MONTGOMERY COUNTY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION MAINTENANCE CERTIFICATION CAPITAL CRESCENT TRAIL UNDER MD355 PHASE 2 TIM CUPPLES CHIEF. DIVISION OF TRANSPORTATION ENGINEERING

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

MISS UTILITY

CALL "MISS UTILITY" AT 1-800-257-7777 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

OWNER'S/DEVELOPER'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 SPECIFICATIONS 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 TRANSPORTATION "DRAINAGE DESIGN CRITERIA," DATED NOVEMBER 2013, REVISED JUNE 2014.

DATE

ANDREW CONKLIN. P.E. MD. REGISTRATION NO. 43077



CERTIFICATION OF QUANTITIES

I FURTHER CERTIFY THAT THE TOTAL AMOUNTS OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAVE BEEN COMPUTED TO BE X.XXX CUBIC YARDS OF EXCAVATION AND XXX CUBIC YARDS OF FILL AND THAT THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE A MAXIMUM OF XX,XXX SQUARE FEET OR X.XX ACRES.

DATE

TREE CANOPY REQUIREMENTS TABLE						
EXEMPT: YES_NO_X_IF E	XEMPT: YES_NO_X_IF EXEMPT UNDER SECTION 55-5 OF THE CODE, PLEASE LIST					
THE APPLICABLE EXEMPT	TION CATEGORY E					
TOTAL PROPER	TY AREA	TOTAL DISTURBED AREA				
<u>xx,xxx SQUAR</u>	<u>E FEET</u>	XX,XXX SQUARE FEET				
SHADE TREES RE	EQUIRED	SHADE TREES PROPOSED TO BE PLANTED				
		<u>0</u>				
FEE IN LIE	U					
(TREES REQUIRED - TRE \$250	ES PROPOSED) X					
RE		R OF SHADE TREES				
AREA (SQ. FT.) OF TH DISTURBAN	IE LIMITS OF CE	NUMBER OF SHADE TREES REQUIRED				
FROM	то					
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 THE NUMBER OF SHADE TI FOLLOWING FORMULAE:	OF THE LIMITS OF REES REQUIRED N	DISTURBANCE IS MORE THAN 40,000, THEN /UST BE CALCULATED USING THE				
(NUMBER OF SQ	UARE FEET IN LIMI	TS OF DISTURBANCE / 40,000) X 15				
	EXEMPTION O	CATEGORIES				
55-5(a) any activity that is s Chapter 22A;	subject to Article II of	existing access road, if the person performing the maintenance has obtained all required permits;				
55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A;		55-5(h) any steam restoration project if the person performing the work has obtained all necessary permits;				
55-5(f) any activity conduct Parks Department	ed by the County	55-5(i) cutting or clearing any tree to compy with applicable provisions of any federal, state, or local law governing safety of dams;				
55-5(g) routine or emergen an existing stormwater mana	cy maintenance of gement facility,	OTHER: Specify per Section 55-5 of the Code.				

ANDREW CONKLIN, P.E. MD. REGISTRATION NO. 43077

C. I. P. PROJECT 501316

MD-333) DESIGN DATA
25 M.P.H.
39,573
OTHER PRINCIPAL ARTERIAL
•

ELM STREET / 47TH	STREET DESIGN DATA
DESIGN SPEED:	25 M.P.H.
2016 AADT:	1,200
FUNCTIONAL CLASSIFICATION:	LOCAL ROAD

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. EXPIRATION DATE:



Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

OWNER/CONTACT/ADDRESS MR. JÓN HUTCHÍNGS MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE, 4TH FLOOR GAITHERSBURG, MD 20878 240-777-7224

				-
NO.	REVISION	DATE	BY	

RELATED REQUIRED PERMITS						
IT IS THE RESPONSIBILITY OF F	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	REQ'D	NOT REQ'D	PERMIT #	EXPIRATION DATE	WORK RESTRICTION DATES	
MCDPS FLOODPLAIN DISTRICT		Х				
WATERWAY(S)/WETLAND(S):		Х				
A. CORPS OF ENGINEERS		Х				
B. MDE		Х				
C. MDE WATER QUALITY CERTIFICATION		х				
MDE DAM SAFETY		Х				
*DPS ROADSIDE TREES PROTECTION PLAN		X**		APPROVAL DATE		
N.P.D.E.S. NOTICE OF INTENT	х				DATE FILED	
FEMA LOMR (REQUIRED POST CONSTRUCTION)		х				
M-NCPPC NRI-FSD	Х					
DPS STORMWATER MANAGEMENT CONCEPT	х		SM FILE #:	APPROVAL DATE	RECONFIRMATION DATE	
PLAN						
DPS SEDIMENT CONTROL	х		SC PERMIT #:	APPROVAL DATE	APPROVED REVISION DATE	
PLAN						

A COPY OF THE APPROVED ROADSIDE TREES PROTECTION PLAN MUST BE DELIVERED TO THE SEDIMENT CONTROL INSPECTOR AT THE PRECONSTRUCTION MEETING. THIS PROJECT FALLS UNDER THE ROADSIDE TREE CARE BLANKET PERMIT FOR MONTGOMERY COUNTY

** DEPARTMENT OF TRANSPORTATION'S DIVISION OF HIGHWAY SERVICES , TREE MAINTENANCE SECTION. TREE PROTECTION IS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS. LEGEND INCLUDED.

GENERAL NOTES

1. THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS DATED JULY 2019, AND REVISIONS THEREOF OR ADDITIONS THERETO, THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION'S BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES, MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION STANDARDS, AND SOIL CONSERVATION SERVICE POND CONSTRUCTION SPECIFICATIONS FOR MARYLAND. SEE SHEET 4 FOR A FULL LIST OF MDOT SHA PROJECT STANDARDS.

2. HORIZONTAL DATUM: NAD 83(1991) VERTICAL DATUM: NAVD 88.

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 PIPES 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. CLEARING IS TO BE LIMITED TO THE "LIMIT OF GRADING" AS SHOWN ON THE PLANS.

10. ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.

11. DISTURBED AREAS ADJACENT TO ESTABLISHED LAWNS SHALL BE SODDED. OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.

12. 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. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES, MARYLAND FOREST, PARK AND WILDLIFE SERVICE, TELEPHONE 301-854-6060.

13. 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 301-206-9772

14. ALL UTILITY POLES NOTED FOR RELOCATION SHALL BE PERFORMED BY OTHERS.

15. PRIOR TO VEGETATIVE STABILIZATION, ALL DISTURBED AREAS MUST BE TOPSOILED PER THE MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL"

16. WORK ALONG THE CAPITAL CRESCENT SURFACE TRAIL FROM STA. 0+00 TO STA. 1+64.24 WILL BE DONE BY OTHERS.

17. THE CONTRACTOR SHALL OBTAIN CERTIFIED AS-BUILTS, SIGNATURES, AND INITIALS FOR ALL INSPECTION CHECK-OFF LISTS PROVIDED BY THE MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES.

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	STORMWATE	ER MANAGEMENT . WAIVER	SEDIMENT CONTROL	TECHNICAL REQUIRE	EMENTS	ADMINISTRATIVE	REQUIREMEN	ITS
			Reviewed	Date		Reviewed		Dote
	Reviewed	Date	Approved	Date	_			U
	Approved	Date FILE NO.				MCDPS APPROVAL OF THIS PLA THE DATE OF APPROVAL IF THE	.N WILL EXPIRE T E PROJECT HAS	IWO YEARS FROM NOT STARTED.
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MONTGOMEI DEPARTMENT OF GAITHERSBUR	RY COUNTY TRANSPORT G, MARYLAN	ATION D			TITL	E SHEET		
ECOMMENDED FOR APPROVAL				CAPIT	AL C	RESCENT TR	ATT.	
nief, Transportation Planning and Design Se PPROVED	ction	Date	_	U BET	UNDE HESD	R MD 355 DA, MARYLANI	D	
nief, Division of Transportation Engineering		Date	SCALE : ¹	N/A				MAY 2021
Designed by: <u>DTB</u> Drawn by: _	SAZ C	Checked by:	Project No.	:		SHEET <u>1</u>	of	169

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5		GEOMETRY SHEET
6		ROADWAY AND PAVEMENT DETAILS
7		ROADWAY TYPICAL SECTIONS
8		TRAIL TYPICAL SECTIONS
9		TRAIL AND ROADWAY PLAN
10		CURB LAYOUT PLAN
11		ROADWAY PROFILES (ELM STREET)
12		TRAIL PROFILE (CCT)
13		TRAIL PROFILE (CCT)
14		TRAIL PROFILE (CCT)
15		TRAIL PROFILE (SURFACE TRAIL)
16		DRAINAGE PIPE PROFILES
17		DRAINAGE SCHEDULE AND DETAILS
18		EROSION AND SEDIMENT CONTROL GENERAL NOTES AND DETAILS
19		EROSION AND SEDIMENT CONTROL GENERAL NOTES AND DETAILS
20		EROSION AND SEDIMENT CONTROL GENERAL NOTES AND DETAILS
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22		TRAFFIC CONTROL PLAN GENERAL NOTES AND SEQUENCE OF CONSTR.
23		TRAFFIC CONTROL PLAN SEQUENCE OF CONSTR. CONTINUED
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27		DETOUR PLAN PHASES 1A/2A/5A AND 1B/2B/5B
28		DETOUR PLAN PHASES 1C/2C/5C
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30		TRAFFIC CONTROL PLAN STAGE 1/2/5 A
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32		TRAFFIC CONTROL PLAN STAGE 1/2/5 A
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35		TRAFFIC CONTROL PLAN STAGE 1/2/5 B
36		TRAFFIC CONTROL PLAN STAGE 1/2/5 B
37		TRAFFIC CONTROL PLAN STAGE 1/2/5 B
38		TRAFFIC CONTROL PLAN STAGE 1/2/5 C
39		TRAFFIC CONTROL PLAN STAGE 1/2/5 C
40		TRAFFIC CONTROL PLAN STAGE 1/2/5 C
41		TRAFFIC CONTROL PLAN STAGE 1/2/5 D
42		TRAFFIC CONTROL PLAN STAGE 1/2/5 D
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PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.______ EXPIRATION DATE:______



	SHEET NO. SC/SWM N	O. DRAWING DE	SCRIPTION	
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	114	ARCHITECTURAL CEILING PLAN P	ART C	
	115	ARCHITECTURAL CEILING PLAN P	ART D	
	116	ARCHITECTURAL CEILING PLAN P	ART E	
	117	ARCHITECTURAL CEILING PLAN P	ART F	
	118	SHEET INTENTIONALLY BLANK		
	119	SHEET INTENTIONALLY BLANK		
	120	SHEET INTENTIONALLY BLANK		
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	125	MISCELLANEOUS DETAILS		
	125	MISCELLANEOUS DETAILS		
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	129	MECHANICAL SCHEDULES		
	130	PLUMBING PLAN PART A		
	131	PLUMBING PLAN PART B		
	132	PLUMBING PLAN PART C		
	133	PLUMBING SCHEDULES		
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	135	GENERAL AND DEMOLITION NOTE	S	
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	137	LIGHTING PLAN PART B		
	138	LIGHTING PLAN PART C		
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	141	LIGHTING PLAN PART F		
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	144	POWER / SPECIAL SYSTEMS PLA	AN PART C	
	145	POWER / SPECIAL SYSTEMS PLA	AN PART D	
	146	POWER / SPECIAL SYSTEMS PLA	AN PART E	
			MCDF	PS-SC/SWM SHEET NO. OF 7
		MONTGOMERY COUN	TY DEPARTMENT OF	NOTE: MCDPS APPROVAL DOES NOT NEGATE
		PERMITTING SERVICE STORMWATER MANAGEMENT	S APPROVED FOR: SEDIMENT CONTROL TECHNICAL REQUIREMENTS	ADMINISTRATIVE REQUIREMENTS
DETAILS		FULL WAIVER		
NILS			Reviewed Date	Reviewed Dote 281510
		Reviewed Date	Approved Date	SEDIMENT CONTROL PERMIT NO.
	_	Approved Dote		
	_	241070 S.M. FILE NO.		MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.
		DPS APPROVAL OF A SEDIMENT CONTROL OR STORMW RUNOFF TREATMENT STANDARDS AND DOES NOT CREA WITHOUT THAT PROPERTY OWNER'S DEPUISSION IT DO	ATER MANAGEMENT PLAN IS FOR DEMONSTRATED CO TE OR IMPLY ANY RIGHT TO DIVERT OR CONCENTRAT DES NOT RELIEVE THE DESIGN ENGINEER OP OTHER	MPLIANCE WITH MINIMUM ENVIRONMENTAL E RUNOFF ONTO ANY ADJACENT PROPERTY RESPONSIBLE PERSON OF PROFESSIONAL
			ACY OF THE DRAINAGE DESIGN AS IT AFFECTS UPHIL	L OR DOWNHILL PROPERTIES
	MO DEPARTM	INT OF TRANSPORTATION		OF SHEFTS
	GAITH	IERSBURG, MARYLAND		OT SHELIS
	RECOMMENDED FOR APPROVAL			PRESCENT TRAIL
	Chief, Transportation Planning o	and Design Section Date	UND	ER MD 355
	APPROVED		BETHESI	DA, MARYLAND
	Chief, Division of Transportation	Engineering Date	SCALE : NONE	MAY 20.
NO. REVISION	DATE BY Designed by: <u>DTB</u>	Drawn by: DTB Checked by:	Project No. : <u>501316</u>	SHEET

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2	GENERAL NOTES
3	STAKEOUT DATA
4	WATER MAIN RELOCATION PLAN
5	WATER MAIN RELOCATION PROFILES
6	WATER MAIN RELOCATION PROFILES
7	SEQUENCE OF CONSTRUCTION
8	WATER DETAILS
9	SEWER RELOCATION PLAN
10	SEWER RELOCATION PROFILES

PEPCO SHEET NO.	DRAWING DESCRIPTION
1	SITE DEMOLITION PLAN
2	PROPOSED PEPCO RELOCATION PLAN
3	UTILITY PROFILE

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. EXPIRATION DATE:



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Chie				
APPI				
Chie				
Des	BY	DATE	REVISION	NO.

INDEX OF SHEETS FOR WSSC RELOCATION PLANS

INDEX OF SHEETS FOR PEPCO RELOCATION PLANS

INDEX OF SHEETS FOR ELM STREET PARK PLANS

ARK SHEET NO.	DRAWING DESCRIPTION
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2	LANDSCAPE GRADING PLAN
3	LANDSCAPE SECTIONS
4	PLANTING PLAN
5	LANDSCAPE DETAILS
6	LANDSCAPE DETAILS
7	LANDSCAPE DETAILS
8	PLANTING DETAILS
9	SITE FURNISHING DETAILS
10	PLAY EQUIPMENT DETAILS
11	FITNESS EQUIPMENT DETAILS

	МС	CDPS-SC/SWM SHEET NO. OF 7
MONTGOMERY COUNT PERMITTING SERVICES	Y DEPARTMENT OF S APPROVED FOR:	NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.
STORMWATER MANAGEMENT	SEDIMENT CONTROL TECHNICAL REQUIREMENT	S ADMINISTRATIVE REQUIREMENTS
Full waiver		
	Reviewed Date	Reviewed Date 281510
Reviewed Date	Approved Date	SEDIMENT CONTROL PERMIT NO.
Approved Date		MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.
DPS APPROVAL OF A SEDIMENT CONTROL OR STORMWA RUNOFF TREATMENT STANDARDS AND DOES NOT CREAT WITHOUT THAT PROPERTY OWNER'S PERMISSION. IT DOE LIABILITY OR ETHICAL RESPONSIBILITY FOR THE ADEQUA	TER MANAGEMENT PLAN IS FOR DEMONSTRATED E OR IMPLY ANY RIGHT TO DIVERT OR CONCEN IS NOT RELIEVE THE DESIGN ENGINEER OR OTH CY OF THE DRAINAGE DESIGN AS IT AFFECTS U	COMPLIANCE WITH MINIMUM ENVIRONMENTAL TRATE RUNOFF ONTO ANY ADJACENT PROPERTY LER RESPONSIBLE PERSON OF PROFESSIONAL IPHILL OR DOWNHILL PROPERTIES
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND	IND	EX OF SHEETS
RECOMMENDED FOR APPROVAL		
Chief, Transportation Planning and Design Section Date APPROVED	CAPITAL UNI BETHE	CRESCENT TRAIL DER MD 355 SDA, MARYLAND
Chief, Division of Transportation Engineering Date	SCALE : NONE	MAY 2021
Designed by: <u>DTB</u> Drown by: <u>DTB</u> Checked by: <u>JAG</u>	Project No. : <u>501316</u>	SHEET <u>3</u> of <u>169</u>

MARYLAND STANDARD NOTES

- 1. THE FOLLOWING MARYLAND STANDARD DETAILS ARE REQUIRED
- FOR THIS PROJECT:

