	HDDD	TEMPORARY ACCESS BRIDGE	TB
LIMIT OF DISTURBANCE	LOD	TEMPORARY ACCESS CULVERT	TA
MEDIAN INLET PROTECTION	MIP	TEMPORARY ASPHALT BERM	TAB
MEDIAN SUMP INLET PROTECTION	MSIP	TEMPORARY BARRIER DIVERSION	TBD
MOUNTABLE BERM	MB	TEMPORARY GABION OUTLET STRUCTURE	TGOS
PERIMETER DIKE/SWALE	PDS–1	TEMP. SOIL STABILIZATION MATTING (SSM)–TYPE A	
PERM. SOIL STABILIZATION MATTING (SSM) – TYPE B (CURLEX ENFORCER TRM OR APPROVED ALTERNATE)		TEMP. SOIL STABILIZATION MATTING (SSM)–TYPE E	
PERM. SOIL STABILIZATION MATTING (SSM)–TYPE C		TEMP. SOIL STABILIZATION MATTING (SSM)–TYPE D	
PIPE OUTLET SEDIMENT TRAP ST I	ST–I	TEMPORARY STONE OUTLET STRUCTURE	TSOS
PIPE SLOPE DRAIN	PSD – 12 (DESIGNATION PSD–12 REFERS TO 12 INCH PIPE SLOPE DRAIN.)	TEMPORARY SWALE	A–1 (PLACE DESIGNATION (A–1, B–2, etc.) ON FLOW CHANNEL SIDE OF SWALE.)
PLUNGE POOL	PP	WASH RACK OPTION	WR
PORTABLE SEDIMENT TANK	PST	CHESAPEAKE BAY CRITICAL AREA	
DRAINAGE BOUNDARY		TREE PROTECTION FENCE	TPF
EXISTING CONTOURS	100	WETLAND	
PROPOSED CONTOURS	100	WETLAND BUFFER	B
		100–YEAR FLOODPLAIN	

STANDARD NOTES

1. The contractor will immediately inform the county of any discrepancies found between the project plans and contract specifications.
2. For construction, all horizontal control shall be NAD 83/91 and vertical control NAVD 88.
3. Types of storm drain structures refer to the 'Design Standards' of Montgomery County Department of Transportation, unless otherwise noted.
4. Information concerning underground utilities was obtained from available records, The contractor must determine the exact location and elevations of the lines by digging test pits by hand at all utility crossings well in advance of trenching. If clearances are less than shown on this plan or six inches, whichever is less, the contractor shall contact the county.
5. Repairs to utilities or property damaged as a result of the contractor's negligence or method of operation must be made at the contractor's expense before proceeding with construction.
6. Call "Miss Utility" at 1–800–257–7777 fourty–eight (48) hours prior to beginning excavation to determine the exact location of existing utilities.
7. Clearing to be limited to the "limit of disturbance" as shown on the plans.
8. All grading shall be done in such a manner as to provide positive drainage.
9. Disturbed areas adjacent to established lawns shall be sodded. Other disturbed areas shall be seeded and mulched.
10. The contractor shall obtain a roadside tree permit for any maintenance, treatment, planting, removal or root cutting on trees within the public right–of–way before starting a job. Permit requirements may be obtained from the Department of Natural Resources – Maryland Forest, Park and Wildlife service whose telephone number is (301) 854–6060.
11. Contact the Washington Suburban Sanitary Commission system maintenance engineer before excavating beneath or in the vicinity of existing water or sewer lines. Backfill to be done under the supervision of W.S.S.C. call 301–699–4420.
12. Contact Washington gas dispatch officer at (703) 750–4831 before excavating beneath or in the vicinity of existing gas main and service laterals.
13. Prior to vegetative stabilization, all disturbed areas must be topsoiled per the Montgomery County "Standards and Specifications for topsoil".

STANDARD SEQUENCE OF CONSTRUCTION NOTES

1. Prior to clearing trees, installing sediment control measures, or grading, a preconstruction meeting must be conducted on–site with the Montgomery County Department of Permitting Services (MCDPS) sediment control inspector (240) 777–0311 (48 hours notice) and the MNCPPC, Planning Department, Plans Enforcement inspector (301) 495–4550 (48 hours notice), the Owners representative, and the site Engineer.
2. The limits of disturbance shall be field marked prior to clearing of trees, installation of sediment control measures, construction, or other land disturbing activities.
3. The permittee must obtain written approval from the MNCPPC inspector, certifying that the limits of disturbance and tree protection measures are correctly marked and installed prior to commencing any clearing.
4. Clear and grade for installation of sediment control devices.
5. Install sediment control devices.
6. Once the sediment control devices are installed, the permittee must obtain written approval from the MCDPS inspector before proceeding with any additional clearing, grubbing or grading.
7. The detailed sequence of construction by phase is presented on Sheets SC–06 thru SC–20.

   NOTE 1: The permittee shall obtain written approval from MCDPS inspector, prior to the removal of any sediment control devices.

8. Upon completion of the work, As–Built Plans must be submitted to MCDPS for review and approval along with copies of all the material tickets, testing reports, and field logs.

OFFSITE GRADING NOTE:
Offsite grading requires documentation of permission from owner (letter of permission on plan or recorded grading easement document submitted). Written approval for grading outside of the Right–of–Way shall be provided to the Inspector before construction is authorized to proceed.

DRAINAGE PERMISSION NOTE:
The proposed project will result in a minor increase in stormwater peak discharge rates for the 10–year storm affecting the properties located at 15400, 15410, 15416, and 15418 Good Hope Road. A notification letter has been sent to each affected property. The Montgomery County Property Aquisition Section will obtain a signed Acknowledgement of Receipt and Consent from each property owner. No construction may commence until the signed Acknowledgement of Receipt and Consent has been obtained from all properties listed above.

STOCKPILE NOTE:
The Contractor shall establish staging and stockpile areas at locations approved by the Engineer. These areas shall be established such that environmentally sensitive areas are not impacted. Erosion sediment control measures such as silt fence shall be installed downgrade of the staging and stockpile areas and as directed by the Engineer, and diversions such as sandbags shall be placed upstream to prevent stormwater run–on from contacting the stockpile.

PHASED GRADING NOTE:
The contractor shall phase clearing and grading to minimize the area disturbed at a given time during connection. All areas not drainingto an approved sediment control measure shall receive same–day stabilization.

SITE INFORMATION		
DISTURBED AREA (LOD)	CUT (CY)	FILL (CY)
0.97 ac	240	832

P.E. 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. 43192 , EXPIRATION DATE: 12–19–24

XX–XX–XXXX
KEVIN SCHIEFER, P.E. DATE

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC–01 NOTES
EROSION & SEDIMENT CONTROL

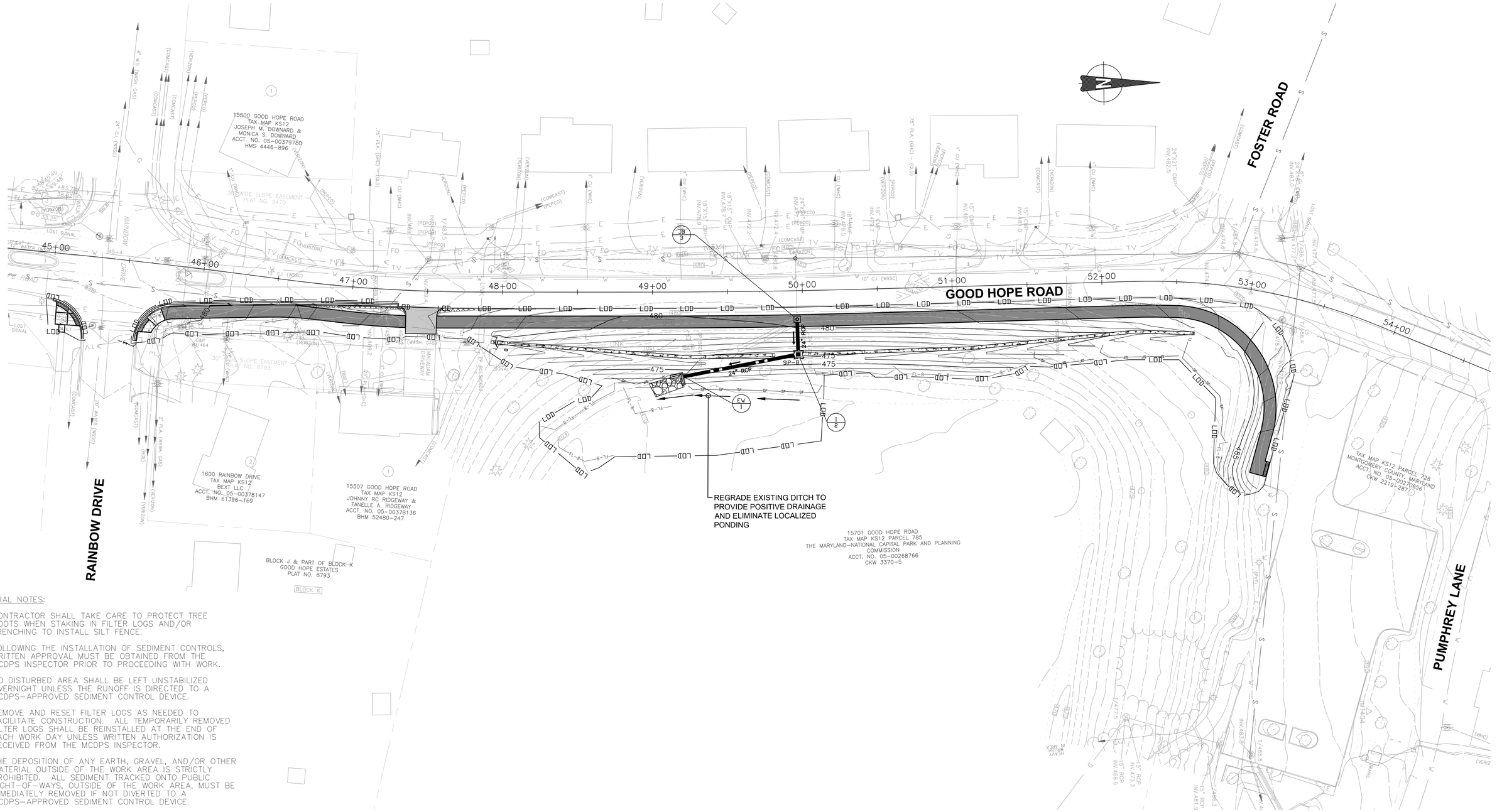
GOOD HOPE ROAD SHARED USE PATH EXTENSION

0 30' 60'
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 12 of 45



GENERAL NOTES:

1. CONTRACTOR SHALL TAKE CARE TO PROTECT TREE ROOTS WHEN STAKING IN FILTER LOGS AND/OR TRENCHING TO INSTALL SILT FENCE.
2. FOLLOWING THE INSTALLATION OF SEDIMENT CONTROLS, WRITTEN APPROVAL MUST BE OBTAINED FROM THE MCDPS INSPECTOR PRIOR TO PROCEEDING WITH WORK.
3. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO A MCDPS-APPROVED SEDIMENT CONTROL DEVICE.
4. REMOVE AND RESET FILTER LOGS AS NEEDED TO FACILITATE CONSTRUCTION. ALL TEMPORARILY REMOVED FILTER LOGS SHALL BE REINSTALLED AT THE END OF EACH WORK DAY UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE MCDPS INSPECTOR.
5. THE DEPOSITION OF ANY EARTH, GRAVEL, AND/OR OTHER MATERIAL OUTSIDE OF THE WORK AREA IS STRICTLY PROHIBITED. ALL SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS, OUTSIDE OF THE WORK AREA, MUST BE IMMEDIATELY REMOVED IF NOT DIVERTED TO A MCDPS-APPROVED SEDIMENT CONTROL DEVICE.
6. EROSION AND SEDIMENT CONTROL DEVICES AND/OR MEASURES ARE TO REMAIN IN PLACE UNTIL THEIR REMOVAL IS APPROVED IN WRITING BY THE MCDPS INSPECTOR. STABILIZE ANY DISTURBED AREAS RESULTING FROM REMOVAL OF THE SEDIMENT CONTROL DEVICES.
7. AREAS OF SAME DAY STABILIZATION SHALL BE STABILIZED AS FOLLOWS: GRADED AGGREGATE BASE (OR PAVEMENT) FOR AREAS TO BE PAVED; SOIL STABILIZATION MATTING (SSM) FOR DITCHES WITHOUT BASEFLOW; AND SEED & MULCH FOR SOIL AREAS NOT IN DITCHES OR STREAMS.

LEGEND

SILT FENCE —SF—SF—SF—

FILTER LOG (8-INCH DIAMETER) —FL-8—FL-8—

STANDARD INLET PROTECTION (TYPE B) SIP-B

FLOW DIRECTION ARROW (PROPOSED) →

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC-02 PLAN
EROSION & SEDIMENT CONTROL
GOOD HOPE ROAD SHARED USE PATH EXTENSION

0 30' 60'

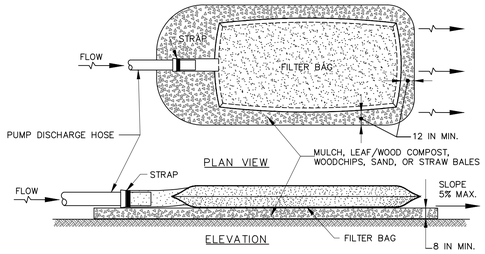
SCALE: 1"=30' DATE: OCTOBER 2023

CIP No.: 507596 SHEET 13 of 45

FILE NAME: P:\MoCo\Good Hope Road SUP - Northern Extension\00_Working\pES-P101_GoodHopeN.dwg LAYOUT NAME: SC-02 PLOTTED: Tuesday, October 31, 2023 - 11:20am USER: kevin

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

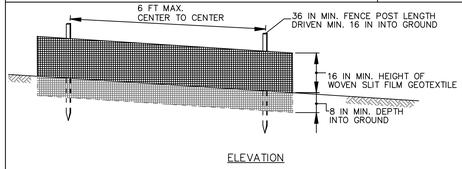
6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

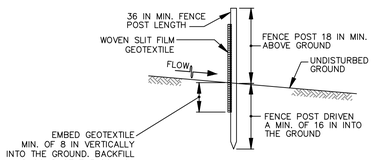
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

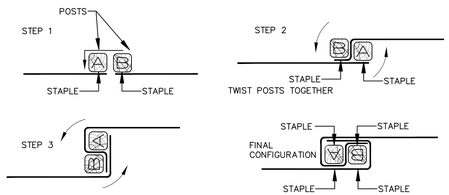
STANDARD SYMBOL: ——SF——



ELEVATION



CROSS SECTION



JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

1 OF 2

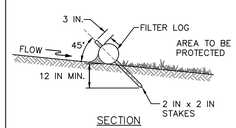
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

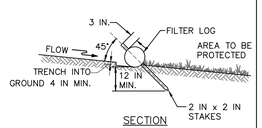
DETAIL E-6 FILTER LOG

STANDARD SYMBOL: ——FL-18——

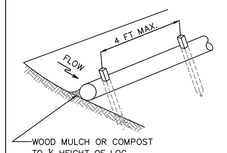
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.



SECTION

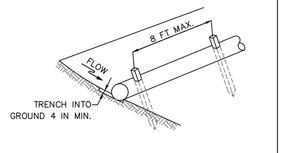


SECTION



UNTRENCHED INSTALLATION

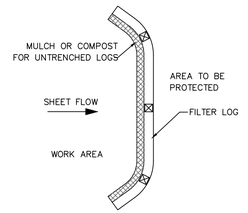
OR



ENTRENCHED INSTALLATION*

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

ISOMETRIC VIEW



PLAN

1 OF 2

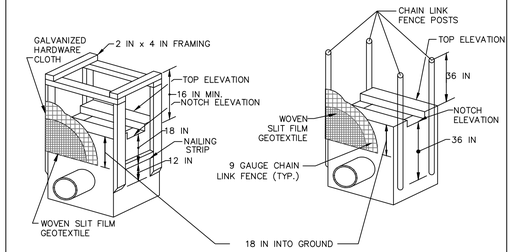
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL E-9-1 STANDARD INLET PROTECTION

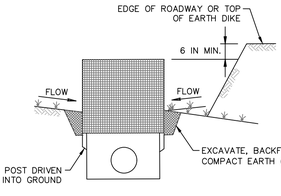
STANDARD SYMBOL: SIP

TYPE A MAXIMUM DRAINAGE AREA = ¼ ACRE
TYPE B MAXIMUM DRAINAGE AREA = 1 ACRE



TYPE A TYPE B

ISOMETRIC VIEW



SECTION FOR TYPE A AND B

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

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: ——SF——

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ X 1¾ ± ⅜ 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-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

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

CONSTRUCTION SPECIFICATIONS

1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
3. FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH ½ INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

   FOR TYPE B, USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

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

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

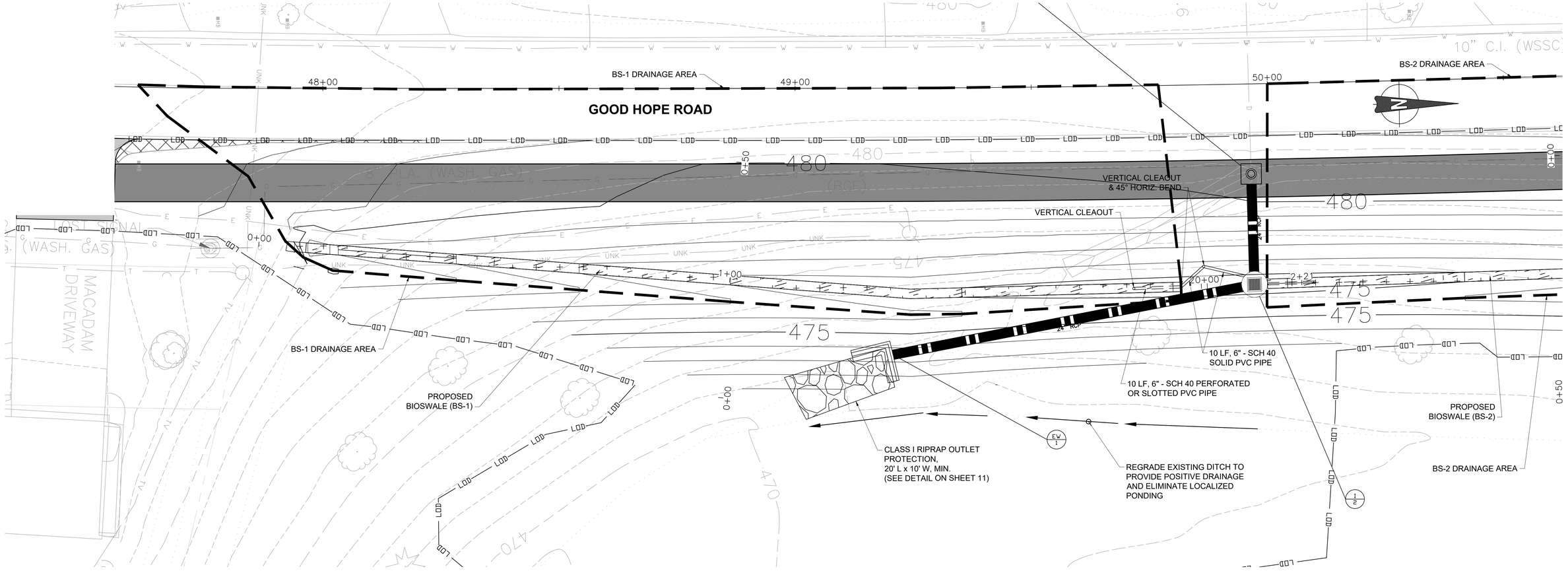
SC-03 DETAILS
EROSION AND SEDIMENT CONTROL
GOOD HOPE ROAD SHARED USE PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

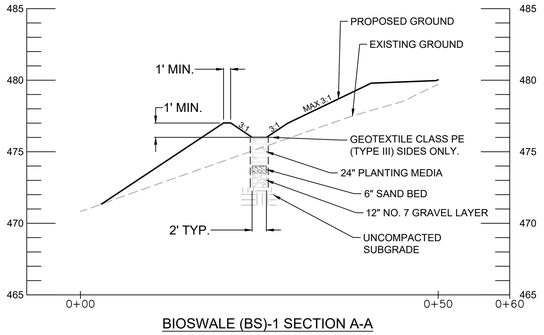
CIP No. : 507596 SHEET 14 of 45

FILE NAME: P:\MoCo\Good Hope Road SUP – Northern Extension\00_Working\pES-D001_GoodHopeN.dwg LAYOUT NAME: SC-03 PLOTTED: Tuesday, October 31, 2023 – 11:20am USER: kevin



BIOSWALE (BS-1) PLAN
1" = 10'

0 10' 20'
SCALE: 1"=10'



BIOSWALE (BS)-1 SECTION A-A
STA. 0+00 TO 0+60
SCALE: HORIZ. 1"=10' VERT. 1"=5'

0 5' 10'
VERTICAL SCALE: 1"=5'

0 10' 20'
HORIZONTAL SCALE: 1"=10'

LEGEND

BIOSWALE FACILITY BOTTOM

BIOSWALE DRAINAGE AREA

FLOW DIRECTION ARROW (PROPOSED)

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

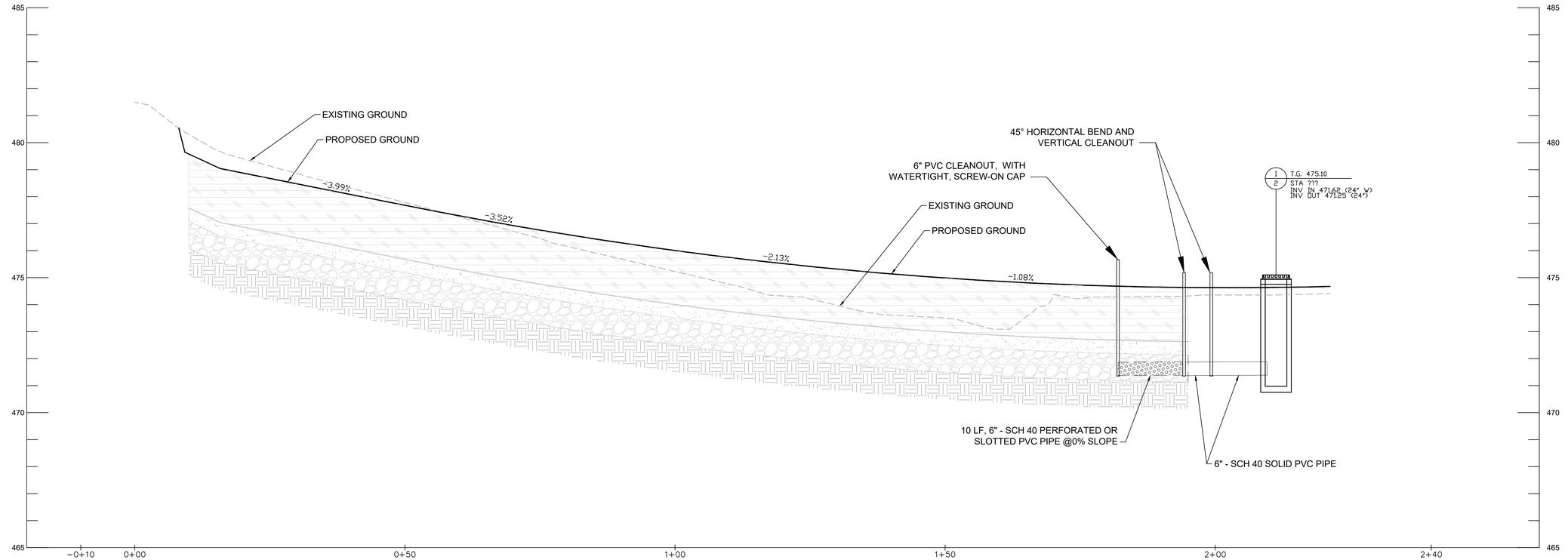
Designed by: KJS Drawn by: KJS Checked by: DZ

SW-01 PLAN (BS-1)
STORMWATER MANAGEMENT
GOOD HOPE ROAD SHARED USE PATH EXTENSION

SCALE: AS NOTED DATE: OCTOBER 2023

CIP No. : 507596 SHEET 15 of 45

FILE NAME: P:\MoCo\Good Hope Road SUP – Northern Extension\00_Working\pSW-P001_GoodHopeN.dwg LAYOUT NAME: SW-01 PLOTTED: Tuesday, October 31, 2023 – 11:21am USER: kevin



BIOSWALE (BS-1) PROFILE

SCALE: HORIZ. 1"=10' VERT. 1"=2'

0 2' 4'
VERTICAL SCALE: 1"=2'

0 10' 20'
HORIZONTAL SCALE: 1"=10'

NOTES:

1. GRAVEL LAYER: THE GRAVEL LAYER MUST MEET MSHA SIZE #7 (TABLE 901A), AND SHALL BE 12-INCHES IN DEPTH. NO GEOTEXTILE OR FILTER FABRIC IS ALLOWED TO BE PLACED HORIZONTALLY ANYWHERE WITHIN FILTER MEDIA, EXCEPT AT DRIVEWAY CROSSINGS, AS SHOWN IN THE TYPICAL SECTION. THE GRAVEL MUST BE CLEAN AND MUST BE STORED AND INSTALLED IN SUCH A MANNER THAT IT DOES NOT BECOME CONTAMINATED WITH SEDIMENT BEFORE OR AFTER INSTALLATION.