MD 104.01–28	STAGED ROADWAY CONSTRUCTION
MD 104.01–30A	CHANNELIZATION DEVICE USAGE EQUAL/LESS THAN 40 MPH OVER 12 HOURS NIGHTTIME USE
MD 104.01-30D	CHANNELIZATION DEVICE USAGE CRITERIA TABLE
MD 104.01-80	TAPER LENGTH CRITERIA TABLE
MD 104.01-81	TYPICAL APPLICATION NOTES
MD 104.01-86	STEEL PLATE-METHOD 2, EQUAL TO OR LESS THAN 40 MPH
MD 104.04-09	2 RIGHT (LEFT) LANES CLOSURE/DIVIDED UNCON. GREATER THAN 40 MPH
MD 104.04–10	2 RIGHT (LEFT) LANES CLOSURE/DIVIDED UNCON EQUAL/LESS THAN 40 MPH
MD 374.86	STANDARD ADA COMPLIANT INLET DOUBLE GRATE TANDEM
MD 379.03	STANDARD TYPE S INLET DOUBLE GRATE TANDEM
MD 374.14	STANDARD NR INLET
MD 374.63	PRECAST OR CAST IN PLACE CIRCULAR COS INLETS 5', 10', 15' & 20'
MD 379.01	STANDARD TYPE S INLET SINGLE GRATE
MD 384.01	48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES
MD 383.00	48" SQUARE STANDARD SHALLOW MANHOLE
MD 354.01	STANDARD TYPE C ENDWALL METAL OR CONCRETE ROUND PIPE
FND-PF-504	CAISSON/PILE REBAR CAGE CLEARANCE SPACING DEVICES
RW-401	CONCRETE RETAINING WALL CONTRACTION AND EXPANSION JOINTS
REBAR-BL-101	BAR LAP DIMENSIONS FOR GRADE 60 REINFORCING STEEL IN MIX NO.3 (3500 P.S.I.) CONCRETE
REBAR-BL-103	BAR LAP DIMENSIONS FOR GRADE 60 REINFORCING STEEL IN MIX NO.6 (4500 P.S.I.) CONCRETE
REBAR-DL-101	DEVELOPMENT LENGTH DIMENSIONS FOR GRADE 60 REINFORCING STEEL IN MIX NO.3 (3500 P.S.I.) CONCRETE
REBAR-DL-103	DEVELOPMENT LENGTH DIMENSIONS FOR GRADE 60 REINFORCING STEEL IN MIX NO.6 (4500 P.S.I.) CONCRETE
REBAR-DL-201	DEVELOPMENT LENGTH DIMENSIONS OF HOOKED BARS FOR GRADE 60 REINFORCING STEEL IN MIX NO.3
	(3500 P.S.I.) CONCRETE NON-EPOXY COATED REINFORCING
REBAR-DL-203	DEVELOPMENT LENGTH DIMENSIONS OF HOOKED BARS FOR GRADE 60 REINFORCING STEEL IN MIX NO.6
	(4500 P.S.I.) CONCRETE NON-EPOXY COATED REINFORCING
REBAR–BB–101	BAR BEND TYPES GENERAL NOTES
REBAR-BB-102	REINFORCING STEEL HOOK TABLES AND DIAGRAMS
MD 572.61	CONCRETE PAVEMENT LONGITUDINAL TIE DEVICES
MD 580.03	NEW COMBINATION CURB AND GUTTER PLACEMENT ALONG EXISTING PAVEMENT
MD 620.02	STANDARD TYPES A & B CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER
MD 620.02–1	STANDARD TYPES C AND D CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER
MD 620.02.03	DEPRESSED CURB FOR COMBINATION CURB AND GUTTER AND DEPRESSED CURB FOR SIDEWALK RAMPS
MD 655.11	SIDEWALK RAMPS PERPENDICULAR
MD 655.40	DETECTABLE WARNING SURFACES
MD 801.01	SIGNAL STRUCTURE FOUNDATIONS
MD 801.01.01	SIGNAL STRUCTURE FOUNDATIONS FOR PUSHBUITON AND PEDESTRIAN SIGNAL POLE
MD 813.07	PUSHBUITON SIGN BANDING DETAIL
MD 813.08	SIGN BANDING DETAIL
MD 814.01	SIGNAL HEAD MOUNTING DETAILS RIGID MOUNT
MD 814.04	TOP POLE MOUNTING FOR VEHICULAR AND PEDESTRIAN SIGNAL HEADS
	AUGESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTUN LUGATIUN UN PULE
	10* DEDECTAL DOLE LEDECTAL DOLE
	IV" YEDEJIAL YULE DDEALAMAY TUDULAD STEEL SIGNL SUDDODTS
IVID 802.04	REAVAWAI INRNTAK ZIEET ZIRIN ZALARIZ

2. FOR ALL STANDARDS REFERRED TO ON THE PLANS, THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOKS OF STANDARDS CAN BE ACCESSED AT:

HTTP://APPS.ROADS.MARYLAND.GOV/BUSINESSWITHSHA/BIZSTDSSPECS/DESMANUALSTDPUB/PUBLICATIONSONLINE/OHD/BOOKSTD/INDEX.ASP

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

ABBREVIATIONS

A.A.S.H.T.O	American Association of Transportation Officials	State	Highway
APPROX	Approximate		
B or B/I	Baseline		
	Center of Curve		
\square or \square	Centerline		
	Cast Iron Pine		
С.П.П С М D	Corrugated Motal Pipe		
C.M.I	Clarge t		
	Combination		
	Compination		
	Concrete		
		D'	
C.P.P	Corrugated Polyethylene	Ріре	
D.B.H	Diameter Breast Height		
DC	Degree of Curve		
D.H.V	Design Hourly Volume		
D.I	Drop Inlet		
DIA	Diameter		
<u>D</u> .O	Double Opening		
Е	East		
Е	Electric		
Ε	External Distance		
EA	Each		
E.B	Eastbound		
EJ	Expansion Joint		
ELEV.	Elevation		
E.R.C.P.	Elliptical Reinforced		
	Concrete Pipe		
ES	End Section		
FX. or FXIST.	Fxisting		
FT	Feet		
F or Fl	Flowline		
FWD	Forward		
G	Gas		
HFRCP	Horizontal Elliptical Reinf	forced	
····L.IV.O.I	Concrete Pipe	UICEU	

HP	High Point
НМА	Hot Mix Asphalt
ΗT	Height
IN	Inch
INV	Invert
	length
	Landscaped
	Linear Feet
L.,,	Low Point
L 「	
∟ ।	Maximum
MDT	Matropolitan Pranch Trail
	Metropolitan Branch Irali
	Montgomery County
IVIIIN	Minimum
N	. INORTH
NB	Northbound
	Northeast
NTS	Not lo Scale
0.0	. On Center
ОН	Overhead
P.C	Point of Curvature
P.C.C	Point of Compound Curve
Р/С	Point of Crown
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
PE	Perpetual Easement
P.I	Point of Intersection
Р.О.В	Point of Beginning
P.O.C	Point on Curve
P.O.E	Point of Ending
P.O.T.	Point on Tangent.
PROP.	Proposed
PT	Point

T	TELEPHONE MANHOLE
WM	WATER METER
\bowtie	WATER VALVE
S	SEWER MANHOLE
	STORM DRAIN MANHOL
Ġ	GAS VALVE
Ō	SIGN
*	LIGHT POLE
Ø	UTILITY POLE
	FIRE HYDRANT
	PARKING METER
$\left\{ \cdot \right\}$	TREE
Ž	BORING
	INLET
MH	MANHOLE
OO	EXISTING WBEAM
<u> I I </u>	PROPOSED WBEAM
WB	WETLAND BUFFER
<u></u>	WETLAND

DRAINAGE BUBBLES (SAMPLES)

INLET
MANHOLE
JUNCTION BOX
FIELD CONNECTION
BEND
END SECTION
END WALL
ADJUST EX. STRUCTURE

РТ	Point of Tangency
P.V.C.	Point of Vertical Curve
PVC	Polyvinyl Chloride
PVI	Point of Intersection
R	. Radius
RET. WALL	Retaining Wall
RT	Right
ROW or R/W.	Right of Way
R.C.P.	Reinforced Concrete Pipe
S	South
SAN	Sanitary Sewer
SB	
SCП S D	Storm Drain
S.D S.F	Superelevation
SF	Silt Fence
S.F.	Sauare Feet
SSD.	Stopping Sight Distance
SSF	Super Silt Fence
STD	Standard
STA.	_ Station
SO	Single Opening
S.Y.	Square Yards
SWM	Storm Water Management
SW	
I т	
	Temporary Construction Easement
	Terra Cotta Pine
ТҮР	
U.P.	Utility Pole
VAR.	. Varies
V.C.L.	Vertical Curve Length
W	Water
W	West
WB	Westbound

NO. BY REVISION DATE

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._____ EXPIRATION DATE:__



Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

LEGEND

ΙF

- x x	PROPOSED FENCE
-x x	EXISTING CHAINLINK FENCE
	PROPOSED HANDRAIL
	INDEX CONTOUR
<u> </u>	INTERVAL CONTOUR
— — С — —	TOP OF CUT
⊢ F →	TOE OF FILL
	EXISTING RIGHT OF WAY LINE
LOD	LIMIT OF DISTURBANCE
TCE	TEMPORARY CONSTRUCTION EASEMENT
— — PE — —	PERPETUAL EASEMENT
	FILL(MADE GROUND)
	USCS HIGH PLASTICITY CLAY
	USCS LOW PLASTICITY CLAY
	USCS LOW PLASTICITY SILTY CLAY
	USCS LOW PLASTICITY SANDY CLAY
	USCS HIGH PLASTICITY SILT
	USCS LOW PLASTICITY SILT
	USCS CLAYEY SAND
	USCS SILTY SAND
	USCS SAND
	BEDROCK

DRAINAGE STRUCTURE STAKEOUT LOCATION

	MANHOLE			GF CC RC	ATE OR MBINATION ADWAY INLET		CURB OR BARRIER
JB 1 C 1	TYPE COS⁄COG INLET			FLOWLINE E EN	D SECTION		
ES 1 EW 1	JUNCTION BOX OR MEDIAN INLET X DE PC	ENOTES LOCA	TION OF STATION	SH CC SNOFFSET STRUCTURE:	ALLOW COG⁄ IG SCUPPER		GUTTER
A						MCDF	PS-SC/SWM SHEET NO. OF 7
		MON PERI	TGOMERY CO MITTING SERV	UNTY DEPA	RTMENT OF VED FOR:		NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.
		STORMWA	IER MANAGEMENT	SEDIMENT CON	TROL TECHNICAL REQUI	REMENTS	ADMINISTRATIVE REQUIREMENTS
		FU	ll waiver	-			
				Reviewed	Date		Reviewed Dote 281510
		Reviewed	Date	- Approved	Dote		SEDIMENT CONTROL PERMIT NO.
		Approved	Date 241070 A. FILE NO.	-			MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.
		DPS APPROVAL OF A RUNOFF TREATMENT S WITHOUT THAT PROPER LIABILITY OR ETHICAL	SEDIMENT CONTROL OR S TANDARDS AND DOES NOT RTY OWNER'S PERMISSION. RESPONSIBILITY FOR THE	TORMWATER MANAGEMEN CREATE OR IMPLY AN IT DOES NOT RELIEVE ADEQUACY OF THE DRA	IT PLAN IS FOR DEMONS (RIGHT TO DIVERT OR (THE DESIGN ENGINEER INAGE DESIGN AS IT AFF	STRATED CON CONCENTRATI OR OTHER F	MPLIANCE WITH MINIMUM ENVIRONMENTAL E RUNOFF ONTO ANY ADJACENT PROPERTY RESPONSIBLE PERSON OF PROFESSIONAL L OR DOWNHILL PROPERTIES
DEF	MONTGOME PARTMENT OF GAITHERSBUR	RY COUNTY TRANSPOR G, MARYLAN	TATION ND		LEGEN	ND AN	ID ABBREVIATIONS
RECOMMENDED FOR AF	PPROVAL					י דאי	
Chief, Transportation Planning and Design Section Date Date		-	CAPII	AL U P	KESCENT TRAIL HASE 1		
APPROVED				BET	HESI	DA, MARYLAND	
Chief, Division of Trans	sportation Engineering		Date	 SCALE	NONE		May 2021
Designed by:DTB	Drawn by: _	DTB	Checked by: <u>JAG</u>	Project	No. : <u>501316</u>		SHEET <u>03</u> of <u>31</u>

	CONSTRUC	TION CONTROL	COORDINATES			CONSTRUC
CURVE	DESCRIPTION	STATION	NORTH	EAST	CURVE	DESCRIPTION
CONSTR	UCTION CAPITAL	CRESCENT TRA	AIL (CCT)		₽ CONST	RUCTION WISCONS
	POB	101+44.00	478,884.5470	1,285,330.6700		POB
	PC	101+44.00	478,884.5470	1,285,330.6700		POE
CCT-0	PI	102+13.43	478,936.6469	1,285,376.5661		
	PT	102+81.97	478,974.1583	1,285,434.9934		
	PC	104+89.63	479,086.4355	1,285,609.6835		
CCT-1	PI	105+34.89	479,110.9040	1,285,647.7537		
	PT	105+77.98	479,112.5625	1,285,692.9787		
	PC	106+59.77	479,115.5600	1,285,774.7215		
CCT-2	PI	106+74.54	479,116.1009	1,285,789.4727		
	PT	106+89.24	479,118.8016	1,285,803.9847		
	PC	107+87.50	479,136.7788	1,285,900.5827		
CCT-3	PI	107+90.16	479,137.2651	1,285,903.1959		
	PT	107+92.82	479,137.8207	1,285,905.7952		
	PC	110+41.90	479,189.8847	1,286,149.3747		
CCT-4	PI	111+21.67	479,206.5582	1,286,227.3811		
	PT	111+88.52	479,280.5558	1,286,257.1695		
	PC	112+93.61	479,378.0383	1,286,296.4119		
CCT-5	PI	113+02.74	479,386.5088	1,286,299.8218		
	PT	113+10.74	479,389.4806	1,286,308.4558		
	POE	114+15.07	479,423.4365	1,286,407.1064		
CONSTRU	JCTION CAPITAL	CRESCENT TRA	AIL SURFACE TRA	NL (CCTST)		
	POB	0+00.00	479,016.6056	1,286,253.9869		
	PC	01+50.30	479,150.7581	1,286,186.2217		
	PI	01+63.89	479,162.8920	1,286,180.0925		
	PT	01+77.41	479,175.9488	1,286,176.3087		
	PC	02+27.54	479,224.1030	1,286,162.3542		
CCST-2	PI	02+29.27	479,225.7630	1,286,161.8731		
	PT	02+31.00	479,227.4339	1,286,161.4315		
	PC	02+39.69	479,235.8404	1,286,159.2097		
CCST-3	PI	02+76.62	479,271.5456	1,286,149.7729		
	PT	03+04.48	479,293.2883	1,286,179.6254		
	PC	03+74.57	479,334.5548	1,286,236.2839	Λ.	
CCST-4	PI	03+92.37	479,345.0337	1,286,250.6713	10	
	PT	04+08.06	479,341.3609	1,286,268.0872	1	
	POE	04+20.84	479,338.7251	1,286,280.5860	12	
E CONSTR	UCTION ELM ST	REET			्य	
	POB	500+00.00	479,130.2706	1,285,835.4172	ĮĘ.	
	POF	503+36.06	479 200 3490	1,286,164.0917	I II	