2. PLANTING MEDIA: THE PLANTING MEDIA SHALL BE 24 INCHES THICK AND CONFORM TO MONTGOMERY COUNTY MICRO-BIORETENTION FACILITY PLANTING MEDIA SPECIFICATIONS:

   1/3 PERLITE OR SOLITE, 1/3 COMPOST AND 1/3 TOPSOIL. THE PERLITE SHALL BE COARSE GRADE HORTICULTURAL PERLITE. THE COMPOST SHALL BE HIGH GRADE COMPOST FREE OF STONES AND PARTIALLY COMPOSTED WOODY MATERIAL.

   THE TOPSOIL COMPONENT SHALL MEET THE FOLLOWING CRITERIA:

   CONTAIN NO MORE THAN 10% CLAY, 10-25% SILT AND 60-75% SAND AND BE FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES.

   THE FIRST LAYER OF THE PLANTING MEDIUM SHALL BE LIGHTLY TILLED TO MIX IT INTO THE 6-INCH SAND LAYER, SO AS NOT TO CREATE A DEFINITIVE BOUNDARY. THE PLANTING BED SHALL BE FLOODED AFTER PLACEMENT. ANY SETTLEMENT THAT OCCURS SHALL BE FILLED BACK TO THE DESIGN ELEVATION.

3. SAND BED: A MINIMUM 6-INCH FINE AGGREGATE SAND LAYER SHALL BE PROVIDED BELOW THE PLANTING MEDIA. ASTM C33 OR AASHTO M6 FINE AGGREGATE CONCRETE SAND IS REQUIRED PER MONTGOMERY COUNTY SAND SPECIFICATIONS.

4. PERFORATED PIPE MUST HAVE PERFORATIONS ⅜ INCH IN DIAMETER AND LOCATED 4 INCHES ON CENTER, EVERY 90 DEGREES AROUND THE PIPE. PERFORATED PIPE MUST BE AT LEAST 12 INCHES INSIDE THE FILTER MEDIA. IF THIS CANNOT BE ACHIEVED, THEN SIDES OF THE FILTER MEDIA MUST BE LINED WITH FILTER FABRIC. FILTER FABRIC MUST NOT BE WRAPPED AROUND THE UNDERDRAIN PIPE. AN ACCEPTABLE ALTERNATIVE TO PERFORATED PIPE IS 6" DIAMETER SCHEDULE 40 SLOTTED PVC PIPE WITH 0.125 INCH SLOTS. SLOTS SHALL BE 0.125 INCHES WIDE AND A MINIMUM OF 1.9 INCHES IN LENGTH, WITH A MINIMUM OF 4 SLOTS PER ROW AND 4 ROWS PER LINEAR FOOT OF PIPE.

BS-1

CONSTRUCTION INSPECTION CHECK-OFF LIST FOR SWALES		
STAGE	MCDPS INSPECTOR	OWNER/ DEVELOPER
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. The permittee must maintain a "record set" of approved SC/SM plans on-site at all times. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.	INITIALS/DATE	INITIALS/DATE
1. Placement of backfill of underdrains and installation of diaphragms, forebays, check dams, or weirs conforms to approved plans		
2. Final grading and establishment of permanent stabilization conforms to approved plans		

SAND SPECIFICATIONS:

Washed ASTM C33 Fine Aggregate Concrete Sand is utilized for stormwater management applications in Montgomery County. In addition to the ASTM C33 specification, sand must meet ALL of the following conditions:

1. Sand must meet gradation requirements for ASTM C-33 Fine Aggregate Concrete Sand. MSHTO M-6 gradation is also acceptable.
2. Sand must be silica based ... no limestone based products may be used. If the material is white or gray in color, it is probably not acceptable.
3. Sand must be clean. Natural, unwashed sand deposits may not be used. Likewise, sand that has become contaminated by improper storage or installation practices will be rejected.
4. Manufactured sand or stone dust is not acceptable under any circumstance.

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

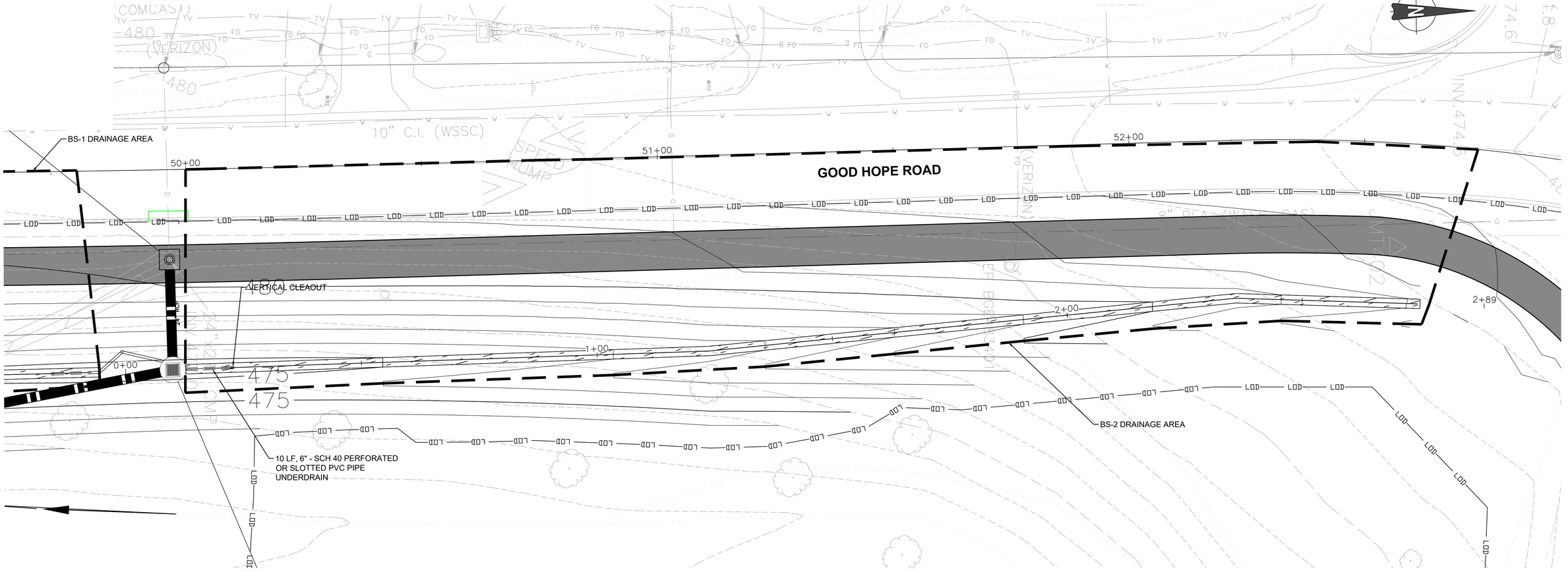
Designed by: KJS Drawn by: KJS Checked by: DZ

SW-02 PROFILE (BS-1)
STORMWATER MANAGEMENT

GOOD HOPE ROAD SHARED USE PATH EXTENSION

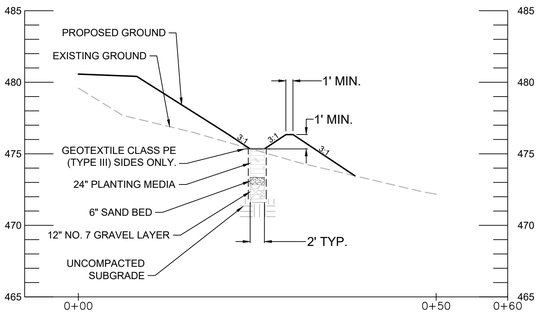
SCALE: AS NOTED DATE: OCTOBER 2023

CIP No. : 507596 SHEET 16 of 45



BIOSWALE (BS-2) PLAN
1" = 10'

0 10' 20'
SCALE: 1"=10'



BIOSWALE (BS-2) SECTION B-B
STA. 0+00 TO 0+60
SCALE: HORIZ. 1"=10' VERT. 1"=5'

0 5' 10'
VERTICAL SCALE: 1"=5'

0 10' 20'
HORIZONTAL SCALE: 1"=10'

LEGEND

BIOSWALE FACILITY BOTTOM

BIOSWALE DRAINAGE AREA

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SW-03 PLAN (BS-2)
STORMWATER MANAGEMENT
GOOD HOPE ROAD SHARED USE PATH EXTENSION

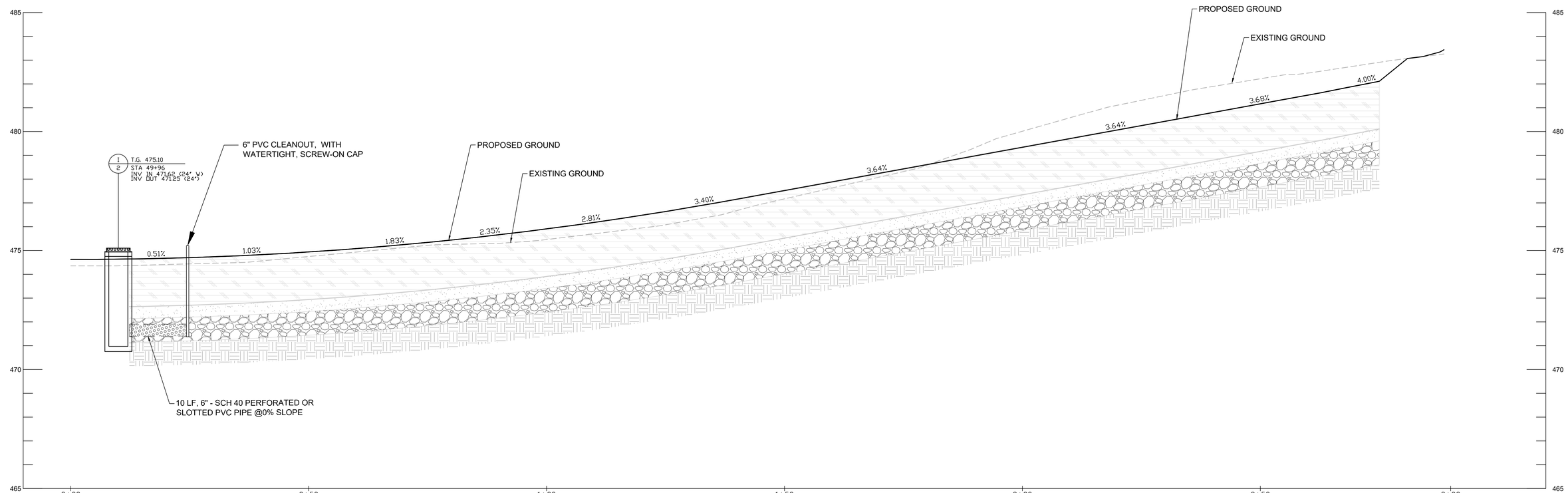
0 10' 20'
SCALE: 1"=10'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 17 of 45

FILE NAME: P:\MoCo\Good Hope Road SUP – Northern Extension\00_Working\pSW-P001_GoodHopeN.dwg LAYOUT NAME: SW-03 PLOTTED: Tuesday, October 31, 2023 – 11:21am USER: kevin



BIOSWALE (BS-2) PROFILE

SCALE: HORIZ. 1"=10' VERT. 1"=2'

0 2' 4'

VERTICAL SCALE: 1"=2'

0 10' 20'

HORIZONTAL SCALE: 1"=10'

NOTES:

1. GRAVEL LAYER: THE GRAVEL LAYER MUST MEET MSHA SIZE #7 (TABLE 901A), AND SHALL BE 12-INCHES IN DEPTH. NO GEOTEXTILE OR FILTER FABRIC IS ALLOWED TO BE PLACED HORIZONTALLY ANYWHERE WITHIN FILTER MEDIA, EXCEPT AT DRIVEWAY CROSSINGS, AS SHOWN IN THE TYPICAL SECTION. THE GRAVEL MUST BE CLEAN AND MUST BE STORED AND INSTALLED IN SUCH A MANNER THAT IT DOES NOT BECOME CONTAMINATED WITH SEDIMENT BEFORE OR AFTER INSTALLATION.

2. PLANTING MEDIA: THE PLANTING MEDIA SHALL BE 24 INCHES THICK AND CONFORM TO MONTGOMERY COUNTY MICRO-BIORETENTION FACILITY PLANTING MEDIA SPECIFICATIONS:

   1/3 PERLITE OR SOLITE, 1/3 COMPOST AND 1/3 TOPSOIL. THE PERLITE SHALL BE COARSE GRADE HORTICULTURAL PERLITE. THE COMPOST SHALL BE HIGH GRADE COMPOST FREE OF STONES AND PARTIALLY COMPOSTED WOODY MATERIAL.

   THE TOPSOIL COMPONENT SHALL MEET THE FOLLOWING CRITERIA:

   CONTAIN NO MORE THAN 10% CLAY, 10-25% SILT AND 60-75% SAND AND BE FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES.

   THE FIRST LAYER OF THE PLANTING MEDIUM SHALL BE LIGHTLY TILLED TO MIX IT INTO THE 6-INCH SAND LAYER, SO AS NOT TO CREATE A DEFINITIVE BOUNDARY. THE PLANTING BED SHALL BE FLOODED AFTER PLACEMENT. ANY SETTLEMENT THAT OCCURS SHALL BE FILLED BACK TO THE DESIGN ELEVATION.

3. SAND BED: A MINIMUM 6-INCH FINE AGGREGATE SAND LAYER SHALL BE PROVIDED BELOW THE PLANTING MEDIA. ASTM C33 OR AASHTO M6 FINE AGGREGATE CONCRETE SAND IS REQUIRED PER MONTGOMERY COUNTY SAND SPECIFICATIONS.

4. PERFORATED PIPE MUST HAVE PERFORATIONS ⅜ INCH IN DIAMETER AND LOCATED 4 INCHES ON CENTER, EVERY 90 DEGREES AROUND THE PIPE. PERFORATED PIPE MUST BE AT LEAST 12 INCHES INSIDE THE FILTER MEDIA. IF THIS CANNOT BE ACHIEVED, THEN SIDES OF THE FILTER MEDIA MUST BE LINED WITH FILTER FABRIC. FILTER FABRIC MUST NOT BE WRAPPED AROUND THE UNDERDRAIN PIPE. AN ACCEPTABLE ALTERNATIVE TO PERFORATED PIPE IS 6" DIAMETER SCHEDULE 40 SLOTTED PVC PIPE WITH 0.125 INCH SLOTS. SLOTS SHALL BE 0.125 INCHES WIDE AND A MINIMUM OF 1.9 INCHES IN LENGTH, WITH A MINIMUM OF 4 SLOTS PER ROW AND 4 ROWS PER LINEAR FOOT OF PIPE.

BS-2

CONSTRUCTION INSPECTION CHECK-OFF LIST FOR INFILTRATION BERMS		
STAGE	**MCDPS INSPECTOR**	**OWNER/ DEVELOPER**
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.	INITIALS/DATE	INITIALS/DATE
1. Placement of gravel media and soil conforms to approved plans		
2. Final grading and establishment of permanent stabilization conforms to approved plans		

SAND SPECIFICATIONS:

Washed ASTM C33 Fine Aggregate Concrete Sand is utilized for stormwater management applications in Montgomery County. In addition to the ASTM C33 specification, sand must meet ALL of the following conditions:

1. Sand must meet gradation requirements for ASTM C-33 Fine Aggregate Concrete Sand. MSHTO M-6 gradation is also acceptable.
2. Sand must be silica based ... no limestone based products may be used. If the material is white or gray in color, it is probably not acceptable.
3. Sand must be clean. Natural, unwashed sand deposits may not be used. Likewise, sand that has become contaminated by improper storage or installation practices will be rejected.
4. Manufactured sand or stone dust is not acceptable under any circumstance.

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SW-04 PROFILE (BS-2)
STORMWATER MANAGEMENT
GOOD HOPE ROAD SHARED USE PATH EXTENSION

SCALE: AS NOTED DATE: OCTOBER 2023

CIP No.: 507596 SHEET 18 of 45

FILE NAME: P:\MoCo\Good Hope Road SUP - Northern Extension\00_Working\pSW-P001_GoodHopeN.dwg LAYOUT NAME: SW-04 BS-2 Profile PLOTTED: Tuesday, October 31, 2023 - 11:21am USER: kevin

MAINTENANCE OF TRAFFIC NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MOST RECENT MONTGOMERY COUNTY WORK ZONE TRAFFIC CONTROL STANDARDS BOOK, THE MARYLAND STATE HIGHWAY WORK ZONE TRAFFIC CONTROL TYPICALS IN CATEGORY 1 OF THE BOOK OF STANDARDS, THE 2011 MD MUTCD AND SUBSEQUENT REVISIONS ADOPTED BY THE STATE OF MARYLAND, THESE PLANS, AND OTHER CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES. THE CONTRACTOR SHALL MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION IN ACCORDANCE WITH THE METHOD OF TRAFFIC CONTROL SHOWN ON THESE DRAWINGS, OTHER CONTRACT DOCUMENTS, AND THE 2011 MD MUTCD AND SUBSEQUENT REVISIONS.
3. ALL TEMPORARY SIGNS FOR MAINTENANCE OF TRAFFIC SHALL BE PER MONTGOMERY COUNTY STANDARD TCP-100.01 AND SECTION 4.0 SIGNS OF THE MDSHA GENERAL NOTES FOR TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS (TTCTA) AS SHOWN ON ON MDSHA STD DETAIL 104.00-06 TO MDSHA STD 104.00-08. SIGNS SHALL BE MOUNTED PER SECTION 4.0 OF THE TTCTA AND AS SHOWN ON MDSHA STD 104.01-17A TO MDSHA STD 104.01-17D OR AS OTHERWISE SHOWN ON THESE PLANS OR AS DIRECTION BY THE ENGINEER.
4. NO WORK IS TO BEGIN UNTIL ALL ADVANCE WARNING SIGNS, DRUMS, BARRIER, AND PAVEMENT MARKINGS ARE IN PLACE AND OPERATIONAL, AS APPROVED BY THE ENGINEER.
5. CONSTRUCTION WARNING SIGNS ABOUT SPECIFIC AREAS AND TYPE OF CONSTRUCTION WILL BE PLACED AS DIRECTED BY THE ENGINEER.
6. ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION UNLESS A CHANGE IS SHOWN ON THE PLAN AND/OR AS DIRECTED BY THE ENGINEER.
7. UNLESS OTHERWISE SHOWN ON THE PLANS, ACCESS SHALL BE PROVIDED TO ALL DRIVEWAYS AND CROSS STREETS AT ALL TIMES.
8. FLAGGERS SHALL BE MARYLAND STATE HIGHWAY ADMINISTRATION OR AATSA APPROVED FLAGGERS AND SHALL BE USED AT THE DIRECTION OF THE MONTGOMERY COUNTY INSPECTOR.
9. RADIO COMMUNICATION SHALL BE REQUIRED BETWEEN FLAGGERS AT THE DISCRETION OF THE MONTGOMERY COUNTY INSPECTOR OR IF THE FLAGGERS CANNOT SEE EACH OTHER AND/OR THE LANE CLOSURE EXCEEDS 200 FEET.
10. THE CONTRACTOR SHALL CONTACT MONTGOMERY COUNTY TMC AT 240-777-2100, 72 HOURS PRIOR TO STARTING ALL WORK.
11. DRUMS SHALL PROTECT THE WORK ZONE DURING NON-WORK HOURS AND SHALL BE RESET ACCORDING TO THE STANDARDS LISTED IN THE SEQUENCE OF CONSTRUCTION NOTED ON THIS PLAN DURING WORK HOURS.
12. TEMPORARY MOT SIGNAGE / ADVANCE WARNING SIGNS SHALL BE INCLUDED IN LUMP SUM COST FOR MAINTENANCE OF TRAFFIC.