102+00

1,03+00

CCT-0

CURVE DATA											
PI STATION	DELTA	Dc	R	L	Т	E	PI NORTH				
UCTION CCT											
102+13.43	15°55'16.11"RT	11° 32'22.44"	496.52'	137.97'	69.43'	4.83'	478,936.6469				
105+34.89	30° 37'46.78" RT	34°40'13.99"	165.26'	88.34'	45.26'	6.08'	479,110.9040				
106+74.54	08°26'31.91"LT	28°38'52.40"	200.00'	29.47'	14.76'	0.54'	479,116.1009				
107+90.16	01° 31'22.26" LT	28°38'52.40"	200.00'	5.32'	2.66'	0.02'	479,137.2651				
111+21.67	56°00'25.79"LT	38°11'49.87"	150.00'	146.63'	79.77'	19.89'	479,206.5582				
113+02.74	49°04'43.33"RT	286°28'44.03"	20.00'	17.13'	9.13'	1.99'	479,386.5088				
UCTION CAPITAL	CRESCENT SURFACE	TRAIL (CCST)									
01+63.89	10°38'20.22"RT	39° 14'37.26"	146.00'	27.11'	13.59'	0.63'	479,162.8920	·			
02+29.27	1°21'23.16"RT	39° 14'37.26"	146.00'	3.46'	1.73'	0.01'	479,225.7630				
02+76.62	68°44'14.36"RT	106°06'11.86"	54.00'	64.78'	36.93'	11.42'	479,271.5456				
03+92.37	47° 58'32.19" RT	143° 14'22.02"	40.00'	33.49'	17.80'	3.78'	479,345.0337				
	PI STATION UCTION CCT 102+13.43 105+34.89 106+74.54 107+90.16 111+21.67 113+02.74 UCTION CAPITAL 01+63.89 02+29.27 02+76.62 03+92.37	PISTATIONDELTAUCTIONCCT102+13.4315°55'16.11"105+34.8930°37'46.78"106+74.5408°26'31.91"107+90.1601°31'22.26"111+21.6756°00'25.79"113+02.7449°04'43.33"UCTIONCAPITALCRESCENT01+63.8910°38'20.22"RT02+29.271°21'23.16"RT02+76.6268°44'14.36"03+92.3747°58'32.19"	PI STATIONDELTADcUCTION CCT102+13.4315° 55'16.11" RT11° 32'22.44"105+34.8930° 37'46.78" RT34° 40'13.99"106+74.5408° 26'31.91" LT28° 38'52.40"107+90.1601° 31'22.26" LT28° 38'52.40"111+21.6756° 00'25.79" LT38° 11'49.87"113+02.7449° 04'43.33" RT286° 28'44.03"UCTION CAPITALCRESCENT SURFACETRAIL (CCST)01+63.8910° 38'20.22" RT39° 14'37.26"02+29.271° 21'23.16" RT39° 14'37.26"02+76.6268° 44'14.36" RT106° 06'11.86"03+92.3747° 58'32.19" RT143° 14'22.02"	CURVE DATAPI STATIONDELTADcRUCTION CCT102+13.4315° 55'16.11" RT11° 32'22.44"496.52'105+34.8930° 37'46.78" RT34° 40'13.99"165.26'106+74.5408° 26'31.91" LT28° 38'52.40"200.00'107+90.1601° 31'22.26" LT28° 38'52.40"200.00'111+21.6756° 00'25.79" LT38° 11'49.87"150.00'113+02.7449° 04'43.33" RT286° 28'44.03"20.00'UCTION CAPITALCRESCENT SURFACETRAIL (CCST)01+63.8910° 38'20.22" RT39° 14'37.26"146.00'02+29.271° 21'23.16" RT39° 14'37.26"146.00'02+76.6268° 44'14.36" RT106° 06'11.86"54.00'03+92.3747° 58'32.19" RT143° 14'22.02"40.00'	CURVE DATAPI STATIONDELTADcRLUCTION CCT102+13.4315° 55'16.11" RT11° 32'22.44"496.52'137.97'105+34.8930° 37'46.78" RT34° 40'13.99"165.26'88.34'106+74.5408° 26'31.91" LT28° 38'52.40"200.00'29.47'107+90.1601° 31'22.26" LT28° 38'52.40"200.00'5.32'111+21.6756° 00'25.79" LT38' 11'49.87"150.00'146.63'113+02.7449° 04'43.33" RT286° 28'44.03"20.00'17.13'UCTION CAPITAL CRESCENT SURFACE TRAIL (CCST)01+63.8910° 38'20.22" RT39° 14'37.26"146.00'27.11'02+29.271° 21'23.16" RT39° 14'37.26"146.00'3.46'02+76.6268° 44'14.36" RT106° 06'11.86"54.00'64.78'03+92.3747° 58'32.19" RT143° 14'22.02"40.00'33.49'	CURVE DATAPI STATIONDELTADcRLTUCTION CCT102+13.4315° 55'16.11" RT11° 32'22.44"496.52'137.97'69.43'105+34.8930° 37'46.78" RT34° 40'13.99"165.26'88.34'45.26'106+74.5408° 26'31.91" LT28° 38'52.40"200.00'29.47'14.76'107+90.1601° 31'22.26" LT28° 38'52.40"200.00'5.32'2.66'111+21.6756° 00'25.79" LT38° 11'49.87"150.00'146.63'79.77'113+02.7449° 04'43.33" RT286° 28'44.03"20.00'17.13'9.13'UCTION CAPITAL CRESCENT SURFACE TRAIL (CCST)01+63.8910° 38'20.22" RT39° 14'37.26"146.00'27.11'13.59'02+29.271° 21'23.16" RT39° 14'37.26"146.00'3.46'1.73'02+76.6268° 44'14.36" RT106° 06'11.86"54.00'64.78'36.93'03+92.3747° 58'32.19" RT143' 14'22.02"40.00'33.49'17.80'	CURVE DATAPI STATIONDELTADcRLTEUCTION CCT102+13.4315° 55'16.11" RT11° 32'22.44"496.52'137.97'69.43'4.83'105+34.8930° 37'46.78" RT34° 40'13.99"165.26'88.34'45.26'6.08'106+74.5408° 26'31.91" LT28° 38'52.40"200.00'29.47'14.76'0.54'107+90.1601° 31'22.26" LT28° 38'52.40"200.00'5.32'2.66'0.02'111+21.6756° 00'25.79" LT38° 11'49.87"150.00'146.63'79.77'19.89'113+02.7449° 04'43.33" RT286' 28'44.03"20.00'17.13'9.13'1.99'UCTION CAPITALCRESCENT SURFACETRAIL (CCST)01+63.8910° 38'20.22" RT39° 14'37.26"146.00'27.11'13.59'0.63'02+29.271' 21'23.16" RT39° 14'37.26"146.00'3.46'1.73'0.01'02+76.6268° 44'14.36" RT106° 06'11.86"54.00'64.78'36.93'11.42'03+92.3747° 58'32.19" RT143' 14'22.02"40.00'33.49'17.80'3.78'	CURVE DATAPI STATIONDELTADcRLTEPI NORTHUCTION CCT102+13.4315° 55'16.11" RT11° 32'22.44"496.52'137.97'69.43'4.83'478,936.6469105+34.8930° 37'46.78" RT34° 40'13.99"165.26'88.34'45.26'6.08'479,110.9040106+74.5408° 26'31.91" LT28° 38'52.40"200.00'29.47'14.76'0.54'479,116.1009107+90.1601° 31'22.26" LT28° 38'52.40"200.00'5.32'2.66'0.02'479,137.2651111+21.6756° 00'25.79" LT38° 11'49.87"150.00'146.63'79.77'19.89'479,206.5582113+02.7449° 04'43.33" RT286° 28'44.03"20.00'17.13'9.13'1.99'479,386.5088UCTION CAPITALCRESCENT SURFACE TRAIL (CCST)01+63.8910' 38'20.22" RT39' 14'37.26"146.00'27.11'13.59'0.63'479,162.892002+29.271° 21'23.16" RT39' 14'37.26"146.00'3.46'1.73'0.01'479,225.763002+76.6268' 44'14.36" RT106' 06'11.86"54.00'64.78'36.93'11.42'479,271.545603+92.3747' 58'32.19" RT143' 14'22.02"40.00'33.49'17.80'3.78'479,345.0337			

LEGEND							
X-A	HORIZONTAL LINE ID NUMBER						
X-1	HORIZONTAL CURVE ID NUMBER						



NO. REVISION DATE BY





CROSS SLOPE TRANSITION TABLE – ELM STREET								
STATION	RIGHT TURN LANE (NORTH SIDE)(%)	LEFT TURN LANE (SOUTH SIDE)(%)	REMARKS					
500+35	0.20	-0.30	MATCH EXISTING AT MD 355					
500+57	-1.36	-0.30						
500+66	-2.00	-0.61						
501+07	-2.00	-2.00	NORMAL CROWN					
502+75	-2.00	-2.00	NORMAL CROWN					
503+00	-1.50	-2.00	NORMAL CROWN					
503+00	-1.50	-2.00	NORMAL CROWN					







<u>PAVEMENT DETAIL 'H'</u> FULL DEPTH TRAIL PAVEMENT



CCT SURFACE TRAIL CONNECTION STA. 1+50 TO STA. 4+21



PAVEMENT LEGEND

- 6 6" GRADED AGGREGATE BASE COURSE
- (12) 1.5" SUPERPAVE ASPHALT MIX 9.5 MM FOR SURFACE PG 64S-22, LEVEL 2
- (13) 3" SUPERPAVE ASPHALT MIX 19.0 MM FOR BASE PG 64S-22, LEVEL 2





MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND TRAIL TYPICAL SECTIONS RECOMMENDED FOR APPROVAL CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND Chief, Transportation Planning and Design Section Date APPROVED Date Chief, Division of Transportation Engineering SCALE : NONE MAY 2021 Project No. : <u>501316</u> SHEET <u>8</u> of <u>169</u> Checked by: <u>PHD</u> Designed by: <u>DTB</u> Drawn by: <u>SAZ</u>

TS-03



N: \31951-018\CADD\pHD-0001_3 5/17/2021 - 12:00 PM



N:\31951-018\CADD\pCL-0001_31 5/17/2021 - 12:00 PM

		20 [12]					
	18 119 R=2						135 134 127 R=5' 133 136
+00	ELM	STREET		+50		ELEC VENT	
	0	122		[124]		502+00 [26]	
						R=5') [139 [129] [138 [130] [140]
INT NO.	STATION	CURB LAY	OUT SCHEDU	LE EASTING	ELEV.		137 31
132 133 134 135 136 137 138	501+85.94 502+07.43 502+12.43 502+12.43 502+25.00 502+24.59 502+24.59	32.05' RT. 18.00' LT. 23.00' LT. 27.55' LT. 13.61' LT. 31.56' RT. 23.00' RT.	479,137.7027 479,191.1291 479,197.0619 479,201.5163 479,190.4969 479,146.2402 479,154.6090	1.286.023.9521 1.286.034.5302 1.286.038.3776 1.286.037.4279 1.286.052.6336 1.286.061.6478 1.286.059.8635	345.38 344.11 344.29 344.49 343.83 344.65 343.86		
139 140 141 142 143 144 145	502+25.00 502+29.59 502+30.93 502+30.93 502+34.71 502+40.44 502+46.50	18.00' RT. 18.00' RT. 27.64' LT. 16.03' LT. 11.18' LT. 9.75' LT. 9.00' LT.	479.159.5851 479.160.5417 479.205.4611 479.194.1018 479.190.1475 479.189.9414 479.190.4758	1,286,059.2244 1,286,063.7109 1,286,055.5029 1,286,057.9248 1,286,062.6404 1,286,068.5398 1,286,074.6255	343.72 343.62 344.12 343.83 343.65 343.56 343.44		
146 147 148 149 150 151 152	502+50.00 502+50.00 502+75.00 502+75.00 502+86.38 502+94.42 502+95.21	9.00' LT. 18.00' RT. 9.00' LT. 18.00' RT. 9.00' LT. 12.50' LT. 18.00' RT.	479,191.2048 479,164.7983 479,196.4180 479,170.0115 479,198.7904 479,203.8914 479,174.2266	1,286,078.0446 1,286,083.6748 1,286,102.4950 1,286,108.1252 1,286,113.6218 1,286,120.7618 1,286,127.8943	343.36 343.18 342.86 342.68 342.77 342.71 342.63		
153 154 155* 156 157* 158 159	503+00.00 502+97.38 502+97.38 503+13.60 503+15.88 503+16.34 503+16.37	18.61' RT. 20.07' LT. 28.51' LT. 32.22' RT. 40.97' RT. 27.71' LT 23.62' LT	479,174.6254 479,211.9108 479,220.1633 479,164.1561 479,156.0662 479,223.3374 479,219.3408	1,286,132.7034 1,286,122.0716 1,286,120.3120 1,286,148.8431 1,286,152.8968 1,286,139.0285 1,286,139.9111	342.60 342.88 342.48 342.51 342.47 342.67' 342.05'		
160 161 162 163 164 165 166	503+16.43 503+23.04 503+23.08 503+17.57 503+19.90 503+23.63 503+24.73	18.62' LT 23.67' LT 18.67' LT 12.50' LT 0.00' 19.96' RT 25.86' PT	479,214.4624 479,220.7792 479,215.8968 479,208.7181 479,196.9793 479,178.2302 479,172 6913	1,286,141.0072 1,286,146.4242 1,286,147.5025 1,286,143.3992 1,286,148.2874 1,286,156.0947 1,286,158,4012	341.95' 342.54' 342.44' 342.82' 343.05' 342.69' 342.69'		
167 168 169 170 171 172	503+24.73 503+25.65 503+26.55 503+27.22 503+32.20 503+31.29 500+46.74	30.78' RT 35.63' RT 38.66' RT 29.56' RT 24.64' RT 26.12' RT	479,168.0755 479,163.5190 479,160.6956 479,170.6389 479,175.2549 479,114.4649	1,286,160,3232 1,286,162,2206 1,286,163,5004 1,286,166,4810 1,286,164,5594 1,285,886,5756	342.50' 342.42' 342.47' 342.66' 342.67' 348.05'		
	DRAFESSIONAL						

Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

NO.

REVISION

DATE BY

EXPIRATION DATE:_







NO.	REVISION	DATE	BY	

360	
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350	
340	
540	
	<u> </u>
330	<u> </u>
	CCT /WOODMONT
	CCT /WOODMONT (BY OTHERS)
320	
320	
320	
320	CCT /WOODMONT (BY OTHERS)
320 310 300	CCT /WOODMONT (BY OTHERS)
320 310 300	CCT /WOODMONT (BY OTHERS)

101+00





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NO.	REVISION	DATE	BY	

360 7272 WISCONSIN AVENUE 350 _____ ---340 ____ _____ *ــــ* L____ 330 _____ 0.00% 320 310 _____ ASELIN ELEV. <u>321.8</u> <u>321.78</u> <u>321.8</u> <u>321.78</u> 300

105+00

ELEV ELEV

106+00







NO.	REVISION	DATE	BY	



				-
NO.	REVISION	DATE	BY	

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NUMBER	BASELINE	STATION	OFFSET	INVERT IN	INVERT OUT	TOP ELEV.	TOP ELEV. REMARKS*	TYPE	STD REFERENCE
I-2-1	CCT	109+12	6.5 LT	-	315.16	319.32	TG	ADA COMPLIANT INLET DOUBLE GRATE	MD 374.86
1-2-2	CCT	109+95	6.5 LT	314.76	314.66	320.76	TG	ADA COMPLIANT INLET DOUBLE GRATE	MD 374.86
I-2-3	SURFACE TRAIL	2+17	56.2 LT	-	340.12	342.50	TG	STANDARD NR INLET	MD 374.14
I-2-4	SURFACE TRAIL	1+91	50.1 LT	340.00	340.00	342.40	TG	STD TYPE S INLET, DOUBLE GRATE	MD 374.70
I-2-5	SURFACE TRAIL	1+60	27.8 LT	339.81	332.50	343.00	тс	PRECAST 20' CIRCULAR COS INLET	MD 374.63
I-2-6	CCT	111+79	139.7 RT	-	331.58	335.83	TG	DOME CAP INLET	-
1-2-7	CCT	113+13	23.1 RT	-	327.73	332.50	TG	DOME CAP INLET	-
I-2-8	SURFACE TRAIL	2+28	13.8 RT	-	333.50	340.50	TG	DOME CAP INLET	-
1-2-9	SURFACE TRAIL	2+43	10 RT	333.43	333.43	339.63	TG	PVC GRATE INLET	-
I-2-10	SURFACE TRAIL	2+65	10 RT	333.34	333.34	338.62	TG	PVC GRATE INLET	-
I-2-11	SURFACE TRAIL	2+85	10 RT	333.26	333.26	337.67	TG	PVC GRATE INLET	-
I-2-12	SURFACE TRAIL	3+07	10 RT	333.17	333.17	336.60	TG	PVC GRATE INLET	-
I-2-13	SURFACE TRAIL	3+45	9.5 RT	331.50	331.50	334.75	TG	PVC GRATE INLET	-
I-2-14	SURFACE TRAIL	3+85	9.9 RT	330.00	330.00	332.75	TG	PVC GRATE INLET	-
I-2-15	SURFACE TRAIL	4+05	14.3 RT	329.5 / 330	329.50	331.50	TG	PVC GRATE INLET	-
I-2-16	SURFACE TRAIL	4+19	18.8 RT	-	330.15	332.10	TG	TRENCH DRAIN	-
MH-2-1	SURFACE TRAIL	1+65	13 LT	332.10	332.00	343.00	TS	48" DIAMETER PRECAST MANHOLE	MD 384.01
MH-2-2	CCT	111+08	38.7 RT	330.85	329.96	340.00	TS	48" DIAMETER PRECAST MANHOLE	MD 384.01
MH-2-3	CCT	111+35	30.8 RT	329.80	329.70	341.50	TS	48" DIAMETER PRECAST MANHOLE	MD 384.01
MH-2-4	CCT	111+96	118.1 RT	329.11/334	329.01	336.00	TS	48" DIAMETER PRECAST MANHOLE	MD 384.01
MH-2-5	CCT	112+25	158.4 RT	328.78	328.26	333.70	TS	48" SQUARE STANDARD SHALLOW MANHOLE	MD 383.00
CO-2-1	CCT	111+90	162.2 RT	331.44	331.44	335.50	TS	CLEANOUT	-
CO-2-2	CCT	111+99	108.7 RT	-	334.50	337.00	TS	CLEANOUT	-

TC - TOP OF CURB, TS - TOP OF STRUCTURE, TG - TOP OF GRATE

MODIFICATION OF EXISTING STRUCTURE

STRUCTURE NUMBER	BASELINE	STATION	OFFSET	TOP ELEV.	TOP ELEV. REMARKS*	REMARKS
MH-2-6	CCT	112+07	161.2 RT	334.70	TS	CONVERT EXISTING INLET TO MANHOLE
CO-2-3	CCT	112+84	10.4 RT	333.00	TS	CONVERT EXISTING INLET TO CLEANOUT
CO-1-7	CCT	112+90	8.9 RT	333.00	TS	MODIFY TOP OF STRUCTURE TO PROPOSE
EXI-1-1	CCT	112+93	0.0 LT	332.19	TG	MODIFY TOP OF GRATE TO PROPOSED GR

* TC - TOP OF CURB, TS - TOP OF STRUCTURE, TG - TOP OF GRATE

PIPE SCHEDULE

FROM STRUCTURE	TO STRUCTURE	LENGTH (FEET)	SIZE (INCHES)	TYPE	CLASS
I-2-2	SUMP PIT	9	12	RCP	IV
I-2-1	I-2-2	80	12	RCP	IV
MH-2-4	MH-2-5	46	18	RCP	IV
MH-2-3	MH-2-4	118	18	RCP	IV
MH-2-2	MH-2-3	32	14X23	HERCP	IV
MH-2-1	MH-2-2	66	18	RCP	IV
I-2-5	MH-2-1	13	18	RCP	IV
I-2-4	I-2-5	38	14X23	HERCP	IV
I-2-3	I-2-4	24	14X23	HERCP	IV
CO-2-1	MH-2-6	16	12	PVC	-
I-2-6	CO-2-1	29	12	PVC	-
CO-2-2	MH-2-4	8	6	PVC	-
CO-2-3	CO-1-7	5	12	PVC	-
I-2-15	CO-2-3	53	12	PVC	-
I-2-14	I-2-15	13	12	PVC	-
I-2-13	I-2-14	36	12	PVC	-
I-2-12	I-2-13	37	12	PVC	-
I-2-11	I-2-12	18	12	PVC	-
I-2-10	I-2-11	15	12	PVC	-
I-2-9	I-2-10	17	12	PVC	-
I-2-8	I-2-9	14	12	PVC	-
I-2-7	CO-1-7	14	12	PVC	-
I-2-16	I-2-15	6	4	PVC	-

STRUCTURE NUMBER	QUANTITY (CY)	PARTIAL COMPLE
I-1-2	6	COMPLE
I-1-3	4	COMPLE
I-1-4	4	COMPLE
MH-1-1	5	COMPLE
EXMH-1-2	3	COMPLE
MH-1-2	3	COMPLE
EXMH-1-3	3	COMPLE

START STRUCTURE	END STRUCTURE	LENGTH (
I-1-4	I-1-3	22
I-1-3	MH-1-1	17
I-1-2	MH-1-1	15
MH-1-1	EXMH-1-2	31
EXMH-1-2	MH-1-2	130
MH-1-2	EXMH-1-3	33
EXMH-1-3	MH-2-5	73
I-1-6	ES-1-1	113
CO-1-3	CO-1-6	74
CO-1-8	CO-1-6	8
CO-1-6	I-1-9	14
I-1-9	I-2-7	4
I-1-5	MH-1-2	3

Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231 DATE BY NO. REVISION

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.__ EXPIRATION DATE:_

PIPE INVERT ----STATION AND OFFSET LOCATION FOR ENDWALLS SCALE: NTS - STATION AND OFFSET LOCATION

STATION AND OFFSET LOCATION FOR SQUARE MANHOLE SCALE: NTS

Chief, Division of Transportat	ion Engineering	Date	SCALE :		FEE	BRUAF	RY 2020
Designed by:	Drawn by:	Checked by:	Project No. : <u>509132</u>	SHEET _	17	of _	169

EROSION AND SEDIMENT CONTROL – GENERAL NOTES

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 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, and 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.
- 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 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 NOTES

2. For construction, all horizontal control shall be NAD 83/2011 and vertical control NAVD 88.

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

5. Repairs to utilities or property damaged as a result of the contractor's negligence or method of

6. Call "Miss Utility" at 1-800-257-7777 fourty-eight (48) hours prior to beginning excavation to

9. Disturbed areas adjacent to established lawns shall be sodded. Other disturbed areas shall be

operation must be made at the contractor's expense before proceeding with construction.