SEQUENCE OF CONSTRUCTION:

STAGE ONE:

1. PLACE MAINTENANCE OF TRAFFIC ITEMS AS INDICATED ON THE PLANS.
2. UTILIZE MODIFIED MCDOT STANDARD TCP-101.01 'TRAFFIC CONTROL FOR SHOULDER WORK' AS SHOWN ON THE PLANS. .
3. ESTABLISH APPLICABLE SEDIMENT AND EROSION CONTROL MEASURES.
4. PERFORM CLEARING AND GRUBBING, SITE PREPARATION, AND ROUGH GRADING.

STAGE TWO:

1. PLACE MOT ITEMS AS SHOWN ON THE STAGE TWO MOT PLANS.
2. UTILIZE FLAGGING OPERATION PER MCDOT STANDARD TCP-102.02 'FLAGGING CONTROL NON-INTERSECTION' AS SHOWN ON STAGE TWO MOT DRAWINGS TO CLOSE NORTHBOUND LANE OF GOOD HOPE ROAD. CONSTRUCT DRAINAGE IMPROVEMENTS AT APPROXIMATE STATION 50+00.
3. RETURN TO MOT STAGE ONE TO PREPARE FOR STAGE THREE WORK.

STAGE THREE:

1. PLACE MOT ITEMS AS SHOWN ON THE STAGE THREE MOT PLANS.
2. UTILIZE FLAGGING OPERATION PER MCDOT STANDARD TCP-105.01 'FLAGGING CONTROL AT 4-LEG INTERSECTION' TO CLOSE NORTHBOUND LANE OF GOOD HOPE ROAD AS SHOWN ON THE STAGE THREE MOT PLANS.
3. PERFORM GRADING AND PAVEMENT WORK ALONG NORTHBOUND CURB LINE ALONG GOOD HOPE ROAD BETWEEN RAINBOW DRIVE AND APPROXIMATE STATION 48+25.

STAGE FOUR:

1. ESTABLISH STAGE FOUR MOT UTILIZING MODIFIED MCDOT STANDARD TCP-101.01 'TRAFFIC CONTROL FOR SHOULDER WORK' AS SHOWN ON THE PLANS. .
2. COMPLETE SHARED USE PATH INSTALLATION AND OTHER PROPOSED IMPROVEMENTS AS SHOWN ON THE PLANS.
3. CONSTRUCT CURB AND GUTTER, SIDEWALK, AND PEDESTRIAN RAMP AT SOUTHEAST CORNER OF GOOD HOPE ROAD AND RAINBOW DRIVE.
4. COORDINATE WITH M-NCPPC TO CLOSE HUMPRHREY CENTER PARKING LOT FOR PAVEMENT MARKING INSTALLATION.
5. CLEAN SITE AND REMOVE ALL EROSION AND SEDIMENT CONTROL AND MAINTENANCE OF TRAFFIC ITEMS.

PEDESTRIAN MAINTENANCE OF TRAFFIC NOTES:

1. FOR LOCATIONS WITHIN THE PROJECT LIMITS THAT HAVE EXISTING PEDESTRIAN FACILITIES, ENSURE THAT A SAFE ROUTE FOR PEDESTRIANS IS AVAILABLE AT ALL TIMES DURING CONSTRUCTION. MINIMIZE DURATION OF SIDEWALK CLOSURE AT THE SOUTHEAST CORNER OF GOOD HOPE ROAD AND RAINBOW DRIVE.

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

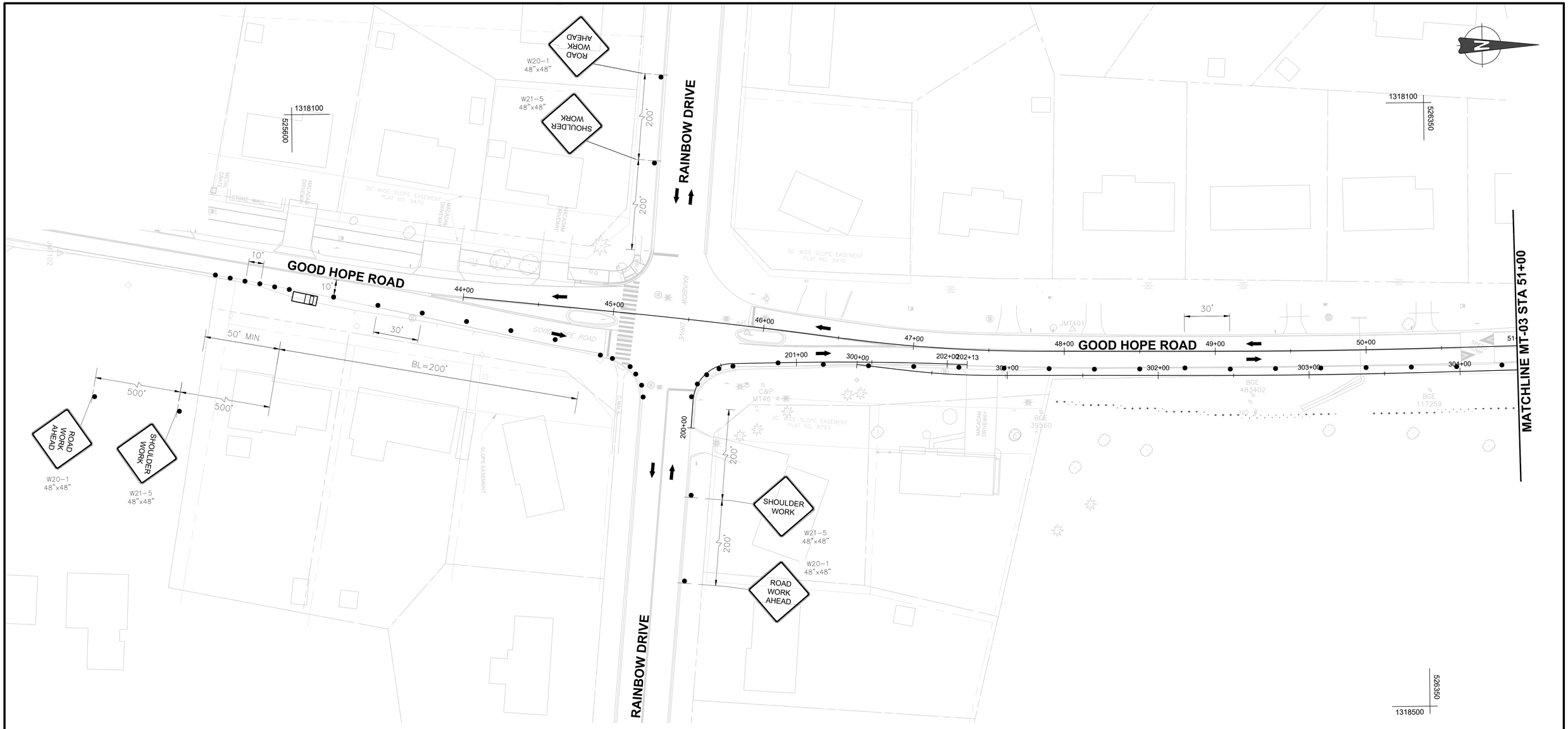
MT-01
MAINTENANCE OF TRAFFIC NOTES
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 19 of 45



MOT LEGEND:

- CHANNELIZING DEVICE
- TEMPORARY SIGN LOCATION
- TEMPORARY SIGN DESIGNATION (ROAD WORK AHEAD)
- FLAGGER LOCATION
- VEHICLE LOCATION
- TRAFFIC DIRECTION
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PAVEMENT (ROAD & DRIVEWAY)
- PROPOSED ASPHALT SHARED USE PATH
- PROPOSED CONCRETE SIDEWALK
- PROPOSED RIP-RAP STABILIZATION

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN THE UPPER PAINT BRANCH SPECIAL PROTECTION AREA.
2. BGE UTILITY POLES ALONG SOUTH SIDE OF GOOD HOPE ROAD TO REMAIN IN EXISTING LOCATIONS.

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

MT-02
MOT PLAN – STAGE ONE

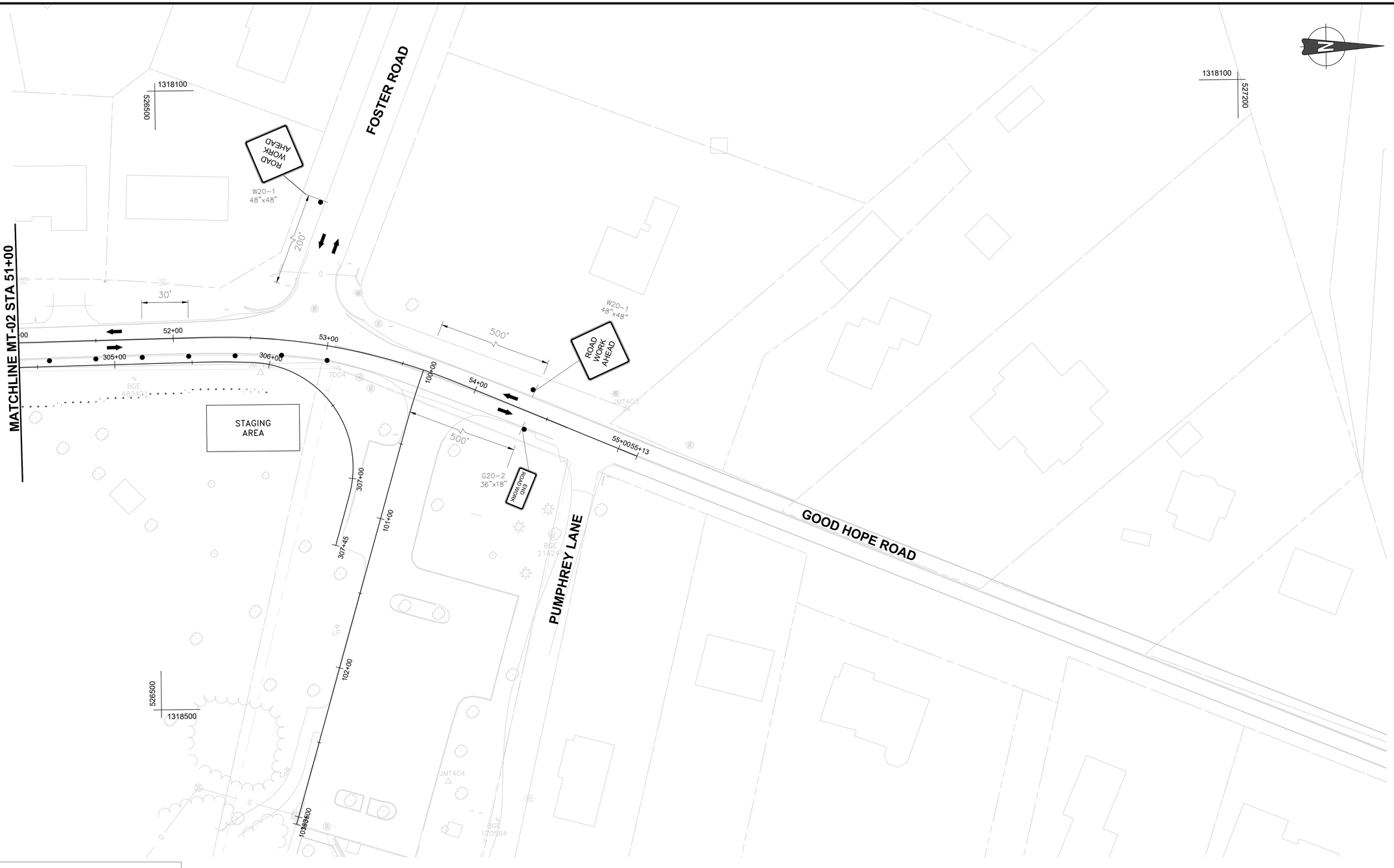
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 20 of 45

FILE NAME: O:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0001_GHExt.dwg LAYOUT NAME: MT-02 PLOTTED: Tuesday, October 31, 2023 – 2:07pm USER: TSroczynski



MOT LEGEND:

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DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

MT-03
MOT PLAN – STAGE ONE
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

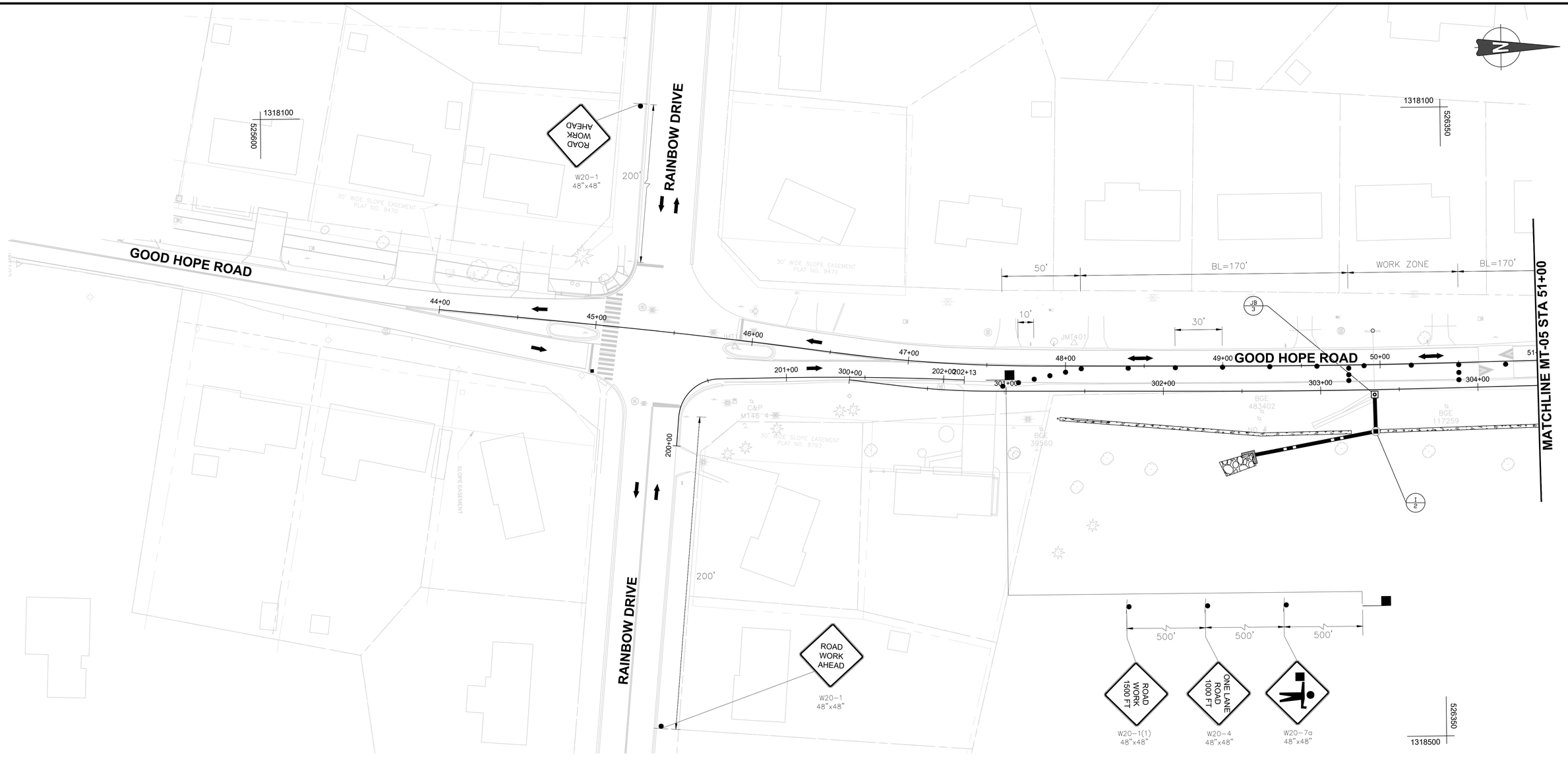
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No.: 507596

SHEET 21 of 45

FILE NAME: Q:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0001_GHExt.dwg LAYOUT NAME: MT-03 PLOTTED: Tuesday, October 31, 2023 – 2:07pm USER: TSroczynski



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DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

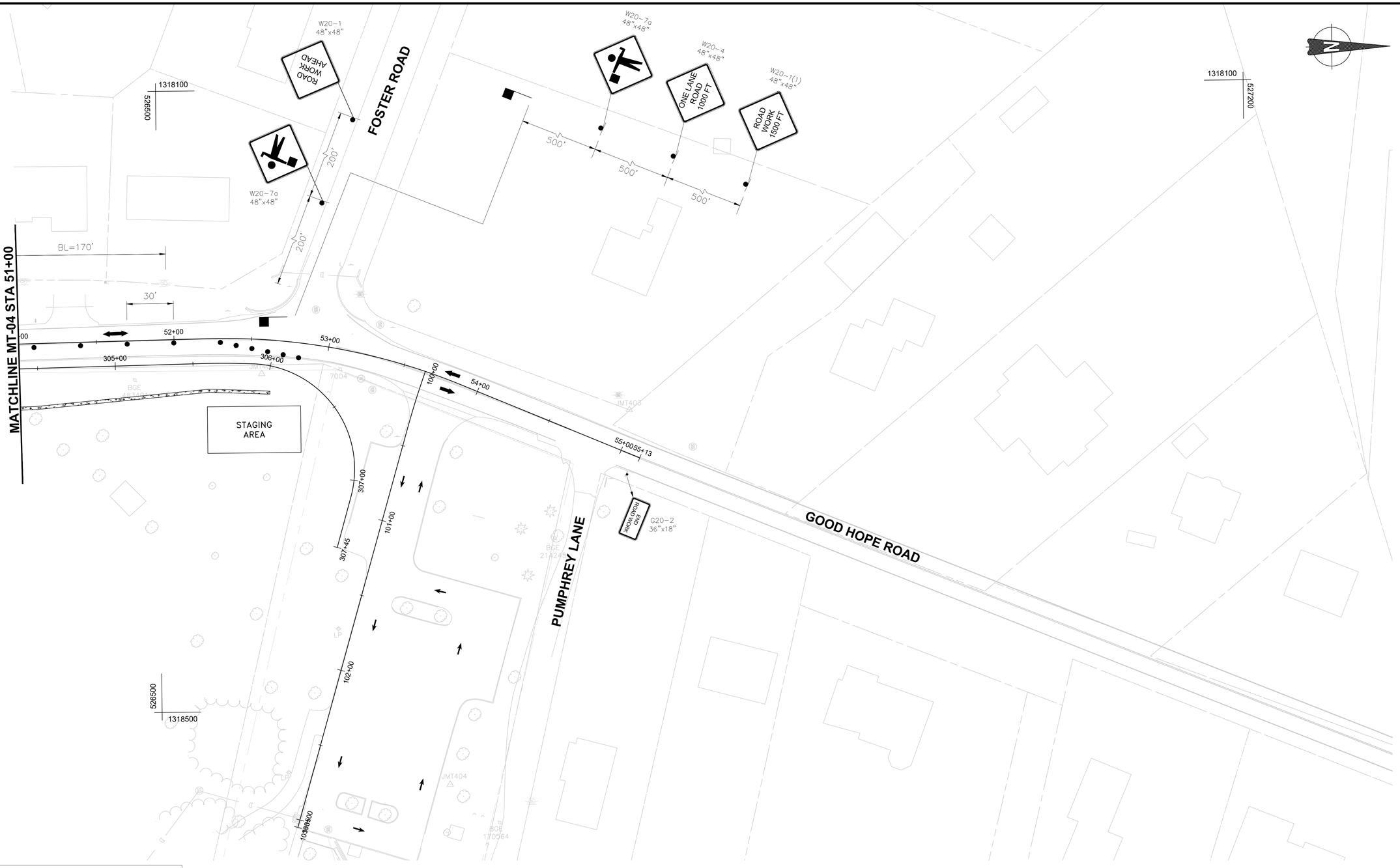
MT-04
MOT PLAN – STAGE TWO
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 22 of 45

FILE NAME: O:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0002_GHExt.dwg LAYOUT NAME: MT-04 PLOTTED: Tuesday, October 31, 2023 – 2:09pm USER: TSroczynski



MOT LEGEND:

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

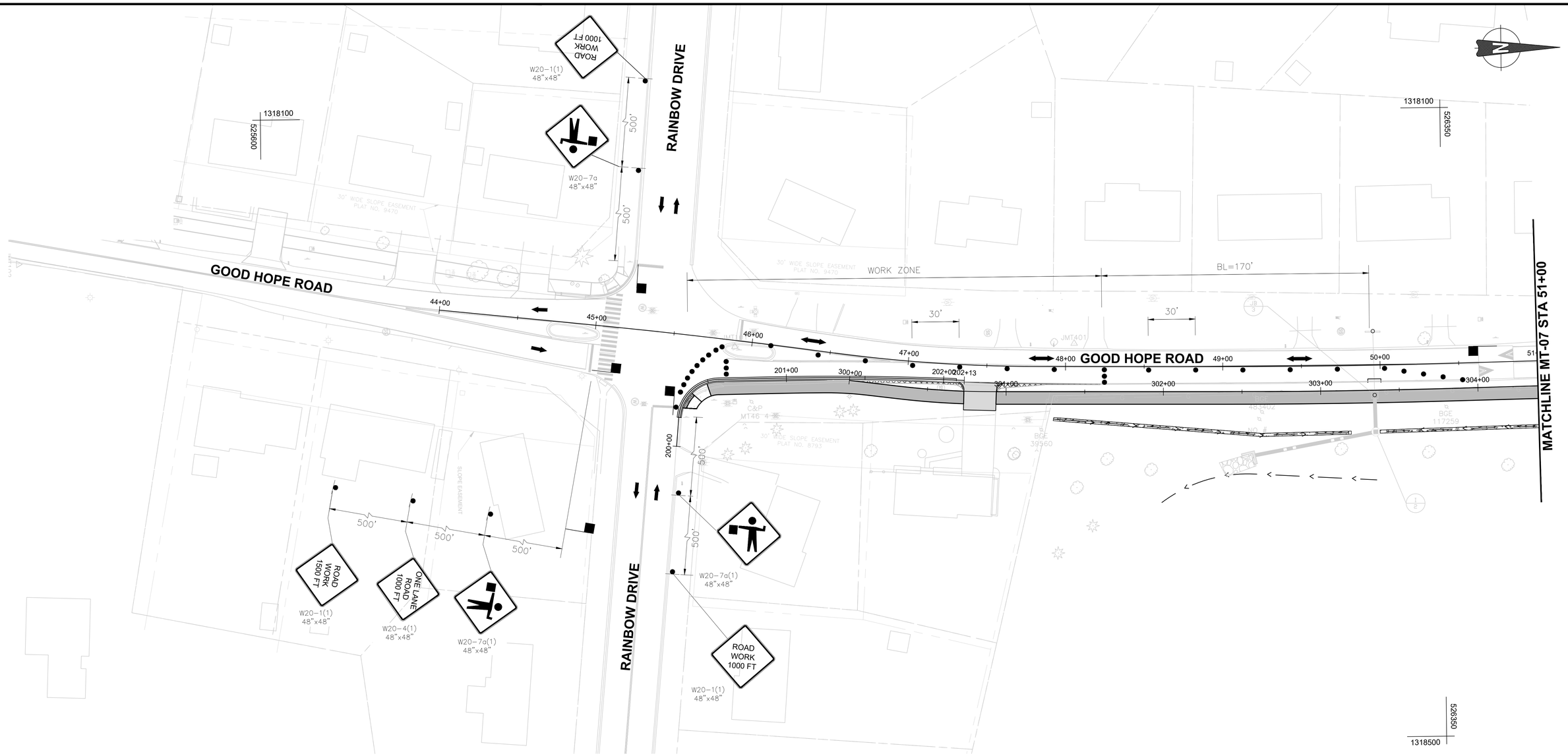
MT-05
MOT PLAN – STAGE TWO
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No.: 507596 SHEET 23 of 45

FILE NAME: O:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0002_GHExt.dwg LAYOUT NAME: MT-05 PLOTTED: Tuesday, October 31, 2023 – 2:09pm USER: TSroczynski



MOT LEGEND:

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NOTES:

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NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

MT-06
MOT PLAN – STAGE THREE
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

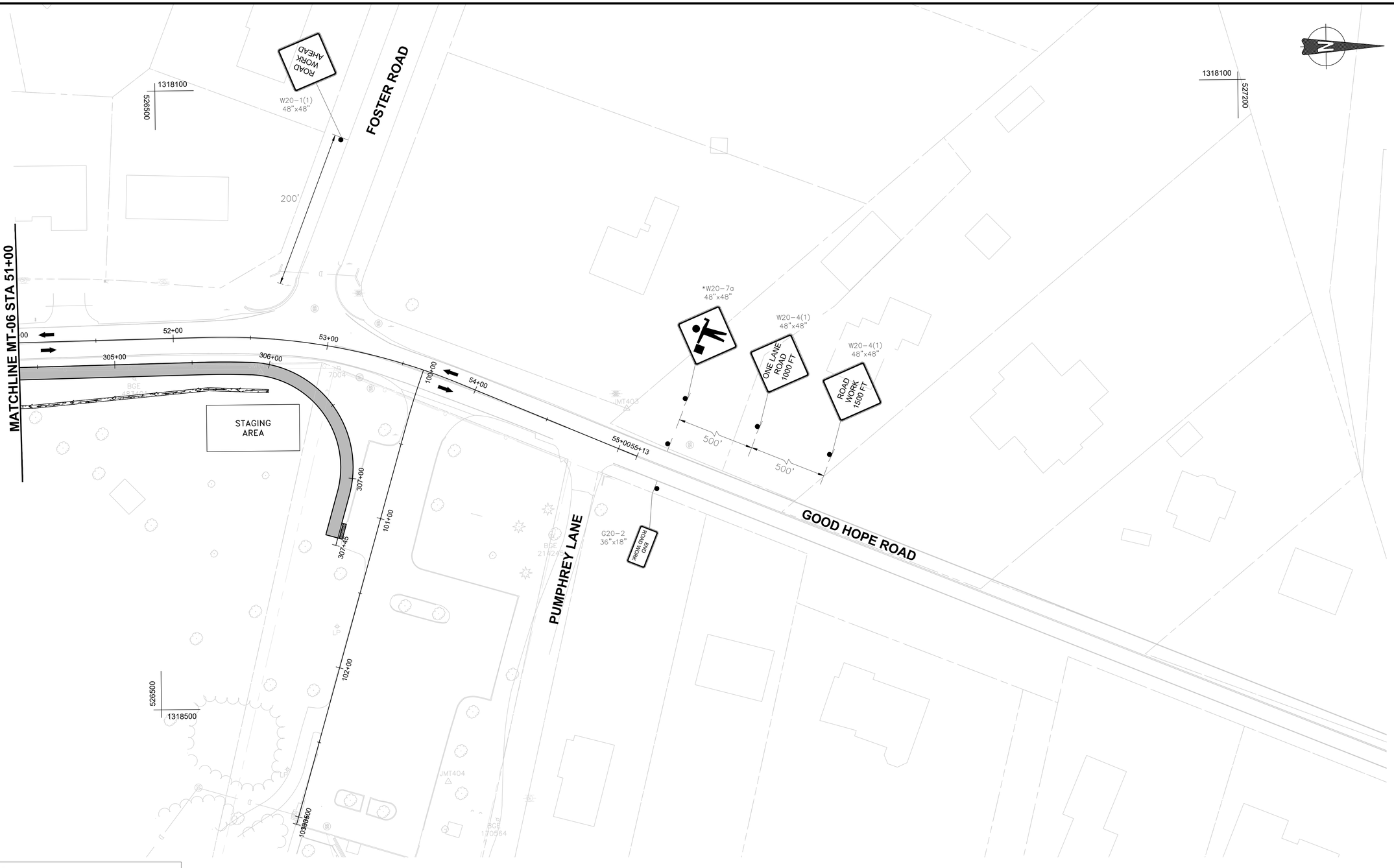
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No.: 507596

SHEET 24 of 45

FILE NAME: Q:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0003_GHExt.dwg LAYOUT NAME: MT-06 PLOTTED: Tuesday, October 31, 2023 – 2:11pm USER: TSroczynski



MOT LEGEND:

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NOTES:

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DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

MT-07
MOT PLAN – STAGE THREE
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No.: 507596 SHEET 25 of 45

FILE NAME: Q:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0003_GHExt.dwg LAYOUT NAME: MT-07 PLOTTED: Tuesday, October 31, 2023 – 2:11pm USER: TSroczynski

MOT LEGEND:

- CHANNELIZING DEVICE
- TEMPORARY SIGN LOCATION
- TEMPORARY SIGN DESIGNATION (ROAD WORK AHEAD)
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- TRAFFIC DIRECTION
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NOTES:

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DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

MT-08
MOT PLAN – STAGE FOUR

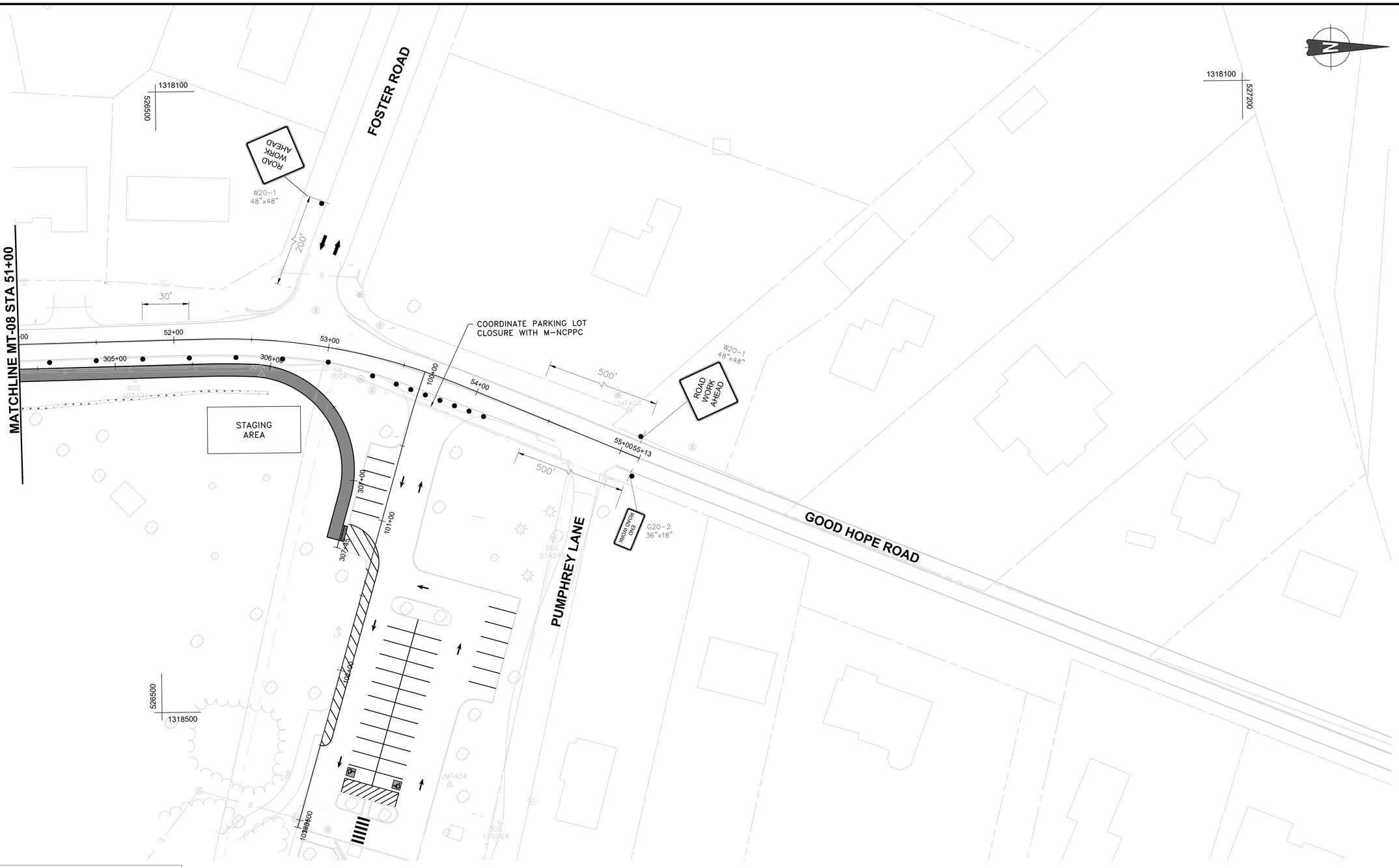
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 26 of 45

FILE NAME: Q:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0004_GHExt.dwg LAYOUT NAME: MT-08 PLOTTED: Tuesday, October 31, 2023 – 2:13pm USER: TSroczynski



MOT LEGEND:

- CHANNELIZING DEVICE
- TEMPORARY SIGN LOCATION
- TEMPORARY SIGN DESIGNATION (ROAD WORK AHEAD)
- FLAGGER LOCATION
- VEHICLE LOCATION
- TRAFFIC DIRECTION
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PAVEMENT (ROAD & DRIVEWAY)
- PROPOSED ASPHALT SHARED USE PATH
- PROPOSED CONCRETE SIDEWALK
- PROPOSED RIP-RAP STABILIZATION

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN THE UPPER PAINT BRANCH SPECIAL PROTECTION AREA.
2. BGE UTILITY POLES ALONG SOUTH SIDE OF GOOD HOPE ROAD TO REMAIN IN EXISTING LOCATIONS.

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

MT-09
MOT PLAN – STAGE FOUR
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No.: 507596 SHEET 27 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pMT-0004_GHExt.dwg LAYOUT NAME: MT-09 PLOTTED: Tuesday, October 31, 2023 – 2:13pm USER: TSroczynski

CRITERIA

THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT:

DESIGN

MDOT SHA – "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2011 EDITION AND SUBSEQUENT REVISIONS. (MdMUTCD)

A A S H T O – "HIGHWAY SAFETY DESIGN AND OPERATIONS GUIDE" –1997

A A S H T O – "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES AND TRAFFIC SIGNALS", 2001 EDITION (CATEGORY II FOR ALL OVERHEAD AND CANTILEVER SIGN STRUCTURES).

MATERIALS AND CONSTRUCTION

MDOT SHA – "STANDARD SPECIFICATIONS FOR CONSTRUCTION & MATERIALS", 2022 EDITION AND SUBSEQUENT SUPPLEMENTS.

DESIGN WIND

100 MPH – WOOD SUPPORTS
10 YEAR RECURRENCE INTERVAL

100 MPH – GROUND MOUNT SIGN STEEL SUPPORTS
10 YEAR RECURRENCE INTERVAL

100 MPH – OVERHEAD AND CANTILEVER STRUCTURES
50 YEAR RECURRENCE INTERVAL

} ALL DISTRICTS

DESIGN STRESS

SOIL BEARING PRESSURE – S = 3,000 P.S.F. (ASSUMED)
SEE MATERIAL & CONSTRUCTION ABOVE AND SPECIAL PROVISIONS FOR DESIGN STRESSES FOR STRUCTURAL STEEL, ALUMINUM, REINFORCING STEEL AND CONCRETE.

CHAMFER

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" X 3/4" CHAMFER.

CLASSIFICATION OF SIGNS

SIGNS ARE DIVIDED INTO TWO (2) GENERAL CATEGORIES.

1. GUIDE SIGNS
   - A) STRUCTURAL TYPES
     - OH – OVERHEAD
     - C – CANTILEVER
     - GM – GROUND MOUNT, BREAKAWAY OR NON–BREAKWAY
     - BM – BRIDGE MOUNTED
   - B) PANELS
     - MATERIAL – EXTRUDED ALUMINUM
     - COPY – DIRECT APPLIED
       1) HIGH INTENSITY (NEW SIGNS AND REVISIONS TO EXISTING SIGNS)

2. STANDARD SIGNS (REGULATORY, WARNING, ETC.)
   - A) STRUCTURAL TYPES
     - WOOD SUPPORTS
     - SQUARE TUBE
   - B) PANELS
     - MATERIAL – SHEET ALUMINUM
     - COPY – DIRECT APPLIED

IDENTIFICATION OF SIGNS AND PANELS

GUIDE SIGNS
EACH GUIDE SIGN IS IDENTIFIED ON THE PLANS AND IN THE TABULATIONS.

STANDARD SIGNS
STANDARD SIGNS ARE IDENTIFIED BY PANEL NUMBERS AND ARE CLASSIFIED AS FOLLOWS
- R – REGULATORY
- W – WARNING
- M – ROUTE MARKERS AND ACCESSORIES
- D – DESTINATION AND MILEAGE PANELS
- S – SCHOOL

PANELS SHALL BE DESIGNATED TO AGREE WITH MARYLAND STANDARD SIGN BOOK.
EACH STANDARD SIGN IS IDENTIFIED ON THE PLAN.

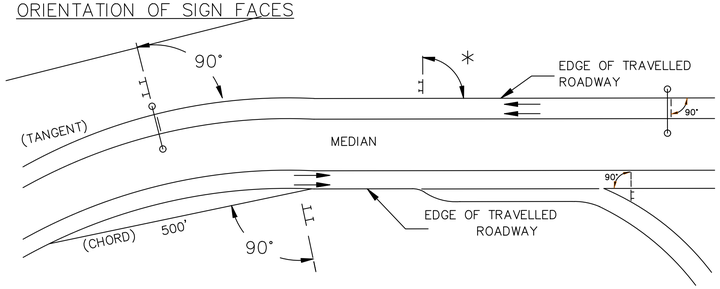
PANEL LAYOUT AND ALPHABETS

1. GUIDE SIGN PANEL LAYOUTS ARE BASED ON THE A.A.S.H.T.O. MANUALS NOTED ABOVE.
2. STANDARD SIGN PANEL LAYOUTS ARE BASED ON THE MdMUTCD WITH SPECIFICATIONS DETAILED IN THE MARYLAND STATE HIGHWAY ADMINISTRATION PUBLICATION, "STANDARD SIGN BOOK", AVAILABLE ONLINE @ https: /www.marylandroads.com/businesswithsha/bizStdsSpecs/desManualStdPub/publicationsonline/oots/internet_signbook.asp

REFLECTORIZATION

BACKGROUNDS, BORDERS, TEXTS AND ALL OTHER ELEMENTS OF SIGN PANELS SHALL BE REFLECTORIZED EXCEPT WHERE NOTED. REFER TO PROJECT REQUIREMENTS FOR MORE DETAIL.

ORIENTATION OF SIGN FACES



* UNDER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN – 93^ AWAY FROM THE ROAD TO AVOID SPECULAR REFLECTION AS INDICATED IN 813.03 OF THE MARYLAND STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.

OVER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN – 90^

SIGN LOCATIONS

1. GUIDE SIGNS ARE LOCATED ON THE PLANS BY DIMENSION TO SURVEY STATIONS, OR WHEN NECESSARY, TO IDENTIFIABLE PHYSICAL FEATURES.
2. ALL CHANGES IN THE LOCATIONS OF SIGNS AS SHOWN ON THE PLAN SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

EXISTING UTILITIES

THE ENGINEER DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION SHOWN ON THE PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING FACILITIES WHICH MIGHT BE AFFECTED BY THIS WORK OR HIS OPERATION.

ROADSIDE SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANEL SO FACE IS PLUMB.
2. HORIZONTAL ALIGNMENT (SEE DIAGRAM ABOVE)
   - A) ON STRAIGHT ROADWAY SECTIONS, ANGLE OF SIGN FACE TO ROADWAY VARIES WITH DISTANCE FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN – SEE DIAGRAM.
   - B) ON THE INSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL MAKES AN ANGLE OF 90^ WITH A CHORD BETWEEN A POINT ON NEAR EDGE OF PAVEMENT AT SIGN LOCATION AND A POINT ON EDGE OF PAVEMENT 500' IN ADVANCE OF SIGN.
   - C) ON THE OUTSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT THE SIGN LOCATION.
   - D) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.

OVERHEAD SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANELS FOR ALL OVERHEAD STRUCTURES SO THAT PANEL FACE IS PLUMB.
2. OVERHEAD SIGN STRUCTURES SHALL NOT BE ERECTED WITHOUT ATTACHING LUMINAIRES, SUPPORTS, AND/OR SIGNS.
3. HORIZONTAL ALIGNMENT
   - A) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE NORMAL EDGE OF ROADWAY, IF ON A STRAIGHT ROADWAY SECTION.
   - B) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT SIGN LOCATION, IF ON A HORIZONTAL CURVE.
   - C) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.
4. VERTICAL CLEARANCE
   - A) OVERHEAD SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17'–9" FROM ROADWAY TO THE BOTTOM OF LIGHT FIXTURES. ALL LIGHT FIXTURES ARE TO BE AT THE SAME ELEVATION.
   - B) IF THE CONTRACTOR CANNOT OBTAIN 17'–9" (SEE 3A) CLEARANCE, HE IS TO CEASE WORK AND CONTACT THE PROJECT ENGINEER FOR FURTHER INSTRUCTIONS. THE PROJECT ENGINEER MAY CONTACT THE TRAFFIC ENGINEERING DESIGN DIVISION FOR ASSISTANCE.
   - C) ON ALL OVERHEAD SIGNS, THE MINIMUM CLEARANCE TO BOTTOM OF SIGN: 20'–9".

PROJECT REQUIREMENTS

ALL NEW SIGNS ON THIS PROJECT SHALL BE FABRICATED FROM SHEETING WHICH MEETS ALL OF THE FOLLOWING REQUIREMENTS, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER:

1. SHEETING SHALL MEET THE REQUIREMENTS OF SECTIONS 813 AND 950.03 OF MDOT SHA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JULY 2022) AND SUBSEQUENT REVISIONS
2. LISTED ON MDOT SHA OFFICE OF TRAFFIC AND SAFETY'S QUALIFIED PRODUCTS LIST (QPL)
3. THE FOLLOWING TYPES OF SHEETING SHALL BE USED FOR THE SPECIFIED SIGN CLASSIFICATIONS
   - A) GUIDE, EXIT GORE, AND GENERAL INFORMATION SIGNS– RETROREFLECTIVE SHEETING FOR GUIDE SIGNS, EXIT GORE, AND GENERAL INFORMATION (INCLUDES WHITE ON GREEN, WHITE ON BLUE, WHITE ON BROWN AND THE REVERSE OF THESE COLORS) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX LEGEND ON ASTM TYPE IX BACKGROUND. REGULATORY AND WARNING MESSAGES WITHIN GUIDE SIGNS SHALL BE NON–REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING.
   - B) WARNING SIGNS – RETROREFLECTIVE SHEETING FOR BLACK ON FLUORESCENT YELLOW WARNING SIGNS SHALL BE NON–REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING. REGULATORY MESSAGES WITHIN WARNING SIGNS SHALL FOLLOW THE GUIDELINES FOR REGULATORY SIGNS.
   - C) SCHOOL SIGNS – RETROREFLECTIVE SHEETING FOR SCHOOL SIGNS (BLACK ON FLUORESCENT YELLOW AND BLACK ON FLUORESCENT YELLOW GREEN) SHALL BE NON–REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING. REGULATORY MESSAGES WITHIN SCHOOL SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.
   - D) REGULATORY SIGNS –FALL INTO THREE SUBCATEGORIES:
     - i. REGULATORY SIGNS (STOP, YIELD, DO NOT ENTER AND WRONG WAY) RETROREFLECTIVE SHEETING FOR THESE SIGNS AND THEIR SUPPLEMENTAL PANELS (INCLUDES WHITE ON RED AND RED ON WHITE) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX SHEETING.
     - ii. ALL R7 AND R8 SERIES PARKING RELATED SIGNS AND THEIR SUPPLEMENTAL PANELS, NO TRESPASSING SIGNS, AND SIGNS DIRECTED AT PEDESTRIANS AND BICYCLISTS ONLY (INCLUDES RED ON WHITE, GREEN ON WHITE, BLUE ON WHITE, BLACK ON WHITE AND THE REVERSE OF THESE COLORS) SHALL BE ASTM TYPE I LEGEND ON ASTM TYPE I BACKGROUND.
     - iii. ALL OTHER REGULATORY SIGNS – RETROREFLECTIVE SHEETING FOR THESE SIGNS AND THEIR SUPPLEMENTAL PANELS (INCLUDES BLACK ON WHITE) SHALL BE NON–REFLECTIVE BLACK LEGEND ON ASTM TYPE IV BACKGROUND. WHERE RED IS SPECIFIED, OR WHERE THE COLOR OF THE SIGN IS WHITE ON BLACK, THE LEGEND SHALL BE ASTM TYPE IV RETROREFLECTIVE SHEETING ON NON–REFLECTIVE BLACK BACKGROUND. WARNING MESSAGES WITHIN REGULATORY SIGNS SHALL FOLLOW THE GUIDELINES FOR WARNING SIGNS.
   - E) ROUTE MARKERS –RETROREFLECTIVE SHEETING FOR ROUTE MARKERS (INCLUDES BLACK ON WHITE , GREEN ON WHITE, WHITE ON GREEN, WHITE ON RED/BLUE) SHALL MEET THE REQUIREMENTS OF GUIDE SIGNS ABOVE WHEN SPECIFIED AS THE LEGEND OF A GUIDE SIGN. RETROREFLECTIVE SHEETING FOR ALL INDEPENDENT ROUTE MARKERS AND THEIR AUXILIARY PANELS SHALL BE ASTM TYPE IV AND/OR NON–REFLECTIVE BLACK LEGEND ON ASTM TYPE IV BACKGROUND.
   - F) LOGOS AND/OR GRAPHICS –WITHIN SIGNS SHALL FOLLOW THE GUIDELINES FOR THE RESPECTIVE SIGN CLASSIFICATION UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.
   - G) CIVIL DEFENSE SIGNS AND OTHER SIGNS – NOT SPECIFICALLY FALLING INTO ONE OF THE CATEGORIES ABOVE, SHALL FOLLOW THE GUIDELINES FOR THE SIGN CLASSIFICATION THAT MOST CLOSELY MATCHES THE COLOR(S) OF THE PROPOSED SIGN.
4. THE FOLLOWING MINIMUM THICKNESS SHALL BE USED FOR THE APPROPRIATE WIDTH OF SHEET ALUMINUM BLANKS.