3. Types of storm drain structures refer to the 'Design Standards' of Montgomery County

plan or six inches, whichever is less, the contractor shall contact the county.

Clearing to be limited to the "limit of disturbance" as shown on the plans.

All grading shall be done in such a manner as to provide positive drainage.

Department of Transportation, unless otherwise noted.

determine the exact location of existing utilities.

- 1. The contractor will immediately inform the county of any discrepancies found between the project plans and contract specifications.

- Park and Wildlife service whose telephone number is (301) 854-6060. 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

PROFESSIONAL CERTIFICATION. 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. EXPIRATION DATE:

				MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYLA	EROSION AND GENERAL NO	SEDIMENT CONTR TES AND DETAILS	
				RECOMMENDED FOR APPROVAL		CAPITAL C	RESCENT TRAIL
				Chief, Transportation Planning and Design Section APPROVED	Date	UNDE	ER MD 355 DA, MARYLAND
				Chief, Division of Transportation Engineering	Date	SCALE : NTS	FEB
NO.	REVISION	DATE	BY	Ølesigned by:WJ Drawn by:WJ	Checked by: <u>DZ</u>	Project No. : <u>509132</u>	Sheet <u>18</u>

- 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,
- 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) 777-6210 (48 hours notice) and the MNCPPC, Planning Department, Plans Enforcement inspector (301) 495-4571 (48 hours notice), the Owners representative, and the site Engineer.

In order for the meeting to occur, the applicant must provide one paper set of approved sediment control plans to the MCDPS sediment control inspector at the preconstruction meeting. If no plans are provided, the meeting shall not occur and will need to be rescheduled prior to commencing any work.

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 form 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. Traps and basins shall be constructed prior to construction of any earth dikes that convey drainage to a trap and/or basin. 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.

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

7. Following the completion of construction, obtain Stormwater Management As-Built Plan approval.

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.

<u>STOCKPILE NOTE</u>:

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.

SITE INFORM	ATION	
DISTURBED AREA (LOD)	CUT (CY)	FILL (CY)
1.44 ac	TBD	TBD

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. <u>33519</u>, EXPIRATION DATE: 10-17-20

RUARY 2020

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

				MONTGOMERY COUNT DEPARTMENT OF TRANSPOR GAITHERSBURG, MARYLA	Y RTATION AND	EROSION AND S GENERAL NOT	SEDIMENT CONTROL ES AND DETAILS	
				RECOMMENDED FOR APPROVAL	Date	CAPITAL CRESCENT TRAIL		
				APPROVED Chief, Division of Transportation Engineering Date		BETHESD.	A, MARYLAND FEBRUARY 2020	
NO.	REVISION	DATE	BY	Designed by: Drawn by:	Checked by:	Project No. : <u>509132</u>	SHEET <u>19</u> of <u>169</u>	

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INLET N	STANDARD SYMBOL	DETAIL E-9-2 AT-GRAD	E INLET PROTECTION	STANDARD SYMBOL	DETAIL E-9-3 CURB INLE PROTECTIO	N STANDARD SYMBOL
			MAXIMUM D	RAINAGE AREA = 1 ACRE		MAXIMUM DRAINAGE AREA = ¹ / ₄ ACRE
IFIED IN SECTION H-1 MATE	ERIALS.		E565090820595			Z FT MIN. LENGTH OF 2 IN x 4 IN
TO A DEPTH OF 18 INCHES CH CONSTRUCTION GRADE LU HE INLET. PLACE NAIL STRIP PORTION OF THE 2X4 FRAME COUND THE FRAME AND FAST CLOTH WITH TIES SPACED EV HARDWARE CLOTH A MINIMU E MUST MEET AT A POST, B	S BELOW THE NOTCH ELEVATION. UMBER POSTS, DRIVEN 1 FOOT S BETWEEN THE POSTS ON THE AS SHOWN. STRETCH ½ INCH TEN SECURELY. FASTEN VERY 24 INCHES AT THE TOP JM OF 18 INCHES BELOW THE DE OVERLAPPED AND FOLDED,	1/4 IN GALVANIZED HARDWARE CLOTH NONWOVEN GEOTEXTILE		ſO 1½ IN STONE	2 IN 6 FT MAX. SPACING OF 2 IN x 4 IN SPACERS 34 TO 1½ IN SIZED STONE NONW GEOTE	x 4 IN WEIR D 1½ STONE RS, OVEN XTILE
ANIZED STEEL POSTS OF 0. INCHES BELOW THE WEIR C CHAIN LINK FENCE, 42 INCH GEOTEXTILE SECURELY TO P AND MID SECTION. EMBED E WEIR CREST.	095 INCH WALL THICKNESS AND REST AT EACH CORNER OF THE HES IN HEIGHT, SECURELY TO THE CHAIN LINK FENCE WITH O GEOTEXTILE AND CHAIN LINK				NONWOVEN GEOTEXTILE A 2 IN x 4 IN SPA	CER
NCH LIFTS AND COMPACT U ELEVATION ON THE SIDES.	NTIL SOIL IS LEVEL WITH THE	PLAN	└_6 IN <u>/ CUT AWAY VIEW</u>		GALVANIZED – 2 IN x 4 IN WEIR HARDWARE – EDGE OF GUTTER PAN	<u>SECTION A-A</u>
3 FREQUENT MAINTENANCE. R NCTION AND AVOID PREMATU N WITHIN 24 HOURS AFTER A ED SEDIMENT AND CLEAN, OR	REMOVE ACCUMULATED SEDIMENT RE CLOGGING. IF INLET STORM EVENT, IT IS CLOGGED. REPLACE GEOTEXTILE AND		/14 IN HARDWARE CLOTH	1	<u>ISOMETRIC</u> <u>CONSTRUCTION SPECIFICATIONS</u>	
				 USE NOMINAL 2 INCH × 4 INCH LUMBER USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H 	-1 MATERIALS.	
				ET GRATE	3. NAIL THE 2×4 WEIR TO 9 INCH LONG VERTICAL SPACERS	S (MAXIMUM 6 FEET APART).
				DNWOVEN GEOTEXTILE	4. ATTACH A CONTINUOUS PIECE OF 1/4 INCH GALVANIZED H 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH	HARDWARE CLOTH, WITH A MINIMUM WIDTH OF THAN THE THROAT OPENING, TO THE 2×4 SIDE.
			OVERLAP	S	5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE CLOTH OVER THE HARDWARE CLOTH AND SECURELY AT	OF THE SAME DIMENSIONS AS THE HARDWAF ACH TO THE 2×4 WEIR.
			CROSS SECTION		6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP	NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET 9 AND HOLD IN PLACE BY SANDBAGS OR
		CONSTRUCTION SPECIFICATIONS			7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND	THE ENDS OF THE THROAT OPENING.
		1. USE NONWOVEN GEOTEXTILE AS SPECIF 2. LIFT GRATE AND WRAP WITH NONWOVE	IED IN SECTION H-1 MATERIALS.	ALL OPENINGS. SECURE	8. FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOT	THE CONCRETE GUTTER AND FACE OF CURB H AND GEOTEXTILE WITH CLEAN 34 TO 1½ INC
		3. PLACE CLEAN ¾ TO 1½ INCH STONE O	R EQUIVALENT RECYCLED CONCRETE	INCHES THICK ON THE	9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANI BYPASS.	DBAG OR ASPHALT BERM TO PREVENT INLET
	2 OF 2	 4. STORM DRAIN INLET PROTECTION REQU AFTER EACH RAIN EVENT TO MAINTAIN PROTECTION DOES NOT COMPLETELY D WHEN THIS OCCURS, REMOVE ACCUMUN STONE. 	IRES FREQUENT MAINTENANCE. REMO FUNCTION AND AVOID PREMATURE C RAIN WITHIN 24 HOURS AFTER A STC .ATED SEDIMENT AND CLEAN, OR REP	IVE ACCUMULATED SEDIMENT LOGGING. IF INLET RM EVENT, IT IS CLOGGED. LACE GEOTEXTILE AND	10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT M SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCT INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED GEOTEXTILE AND STONE.	AINTENANCE. REMOVE ACCUMULATED ION AND AVOID PREMATURE CLOGGING. IF 24 HOURS AFTER A STORM EVENT, IT IS SEDIMENT AND CLEAN, OR REPLACE
TIONS FOR SOIL EROSION AI	ND SEDIMENT CONTROL	MARYLAND STANDARDS AND SPEC	IFICATIONS FOR SOIL EROSION AND S	EDIMENT CONTROL	MARYLAND STANDARDS AND SPECIFICATIONS FOR S	OIL EROSION AND SEDIMENT CONTROL
MARYLA	AND DEPARTMENT OF ENVIRONMENT	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011 MARYLAND E WATER M	EPARTMENT OF ENVIRONMENT ANAGEMENT ADMINISTRATION	U.S. DEPARTMENT OF AGRICULTURE 2011	MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND	EROSION AND SEDIMENT CONTROL GENERAL NOTES AND DETAILS
WRA					RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section Date APPROVED	CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND
Whitman, Requardt & Associates, LLP					Chief, Division of Transportation Engineering Date	SCALE : NTS FEBRUARY 2020
801 South Caroline Street, Baltimore, Maryland 21231	NO.	REVISION	DATE	BY	Designed by: Drawn by: Checked by:	Project No. : <u>509132</u> SHEET <u>20</u> of <u>169</u>