LONGEST DIMENSION	MINIMUM THICKNESS
UP TO 12"	0.040"
GREATER THAN 12" TO 24"	0.063"
GREATER THAN 24" TO 36"	0.080"
GREATER THAN 36" TO 48"	0.100"
OVER 48"	0.125"

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JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

SN–01
SIGNING & MARKING NOTES

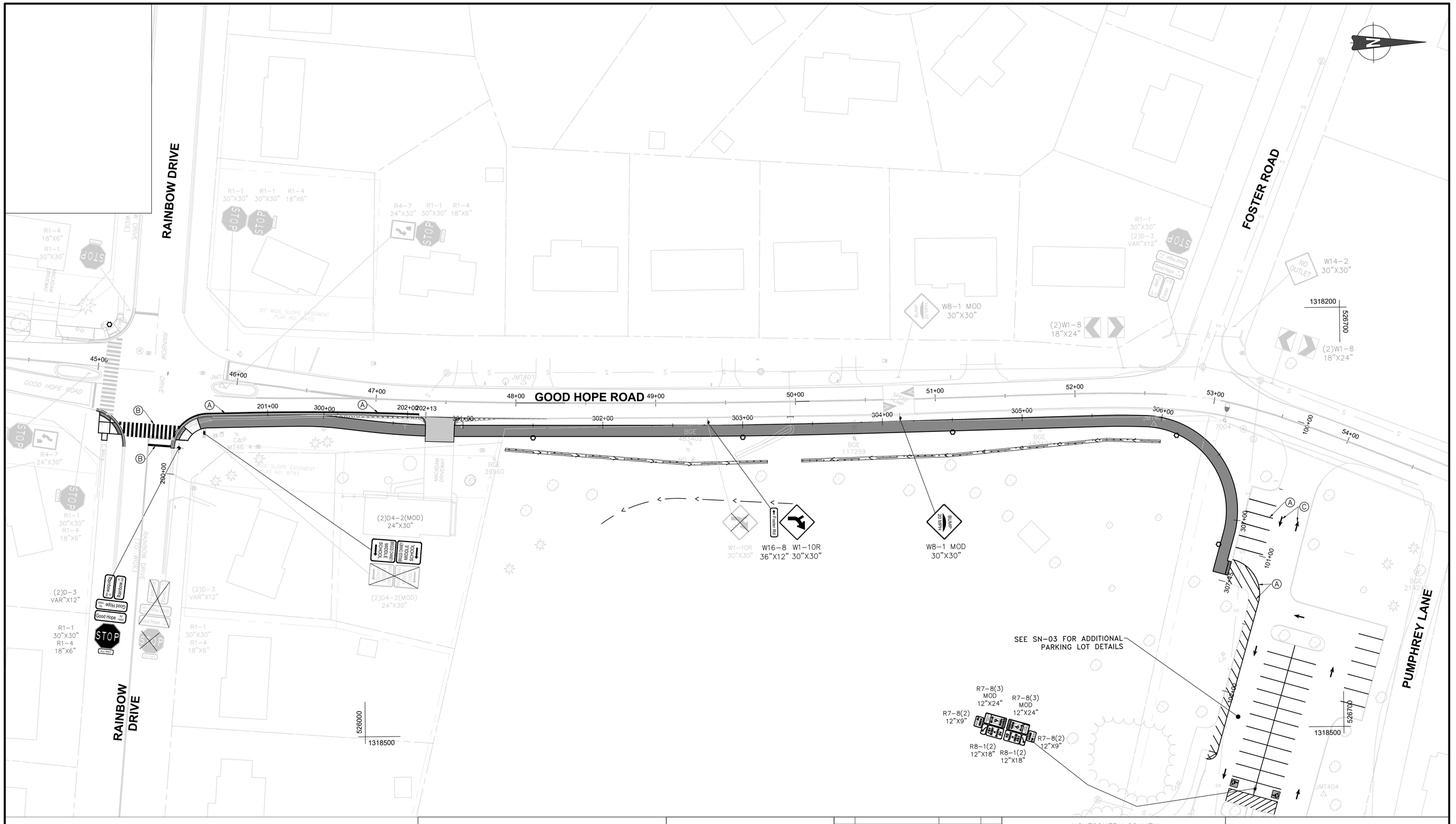
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 28 of 45



SIGNING LEGEND:

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN
- PROPOSED PEDESTRIAN LIGHT

PAVEMENT MARKING LEGEND:

- (A) SOLID SINGLE 4" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS CROSSWALKS & STOP BARS
- (C) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS & SYMBOLS

PAVEMENT LEGEND

- PROPOSED ASPHALT SHARED USE PATH
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED PAVEMENT REMOVAL

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

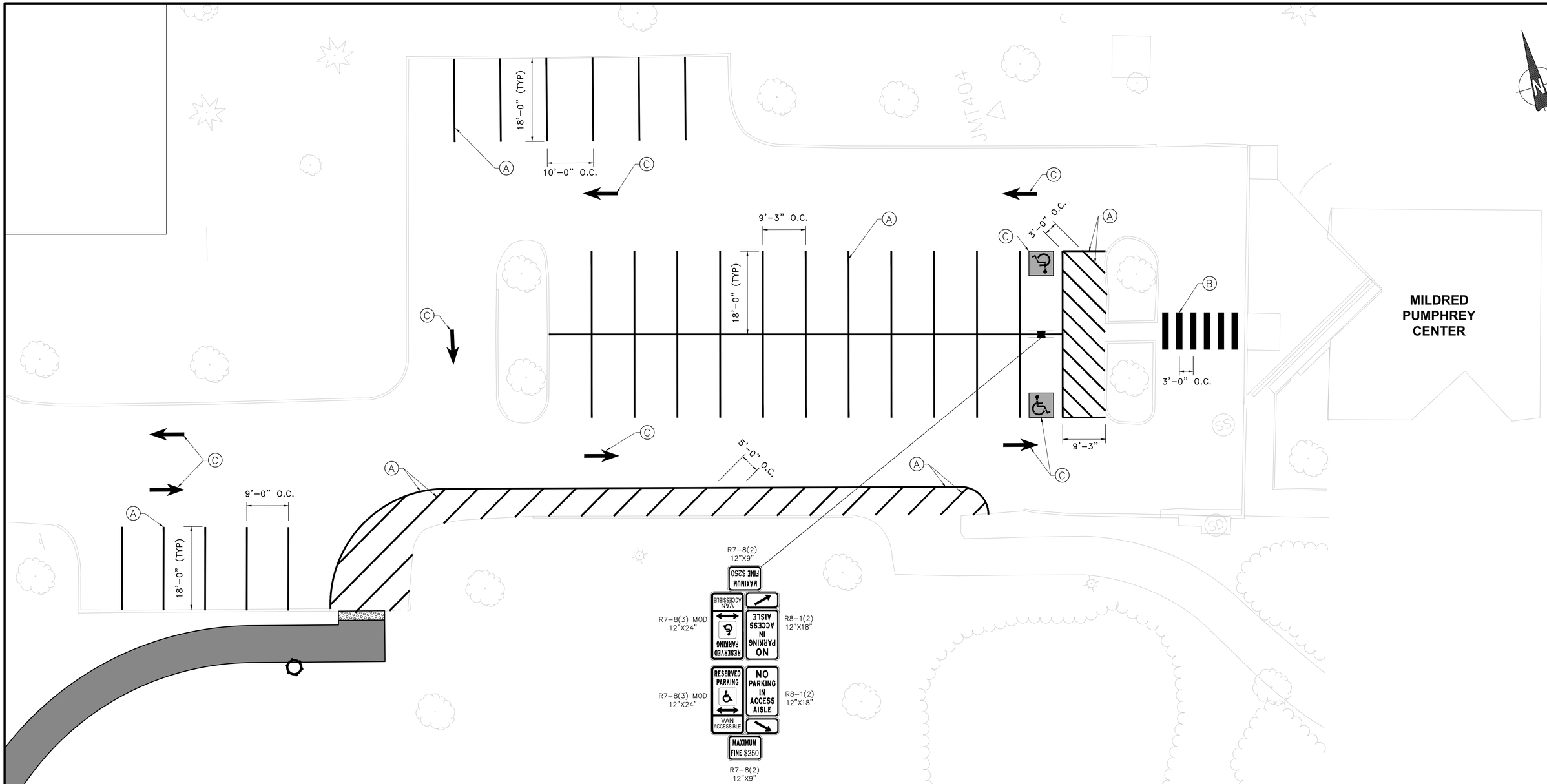
SN-02
SIGNING & MARKING PLAN
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 29 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pSN-P002_GHExt.dwg LAYOUT NAME: SN-02 PLOTTED: Tuesday, October 31, 2023 - 2:15pm USER: TSroczynski



SIGNING LEGEND:

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN
- PROPOSED PEDESTRIAN LIGHT

PAVEMENT MARKING LEGEND:

- (A) SOLID SINGLE 4" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS CROSSWALKS & STOP BARS
- (C) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS & SYMBOLS

PAVEMENT LEGEND

- PROPOSED ASPHALT SHARED USE PATH
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED PAVEMENT REMOVAL

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

SN-03
SIGNING & MARKING PLAN
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 10' 20'

SCALE: 1"=10'

DATE: OCTOBER 2023

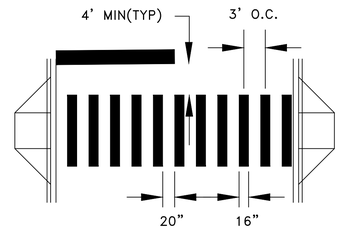
CIP No. : 507596

SHEET 30 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pSN-P003_GHExt.dwg LAYOUT NAME: SN-03 PLOTTED: Tuesday, October 31, 2023 - 2:16pm USER: TSroczynski

SIGN	SIZE	DESCRIPTION	SUPPORTS	AREA (SF)
D-3	VAR"x12"	STREET NAME	SINGLE SQUARE TUBULAR	2
D-3	VAR"x12"	STREET NAME		2
R1-1	30"x30"	STOP		6.25
R1-4	18"x6"	ALL WAY		0.75
D4-2 MOD	24"x30"	SCHOOL DESTINATION	SINGLE SQUARE TUBULAR	5
D4-2 MOD	24"x30"	SCHOOL DESTINATION		5
W1-10R	30"x30"	HORIZONTAL ALIGNMENT WARNING	SINGLE SQUARE TUBULAR	6.25
W16-8	36"x12"	ADVANCE STREET NAME		3
W8-1 MOD	30"x30"	BUMP - 20 MPH	SINGLE SQUARE TUBULAR	6.25
R7-8(3) MOD	12"x24"	RESERVED PARKING - VAN ACCESSIBLE	SINGLE SQUARE TUBULAR	2
R8-1(2)	12"x18"	NO PARKING IN ACCESS AISLE		1.5
R7-8(2)	12"x9"	MAX $250 FINE		0.75
R7-8(3) MOD	12"x24"	RESERVED PARKING - VAN ACCESSIBLE		2
R8-1(2)	12"x18"	NO PARKING IN ACCESS AISLE		1.5
R7-8(2)	12"x9"	MAX $250 FINE		0.75
			TOTAL (SF):	

PAVEMENT MARKINGS	LINEAR FEET
4 INCH WHITE THERMOPLASTIC	1150
16 INCH WHITE THERMOPLASTIC	220
WHITE LEGENDS & SYMBOLS	9



LADDER BAR CROSSWALK WITH STOPBAR DETAIL

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

SN-04
SIGNING & MARKING DETAILS

GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30'

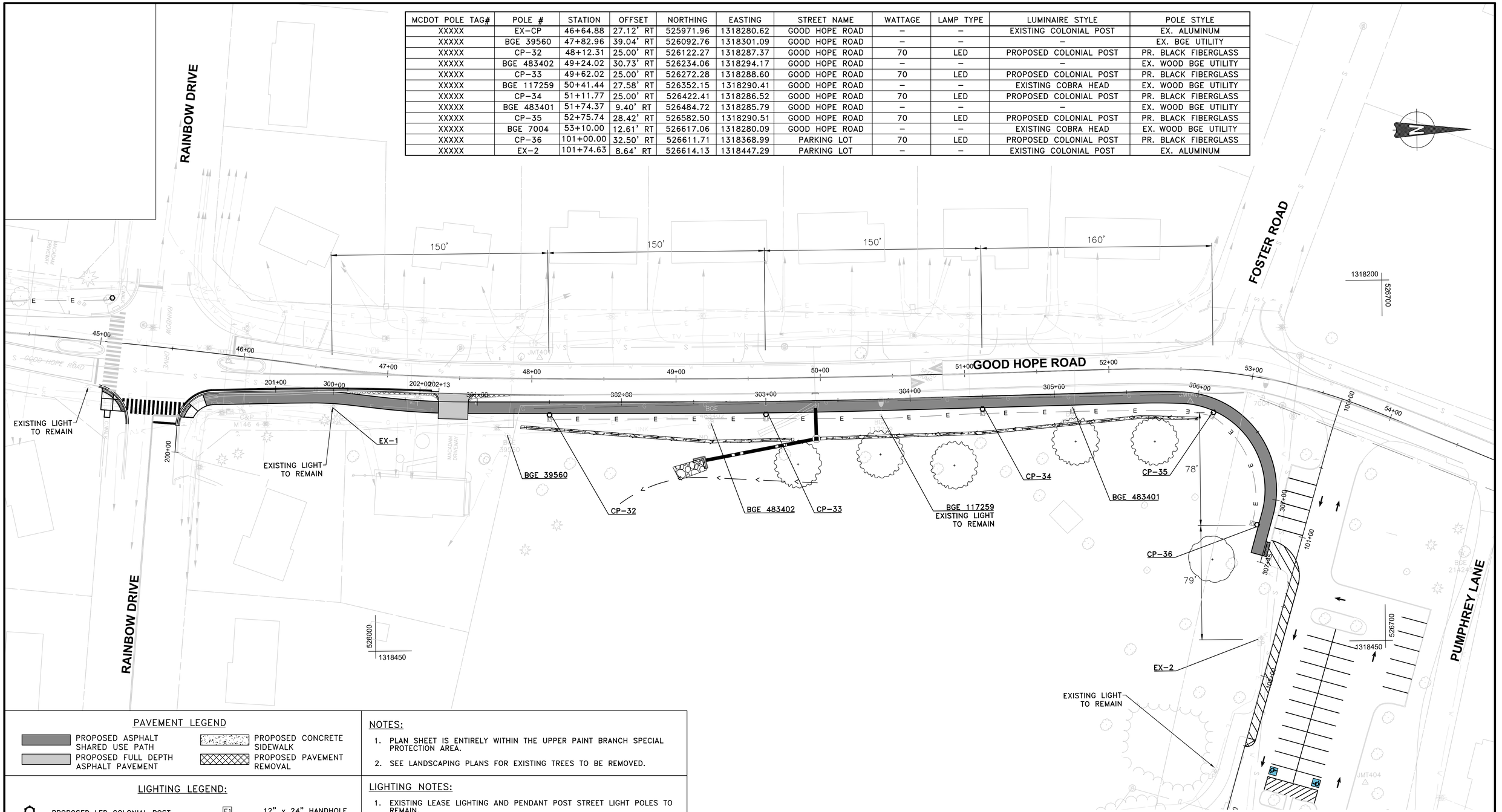
DATE: OCTOBER 2023

CIP No.: 507596

SHEET 31 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pSN-N001_GHExt.dwg LAYOUT NAME: SN-04 PLOTTED: Tuesday, October 31, 2023 - 2:16pm USER: TSroczynski

MCDOT POLE TAG#	POLE #	STATION	OFFSET	NORTHING	EASTING	STREET NAME	WATTAGE	LAMP TYPE	LUMINAIRE STYLE	POLE STYLE
XXXXX	EX-CP	46+64.88	27.12' RT	525971.96	1318280.62	GOOD HOPE ROAD	–	–	EXISTING COLONIAL POST	EX. ALUMINUM
XXXXX	BGE 39560	47+82.96	39.04' RT	526092.76	1318301.09	GOOD HOPE ROAD	–	–	–	EX. BGE UTILITY
XXXXX	CP-32	48+12.31	25.00' RT	526122.27	1318287.37	GOOD HOPE ROAD	70	LED	PROPOSED COLONIAL POST	PR. BLACK FIBERGLASS
XXXXX	BGE 483402	49+24.02	30.73' RT	526234.06	1318294.17	GOOD HOPE ROAD	–	–	–	EX. WOOD BGE UTILITY
XXXXX	CP-33	49+62.02	25.00' RT	526272.28	1318288.60	GOOD HOPE ROAD	70	LED	PROPOSED COLONIAL POST	PR. BLACK FIBERGLASS
XXXXX	BGE 117259	50+41.44	27.58' RT	526352.15	1318290.41	GOOD HOPE ROAD	–	–	EXISTING COBRA HEAD	EX. WOOD BGE UTILITY
XXXXX	CP-34	51+11.77	25.00' RT	526422.41	1318286.52	GOOD HOPE ROAD	70	LED	PROPOSED COLONIAL POST	PR. BLACK FIBERGLASS
XXXXX	BGE 483401	51+74.37	9.40' RT	526484.72	1318285.79	GOOD HOPE ROAD	–	–	–	EX. WOOD BGE UTILITY
XXXXX	CP-35	52+75.74	28.42' RT	526582.50	1318290.51	GOOD HOPE ROAD	70	LED	PROPOSED COLONIAL POST	PR. BLACK FIBERGLASS
XXXXX	BGE 7004	53+10.00	12.61' RT	526617.06	1318280.09	GOOD HOPE ROAD	–	–	EXISTING COBRA HEAD	EX. WOOD BGE UTILITY
XXXXX	CP-36	101+00.00	32.50' RT	526611.71	1318368.99	PARKING LOT	70	LED	PROPOSED COLONIAL POST	PR. BLACK FIBERGLASS
XXXXX	EX-2	101+74.63	8.64' RT	526614.13	1318447.29	PARKING LOT	–	–	EXISTING COLONIAL POST	EX. ALUMINUM



PAVEMENT LEGEND

- PROPOSED ASPHALT SHARED USE PATH
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED PAVEMENT REMOVAL

LIGHTING LEGEND:

- PROPOSED LED COLONIAL POST PEDESTRIAN LIGHT POLE
- EXISTING LIGHT & POLE TO REMAIN
- EXISTING LIGHT ON POWER POLE TO REMAIN
- XXX POLE NUMBER
- E1 12" x 24" HANDHOLE
- E2 17" x 30" HANDHOLE
- E (2) 4" SCHEDULE 40 PVC CONDUIT
- PROPOSED TREE (ULTIMATE CANOPY)
- EXISTING TREE

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN THE UPPER PAINT BRANCH SPECIAL PROTECTION AREA.
2. SEE LANDSCAPING PLANS FOR EXISTING TREES TO BE REMOVED.

LIGHTING NOTES:

1. EXISTING LEASE LIGHTING AND PENDANT POST STREET LIGHT POLES TO REMAIN.
2. PROPOSED LIGHT POLES TO BE CABLED AND POWERED BY BGE. CONTRACTOR TO PROVIDE LIGHT POLES, FOUNDATIONS, FIXTURES, HANDHOLES, AND CONDUIT FOR PEDESTRIAN LIGHTING. BGE TO RUN WIRING FROM SOURCE POLES AND SPLICE INTO PROVIDED POLES / LUMINAIRES AT LOCATIONS NOTED ON PLANS.
3. ALL PROPOSED LIGHTING SHALL INCORPORATE LED LUMINAIRES.
4. FOUNDATION OF DECORATIVE LAMP POST SHALL BE 4.5' IN HEIGHT AND 2' IN DIAMETER PER SPECIFICATIONS FOR STREETLIGHT HARDWARE.
5. CONDUIT TO BE DIRECT BURIED AND CONCRETE ENCASED WHEN LOCATED BENEATH PAVEMENT.
6. SEE DWG LT-02 FOR BGE CONDITIONS.

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: DJD Checked by: MDS

LT-01
LIGHTING PLAN
GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 32 of 45

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND OPERATIONS

JUNE 2016

RESIDENTIAL, COLONIAL POST-TOP,
LED OPTICS, TYPE III DISTRIBUTION, STYLE LUMINAIRE

1) PURPOSE

The purpose of these specifications is to prescribe the minimum requirements for the design, manufacture, fabrication, finishing and delivery of colonial post-top, LED optics, type III distribution, style luminaire. This luminaire is intended for use on or with the black fiberglass pole. These colonial post-tops, LED optics, type III distribution, style luminaires are intended for use along residential roadways, walkways, and tunnels throughout Montgomery County. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and attached drawings.

2) DESCRIPTION

The residential, colonial post-top, LED optics, type III distribution, style luminaire is made of a cast aluminum alloy housing.

Each streetlight luminaire shall include the following:

a) Cast aluminum housing and hinged top canopy;
b) 120 volt LED Driver;
c) 10KV Surge Suppression Device built in;
d) NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell;
f) Acrylic or Polycarbonate resin refractor side panels (lens);
h) All necessary hardware required for mounting on fiberglass poles, as specified.

3) DESIGN CRITERIA

3.1) AASHTO Standards

The luminaire shall meet the requirements of American Association of State Highway and Transportation Officials (AASHTO) Standard, "Specification for Structural supports for Highway Signs, Luminaires and Traffic Signals," latest edition.

3.2) Shape and Minimum Size

a) The luminaire shall be of a trapezoidal shape. The minimum size for the luminaire shall 40.0 inches (sum of the length plus height), when viewed from the side.
b) The luminaire shall be suitable to accommodate 120 volt LED Driver, 10KV Surge Suppression Device and NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell.

3.3 Effective Projected Area (EPA)

SPECIFICATIONS FOR STREETLIGHT HARDWARE

The luminaire shall have a maximum estimated allowable EPA for the luminaire of 0.7 ± square feet.

3.4 Finish

The luminaire shall have a black polyester powder coat finish. During the finishing process, all critical openings shall be plugged to prevent contamination of the threads or reduction of other critical openings.