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.__ EXPIRATION DATE:_

	TRAFFIC CONTROL PLAN GENERAL NOTES		
1.	ALL MAINTENANCE OF TRAFFIC (MOT) ACTIVITIES SHALL ADHERE TO THE MARYLAND DEPARTMENT OF TRANSPORTATION'S STATE HIGHWAY ADMINISTRATION'S (MDOT–SHA) "BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES". ALL PAVEMENT MARKINGS, CHANNELIZING DEVICES, AND OTHER ITEMS USED FOR MAINTENANCE OF TRAFFIC ARE TO BE USED IN COMBINATION WITH THE GENERAL NOTES AND STANDARDS PROVIDED IN CATEGORY 1 OF THE MDOT SHA BOOK OF STANDARDS SECTION MD 104, AND THE MOST RECENT EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MD MUTCD).	THI UN CLu API STI OF	E FOL IDER N OSURE PLICAE REAML ⁻ SAFE
2.	PRIOR TO BEGINNING WORK OR A NEW CONSTRUCTION STAGE, THE CONTRACTOR SHALL REFER TO THE EROSION AND SEDIMENT SEQUENCE OF CONSTRUCTION.	<u>P</u> F PF	<u>-IASE</u> -IASE
3.	NO WORK ACTIVITY OR MOT IS TO BEGIN UNTIL ALL ADVANCE WARNING SIGNS AND DRUMS ARE IN PLACE AND OPERATIONAL. ALL TEMPORARY TRAFFIC CONTROL SIGNS THAT ARE INSTALLED SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE MOUNTED ON THE WOOD POSTS AND SHALL HAVE RETROREFLECTIVE SHEETING.	WO 1.)RK Z(PRI AT
4.	LONGITUDINAL DISTANCES OF ADVANCE WARNING SIGNS MAY BE ADJUSTED DUE TO INTERSECTING STREETS, DRIVEWAYS, AND /OR FIELD CONDITIONS AS APPROVED BY THE ENGINEER WHERE ADVANCE SIGNING CONFLICTS WITH TEMPORARY SIGNING FOR LANE CLOSURES, LANE SHIFTS, OR FLAGGING OPERATIONS. ADJUSTMENTS TO ADVANCE SIGNING SHALL BE MADE PER THE ENGINEER TO AVOID CONFUSING AND/OR CONFLICTING MESSAGES.	2.	TEI WIL PEI
5.	DURING THE WEEKDAY AM PEAK PERIOD, THE CONTRACTOR SHALL MAINTAIN ALL TRAVEL LANES IN THE SOUTHBOUND DIRECTION OF MD 355. SINGLE LANE CLOSURES WILL BE PERMITTED IN THE SOUTHBOUND DIRECTION BETWEEN 11:00 AM AND 10:00 PM DURING WEEKDAYS	3.	DU TR/
6.	DURING THE WEEKDAY PM PEAK PERIOD, THE CONTRACTOR SHALL MAINTAIN ALL TRAVEL LANES IN THE NORTHBOUND DIRECTION OF MD 355. SINGLE LANE CLOSURES WILL BE PERMITTED IN THE NORTHBOUND DIRECTION BETWEEN 7:00 AM AND 3:00 PM DURING WEEKDAYS	4. 5.	EA: ALI
7.	SINGLE LANE CLOSURES ON MD 355 NORTHBOUND AND SOUTHBOUND ARE ALSO PERMITTED ON SATURDAY BETWEEN 8:00 AM AND 7:00 PM AND ON SUNDAY BETWEEN 8:00 AM AND 10:00 PM.	6.	PH. TW
8.	DOUBLE LANE CLOSURES ON MD 355 NORTHBOUND AND SOUTHBOUND ARE PERMITTED ON MONDAY THROUGH THURSDAY EVENINGS BETWEEN 10:00 PM AND 5:00 AM (NEXT DAY). CONTINUOUS DOUBLE LANE CLOSURES ON MD 355 ARE PERMITTED ON WEEKENDS STARTING ON FRIDAY AT 10:00 PM AND MAY REMAIN IN EFFECT UNTIL MONDAY AT 5:00 AM.	7.	PAI PH, TW LEF
9.	EXCAVATION NEAR THE TRAVEL WAY NOT PROTECTED BY TRAFFIC BARRIER SHALL BE BACKFILLED PRIOR TO THE END OF EACH WORK PERIOD IN CONFORMANCE WITH STD. NO. MD 104.01–28	8.	PH. TW
10.	WHERE TEMPORARY PAVEMENT MARKINGS ARE REQUIRED, EXISTING PAVEMENT MARKINGS SHALL BE COMPLETELY REMOVED WITHIN THE LIMITS OF RESURFACING, OUTSIDE OF THE LIMITS OF RESURFACING EXISTING PAVEMENT MARKINGS SHALL BE COMPLETELY COVERED WITH REMOVABLE BLACKOUT TAPE WHERE NECESSARY.	9.	CLO STF
11.	ALL PEDESTRIAN SIGNS SHALL BE MOUNTED ON DETECTABLE BARRICADES OR POSTS. PLACEMENT OF BARRICADES AND SIGNS SHALL BE COORDINATED WITH THE ENGINEER.		TW FRO
12.	EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC PATTERNS SHALL BE REMOVED OR COVERED PERMANENT SIGNS THAT ARE REMOVED (OR COVERED) CONSTRUCTION SHALL BE REINSTALLED PRIOR TO RETURNING THE ROAD TO THE PRE–CONSTRUCTION TRAFFIC PATTERNS.		TO EN INT
13.	SIGNS USED FOR TEMPORARY TRAFFIC CONTROL THAT ARE NOT APPLICABLE FOR A PARTICULAR CONSTRUCTION PHASE SHALL BE REMOVED OR COMPLETELY COVERED WITH A NON–TRANSPARENT MATERIAL.	10.	AT RE
14.	WHEN PAVEMENT MARKINGS HAVE BEEN OBLITERATED BY THE WORK ACTIVITY, THE CONTRACTOR SHALL INSTALL ANY CRITICAL INTERIM PAVEMENT MARKINGS PRIOR TO THE END OF THE WORKDAY AS SPECIFIED BY THE ENGINEER. ON ROAD SECTIONS THAT ARE NOT SCHEDULED TO BE OVERLAID, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVABLE DETOUR GRADE MARKING TAPE. ANY CONFLICTING MARKINGS, WHICH NEED TO BE TEMPORARILY REMOVED, ARE TO BE MASKED USING "3M REMOVABLE BLACK LANE MASK" OR AN APPROVED EQUAL. ON ROAD SECTIONS THAT ARE TO BE OVERLAID, TEMPORARY MARKINGS CAN BE EITHER TAPE OR PAINT. ANY CONFLICTING MARKINGS SHOULD BE REMOVED WITH A PAVEMENT GRINDER.	11. CO PH	THI CO NSTRL
15.	WHERE ONLY ONE ENTRANCE EXISTS FOR A PROPERTY, AND THE ENTRANCE CANNOT BE MAINTAINED TO TRAFFIC THE CONTRACTOR SHALL PERFORM THE WORK WHILE THE BUSINESS IS CLOSED. WHEN NECESSARY, THE CONTRACTOR SHALL PROVIDE FLAGGERS TO CONTROL ENTRANCE CONSTRUCTION.	1. 2.	INS INS
16.	THE CONTRACTOR SHALL COORDINATE WITH BUSINESSES FOR ANY POTENTIAL ACCESS RESTRICTIONS DURING CONSTRUCTION.	3.	EX SIC
17.	IF NECESSARY, SIDEWALKS AND OTHER PEDESTRIAN FACILITIES MAY BE NARROWED PROVIDED ADA ACCESS IS MAINTAINED AT ALL TIMES. SIDEWALKS SHALL BE 5 FEET WIDTH TYPICAL, 3 FEET MINIMUM AROUND IMPEDIMENTS FOR SHORT DISTANCES.	4. РН	RE BA
18.	WHERE A SIDEWALK IS CLOSED DURING CONSTRUCTION, THE CONTRACTOR SHALL INSTALL A BARRIER ACROSS THE FULL WIDTH OF THE SIDEWALK APPROACHING THE CLOSURE. THIS BARRIER SHALL BE DETECTABLE BY A VISUALLY IMPAIRED INDIVIDUAL TRAVELING WITH THE AID OF A CANE.	гп. 1. 2	ASE 2
19.	DESIGN SPEED FOR MAINTENANCE OF TRAFFIC SHALL BE 25 MPH ALONG MD 355	3.	EX
20. 21	DESIGN SPEED FOR MAINTENANCE OF TRAFFIC SHALL BE 25 MPH ALONG ELM STREET STEEL PLATES SHALL BE LISED TO COVER ANY PAVEMENT OPENING IN THE ROADWAY THE CONTRACTOR SHALL	4.	PA
21.	INSTALL THE STEEL PLATES PER MDSHA STANDARD NO. MD 104.01–86. ADVANCE STEEL PLATES SIGNS SHALL BE USED ANYTIME A STEEL PLATES IS USED.	5.	RE
<i></i> .	CHANNELIZING DEVICES, ARROW PANELS, PCMS) SHALL BE PLACED WITHIN PUBLIC RW (MDSHA AND MCDOT PROPERTY), OR MNCPPC PROPERTY. DEVICES SHOWN ON THESE PLANS WHICH APPEAR TO BE ON PRIVATE PROPERTY SHOULD BE COORDINATED WITH THE ENGINEER BEFORE PLACEMENT.	<u>P</u> F	<u>HASE</u>
23.	SPACING BETWEEN DRUMS AT DRIVEWAYS AND INTERSECTIONS SHALL BE APPROXIMATELY 6 FEET. SEE MD SHA STANDARD NO. 104.01–30A.	WO	RK ZC
24.	THE NUMBER AND SPACING OF DRUMS IN TAPERS SHALL BE AS DICTATED BY MD SHA STANDARD 104.01–30D	1.	I Eľ OF WE
	FLAGGING OPERATIONS	2.	ALI CC
1.	FLAGGERS SHALL BE MARYLAND STATE HIGHWAY ADMINISTRATION OR AATSA APPROVED FLAGGERS AND SHALL BE USED AT THE DIRECTION OF THE COUNTY INSPECTOR. FLAGGERS SHALL USE STOP/SLOW PADDLES TO DIRECT TRAFFIC.	3.	STA AVI EN
2.	RADIO COMMUNICATION SHALL BE REQUIRED BETWEEN FLAGGERS AT THE DISCRETION OF THE COUNTY INSPECTOR OR UNDER THE FOLLOWING CONDITIONS: – IF THE FLAGGERS CANNOT SEE EACH OTHER. – IF THE LANE CLOSURE EXCEEDS 200 FEET.	4.	AT RE
	PAVEMENT DROP-OFF	CO	NSTRL
1.	ANY EXCAVATION(S) IN THE ROADWAY SHALL BE PAVED TO LEVEL GRADE OR PLATED AND THE ROADWAY REOPENED TO ITS FULL CROSS-SECTION PRIOR TO THE END OF EACH WORKDAY. ``STEEL PLATES'' (W95–5(1)) SIGNS SHALL BE PLACED APPROXIMATELY 250 FEET IN ADVANCE OF ANY STEEL PLATE. ANY EXCAVATIONS IN THE SIDEWALK SHALL BE BACKFILLED OR PLATED PRIOR TO THE END	1. 2.	INS BE
2.	OF EACH WORKDAY AND SIDEWALK REOPENED TO TIS FULL CROSS SECTION. TRAFFIC SHALL NOT BE PERMITTED WITHIN TEN (10) FEET OF ANY EXCAVATION THAT RESULTS IN A VERTICAL DROP-OFF OF MORE THAN FIVE (5) INCHES IN THE LEVEL OF PAVEMENT DURING NON-WORKING HOURS UNLESS PROTECTED BY TEMPORARY CONCRETE BARRIERS OR RAMPED WITH AGGREGATE MATERIAL AT A 4:1 OR FLATTER SLOPE FROM THE EDGE OF PAVEMENT. WHEN RAMPING IS UTILIZED, TEMPORARY TRAFFIC CONTROL DRUMS SHALL BE POSITIONED ADJACENT TO THE EDGE OF THE WORK AREA ON THE TRAFFIC SIDE OF THE SLOPE.	3. 4.	INS PH CC
3.	TRAFFIC SHALL NOT BE PERMITTED WITHIN TWO (2) FEET OF ANY EXCAVATION THAT RESULTS IN A VERTICAL DROP-OFF OF MORE THAN TWO (2) INCHES BUT NO MORE THAN FIVE (5) INCHES IN THE LEVEL OF PAVEMENT DURING NON-WORKING HOURS UNLESS EITHER RAMPED WITH AGGREGATE MATERIAL AT A 4:1 SLOPE OR FLATTER SLOPE, PROVIDED WITH AN ABUTTING WEDGE BITUMINOUS MATERIAL AT 4:1 OR FLATTER SLOPE OR PROTECTED BY TRAFFIC CONTROL DRUMS.		
4.	IN AREAS WHERE A DROP-OFF IN THE LEVEL OF PAVEMENT IS TWO (2) INCHES OR LESS, TRAFFIC MAY BE ALLOWED TO FREELY CROSS UNDER THE FOLLOWING CONDITIONS: - WHERE LONGITUDINAL PAVING JOINTS OF TWO (2) INCHES OR LESS ARE EXPOSED TO TRAFFIC, WARNING SIGNS BE POSTED INDICATING ``UNEVEN LANES'' (W8-11). THESE SIGNS SHOULD BE PLACED 250 FEFT IN ADVANCE OF THE UNEVEN JOINT AND BE SPACED AT APPROPRIATE		

INTERVALS THROUGHOUT THE AREA OF THE UNEVEN JOINT. - WHERE LATERAL PAVING JOINTS OF TWO (2) INCHES OR LESS ARE EXPOSED TO TRAFFIC, A `BUMP'' (W8-1) SIGN SHALL BE POSTED 100 FEET IN ADVANCE OF THE JOINT. - WHEN MILLED PAVEMENT IS LEFT EXPOSED TO TRAFFIC A ``ROUGH ROAD'' (W8-8) OR ``GROOVED PAVEMENT'' (W8-8A) SIGN SHALL BE PLACED 250 FEET IN ADVANCE OF THE MILLED AREA.

SEQUENCE OF CONSTRUCTION

LLOWING SUGGESTED PHASING OF WORK IS AN EFFICIENT APPROACH TO CONSTRUCTING THE CCT PEDESTRIAN TUNNEL MD 355 (WISCONSIN AVENUE) THAT IS DESIGNED TO MINIMIZE LANE AND SHOULDER CLOSURES, AS WELL AS SIDEWALK	<u>PHAS</u>
RES. THE DEVELOPMENT OF THIS SUGGESTED SEQUENCE OF CONSTRUCTION CONSIDERED THE PERFORMANCE SPECIFICATION, ABLE STATE AND COUNTY STANDARDS, AND MAINTENANCE OF TRAFFIC METHODOLOGIES AIMED AT MINIMIZING IMPACTS WHILE A MAINTENANT THE INTENT OF THIS PROPOSED, SECUENCE IS TO PROVIDE A PASIS FOR MAINTAINING A HIGH LEVEL	WORK Z
ETY, ACCESS, AND OPERATIONS FOR MOTORISTS, BICYCLISTS AND PEDESTRIANS WHILE ADVANCING CONSTRUCTION PROGRESS.	1. DI T(
<u>E 1A THRU 1D INSTALLATION OF STEEL PIPE PILES ACROSS MD 355</u> E 2A THRU 2D INSTALLATION OF STEEL H PILES AND TEMP BRIDGES ACROSS MD 355	TE
ZONE ACTIVITIES	G
RIOR TO IMPLEMENTING THE TEMPORARY TRAFFIC CONTROLS FOR STAGE 1A, THE CONTRACTOR SHALL PROVIDE THE ENGINEER T LEAST 30 DAYS ADVANCE NOTICE TO ALLOW FOR PROPER SCHEDULING, COORDINATION, AND PUBLIC OUTREACH.	2. IN 3. M
Emporary lane or shoulder closures shall adhere to the times set in the contract documents, two lane closures Ill be permitted during the saturday, sunday, and weekday overnight time periods. One lane closures will be Ermitted during the weekday am /pm off-peak time periods.	4. C ⁽ Al
URING CONSTRUCTION OF THE UNDERPASS, THE SIDEWALK ALONG THE WEST SIDE OF MD 355 WILL REMAIN CLOSED TO PEDESTRIAN	CONSTR
URING STAGE D, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY ADA-COMPLAINT RAMPS AND RELOCATE THE CROSSWALK ALONG THE	1. Pi 2. E
L PEDESTRIAN SIGNS SHALL BE MOUNTED ON DETECTABLE BARRICADES OR POSTS. PLACEMENT OF BARRICADES AND SIGNS SHALL BE	B 3 IN
OORDINATED WITH THE ENGINEER. HASE A: INSTALL TRAFFIC CONTROL DEVICES TO CLOSE THE SOUTHBOUND RIGHT THROUGH LANE AND CENTER THROUGH LANE FOR A	M
WO LANE CLOSURE AS SHOWN ON THE PLANS PROVIDE AN OPENING IN THE CLOSURE TO MAINTAIN ACCESS TO HAMPDEN LN AND THE ARKING LOT AT 7272 WISCONSIN AVENUE RESTRICT LEFT TURNS FROM ELM ST. AND WAVERLY ST. ONTO SOUTHBOUND WISCONSIN AVENUE.	4. P C
HASE B: INSTALL TRAFFIC CONTROL DEVICES TO CLOSE THE SOUTHBOUND CENTER THROUGH LANE AND LEFT THROUGH LANE FOR A WO LANE CLOSURE AS SHOWN ON THE PLANS. MAINTAIN THE LEFT TURN LANES AT MONTGOMERY AVENUE AND WILLOW LANE. RESTRICT EFT TURNS FROM ELM STREET AND WAVERLY STREET ONTO SOUTHBOUND WISCONSIN AVENUE.	PHAS
HASE C: INSTALL TRAFFIC CONTROL DEVICES TO CLOSE THE NORTHBOUND LEFT THROUGH LANE AND CENTER THROUGH LANE FOR A WO LANE CLOSURE AS SHOWN ON THE PLANS. MAINTAIN THE LEFT TURN LANES AT BETHESDA AVENUE. PROVIDE AN OPENING IN THE LOSURE TO ACCOMMODATE THE SOUTHBOUND WISCONSIN AVENUE LEFT TURNS ONTO WILLOW LANE. RESTRICT LEFT TURNS FROM ELM TREET ONTO SOUTHBOUND WISCONSIN AVENUE.	1. M 2. IN
HASE D: INSTALL TRAFFIC CONTROL DEVICES TO CLOSE THE NORTHBOUND CENTER THROUGH LANE AND RIGHT THROUGH LANE FOR A WO LANE CLOSURE AS SHOWN ON THE PLANS. PROVIDE AN OPENING IN THE CLOSURE TO ACCOMMODATE THE RIGHT /LEFT TURNS	3. M
ROM WISCONSIN AVENUE ONTO WILLOW LANE. LOSE ELM STREET TO VEHICULAR TRAFFIC BETWEEN WISCONSIN AVENUE AND THE PARKING GARAGE ENTRANCE. CONVERT 47TH STREET D TWO–WAY TRAFFIC BETWEEN WILLOW LANE AND THE ELM STREET PARKING GARAGE ENTRANCE TO MAINTAIN ACCESS TO ALL NTRANCES ALONG 47TH STREET AND ELM STREET. INSTALL FLAGGERS AT WILLOW LANE, AT THE 47TH STREET AND ELM STREET UTERSECTION AND AT THE ELM STREET PARKING GARAGE ENTRANCE DURING. THE TWO WAY TRAFFIC OPERATION ON 47TH STREET	WORK Z 1. Cl
T THE END OF EACH WORKING DAY, STEEL PLATES SHALL BE USED TO COVER ANY PAVEMENT OPENING IN THE ROADWAY TO	TC El O
HE NORTH SIDE OF ELM STREET PARK MAY BE CLOSED AS SHOWN IN TCPD AND USED AS A STAGING AREA THROUGHOUT	FL W
ONSTRUCTION.	2. ST
OUCTION ACTIVITIES	WORK Z
1A-1D	1. Al
ISTALL SEDIMENT CONTROL MEASURES FOR EACH WORK AREA	∠. IVI
XCAVATE AROUND STEEL PIPE SLEEVES TO EXPOSE UTILITIES ACROSS MD 355 STARTING FROM THE WEST SIDE TO THE EAST	CONSTR
IDE EMOVE SEDIMENT CONTROL MEASURES. INSTALL STEEL PLATES TO COVER ANY PAVEMENT OPENING IN THE ROADWAY TO RETURN TRAFFIC	2. IN
ACK TO THE EXISTING.	3. R
ISTALL SEDIMENT CONTROL MEASURES FOR EACH WORK AREA.	4. C
ISTALL STEEL SUPPORT OF EXCAVATION PILES WITHIN STEEL PIPE SLEEVES ACROSS MD 355 STARTING FROM THE WEST SIDE TO THE EAST SIDE	5. R
XCAVATE WITHIN WORK AREA TO INSTALL TEMPORARY BRIDGE AND DECK OVER WORK AREA	0. n 7 P
AVE OVER TEMPORARY BRIDGE AND AS NECESSARY TO RESTORE TRAFFIC BACK TO EXISTING	
EMOVE SEDIMENT CONTROL MEASURES.	<u>PHASI</u>
	WORK Z
E 3A: INSTALLATION OF TEMP. BRIDGES IN ELM STREET	1. St
ZONE ACTIVITIES	CONSIR
EMPORARY LANE OR SHOULDER CLOSURES SHALL ADHERE TO THE TIMES SET IN THE CONTRACT DOCUMENTS. TEMPORARY CLOSURE F ELM STREET FOR THE INSTALLATION OF THE TEMPORARY BRIDGES SHALL BE PERFOMED DURING THE SATURDAY, SUNDAY, AND 'EEKDAY OVERNIGHT TIME PERIODS.	2. R
LL PEDESTRIAN SIGNS SHALL BE MOUNTED ON DETECTABLE BARRICADES OR POSTS. PLACEMENT OF BARRICADES AND SIGNS SHALL BE OORDINATED WITH THE ENGINEER.	<u>PHASI</u>
TAGE 3A: INSTALL TRAFFIC CONTROL DEVICES TO CLOSE ELM STREET TO VEHICULAR TRAFFIC BETWEEN 47TH STREET AND WISCONSIN VENUE. CONVERT 47TH STREET TO TWO–WAY TRAFFIC BETWEEN WILLOW LANE AND 7222 47TH STREET. MAINTAIN ACCESS TO NTRANCES ALONG 47TH STREET. INSTALL FLAGGERS AT WILLOW LANE AND AT 7222 47TH STREET DURING THE TWO–WAY TRAFFIC PERATION ON 47TH STREET.	WORK Z 1. M
T THE END OF EACH WORKING DAY, STEEL PLATES SHALL BE USED TO COVER ANY PAVEMENT OPENING IN THE ROADWAY TO ETURN TRAFFIC BACK TO THE EXISTING LANE. ADVANCE STEEL PLATES SIGNS SHALL BE USED.	CONSTR 1. C
	_

UCTION ACTIVITIES

ISTALL SEDIMENT CONTROL MEASURES FOR EACH WORK AREA

EGIN EXCAVATION FOR THE TEMPORARY BRIDGE, WHILE SUPPORTING UTILITIES

ISTALL DECK OVER STRUCTURE AT THE ELM STREET /47TH STREET INTERSECTION

HASE 3A CONSTRUCTION ACTIVITIES MAY BE DONE PRIOR TO AND/OR CONCURRENT WITH PHASE 1A-1D AND PHASE 2A-2D ONSTRUCTION ACTIVITIES.