4) MATERIALS

4.1 Housing

The luminaire shall consist of a water tight housing fabricated from die-cast aluminum with a gasketed die-cast aluminum canopy. The canopy shall be hinged on one side and secured on the opposite side with a captive stainless steel screw. All castings used to fabricate the luminaire housing shall be clean and smooth with details defined and true to pattern. The housing shall be suitable to accommodate 120 volt LED Driver, 10KV Surge Suppression Device and NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell.

4.2 Driver & Surge Protection

The driver shall be mounted to facilitate easy removal for maintenance operations. The driver shall be equipped with a 10KV Surge Protection and suppression system. All electrical connections shall be polarized and of plug-in design. The driver shall be wired to receive 120 volt AC current. The driver shall reliably start and operate the lamp in ambient temperatures down to minus 30 degrees. The terminal block shall be capable of accepting up to a #6 AWG wire.

4.3 LED Color Temperature (CCT) and Rendering Index (CRI)

The Correlated Color Temperature (CCT) shall be a nominal Kelvin Temperature of 3500K ± 200K with a minimum Color Rendering Index (CRI) of 70.

4.4 Photoelectric Cell

The photocell receptacle shall be mounted for easy access and maintenance. The photocell shall be of the NEMA twist-lock type.

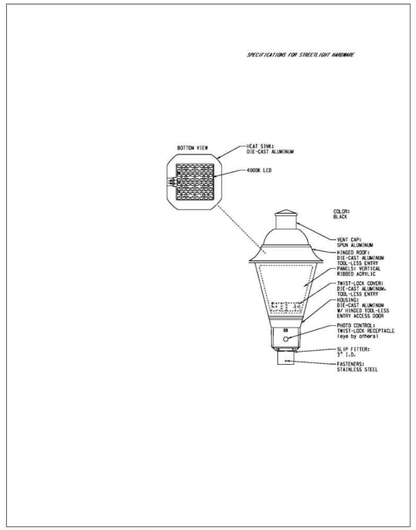
4.5 Side refractor panels

The luminaire shall be equipped with acrylic or polycarbonate resin refractor panels, with spring loaded retainer clips to hold refractor panels.

4.6 Slip Fitter

The slip fitter shall have a nominal inside diameter of 3.375 inches +/- 0.25 and shall be secured to the lamp post tenon with three or four evenly spaced set screws. The slip fitter shall accommodate a tenon 3.0 inches long.

SPECIFICATIONS FOR STREETLIGHT HARDWARE



SPECIFICATIONS FOR STREETLIGHT HARDWARE

MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND OPERATIONS SECTION

JUNE 2016

STREETLIGHT POST NUMBERING TAGS

1) PURPOSE

The purpose of these specifications is to prescribe the minimum requirements for the design, manufacture, fabrication, finishing and delivery of streetlight post numbering tags. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and attached drawings.

2) DESIGN CRITERIA

The streetlight post numbering tags are to be made of aluminum and finished with a similar color coating as that of the streetlight pole it is to be rigidly attached to. This streetlight post numbering tag is intended for use on all streetlight post maintained by Montgomery County.

Each pole numbering tag shall comply to the following:

a) Be 2" wide and 12" long
b) Be a color similar to the streetlight pole
c) Have 5 numbers of an opposite color placed vertically
d) All White/Silver surfaces shall be made of retroreflective sheeting
e) All colored surfaces shall be nonreflective

3) MATERIALS

a) TAG

The streetlight post numbering tags shall be 12 inches X 2 inches, fabricated from clear anodized 1/16 inch thick aluminum. The edges shall be smooth and corners rounded and the tag shall fit the streetlight pole shaft.

b) REFLECTIVE AREAS

The streetlight post numbering tag reflective area shall conform to D4956, Type III retroreflective sheeting.

SPECIFICATIONS FOR STREETLIGHT HARDWARE

c) NONRELECTIVE AREAS The streetlight post numbering tags nonrelective areas shall be as follows:

a. Numbers on white/silver reflective post tag

b. Backing on all other streetlight post tags

4) MOUNTIING HEIGHT

The streetlight post numbering tag should be mounted at a height approximately 10 foot from the surrounding elevation of the ground, unless otherwise approved and directed by the Engineer.

5) MOUNTING ORIENTATION

The streetlight post numbering tag shall be oriented and rigidly mounted at a 30 to 45 degree angle, so that approaching traffic can readily observe the tags numbers.

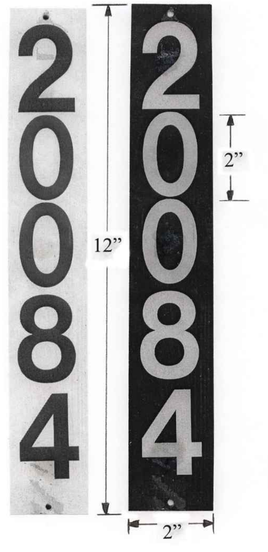
6) MOUNTING HARDHARE

The streetlight post numbering tag shall be secured to the shaft of the streetlight by a means of two (2) 1/8 inch diameter,18-8 stainless steel tamper-proof screw.

7) NUMBERS

The streetlight post numbering tag numbers shall be a minimum of 2 inch high with a minimum of a ¼ inch stroke width.

SPECIFICATIONS FOR STREETLIGHT HARDWARE



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NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

LT-02
LIGHTING NOTES & DETAILS

GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'
SCALE: 1"=30'

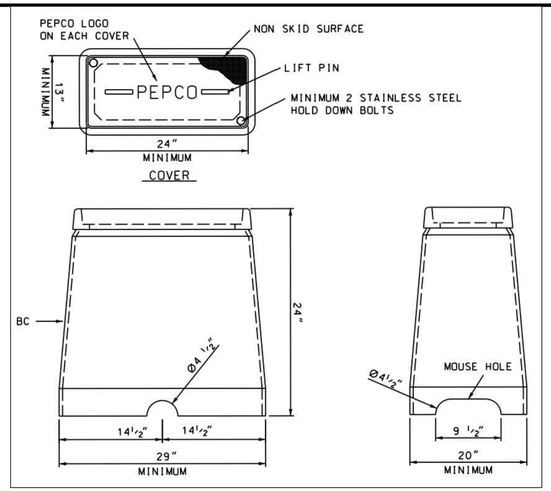
DATE: OCTOBER 2023

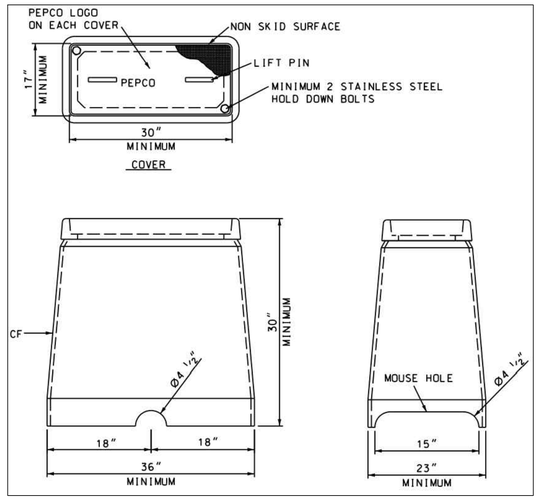
CIP No. : 507596

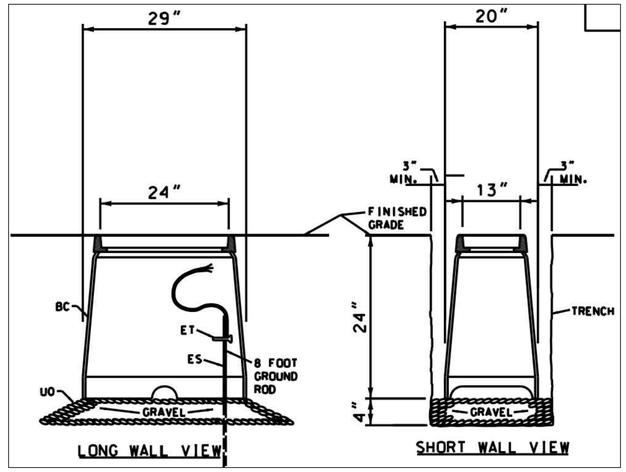
SHEET 33 of 45

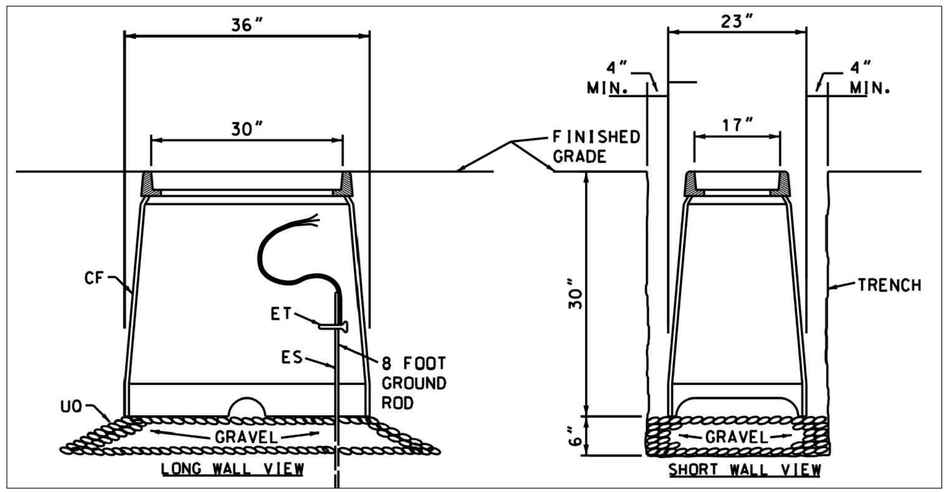
FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pLT-N001_GHExt.dwg LAYOUT NAME: LT-02 PLOTTED: Tuesday, October 31, 2023 - 2:18pm USER: TSroczynski

Xref ..\Border File\xLG-0001 MoCo 2020 STB.dwa









BGE CONDITIONS:

SPACE RESERVED FOR BGE STANDARD NOTES

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DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: DJD

LT-03
LIGHTING NOTES & DETAILS

GOOD HOPE ROAD SHARED USED PATH EXTENSION

0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 34 of 45

FILE NAME: Q:\2018\1804565_010_Good_Hope_Road_Share\CADD\pLT-N001_GHExt.dwg LAYOUT NAME: LT-03 PLOTTED: Tuesday, October 31, 2023 - 2:18pm USER: TSroczynski

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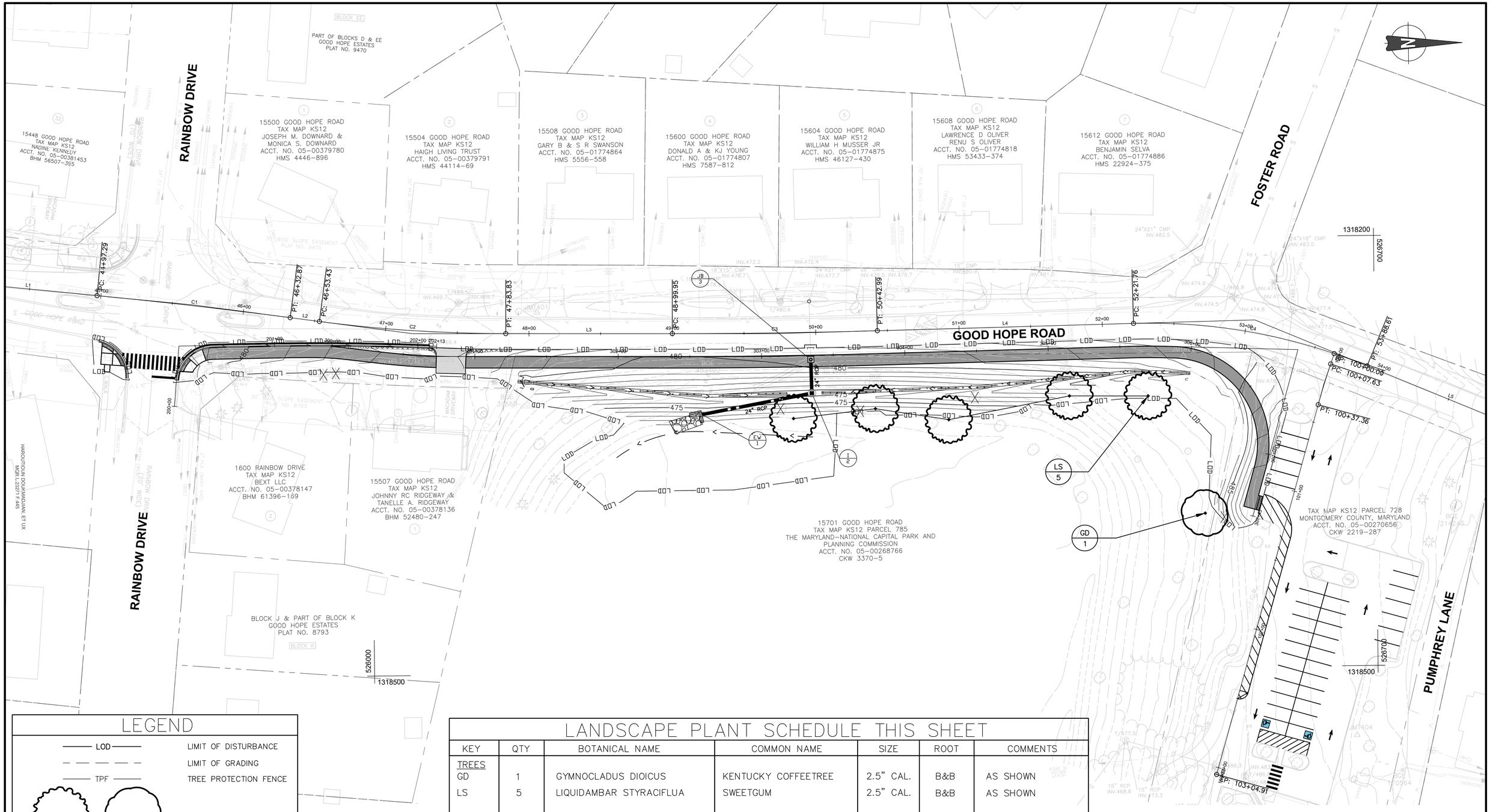

LEGEND

- LOD — LIMIT OF DISTURBANCE
- LIMIT OF GRADING
- TPF — TREE PROTECTION FENCE
- PROPOSED SHADE TREE
- PROPOSED FLOWERING TREE
- PROPOSED SHARED USE PATH
- EXISTING TREE
- PROPOSED LIGHTPOLE
- EXISTING SPECIMEN TREE (24" OR MORE DBH)

LANDSCAPE PLANT SCHEDULE THIS SHEET

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	COMMENTS
TREES						
GD	1	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2.5" CAL.	B&B	AS SHOWN
LS	5	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2.5" CAL.	B&B	AS SHOWN

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN THE UPPER PAINT BRANCH SPECIAL PROTECTION AREA.
2. BGE UTILITY POLES ALONG SOUTH SIDE OF GOOD HOPE ROAD TO REMAIN IN EXISTING LOCATIONS.
3. THIS PLAN SHOWS A CONSERVATIVE LIMIT OF DISTURBANCE SURROUNDING THE PROPOSED DRAINAGE OUTFALL PIPE AND EXISTING PERIMETER SWALE THAT WILL BE REGRADED TO ADDRESS NUISANCE PONDING PER REQUEST FROM M-NCPPC PARKS. LOD WILL BE REFINED AS DESIGN OF THESE ELEMENTS CONTINUES TO PROGRESS.

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DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

LS-01
LANDSCAPE PLAN

GOOD HOPE ROAD SHARED USED PATH EXTENSION

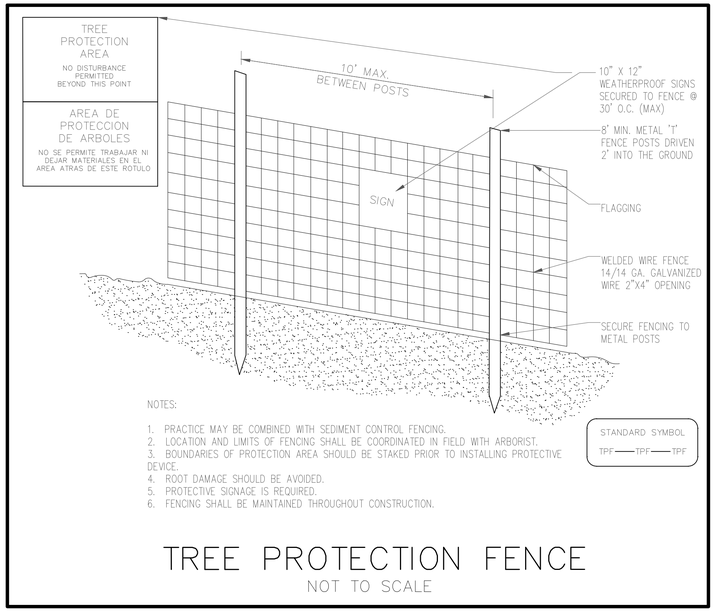
0 30' 60'

SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 35 of 45

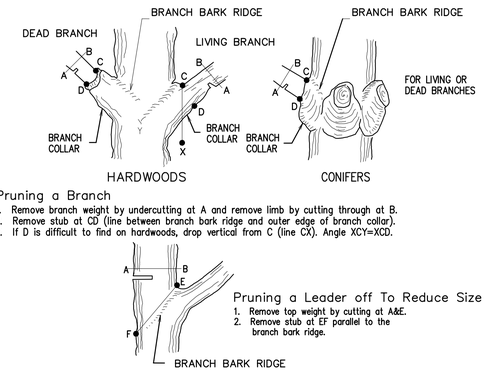


TREE PROTECTION FENCE

NOT TO SCALE

LANDSCAPE PLANT SCHEDULE TOTAL

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	COMMENTS
TREES						
GD	1	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2.5" CAL.	B&B	AS SHOWN
LS	5	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2.5" CAL.	B&B	AS SHOWN



Pruning a Branch

1. Remove branch weight by undercutting at A and remove limb by cutting through at B.
2. Remove stub at CD (line between branch bark ridge and outer edge of branch collar).
3. If D is difficult to find on hardwoods, drop vertical from C (line CX). Angle XCY=XCD.

Pruning a Leader off To Reduce Size

1. Remove top weight by cutting at A&E.
2. Remove stub at EF parallel to the branch bark ridge.

Medium pruning shall consist of the removal of dead, dying, diseased, interfering, objectionable and weak branches on the main trunk as well as those within the leaf area. An occasional branch up to one inch in diameter may remain within the main leaf area where it is not practical to remove it.

The following specifications shall apply:

a. All cuts shall be made sufficiently close to the trunk or parent limb, without cutting into the branch collar or leaving a protruding stub, so that closure can readily start under normal conditions. Clean cuts shall be made at all times.

b. It is necessary to precut branches too heavy to handle to prevent splitting or peeling the bark. Where necessary, to prevent tree or property damage, branches shall be lowered to the ground by proper ropes or equipment.

c. Treatment of cuts and wounds, with tree wound dressing, is optional except where open wounds in certain trees may attract insects that carry disease or allow fungus invasion. If such treatment is made, materials non-toxic to the cambium layer must be used, and care taken to treat only the exposed wood with a thin coat of dressing.

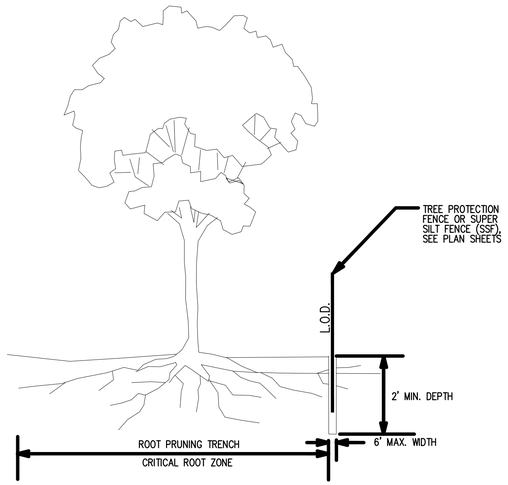
d. On trees known to be diseased, tools are to be disinfected with methyl alcohol at 70% (denatured wood alcohol diluted appropriately with water) or Chlorox solution after each cut and between trees where there is known to be a danger of transmitting the disease on tools.

e. Old injuries are to be inspected. Those not closing properly and where the callus growth is not already completely established should be traced where appropriate. If desired, for cosmetic purposes, the wound may be treated with a thin coat of wound dressing.

f. All girdling roots visible to the eye are to be reported to the supervisor and the Engineer.

g. The presence of any structural weakness, disease conditions, decayed trunk or branches, split crotches or branches, should be reported in writing to the supervisor and the Engineer, and corrective measures recommended.

CROWN PRUNING



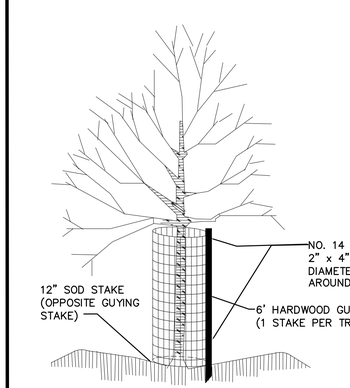
NOTES

1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS.
2. BOUNDARIES OF RETENTION AREAS SHALL BE STAKED AND FLAGGED PRIOR TO TRENCHING.
3. EXACT LOCTION OF TRENCH SHALL BE INDENTIFIED.
4. TRENCH SHALL BE IMMEDIATELY BACKFILLED WITH SOIL REMOVED OR OTHER HIGH ORGANIC SOIL.
5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT
6. ALL SIGNIFICANT TREES SHALL BE INSPECTED BY A ISA CERTIFIED ARBORIST PRIOR TO CONSTRUCTION AND ROOT PRUNING.