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
EXPIRATION DATE:

						ТСРА
			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND		TRAFFIC CONTROL PLAN GENERAL NOTES AND SEQUENCE OF CONSTRUCTION	
			RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND	
			Chief, Division of Transportation Engineering	Date	SCALE : NONE	MAY 2021
NO.	REVISION	DATE	BY Designed by: <u>DTB</u> Drawn by: <u>DTB</u>	Checked by: <u>JMM</u>	Project No. : <u>501316</u> SHEET <u>22</u>	of <u>169</u>

SEQUENCE OF CONSTRUCTION CONTINUED

E 3B: INSTALLATION TEMP. PAVEMENT ALONG THE NORTH SIDE OF ELM STREET ZONE ACTIVITIES

URING CONSTRUCTION IN ELM STREET (PHASES 3B THRU 7C) THE NORTH SIDE OF ELM STREET WILL REMAIN CLOSED O PEDESTRIAN TRAFFIC BETWEEN WISCONSIN AVENUE AND THE PARKING GARAGE ENTRANCE. THE SIDEWALK ON THE OUTH SIDE OF ELM STREET WILL REMAIN OPEN DURING PHASE 3B THRU PHASE 7B. PEDESTRIAN CONTROL FOR EMPORARY SIDEWALK CLOSURES ALONG ELM STREET SHALL BE IN ACCORDANCE WITH MC STDS. TC-107.07 AND TC-107.02. MINIMUM 5 FOOT WIDE ADA-COMPLAINT PATH SHALL BE MAINTAINED BETWEEN THE ENTRANCE INTO THE PARKING ARAGE AND 47TH STREET.

NSTALL TRAFFIC CONTROL DEVICES TO CLOSE THE NORTH LANE OF ELM STREET.

IAINTAIN ACCESS INTO THE PARKING GARAGE AND LOADING DOCK AT ALL TIMES.

CONSTRUCT A TEMPORARY ADA-COMPLAINT PEDESTRAIN RAMP ON THE NORTHEAST CORNER OF WISCONSIN AVENUE ND ELM STREET.

RUCTION ACTIVITIES

PLACE TEMPORARY CONCRETE BARRIER ALONG 7315 WISCONSIN AVENUE, 2' OFFSET FROM THE FACE OF BUILDING

EXCAVATE THE EXISTING NORTH SIDEWALK ALONG ELM STREET AS SHOWN ON THE TCP PLANS. REMOVE THE SIDEWALK UMP-OUT AND CONSTRUCT A TEMPORARY ADA-COMPLIANT PEDESTRIAN RAMP ON THE NORTHEAST CORNER.

NSTALL TEMPORARY ASPHALT PAVING WHERE THE SIDEWALK AND CURB WERE REMOVED AND STEEL PLATE OVER UTILITY MANHOLES AS NECESSARY.

HASE 3B CONSTRUCTION ACTIVITIES MAY BE DONE PROIR TO AND/OR CONCURRENT WITH PHASE 1A-1D AND PHASE 2A-2D CONSTRUCTION ACTIVITIES.

E 4: CONSTRUCT PEDESTRIAN TUNNEL IN ELM STREET

ZONE ACTIVITIES (WORKING AND NON-WORKING HOURS)

AINTAIN A MINIMUM 5'-WIDE PEDESTRIAN PATH ALONG THE SOUTH SIDE OF ELM STREET AT ALL TIMES

NSTALL CONCRETE TRAFFIC BARRIER TO CLOSE THE SOUTH LANE OF ELM STREET.

MAINTAIN ACCESS INTO THE PARKING GARAGE AND LOADING DOCK AT ALL TIMES.

ZONE ACTIVITIES (WORKING HOURS)

LOSE ELM STREET TO VEHICULAR TRAFFIC BETWEEN WISCONSIN AVENUE AND THE PARKING GARAGE ENTRANCE. CONVERT 47TH TREET TO TWO–WAY TRAFFIC BETWEEN WILLOW LANE AND THE ELM STREET PARKING GARAGE ENTRANCE. MAINTAIN ACCESS TO ALL ENTRANCES ALONG 47TH STREET AND ELM STREET. INSTALL FLAGGERS AT WILLOW LANE, AT THE 47TH STREET AND LM STREET INTERSECTION, AND AT THE ELM STREET PARKING GARAGE ENTRANCE DURING THE TWO-WAY TRAFFIC OPERATION IN 47TH STREET IF THERE IS NO CONSTRUCTION ACTIVITY WITHIN THE ELM STREET TRAVEL LANE DURING WORKING HOURS, LAGGERS MAY DIRECT TRAFFIC TO ACCESS WISCONSIN AVENUE FROM ELM STREET. CONTRACTOR SHALL CLOSELY COORDINATE VITH FLAGGERS DURING WORKING HOURS.

TAGE DUMP TRUCKS ALONG ELM STREET BETWEEN THE PARKING GARAGE ENTRANCE AND WISCONSIN AVENUE.

ZONE ACTIVITIES (NON-WORKING HOURS)

LLOW PASSENGER VEHICLES TO ACCESS WISCONSIN AVENUE FROM ELM STREET.

AINTAIN A MINIMUM ROADWAY WIDTH OF 17 FEET.

RUCTION ACTIVITIES

NSTALL SEDIMENT CONTROL MEASURES FOR EACH WORK AREA

NSTALL SOE PILES ALONG ELM STREET AND EXCAVATE FOR THE PEDESTRIAN TUNNEL

RELOCATE EXISTING UTILITIES AS NECESSARY AND INSTALL NEW UTILITIES.

CONSTRUCT CAST-IN-PLACE TUNNEL AND BACKFILL OVER THE TUNNEL

RECONSTRUCT ELM STREET WITHIN THE LIMITS OF THE TUNNEL

REMOVE THE TEMPORARY BRIDGE IN ELM STREET AND PERFORM BASE PAVING

HASE 4 CONSTRUCTION ACTIVITIES MAY BE PERFORMED ON WEEKDAYS CONCURRENT WITH PHASE 1A-1D OR PHASE 2A-2D CONSTRUCTION ACTIVITIES.

E 5A THRU 5D: RESTORE WISCONSIN AVENUE

ZONE ACTIVITIES SEE PHASE 1A /2A THRU 1D /2D

RUCTION ACTIVITIES

REMOVE TEMPORARY BRIDGES UNDER WISCONSIN AVENUE

RESTORE MEDIAN AND PAVEMENT. SURFACE PAVE WISCONSIN AVENUE AT THE END OF PHASE 5D

SE 6: ELM STREET PARK

ZONE ACTIVITIES

3.

MAINTAIN LANE CLOSURE ALONG THE SOUTH SIDE OF ELM STREET FOR STORAGE AND STAGING

RUCTION ACTIVITIES

CONSTRUCT TUNNEL PORTAL AND RETAINING WALLS

2. CONSTRUCT SURFACE TRAIL, RE-GRADE ELM STREET PARK, INSTALL PARK IMPROVEMENTS, INSTALL LANDSCAPING, AND RESTORE SITE CONSTRUCT INLET, CURB & GUTTER, AND DRIVEWAY AT THE INTERSECTION OF ELM STREET AND 46TH STREET. INSTALL BOLLARDS.

SEQUENCE OF CONSTRUCTION CONTINUED

PHASE 7A: ELM STREET SOUTH SIDEWALK

WORK ZONE ACTIVITIES

- 1. MAINTAIN LANE CLOSURE ALONG THE SOUTH SIDE OF ELM STREET TO ACCOMMODATE PEDESTRIANS DURING RECONSTRUCTION OF THE SOUTH SIDEWALK.
- 2. DURING RECONSTRUCTION OF THE SOUTH SIDEWALK ALONG ELM STREET, A MINIMUM 5 FOOT-WIDE ADA-COMPLIANT PEDESTRIAN PATH SHALL BE PROVIDED IN THE ROADWAY. PEDESTRIAN CONTROL FOR TEMPORARY SIDEWALK CLOSURES ALONG ELM STREET SHALL BE IN ACCORDANCE WITH MC STDS. TC-107.07 AND TC-107.02.

CONSTRUCTION ACTIVITIES

1. RECONSTRUCT THE BRICK PAVERS, DRIVEWAY, RAMPS, LIGHTING, AND LANDSCAPING IN THE SOUTH SIDEWALK ALONG ELM STREET

PHASE 7B: ELM STREET NORTH SIDEWALK

WORK ZONE ACTIVITIES

- 1. INSTALL TRAFFIC CONTROL DEVICES TO CLOSE THE NORTH LANE OF ELM STREET.
- 2. MAINTAIN ACCESS INTO THE PARKING GARAGE AND LOADING DOCK AT ALL TIMES.
- 3. INSTALL PRECAST TEMPORARY CONCRETE TRAFFIC BARRIER AROUND THE WORK AREA FOR THE EMERGENCY EGRESS STAIRS.
- PROVIDE A 5' MINIUMUM PEDESTRIAN PATH BETWEEN 47TH STREET AND THE PARKING GARAGE. PEDESTRIAN CONTROL FOR TEMPORARY SIDEWALK CLOSURES ALONG ELM STREET SHALL BE IN ACCORDANCE WITH MC STDS. TC-107.07 AND TC-107.02.
 CONSTRUCTION ACTIVITIES
- 1. RECONSTRUCT THE BUMP-OUT, ADA-RAMP, AND PEDESTRIAN SIGNAL POLES /PUSH-BUTTONS ON THE NORTHEAST CORNER OF WISCONSIN AVENUE AND ELM STREET
- 2. RECONSTRUCT THE BRICK PAVERS, RAMPS, LIGHTING, AND LANDSCAPING IN THE NORTH SIDEWALK ALONG ELM STREET BETWEEN WISCONSIN AVENUE AND THE PARKING GARAGE.
- 3. CONSTRUCT THE EMERGENCY EGRESS STAIRS AND HATCH AND SUMP PUMP ROOM.

PHASE 7C: ELM STREET NORTH SIDEWALK

WORK ZONE ACTIVITIES

- 1. INSTALL TRAFFIC CONTROL DEVICES TO CLOSE THE NORTH LANE OF ELM STREET.
- 2. MAINTAIN ACCESS INTO THE PARKING GARAGE AND LOADING DOCK AT ALL TIMES.

CONSTRUCTION ACTIVITIES

- 1. CONSTRUCT THE NEW CURB LINE ALONG THE NORTH SIDE OF ELM STREET BEWEEN THE PARKING GARAGE AND LOADING DOCK.
- 2. CONSTRUCT THE BRICK PAVERS, DRIVEWAY, RAMPS, LIGHTING, AND LANDSCAPING IN THE NORTH SIDEWALK ALONG ELM STREET BEWEEN THE PARKING GARAGE AND LOADING DOCK
- 3. PERFORM SURFACE PAVING ALONG THE FULL WIDTH OF ELM STREET

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.______ EXPIRATION DATE:______

				MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND		TRAFFIC CONTROL PLAN SEQUENCE OF CONSTRUCTION CONTINUED		
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL CRE UNDER BETHESDA.	SCENT TRAIL MD 355 MARYLAND	
				Chief, Division of Transportation Engineering	Dote	SCALE : NONE	MAY 2021	
NO.	REVISION	DATE	BY	Designed by: <u>DTB</u> Drawn by: <u>DTB</u>	Checked by: <u>JMM</u>	Project No. : <u>501316</u>	SHEET <u>23</u> of <u>169</u>	

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_____ TEMPORARY TRAFFIC SIGNS AND SUPPORTS

<u>NOTES</u>

Designed by: <u>DTB</u> Drawn by: <u>SAZ</u>

SHEET <u>26</u> of <u>169</u>

Project No. : <u>501316</u>

Checked by: <u>JMM</u>

1. MAINTAIN LOCAL ACCESS ALONG ELM STREET AND 47TH STREET. 2. EMERGENCY DETOUR PLAN BASED ON MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT) STD. NO. TCP-110.02. 3. DETOUR SIDEWALK AND TRAILS BASED ON MCDOT STD. NO. TCP-107.01 AS SHOWN ON PEDESTRIAN DETOUR PLAN. 4. SIGNS SPACED AT 300' UNLESS OTHERWISE NOTED. 5. DETOUR TO REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION.

> 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.___ EXPIRATION DATE:__

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NO.	REVISION	DATE	BY	

<u>DETOUR PLAN LEGEND</u>

_____ TEMPORARY TRAFFIC SIGNS AND SUPPORTS

TYPE III BARRICADE

<u>NOTES</u>

1. EMERGENCY DETOUR PLAN BASED ON MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT) STD. NO. TCP-110.02.

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NOTICE		W
NO LEFT TURN		
WISCONSIN AVENUE	36"X48"	
OLLOW DETOUR		
\bigcirc		
END DETOUR	1-8a(1) 5"X24"	W

M4-9(I)(MOD) 30"XI2"

M4-9L(MOD) 30"X24"

Project No. : <u>501316</u>

Checked by: <u>JMM</u>

SHEET <u>27</u> of <u>169</u>

PROFESSIONAL CERTIFICATION.
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
EXPIRATION DATE:

NO.	REVISION	DATE	BY	

Designed by: _______ DTB _____ Drawn by: ________SAZ_____

<u>DETOUR PLAN LEGEND</u>

- _____ TEMPORARY TRAFFIC SIGNS AND SUPPORTS
- TYPE III BARRICADE

<u>NOTES</u>

1. EMERGENCY DETOUR PLAN BASED ON MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT) STD. NO. TCP-110.02.

NOTICE
NO LEFT TURN
WISCONSIN AVENUE
FOLLOW DETOUR

RII-3a(MOD) 36"X48"

END M4-8a(I) 36"X24" DETOUR

M4-9(I)(MOD) 30"XI2"

M4-9L(MOD) 30"X24"

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._____ EXPIRATION DATE:_

				-
NO.	REVISION	DATE	BY	
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	bute	SCALE : $1^{\circ} = 100^{\circ}$	
Designed by: <u>DTB</u> Drawn by: <u>SAZ</u> Cr	hecked by: <u>JMM</u>	Project No. : <u>501316</u>	SHEET <u>28</u> of

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._____ EXPIRATION DATE:

				MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND		TEMPORARY BUS STOP ACCES WORK ZONE CUT-THROUGH DE	S/ TAIL
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL CRESCENT TRAI UNDER MD 355 BETHESDA, MARYLAND	L
				Chief, Division of Transportation Engineering	Date	SCALE : N/A	MAY 2021
NO.	REVISION	DATE	BY	Designed by: <u>DTB</u> Drown by: <u>SAZ</u>	Checked by: <u>JMM</u>	Project No. : <u>501316</u> SHEET <u>29</u>	of <u></u>

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	MD–355 (SB WISCONSIN AVENUE)
	MD-355 (NB WISCONSIN AVENUE)
MALSH STREET	

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._____ EXPIRATION DATE:_____

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NO.	REVISION	DATE	BY	

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NO.	REVISION	DATE	BY	

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NO.	REVISION	DATE	BY	

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TEMPORARY PAVEMENT MARKING LEGEND
(A) 5" SOLID WHITE PAVEMENT MARKING
B 5" SOLID YELLOW PAVEMENT MARKING
© 5" SOLID WHITE PAVEMENT MARKING (3' LINE 9' GAP)
D 12" SOLID WHITE PAVEMENT MARKING
E 24" SOLID WHITE PAVEMENT MARKING
NOTE: A THRU E SHALL BE REMOVABLE PAVEMENT MARKING TAPE
ROAD WORK AHEAD PROPOSED TEMPORARY TRAFFIC CONTROL SIGN (THIS PHASE)
ROAD WORK AHEAD (TO REMAIN FROM PREVIOUS PHASE)

MOT LEGEND			
	PROPOSED WORK AREA THIS PHASE		
	WORK AREA PREVIOUS PHASES		
-	TEMPORARY TRAFFIC SIGN (SINGLE POST)		
••	TEMPORARY TRAFFIC SIGN (DOUBLE POST)		
	TYPE III BARRICADE		
•	PLASTIC DRUM/CHANNELIZING DEVICE		
-	DIRECTION OF TRAVEL		
_			

ZING DEVICE FLAGGER LOCATION 9 SAND–FILLED PLASTIC BARRELS (25 MPH DESIGN SPEED) 8880

∞ ARROW PANEL PRECAST TEMPORARY 32 INCH F SHAPE CONCRETE TRAFFIC BARRIER 32" MOVABLE WATER-FILLED BARRIER

PROFESSIONAL CERTIFICATION.
WERE PREPARED OR APPROVED BY ME, AND
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO EXPIRATION DATE:

NO.	REVISION	DATE	BY	

		SB WISCONSIN AVENUE	(MD-355)
		NB WISCONSIN AVE	NUE (MD–355)
STANFORD STREET	MALSH STREET		

				-
NO.	REVISION	DATE	BY	

NO.	REVISION	DATE	BY	


	Dauluson Daule	NORWOOD DRIVE
		W20-1(1 48"X48 NORX NORX NORX
	NOTES 1. INSTALL PORTABLE VARIABLE MESSAGE SIGNS (PVMS) WITH TWO SCREENS AS INDICATED BELOW. PVMS LOCATIONS AND MESSAGES SHALL BE APPROVED BY THE ENGINEER. PVMS SHALL BE PLACED IN ACCORED WITH MD 104.00-08, MD 104.00-09, AND MD 104.01-22.	
12021 - 12:13 PM	2 LEFT AT ELM LANES STREET MOT LEGEND MOT LEGEND (a) 5" SOLID WHITE PAVEMENT MARKING PROPOSED WORK AREA THIS PHASE (b) 5" SOLID YELLOW PAVEMENT MARKING PROPOSED WORK AREA THIS PHASE (c) 5" SOLID WHITE PAVEMENT MARKING WORK AREA PREVIOUS PHASES (c) 6" (3" LINE 9" GAP) TEMPORARY TRAFFIC SIGN (SINGLE POST) (c) 12" SOLID WHITE PAVEMENT MARKING TEMPORARY TRAFFIC SIGN (DOUBLE POST) (c) 24" SOLID WHITE PAVEMENT MARKING TEMPORARY TRAFFIC SIGN (DOUBLE POST) (c) 24" SOLID WHITE PAVEMENT MARKING TYPE III BARRICADE (c) 24" SOLID WHITE PAVEMENT MARKING PLASTIC DRUMCHANNELIZING DEVICE (c) 24" SOLID WHITE PAVEMENT MARKING PLASTIC DRUMCHANNELIZING DEVICE (c) 24" SOLID WHITE PAVEMENT MARKING PLASTIC DRUMCHANNELIZING DEVICE (c) 24" SOLID WHITE PAVEMENT MARKING PLASTIC DRUMCHANNELIZING DEVICE (c) 24" SOLID WHITE PAVEMENT MARKING PLASTIC DRUMCHANNELIZING DEVICE (c) 24" SOLID WHITE PAVEMENT MARKING PLASTIC DRUMCHANNELIZING DEVICE (c) 24" SOLID WHITE PAVEMENT MARKING PROPOSED TEMPORARY TRAFFIC (c) 24" SOLID WHITE PAVEMENT MARKING PROPOSED TEMPORARY TRAFFIC (c) 24" SOLID WHITE PAVEMENT TRAFFIC SAMOPHILED PLASTIC BARRELS <td></td>	

Non SB WISCONSIN AVENUE (MD–355) NB WISCONSIN AVENUE (MD-355) 1100' W20–5a(1)L 60" X60' 15 S S Õ TOSE LANE BRADLEY

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.______ EXPIRATION DATE:______



NO.