SOURCE: CITY OF GAITHERSBURG, MARYLAND: CITY TREE MANUAL

ROOT PRUNING PRIOR TO CONSTRUCTION

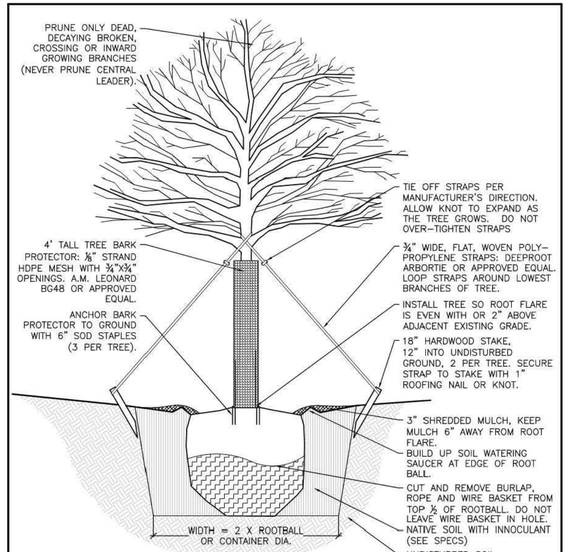
(IF NEEDED)



NOTES:

1. CAGE SHALL BE NO. 14 GAUGE WIRE FABRIC WITH 2"x 4"OPENINGS.
2. CAGE HEIGHT SHALL BE 4' (MIN.)
3. CREATE A 1-FOOT DIAMETER CAGE AROUND TREE.
4. FOR MULTI-STEM TREES AND SHRUBS OR TREES WITH LEADERS BELOW 4', USE WIDER CAGE TO LEAVE A 1-FOOT DIAMETER AROUND TREE.
5. CAGE SHALL BE FASTENED TO STAKE WITH TWO (MIN.) 11-INCH TWIST TIES, ONE AT TOP AND ONE AT 6"(MIN.) ABOVE THE GROUND.
6. INSTALL 6' HARDWOOD GUYING STAKE, 2' INTO GROUND, 1 STAKE (MIN.) PER CAGE.
7. ENSURE CAGE IS FASTENED TO THE GROUND TO PREVENT UPLIFT BY DEER BY INSTALLING A 12"SOD STAKE OPPOSITE THE GUYING STAKE.
8. FOR TREES LARGER THAN 3"CALIPER WITH NO BRANCHING BELOW 4', CAGE CAN BE SUBSTITUTED WITH DEER BARK PROTECTORS (ITEMS #bg48, BY A.M. LEONARD) OR EQUAL.
9. DO NOT DAMAGE TREE DURING INSTALLATION.
10. CAGES TO BE REMOVED ONLY AT DIRECTION OF FOREST ECOLOGIST.

TREE DEER PROTECTION



NOTES

1. STAKES AND WIRES MUST BE REMOVED 12 MONTHS AFTER PLANTING.
2. PLANTING HOLE SHALL BE DUG BY BACKHOE OR OTHER MACHINE AND FINISHED BY HAND.
3. IF SURROUNDING SOIL IS COMPACTED AS DETERMINED BY M-NCPPC CONSTRUCTION MANAGER, AN AREA UP TO 5 TIMES THE DIAMETER OF THE ROOT MASS SHALL BE EXCAVATED OR ROTOTILLED TO A 1' DEPTH AND SOIL SHALL BE AMENDED.
4. DO NOT DAMAGE OR CUT LEADER.
5. ROOT FLARE SHALL BE EVEN WITH LEVEL OF UNDISTURBED GROUND.

DECIDUOUS PLANTS - (2½" Caliper or Larger)

The Maryland-National Capital Park and Planning Commission
Montgomery County Department of Parks

Detail No. ?

SEPTEMBER 2012

DRAFT
NOT FOR CONSTRUCTION

JMT

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

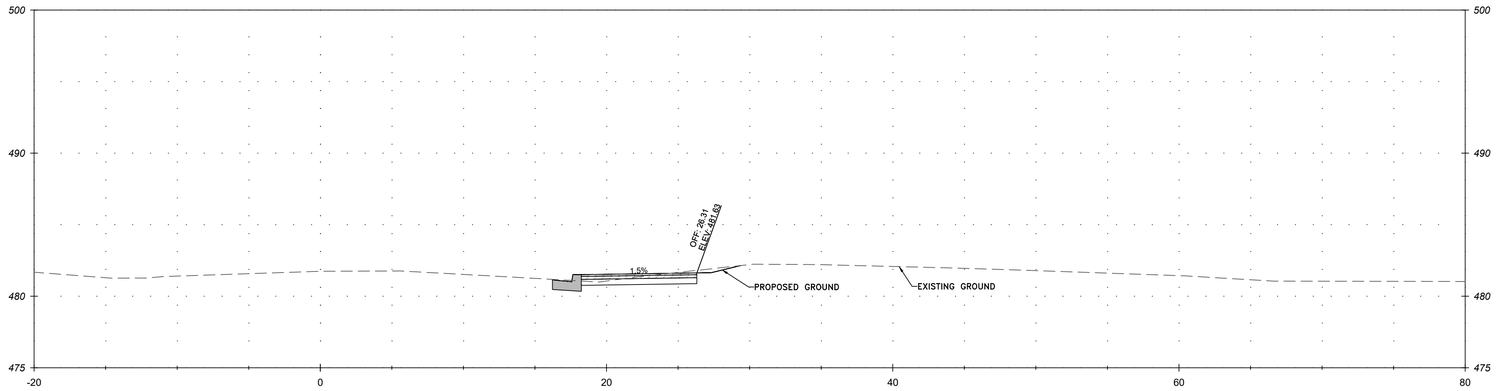
LS-02
LANDSCAPE DETAIL

GOOD HOPE ROAD SHARED USED PATH EXTENSION

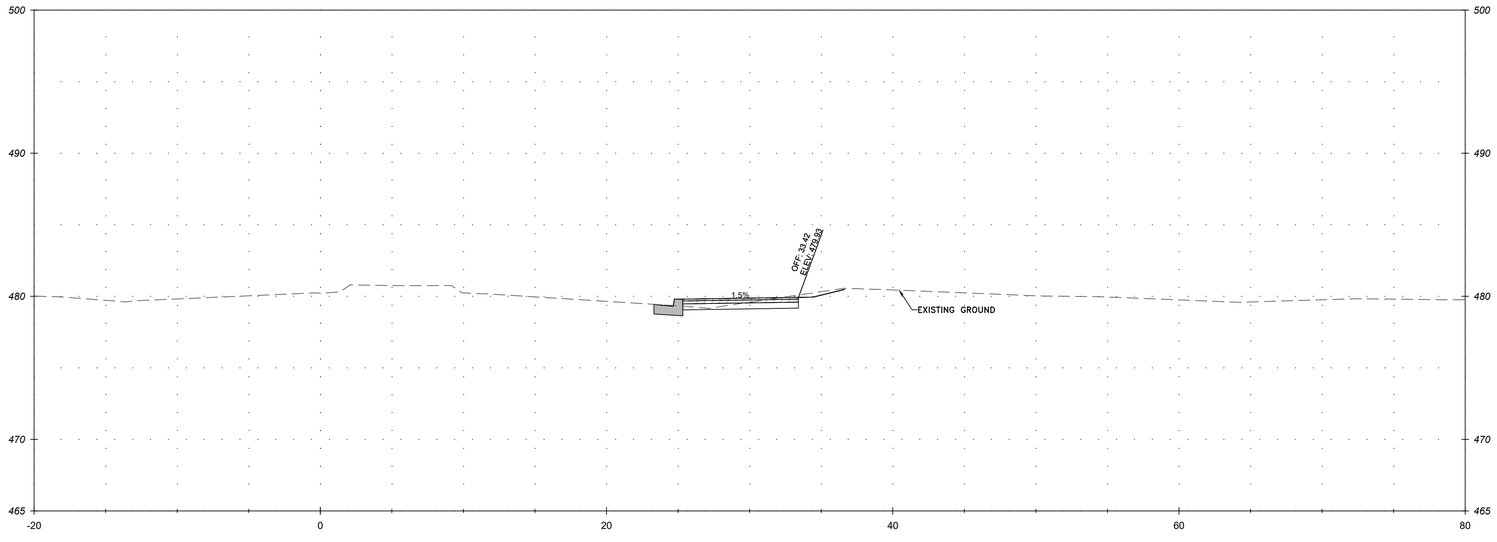
0 30' 60'

SCALE: 1"=30' DATE: OCTOBER 2023

CIP No. : 507596 SHEET 36 of 45



STA. 46+50



STA. 46+00

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GAITHERSBURG, MARYLAND

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Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

XS-01
CROSS SECTION

GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'

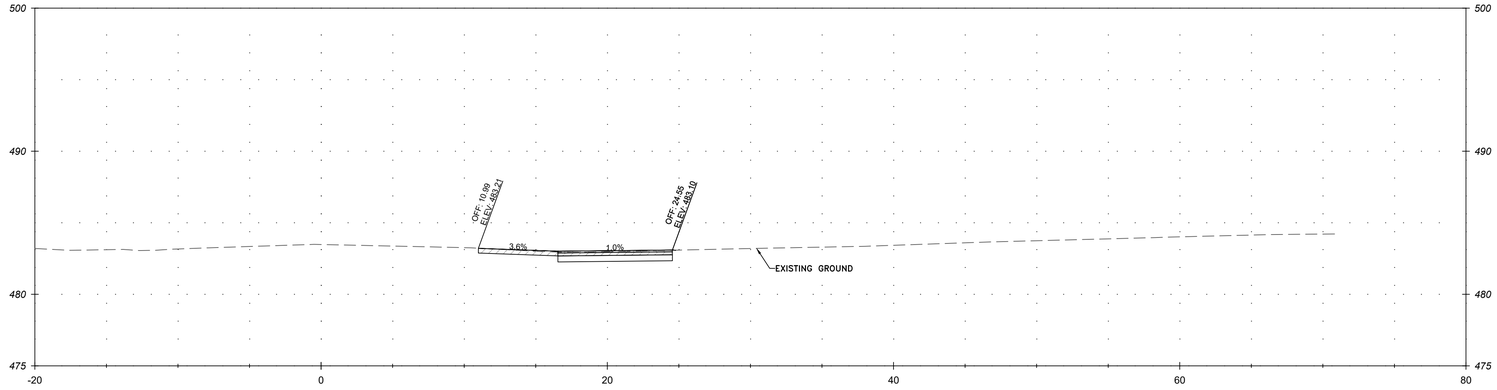
SCALE: 1"=30'

DATE: OCTOBER 2023

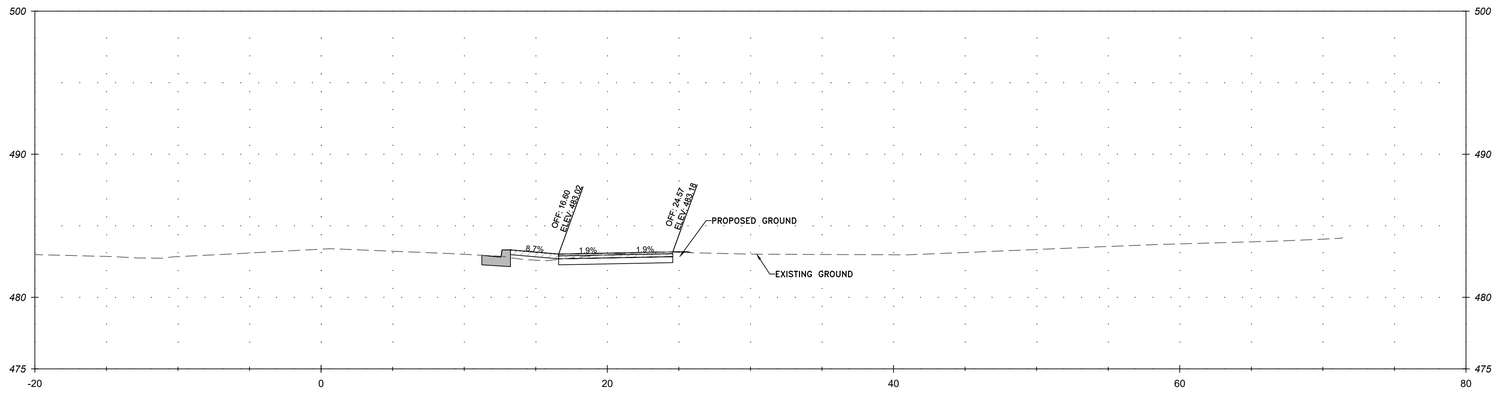
CIP No. : 507596

SHEET 37 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-01 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



STA. 47+50 (DRIVEWAY)



STA. 47+00

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MONTGOMERY COUNTY
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XS-02
CROSS SECTION

GOOD HOPE ROAD
SHARED USE PATH

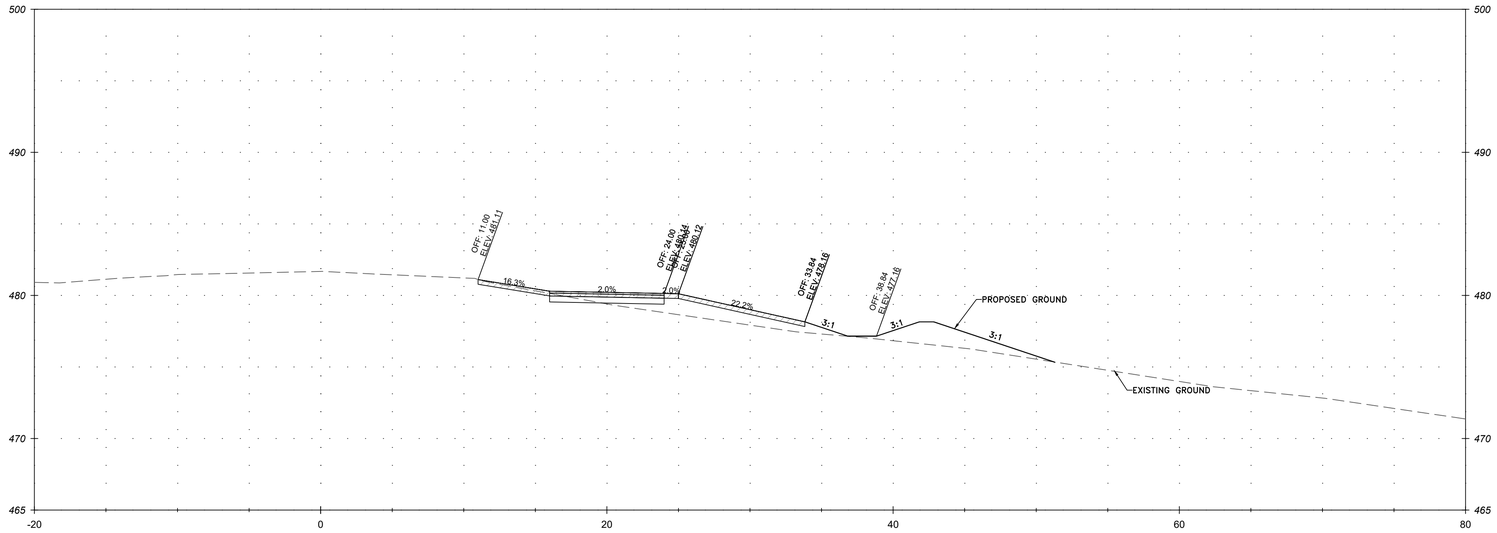
0 30' 60'
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No.: 507596

SHEET 38 of 45

FILE NAME: O:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-02 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



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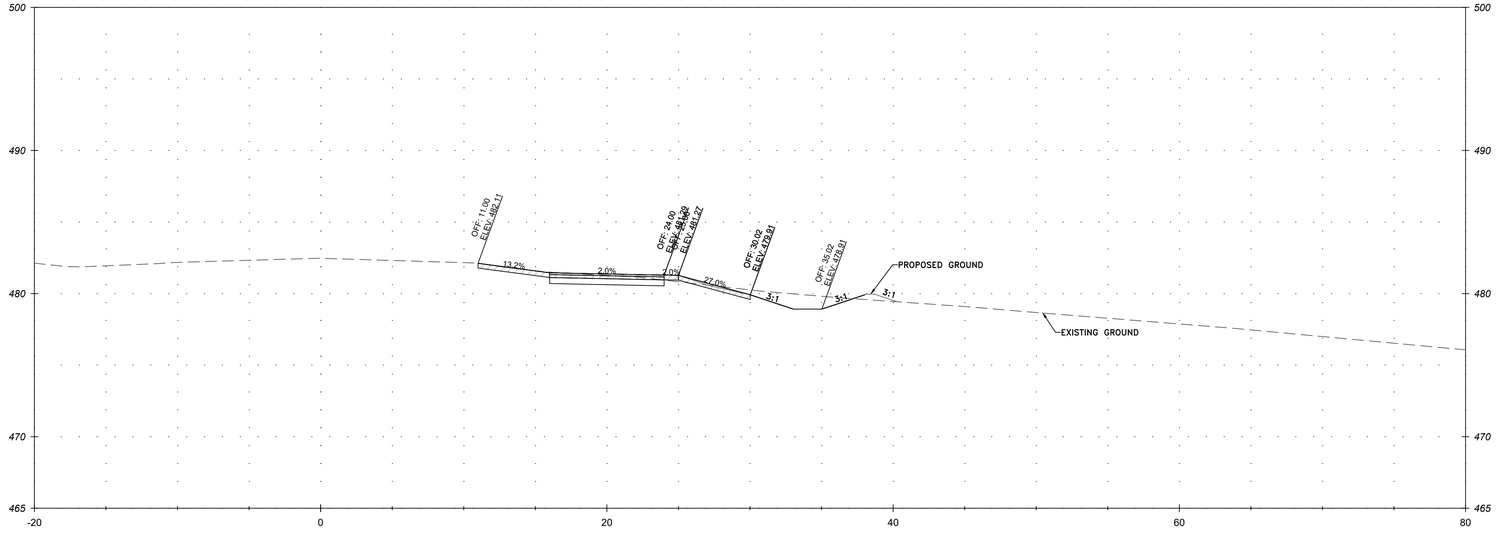

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XS-03
CROSS SECTION
GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'

SCALE: 1"=30'

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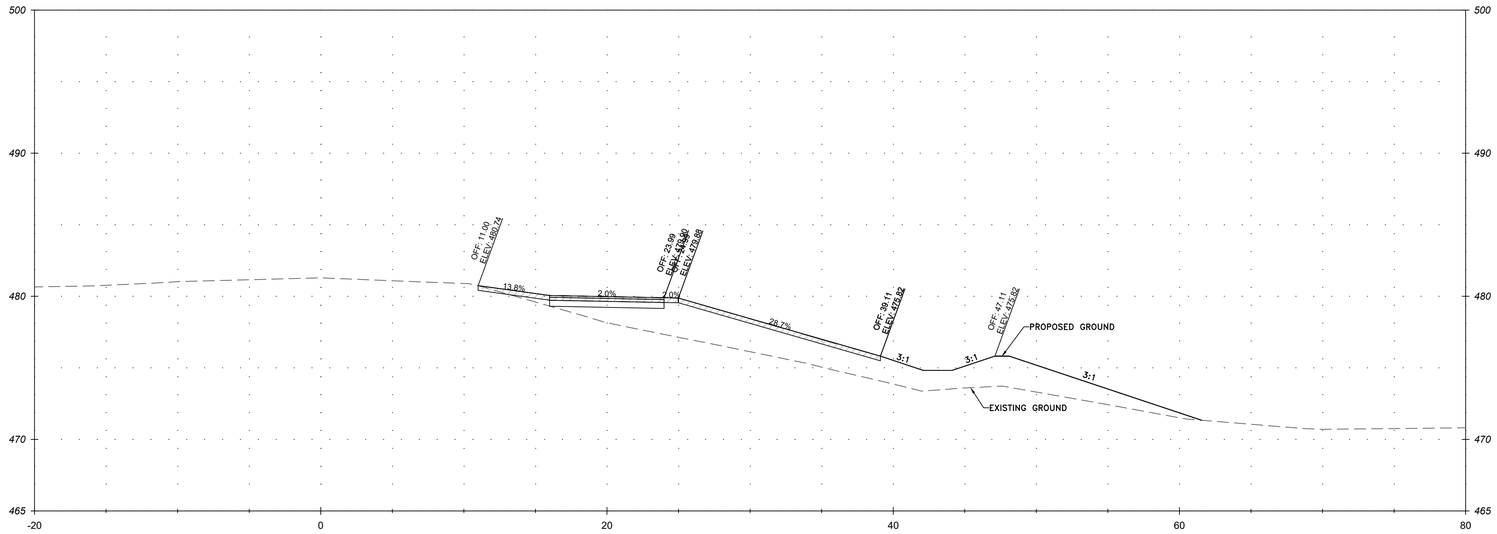
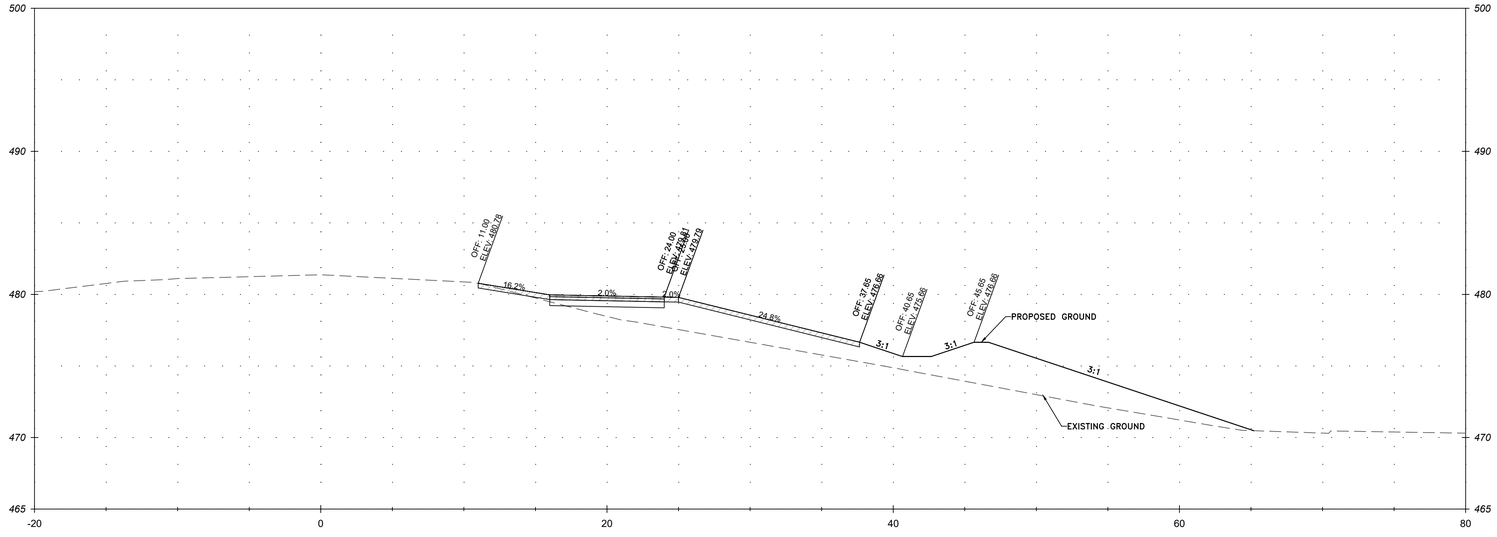
SHEET 39 of 45

FILE NAME: O:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-03 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



STA. 49+50



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APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

XS-04
CROSS SECTION
GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'