REVISION

DATE BY





NO.	REVISION	DATE	BY	



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 EXPIRATION DATE:	Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

				MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYL	TY DRTATION AND	TRAFFIC CONTROL PL	AN STAGE 1/2/5 C
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Date	CAPITAL CRES UNDER BETHESDA,	SCENT TRAIL MD 355 MARYLAND
				Chief, Division of Transportation Engineering	Date	SCALE : 1" = 40'	MAY 202
NO.	REVISION	DATE	BY	Designed by: <u>DTB</u> Drawn by: <u>SAZ</u>	Checked by: <u>JMM</u>	Project No. : <u>501316</u>	SHEET <u>40</u> of <u>169</u>



SB WISCONSIN AVENUE (MD–355) NB WISCONSIN AVENUE (MD–355) 1100' W20–5a(1)R $\mathbf{>}$ 60" X60" RIGHT С П LANE RADLEY PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND

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._____ EXPIRATION DATE:_____



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DATE BY





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NO.	REVISION	DATE BY	DEF RECOMMENDED FOR AP Chief, Transportation P APPROVED Chief, Division of Trans Designed by:	MONTGOMERY COU PARTMENT OF TRANS GAITHERSBURG, MAR PROVAL anning and Design Section portation Engineering Drawn by:SAZ	JNTY SPORTATION RYLAND Dote Dote	SCALE : Project No	CAPITAL CRES CAPITAL CRES UNDER BETHESDA, 1" = 40'	AN STAGE 1/2 SCENT TRAIL MD 355 MARYLAND	2/5 D MAY 2021 of <u>169</u>





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EXPIRATION DATE:_

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Designed by: <u>DTB</u> Drawn by: <u>SAZ</u>

Project No. : <u>501316</u>

Checked by: <u>JMM</u>

SHEET <u>48</u> of <u>169</u>



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Checked by: <u>JMM</u>



MONTGOMERY COUNTY, MARYLAND DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AND OPERATIONS

JUNE 2016

BETHESDA LED GLOBE LUMINAIRE

PURPOSE 1)

The purpose of these specifications is to prescribe the minimum requirements for the design, manufacture, fabrication, finishing and delivery of Bethesda LED Globe luminaire. The Bethesda Globe luminaires are intended for use in urban streetscape areas. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and attached drawings.

DESCRIPTION 2)

3)

4)

This luminaire shall be an outdoor decorative post top fixture, cylindrical in shape with and overall height of 42 +/- 1 inches and a maximum width of 19 + 1/2 inches at top (see attached drawings). All exterior and structural parts shall be cast of aluminum alloy. Exterior castings shall be cast in two pieces, have a smooth surface finish, and be free of mold lines. All components shall fit together snugly so as to provide weather-proof joints in the luminaire top. All visible metal components shall have raised surface decorations or ribs, as shown on the attached drawings, which are molded integrally with the base piece. Likewise, the hinges between the top and main body as well as between the driver cover and the base shall be cast integrally with the piece or bolted through the base piece. All metal parts shall be corrosion-proof. The luminaire shall come ready for quick and easy field assembly or fully assembled and shall include the following components:

- a) Lamp;
- Twist-Lock type photoelectric cell installed on the ballast cover; **b**)
- 120 Volt Driver with 10KV surge protection c)
- All necessary hardware and fasteners to assemble and secure on a 2 7/8 c) inch nominal diameter cast iron or aluminum tenon.
- The luminaire must be able to accommodate a 120 volt drive and surge protector. <u>LENS</u>

The lens shall consist of a seamless flat glass, not subject to deterioration by natural light. The lens shall have a continuous neoprene waterproof gasket at top. The gaskets shall fit into grooves molded into the top or over retaining rings molded inside the top plate. METAL CAGE

The metal cage shall be constructed of die-cast A360 aluminum alloy. The metal cage shall have 4 legs each with a square decorative block with solid rectangular band around the top of the cage between each decorative block. The support columns shall consist of four (4) dual columns connecting the top and bottom of the fixture

HINGED LUMINAIRE TOP & OPTICAL SYSTEM 5)

The hinged luminaire top shall consist of an LED optic assembly and all exterior components visible in plain view above the lens. The optical system shall be located in the top cover of the fixture. A gasket between the cover and the ring along with a flat glass plate and gasket beneath the LED panel and create a sealed optical compartment that will meet IP rating. The top must have an attached, removable brace to support the top when open. The optical system shall provide an IES asymmetric or symmetric full cut off distribution.

IFB # 1063092

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NO REVISION DATE BY

- ELECTRICAL MODULE 6) by a captive fastener.
- **DRIVER and SURGE PROTECTOR** accepting up to a #6 AWG wire.
- LED Color Temperature (CCT) and Rendering Index (CRI) 8) $3500K \pm 200 K$ with a minimum Color Rendering Index (CRI) of 70.
- PHOTOCELL 9)
- 10) UNDERWRITERS LABORATORY LISTING The entire luminaire assembly shall be U.L. listed and suitable for wet locations.
- 11) **EXTERIOR FINISH**



The electrical components shall be mounted on a steel plate that is removable without use of tools. All components shall be plug-in. The housing door shall be hinged and be latched to provide east access to the electrical module. The housing door shall be fastened

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

The Correlated Color Temperature (CCT) shall be a nominal Kelvin Temperature of

The photocell shall be a twist-lock and shall be mounted inside the fixture.

The exterior finish shall be "Federal Green" Federal Standard 595B Color # 14036 or Tiger Drylac #RAL6009 electrostatically-applied thermoset polyester powder coat.

> MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION LIGHTING PLAN GAITHERSBURG, MARYLAND RECOMMENDED FOR APPROVAL CAPITAL CRESCENT TRAIL UNDER MD 355 Chief, Transportation Planning and Design Sectior APPROVED BETHESDA, MARYLAND Date Chief, Division of Transportation Engineering FEBRUARRAYY 22002201 SCALE : NONE SHEET <u>53</u> of <u>169</u> Project No. : <u>501316</u> Checked by: WRA Designed by: <u>WRA</u> Drawn by: <u>WRA</u>

MONTGOMERY COUNTY, MARYLAND DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AND OPERATIONS

MAY 2010

DECORATIVE BETHESDA CAST STREETLIGHT POST

1) <u>DESCRIPTION</u>

The decorative Bethesda cast streetlight post is made of an integrally cast iron or cast aluminum, finished with a polyester powder coating. This streetlight post is intended for use at the curbside along selected roadways in the Bethesda Central Business District (CBD). Any manufacturer, distributor or vendor who submits bid shall agree to comply with these specifications.

Each pole shall be complete with the following:

- a) Access plate with attaching hardware;
- b) Anchor bolts, nuts, and washers (as specified);
- Typical footing design specifications including but limited to, base
- template, anchor bolt dimensions, reinforcement and footer details;
- d) One (1) pint can of touch-up paint, "Federal Green", federal color 595B, # 14036.

2) <u>DESIGN CRITERIA</u>

2.1 AASHTO Standards

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

2.2 Wind Load

The decorative Bethesda streetscape cast streetlight post shall be designed to resist (at yield strength of the material without permanent deflection or destruction), test loads equivalent to the calculated wind loads developed by the velocity pressures of an 80 MPH wind with a 30% gust factor. A minimum safety factor of 1.82 on the yield strength shall be maintained.

2.3 Effective Projected Area (EPA)

The decorative bethesda streetscape cast streetlight post shall have a EPA allowable for the following assumptions:

- a) Streetlight luminaire shall be assumed to be rectangular in shape with triangular shapes at the top and bottom, minimum length plus width of sixty-five (65) inches, when viewed from above.
- b) The streetlight luminaire shall have a nominal mounting height of 16 feet above the base.
- c) One or two (24" x 36") maximum traffic signs may be mounted with the sign's bottom edge 7 feet above the base.

3) <u>MATERIALS</u>

3.1 <u>Iron Casting</u>

The lamp post shall be integrally cast as one piece and shall be cast iron per ASTM A-48--72, Class 30. The sections are to be indicated below. The castings are to be true to pattern, with 16 flutes separated by 16 flat facets. All ornamental components shall be cast iron.

3.2 <u>Aluminum Casting</u>

The lamp post may be cast in one piece, as described above, of aluminum alloy of the same details as described above and minimum wall thickness as described below. The alloy used in the casting shall have a minimum yield strength of 30,000 PSI and shall be heat treated as required to provide that yield strength.

3.3 <u>Split Casting</u>

The lamp post may be a multiple piece castings that are factory-assembled into one piece may be considered, provided that there are no gaps between any pieces of the assembly that would allow water seepage or rust. Prior written approval required for the method.

4) <u>SHAFT</u>

The entire shaft shall be straight within +/- 3/16 inch along the center axis of the shaft. Dimensions and wall thickness of the lamp post shall be as follows and as per the attached drawing:

- A) Column at base 5 3/4 inches outside diameter and ½ inch minimum wall thickness from outer edge of flute to inside wall.
- B) Column at top 3 1/4 inches outside diameter and 3/8 inch minimum wall thickness from outer edge of flute to inside wall .
- C) Base at base 17 inches outside diameter and ¹/₂" minimum wall thickness Flange 7/8" minimum thickness.

5) <u>RECEPTACLE</u>

The post shall incorporate a 15A120V GFI duplex receptacle with a waterproof cover, painted to match post. Receptacle shall be located 180 degrees from traffic flow and 6 inches from the bottom of the tenon.

6) <u>HEIGHT</u>

The height of the post, less tenon, shall be 13 feet 0 inches. The weight of the cast iron post with complete door assembly, shall be 460 lbs. +/- 5%. All castings shall be painted with a shop coat of iron oxide primer.

7) <u>TENON</u>

The top of the post shall be equipped with a luminaire mounting tenon integrally cast as a part of the post casting. The tenon shall measure 2 7/8" outside diameter and 2 5/8" long.

8) <u>GROUNDING LUG</u>

The post shall be drilled and tapped for a 1/4 inch - # 20 grounding screw, inside the lamp post and opposite the access door,

9) <u>HANDHOLE</u>

The post shall have an handhole/access door with minimum opening 7 inches high, 2 3/4 inch wide at the top and 7 inches wide at the bottom secured with stainless steel machine screw shall be provided in the base of the lamp post.

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				MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYL	Y RTATION AND	LIGHTING PLAN	
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL (UNDI BETHES]	CRESCENT TRAIL ER MD 355 DA, MARYLAND
				Chief, Division of Transportation Engineering	Dote	SCALE : NONE	FEBRU AMRAYY 220220
NO.	REVISION	DATE	BY	Designed by: <u>WRA</u> Drawn by: <u>WRA</u>	Checked by: WRA	Project No. : <u>501316</u>	SHEET <u>54</u> of <u>169</u>

10)

12)

13)

11)

BOTTOM ACCESS HOLE

The base of the lamp post shall have an inside diameter sufficient to accommodate <u>two</u> four inch diameter schedule 40 PVC conduits at the bottom of the post, side by side, for streetlight wiring in accordance with utility company requirements.

ANCHOR BOLTS

Each post shall be furnished with four (4) anchor bolts, each 3/4 inch diameter x 24 inches long, plus a 3 inches "L" at the bottom. Each bolt shall be supplied with one (1) nut and one (1) washer. Bolts, nuts, and washers shall be fully hot dipped galvanized in accordance with ASTM A153.

<u>FINISH</u>

12.1 <u>Cast Aluminum</u>

The cast aluminum poles, access doors, and hardware shall be finished with a dark green electrostatically-applied thermoset polyester powder coat, color "Hadco J" or approved equal, as per the attached finish specification "ICS-2". One pint can of dark green touch-up enamel, color "Federal Green" or approved equal, shall be supplied.

12.2 Cast Iron

The cast iron poles and all components shall be supplied with one coat of oil-based red lead primer paint. Two (2) coats of enamel ("Federal Green", federal color 595B, #14036) shall be apply to each pole in the field.

POLE INFORMATION

The lamp pole shall be Spring City Washington # 13 or Approved equal.





CROSS SECTION







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				MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYL	Y RTATION AND	LIGH	TING PLAN
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL C UNDE BETHESD	RESCENT TRAIL R MD 355 A, MARYLAND
				Chief, Division of Transportation Engineering	Date	SCALE : NONE	FEBRUARAY 200220
NO.	REVISION	DATE	BY	Designed by: <u>WRA</u> Drawn by: <u>WRA</u>	Checked by: <u>WRA</u>	Project No. : <u>501316</u>	SHEET <u>55</u> of <u>169</u>

BETHESDA LANTERN FOOTING DETAIL FOR 17" BASE (IN UNDISTURBED SOIL)

- CONCRETE SUB BASE

(4) 5/8" HET DIPPED 24" LONG + 3" L #4 BARE GROUND WIRE - #4 REINFORCING CAGE W/MAX. 9" GRID

- RIGID CONDUIT AS PER ELECTRICAL PLAN W/24" SWEEP BEND - 5/8" COPPER GROUND ROD EMBEDDED TO 10' BELOW GRADE W/GROUND CLAMP NO. 2 CONCRETE MIX

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

MAY 2010

STREETLIGHT POST NUMBERING TAGS

1) <u>PURPOSE</u>

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) <u>DESIGN CRITERIA</u>

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) <u>MATERIALS</u>

a) <u>TAG</u>

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) <u>REFLECTIVE AREAS</u>

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

- c) <u>NONRELECTIVE AREAS</u> 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) <u>MOUNTIING HEIGHT</u>

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) <u>MOUNTING ORIENTATION</u>

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) <u>MOUNTING HARDHARE</u>

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) <u>NUMBERS</u>

The streetlight post numbering tag numbers shall be a minimum of 2 inch high with a minimum of a ¹/₄ inch stroke width.