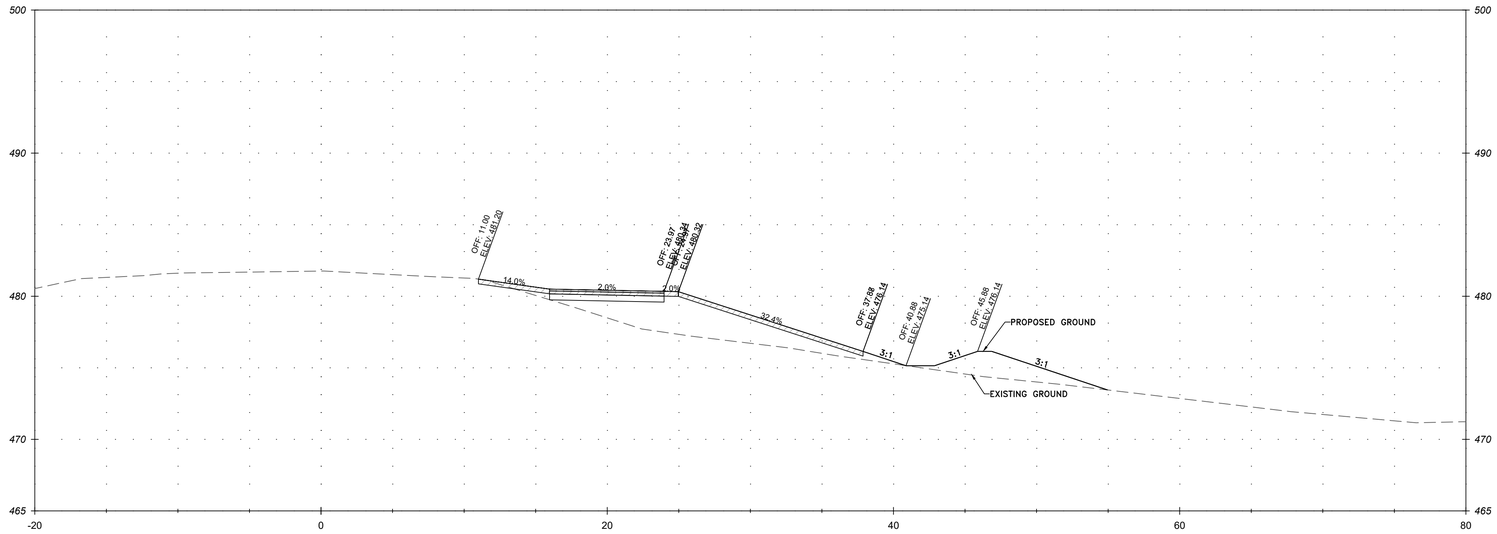
SCALE: 1"=30'

DATE: OCTOBER 2023

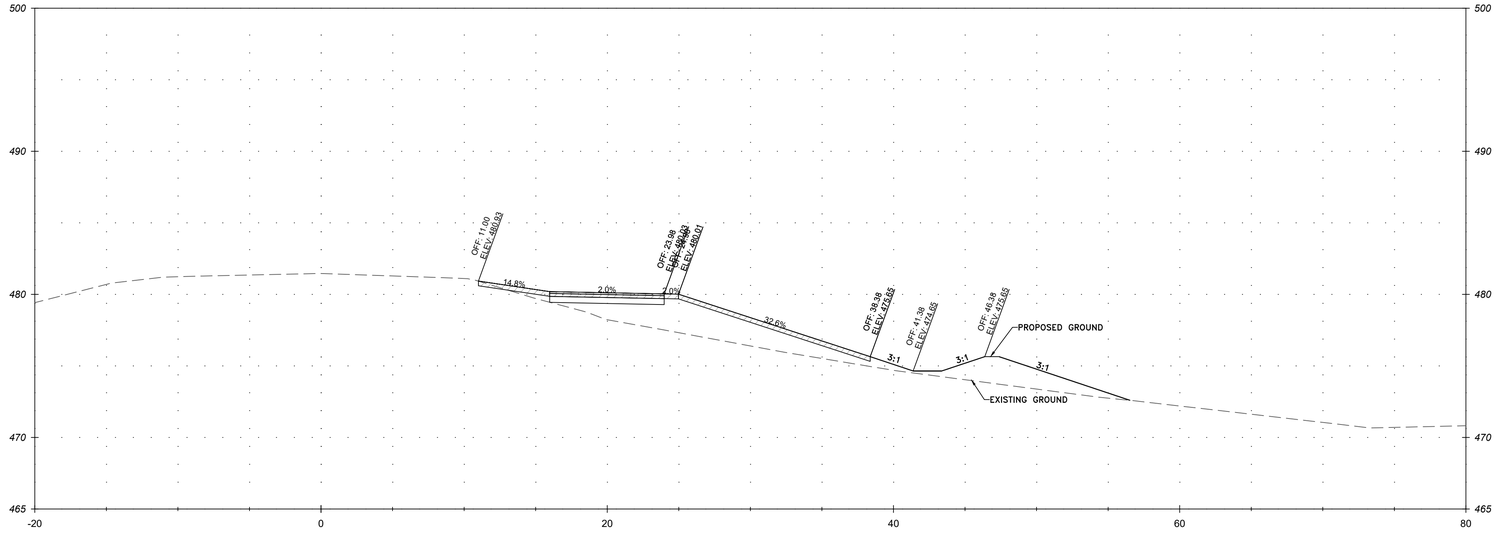
CIP No. : 507596

SHEET 40 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-04 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



STA. 50+50



STA. 50+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

XS-05
CROSS SECTION
GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'

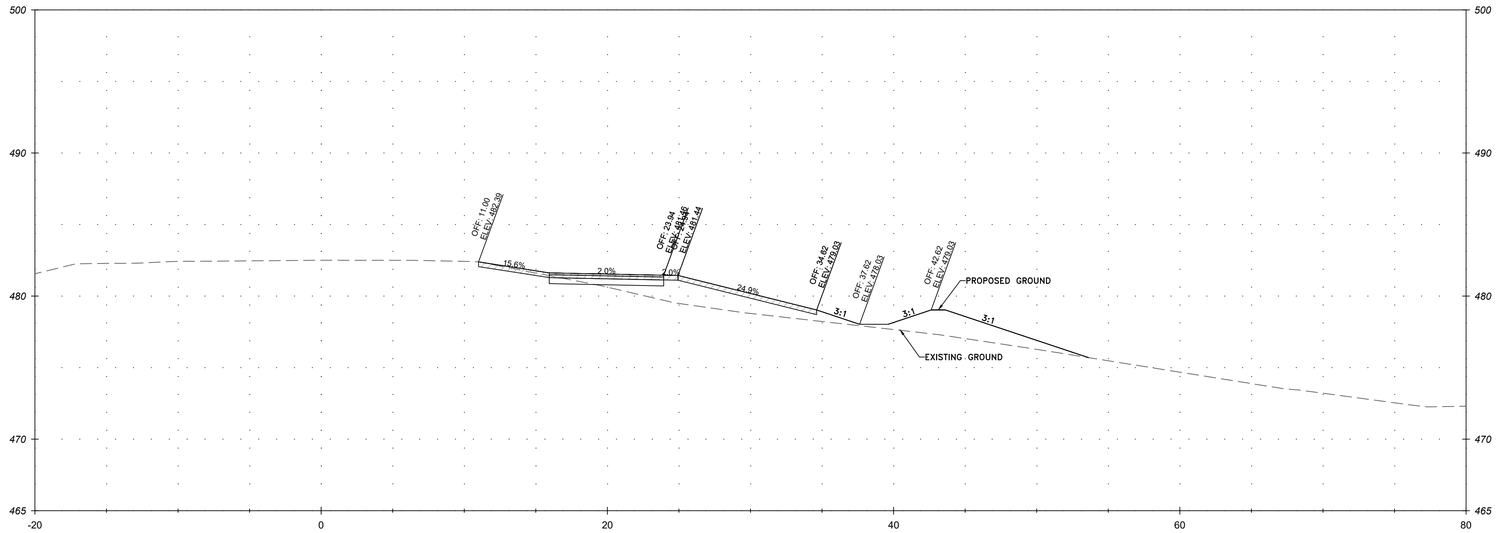
SCALE: 1"=30'

DATE: OCTOBER 2023

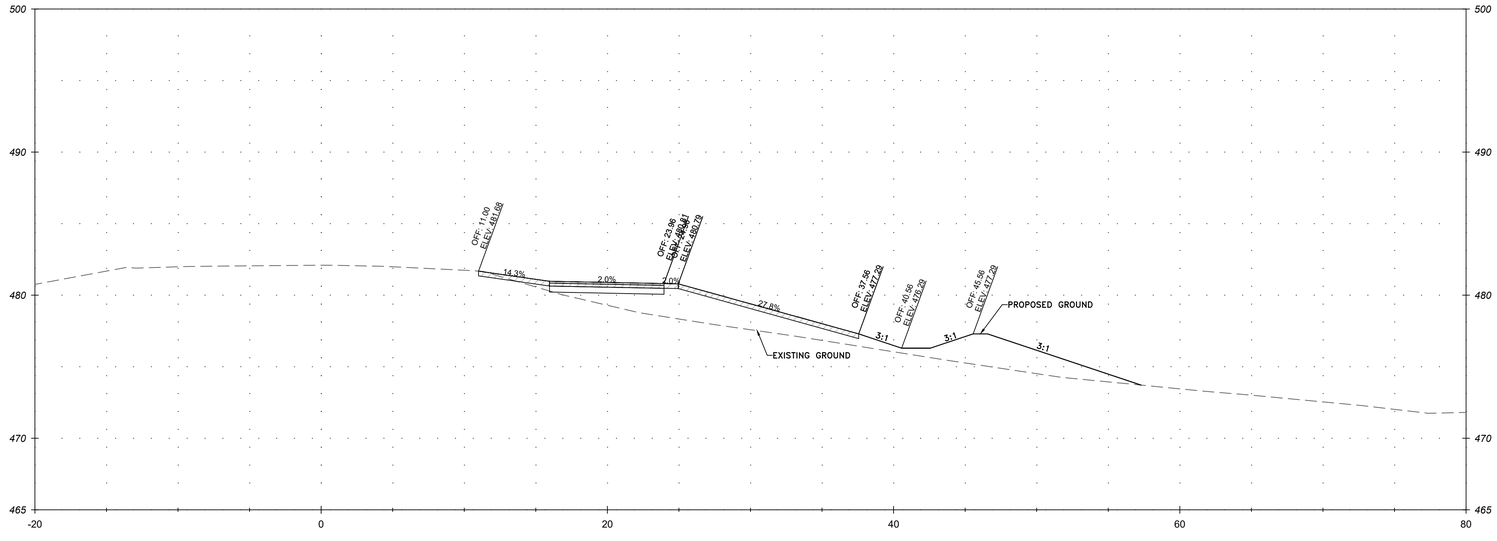
CIP No. : 507596

SHEET 41 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-05 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



STA. 51+50



STA. 51+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

XS-06
CROSS SECTION
GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'

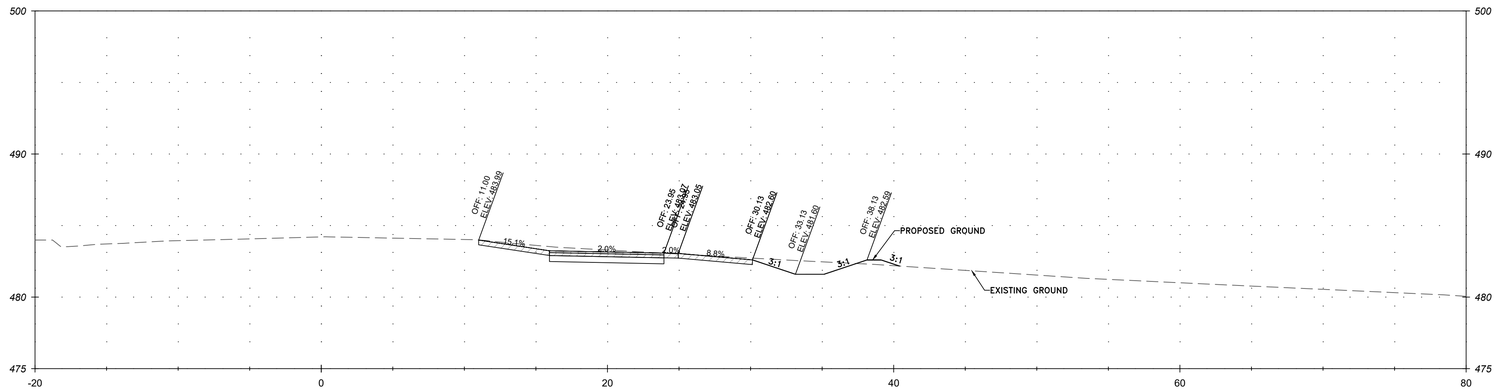
SCALE: 1"=30'

DATE: OCTOBER 2023

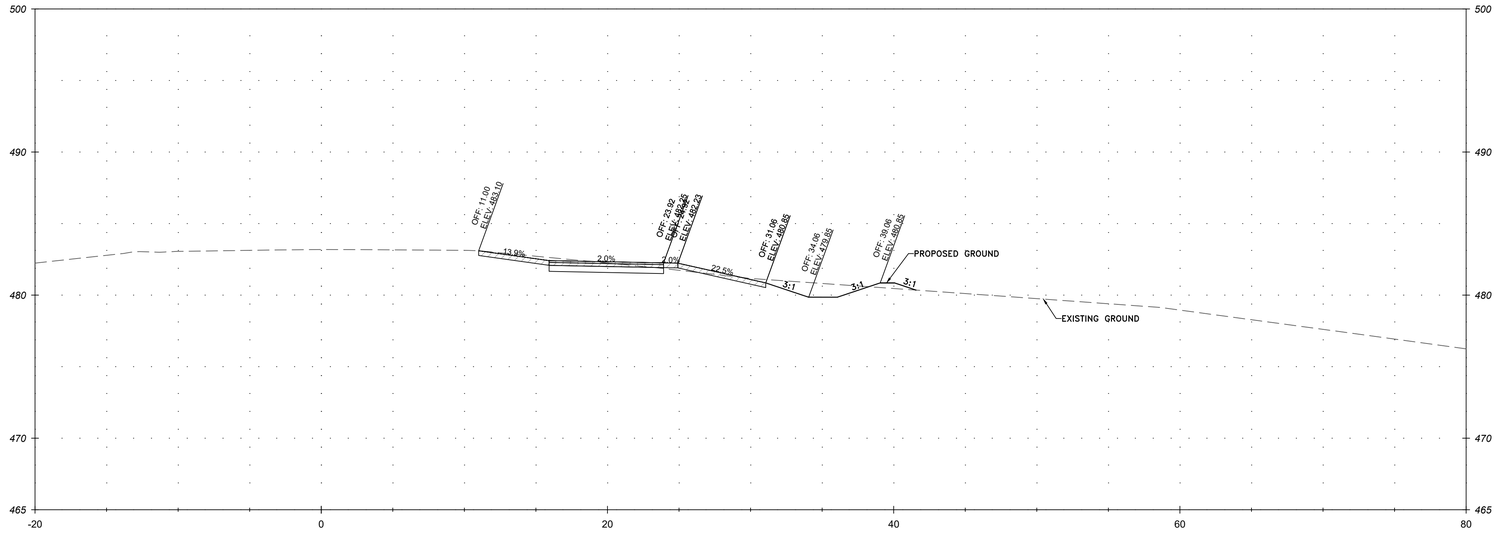
CIP No. : 507596

SHEET 42 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-06 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



STA. 52+50



STA. 52+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

XS-07
CROSS SECTION
GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'

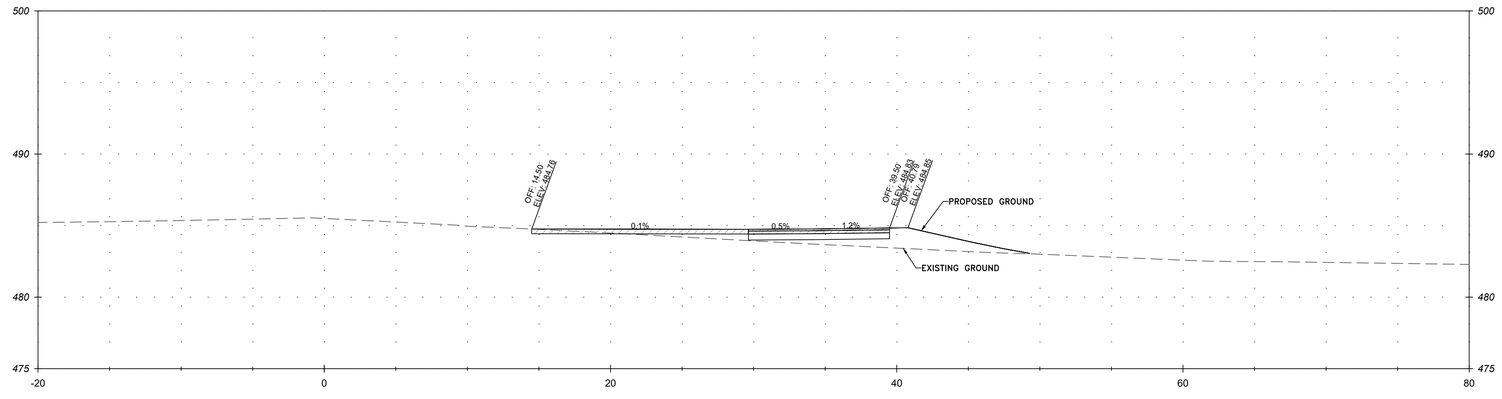
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 43 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-07 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



STA. 53+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

XS-08
CROSS SECTION
GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'

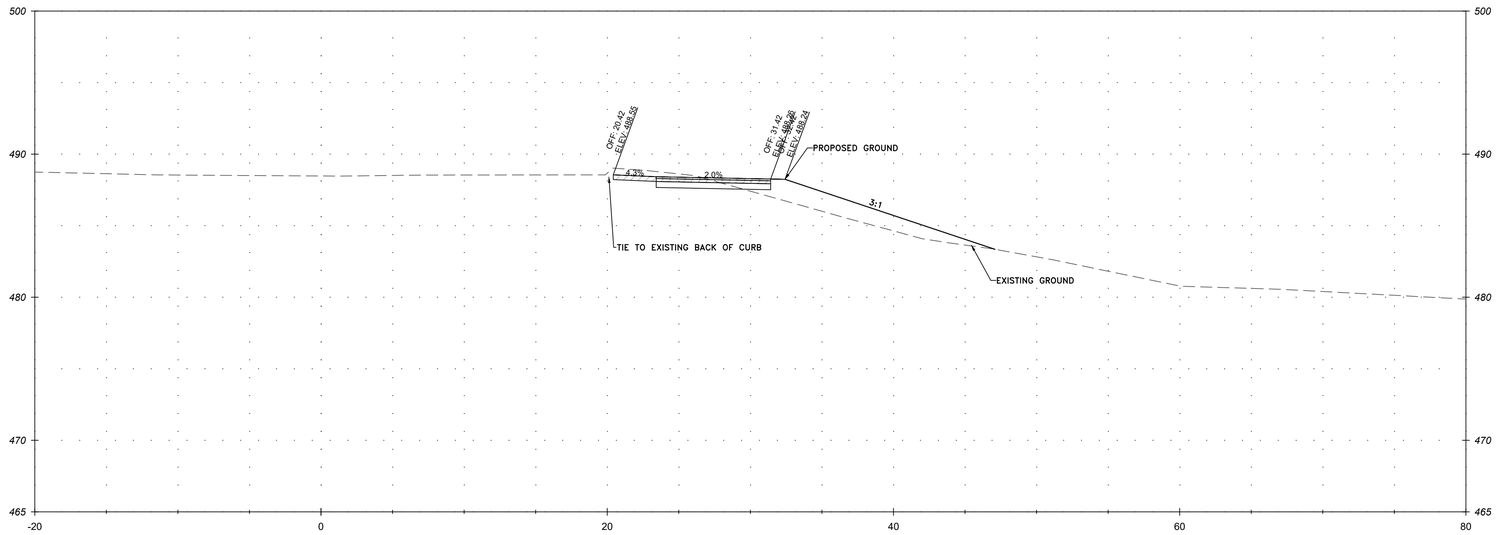
SCALE: 1"=30'

DATE: OCTOBER 2023

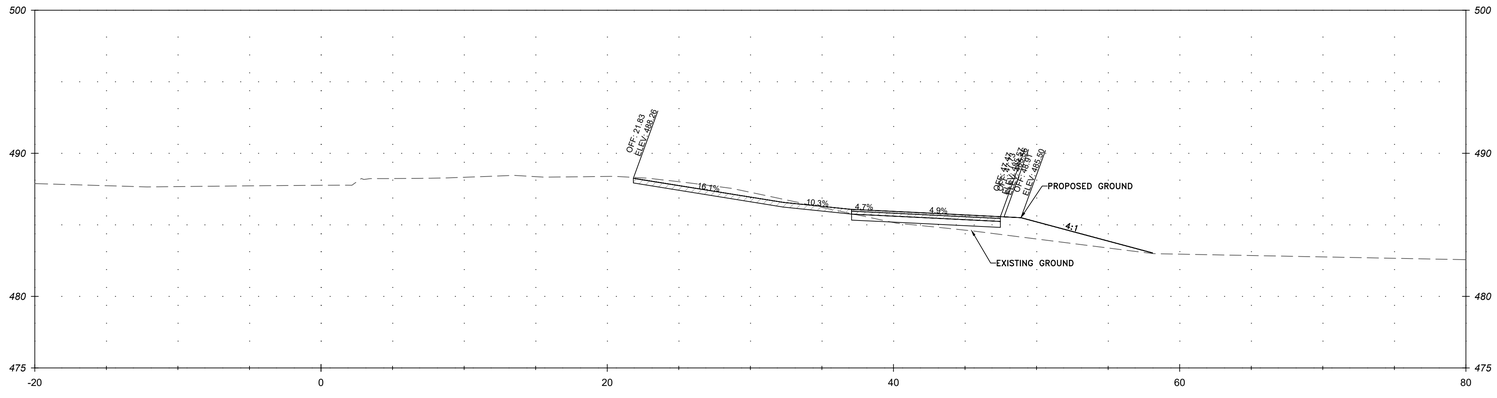
CIP No.: 507596

SHEET 44 of 45

FILE NAME: G:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-08 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski



STA. 101+00



STA. 100+50

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: TRS Checked by: JJR

XS-09
CROSS SECTION
GOOD HOPE ROAD
SHARED USE PATH

0 30' 60'
SCALE: 1"=30'

DATE: OCTOBER 2023

CIP No. : 507596

SHEET 45 of 45

FILE NAME: Q:\2018\1804565_010_Good_Hope_Road_Share\CADD\pHC-0001_GHExt_CrossSections.dwg LAYOUT NAME: XS-09 PLOTTED: Tuesday, October 31, 2023 - 4:01pm USER: TSroczynski