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THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO
EXPIRATION DATE:



				MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYLA	Y RTATION ND	LIGHTING PLAN	
				RECOMMENDED FOR APPROVAL		CAPITAL C	RESCENT TRAIL
				Chief, Transportation Planning and Design Section APPROVED	Date	UNDE BETHESD	R MD 355 A, MARYLAND
				Chief, Division of Transportation Engineering	Date	SCALE : NONE	FEBRU A RAYY 220220
NO.	REVISION	DATE	BY	Designed by: <u>WRA</u> Drawn by: <u>WRA</u>	Checked by: <u>WRA</u>	Project No. : <u>501316</u>	SHEET <u>56</u> of <u>169</u>



STREETLIGHT CONDUIT INSTALLATION CHECKLIST

- FOUR INCH (4"), SCHEDULE 40, PVC CONDUIT TO BE INSTALLED BY THE 1) CONTRACTOR CONNECTING EACH SPLICEBOX IN A CONTINUOUS RUN.
- TWO INCH (2"), SCHEDULE 40, PVC CONDUIT TO BE INSTALLED BY THE 2) CONTRACTOR CONNECTING THE SPLICEBOX TO THE STREETLIGHT FOOTING.
- CONTRACTOR TO PROVIDE AND INSTALL PHOTOCELLS FOR EACH 3) STREETLIGHT LUMINAIRE.
- STREETLIGHT AND POST ERECTED BY THE CONTRACTOR ARE TO BE 4) WIRED WITH # 10 AWG (MIN.) COPPER WITH A THREE FOOT MINIMUM LOOP OF SLACK IN THE SPLICEBOX FOR ATTACHMENT BY PEPCO.
- STREETLIGHT POSTS ARE TO HAVE A GROUNDING LUG ATTACHED TO THE 5) BASE OF THE POST WITH A MINIMUM THREE FOOT LOOP OF SLACK IN THE SPLICEBOX OF # 6 AWG BARE COPPER WIRE ATTACHED.
- ALL SWEEPBENDS TO BE A MINIMUM OF 36 INCHES RADIUS. 6)
- ¹/₄" NYLON PULL-LINE IS TO BE INSTALLED IN EACH CONDUIT DUCT. 7)
- CONTRACTOR TO INSTALL MARKING TAPE ONE FOOT (1') ABOVE EACH 8) CONDUIT RUN.
- NO MORE THAN 180 DEGREES OF BENDS IN A CONDUIT RUN. 9)
- CONDUIT IS TO HAVE THREE (3) FEET (MINIMUM)] OF COVER OVER IT. 10)
- INSTALLATION OF ALL UNDERGROUND LIGHTING FACILITIES ARE ALSO 11) SUBJECT TO PEPCO INSPECTION AND WRITTEN APPROVAL BEFORE CONCEALMENT. FAILURE TO OBTAIN SUCH INSPECTION WILL RESULT IN THE UNCOVERING OF FACILITIES AT THE CONTRACTOR'S EXPENSE. CALL 301-670-8808 OR 301-670-8828 7:00 TO 9:00 AM OR 3:00 TO 4:00 PM TWO WORKING DAYS IN ADVANCE TO ARRANGE INSPECTION.
- ALL STREETLIGHT EOUIPMENT AND MATERIALS SHALL BE SUBMITTED TO 12) MCDPWT FOR APPROVAL PRIOR TO BEING INSTALLED ON THE PROJECT. SEE SPECIAL PROVISIONS FOR STREETLIGHT SPECIFICATION.
- ALL STREETLIGHTS SHALL BE INSTALLED 2' 6" BEHIND THE FACE OF CURB 13) (EXCEPT AS NOTED ON PLANS).

BANNER PLACEMENT ON STREETLIGHTS POLES

The banners shall conform to the following:

- Shall be placed towards the sidewalk, away from the roadway. 1)
- Shall be placed a minimum of seven foot from the sidewalk to the bottom of the 2) banner support.
- Banner support straps shall be painted the same color of the streetlight pole banner is 3) being placed on.
- Banner shall not interfere with the operations of the streetlight. 4)
- 5)

The following items shall be included in the submittal package

- Copy of the graphics for the banner. 1)
- Size of the banner. 2)
- Pole location schematic. 3)

PEPCO TERMS & CONDITIONS:

1. Customer to obtain all permits/permissions required by others on private property.

2. All materials used are to conform to Pepco specifications. All work must be done in accordance with Pepco's standards and specifications.

3. Work to be done in a manner acceptable to Pepco and inspected by Pepco's Conduit Department before encasement or backfilling. Call (202) 388-2635 two (2) weeks in advance to arrange pre-construction meeting and schedule inspection. (Customer must first submit a drawing of the facilities to be built for Pepco and be approved by Pepco.) Call between 7-9 a.m. or 3-4 p.m.

4. Transformer pad (including grounding) is to be built in accordance with Pepco Specification Drawings

and built on level ground.

5. Conduit to be built in accordance with Pepco Specification Drawings No. 6-1-480 and C.D.001.01.

6. Sweepbends must have a radius of no less than 36".

7. Nylon pull lines to be installed in each duct for future cable installation.

9. No more than 180° of bends of duct line.

10. Conduit to have three feet (3') of cover (top of duct to finished grade).

11. Conduit to be encased in 2000 PSI concrete with pea gravel. No metallic materials (rebars, hold down wires, etc.) shall be permitted in spaces between each duct.

12. Customer to rod all conduits, clear any obstructions and provide nylon pull lines prior to the installation of Pepco cables.

13. Customer to coordinate exact depth and locations of all stub outs with Pepco construction.

14. Transformers to be located twenty (20) feet from Combustible Walls. See Pepco specification drawings C.D.006.01, C.D.006.02.

15. All on site structural facilities including conduit, splice boxes, transformer pads etc. provided, installed, owned and maintained by the customer.

16. Transformer ground grid to be #2 stranded, soft drawn copper tinned (60 feet), and 2 ft of 4/0 stranded, soft drawn copper tinned. Pads to be grounded in conformance with Pepco Specification Drawing number 2.2.0983 4.4 dated 05/05/09.

17. For locations of utilities, call 24 hours a day 1-800-257-7777, 48 hours in advance of any work in this vicinity.

18. The trough must have removable covers with provisions for seals, all removable covers to be handled by one man.

19. The Minimum mounting height for meters is 30 inches to the bottom of the meter glass. Maximum mounting height is 66 inches to the bottom of the glass.

cabinets/ compartments/ sections are shown on Pepco Purchase Specification Drawings 5-5-0606.1.1, 5-5-0695.1.3, 5-5-0695.2.3, 5-5-0695.3.3. Refer to: http://www.pepco.com/business/ and go to approved LV Switchgear (www.pepco.com/ res/documents/switchgear.pdf)

21. Hylugs used by Pepco require NEMA 2-hole spacing.

22. Pepco is to be notified 2 weeks (10 working days) before the setting of any poles, manholes, pouring of any concrete and/or the backfilling of any trench to make arrangements for the inspection and approval of your on site service connection structural equipment. Call (202) 388-2635 two (2) weeks in advance to arrange pre-construction meeting and schedule inspection.

23. All other underground utilities in the vicinity are to be shown. The minimum longitudinal and vertical separation between foreign structures and conduit set by Pepco shall be maintained:

- Telephone conduit 3" concrete or 12" earth.
- Gas conduit under 16" diameter 12" • Gas conduit over 16" diameter - 18"

24. The maximum size of a service conductor rated 600 volts or less shall not exceed 500 kcm for Copper or Aluminum conductor.

*Refer to www.pepco.com/business/ for the most up to date Pepco standards drawings and construction details and specifications.

CUSTOMER IS TO BUILD, OWN, AND MAINTAIN ALL STRUCTURAL FACILITIES ON PRIVATE PROPERTY.

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND	
RECOMMENDED FOR APPROVAL CAPITAL CRESCENT TRAIL	
Chief, Transportation Planning and Design Section Date PHASE 1 APPROVED BETHESDA, MARYLAND	
quardt & Associates, LLP Chief, Division of Transportation Engineering Date SCALE : NONE	MAY 2021
e Street, Baltimore, Maryland 21231 NO. REVISION DATE BY Designed by: WRA Drawn by: WRA Checked by: WRA Project No. : 501316 SHEET 16	of <u>31</u>

CONTRACTOR FURNISHED EQUIPMENT NOTES:

PEPCO TO PROVIDE ENERGY & CABLING

CONTRACTOR SHALL PROVIDE LUMINAIRES, POLES, PHOTOCELLS, FOOTINGS AND CONDUIT

CONTRACTOR TO PROVIDE CONDUIT AS REQUESTED BY PEPCO

REFER TO CONDUIT CHECKLIST FOR ADDITIONAL INFORMATION

PROFESSIONAL CERTIFICATION. 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. EXPIRATION DATE:



C.D.007.01, 2-2-0983. 1.4, 2-2-0983 2.4, 2.2.0983 3.4, 2.2.0983 4.4, C.D.006.01, C.D.006.02

Ten feet (10') of clear space must be provided in front of the pad and three feet (3') on sides and back. Pad must be accessible from a road, drive or parking lot.

8. Manholes to be constructed with 3000 PSI concrete.

20. All metering current transformer mounting dimensions, drillings, spacings and studs must comply with Pepco Specification Drawings 5-5-0606.1.1, 5-5-0695.1.3, 5-5-0695.2.3, 5-5-0695.3.3. The minimum acceptable dimensions, drillings, etc. for Pepco line connections to C/T cabinets/compartments (including safety barrier where applicable), mainline switches and main incoming bus

• Water and sewer - 4' horizontal in DC and 5' horizontal in MD, with 1' vertical clearance.

Maintain 5', 0" minimum (horizontal) and 1' 0" (vertical) clearance from all underground utilities.

<u>CRITERIA</u>

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

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", MOST CURRENT EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.

DESIGN WIND

100 MPH - WOOD SUPPORTS IO YEAR RECURRENCE INTERVAL

100 MPH - GROUND MOUNT SIGN STEEL SUPPORTS ALL DISTRICTS IO YEAR RECURRENCE INTERVAL

100 MPH - OVERHEAD AND CANTILEVER STRUCTURES

50 YEAR RECURRENCE INTERVAL

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.

I. GUIDE SIGNS

- A) STRUCTURAL TYPES
- OH OVERHEAD
- B) PANELS MATERIAL - EXTRUDED ALUMINUM
 - COPY DIRECT APPLIED
- C CANTILEVER GM - GROUND MOUNT, BREAKAWAY
 - OR NON-BREAKWAY
- BM BRIDGE MOUNTED

2. STANDARD SIGNS (REGULATORY, WARNING, ETC.) A) STRUCTURAL TYPES

B) PANELS MATERIAL - SHEET ALUMINUM COPY - DIRECT APPLIED

I) HIGH INTENSITY (NEW SIGNS AND

REVISIONS TO EXISTING SIGNS)

IDENTIFICATION OF SIGNS AND PANELS

SQUARE TUBE

WOOD SUPPORTS

GUIDE SIGNS

EACH GUIDE SIGN IS IDENTIFIED BY A SIGN NUMBER ON THE PLANS AND IN THE TABULATIONS.(GM-I, GM-2, GM-3, etc)

SIGNS ON STRUCTURES ARE IDENTIFIED WITH A NUMBER AND WHERE VARIATIONS OCCUR. A LOWER CASE LETTER. (OH-Ia. OH-Ib. OH-Ic)

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 FIRST BY THE SHEET NUMBER. THEN BY THE NUMERICAL ORDER OF THE SIGN AS IT APPEARS ON THE PLAN.

FOR EXAMPLE SHEET SN 2.1-101,102,103, ETC. SHEET SN 2.2-201,202,203,ETC.

PANEL LAYOUT AND ALPHABETS

I. 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 AT http://apps.roads.maryland.gov/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.



* 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

I. 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

I. 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

I. 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:

- I. SHEETING SHALL MEET THE REQUIREMENTS OF SECTIONS 813 AND 950.03 OF MDOT SHA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS 2017 EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.
- 2. LISTED ON MDOT SHA OFFICE OF TRAFFIC AND SAFETY'S QUALIFIED PRODUCTS LIST (QPL).

PROFESSIONAL CERTIFICATION. 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. EXPIRATION DATE:



				MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND GENERAL NOTES		AND PROPOSAL	S	
				RECOMMENDED FOR APPROVAL		CAPITAL CRE	SCENT TRAIL	
				Chief, Transportation Planning and Design Section APPROVED	Dote	UNDER BETHESDA,	MD 355 MARYLAND	
				Chief, Division of Transportation Engineering	Dote	SCALE : NONE		MAY 2021
NO.	REVISION	DATE	BY	Designed by: <u>XXX</u> Drawn by: <u>XXX</u>	Checked by: XXX	Project No. : <u>501316</u>	SHEET <u>58</u>	of <u>169</u>

PROJECT REQUIREMENTS CONT'D

3. THE FOLLOWING TYPES OF SHEETING SHALL BE USED FOR THE SPECIFIED SIGN CLASSIFICATIONS: GENERAL NOTE: ALL COLORS SHALL BE RETROREFLECTIVE EXCEPT BLACK.BLACK TEXT, BORDERS, SYMBOLS OR ANY BLACK ELEMENTS OF ANY SIGN SHALL BE NON-REFLECTIVE. THIS APPLIES TO ALL MDOT SHA SIGNS AS SHOWN BELOW.

A) GUIDE, EXIT GORE, GENERAL INFORMATION, AND SERVICE SIGNS - FALL INTO TWO SUB CATEGORIES:

(I). GROUND MOUNTED: ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9).

(II). OVERHEAD STRUCTURE SIGNS AND OVERHEAD CANTILEVER SIGNS: ALL RETROREFLECTIVE SHEETING ELEMENTS OF ALL OVERHEAD SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE XI(II). (THIS SECTION DOES NOT APPLY TO OVERHEAD SIGNALIZED INTERSECTION SIGNING; MAST ARM OR SPAN WIRE. FOLLOW THE REQUIREMENTS FOR THE RESPECTIVE SIGN CLASSIFICATION FOR SIGNAL SIGNING.)

B) WARNING SIGNS - RETROREFLECTIVE SHEETING FOR WARNING SIGNS (FLUORESCENT YELLOW AND FLUORESCENT) ORANGE) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). REGULATORY MESSAGES WITHIN WARNING SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.

C) SCHOOL SIGNS - RETROREFLECTIVE SHEETING FOR SCHOOL SIGNS (FLUORESCENT YELLOW AND FLUORESCENT YELLOW-GREEN) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). REGULATORY MESSAGES WITHIN SCHOOL SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.

D) REGULATORY SIGNS - FALL INTO THREE SUBCATEGORIES:

(I). "RED" REGULATORY SIGNS; (SPECIFICALLY - STOP, YIELD, DO NOT ENTER AND WRONG WAY). ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9).

(II). ALL R7 AND R8 SERIES PARKING RELATED SIGNS AND THEIR SUPPLEMENTAL PANELS, NO TRESPASSING SIGNS, AND SIGNS DIRECTED AT PEDESTRIANS AND BICYCLISTS ONLY. ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET THE REQUIREMENTS FOR ASTM TYPE IV (4).

(III). ALL OTHER REGULATORY SIGNS - ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET ASTM TYPE IV (4) INCLUDING RED ELEMENTS. WARNING MESSAGES WITHIN REGULATORY SIGNS SHALL FOLLOW THE REQUIREMENTS FOR WARNING SIGNS.

E) ROUTE MARKERS (INDEPENDENT USE AND GUIDE SIGN USE)

INDEPENDENT USE: ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET BUT NOT TO EXCEED THE REQUIREMENTS FOR ASTM TYPE IV (4).

GUIDE SIGN USE: WHEN INCORPORATED IN THE BODY OF A GUIDE SIGN, ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET THE SHEETING REQUIREMENTS OF THE GUIDE SIGNS FOR WHICH THEY ARE TO BE APPLIED; GROUND MOUNT ASTM TYPE IX (9) OR OVERHEAD ASTM TYPE XI(II).

F) LOGOS AND / OR GRAPHICS - WITHIN SIGNS SHALL FOLLOW THE REQUIREMENTS FOR THE RESPECTIVE SIGN CLASSIFICATION UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.

G) SPECIFIC SERVICE (LOGO) SIGNING - ALL COPY, DIVIDER BORDERS, LOGOS AND ARROWS SHALL BE DEMOUNTABLE ALUMINUM OVERLAYS, .032 MINIMUM TO .063 MAXIMUM. ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). DISTANCES ON DIRECTIONAL ARROWS WHEN SPECIFIED SHALL BE BLACK. THE OVERLAYS ARE TO BE APPLIED WITH .125 ALUMINUM POP RIVETS TO THE BODY OF THE MAIN SIGN.

H) 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.

WIDTH OF SHEET ALUMINUM BLANKS:

LONGEST DIMENSION

UP TO 12" ... GREATER TH GREATER TH

GREATER TH OVER 48"...

4. THE FOLLOWING MINIMUM THICKNESS SHALL BE USED FOR THE APPROPRIATE

MINIMUM THICKNESS

			.0.040"
HAN	12" TO	24"	.0.063"
IAN	24" TO	36"	.0.080"
IAN	36" TO	48"	.0.100"
			.0.125"

SN01



SHEET	SIGN								COD	E NUMBE	RS *	_					
NO.	NO.	REMARKS		2	3	4	5	6	7	8	9	10	П	12	13	14	15
	1	RE-1 (30"v30")	6.25														
51102			0.25														
	<u> </u>	R5-1 (SU ⁻ XSU ⁻), SPECIAL (18 ⁻ XZ4 ⁻)	J.2J				Ζ										
	3	R3-8 MODIFIED (30"x30")	6.25														
	4	R6-I(R) (36"xI2"), R6-I(L) (36"xI2")	6														
	5	SPECIAL (18"x24")	3														
	6	RELOCATE "NEIGHBORHOOD WATCH" SIGN		 		3											
			7	I		J											
	1	SPECIAL (18°X24°)	J	<u> </u>													
	8	DI-I(I) MODIFIED (36"×9")	2.25														
	9	SPECIAL (18"x24")。RI-I (18"x18")	5.25														
	10	DI - I(I) MODIFIED (48"x24")	8														
		$DI - I(I) = MODIFIED (48" \times 36")$	12	2													
			12	2													
	12	DI-I(I).3 MUDIFIED (48 X36)	12	2													
		REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS			23												
		PAVEMENT MARKING QUANTITIES						575	20	105	90	54					
			77 25		てつ		1	575	20	105	00	E 1					
		UJLU QUANTITILJ	11.20	11	JZ	່ງ	4	010	20	103	JU	<u> </u>					

	* CODE NUMBER DESCRIPTION & UNIT											
CODE NUMBERS	DESCRIPTION	UNIT	CODE NUMBERS	DESCRIPTION	UNIT							
I	SHEET ALUMINUM SIGNS	SF										
2	SQUARE PERFORATED TUBULAR STEEL SIGN POST AND ANCHOR BASE	EA	12									
3	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF	13									
4	RELOCATE EXISTING GROUND MOUNTED SIGNS	SF	14									
5	BAND SIGN TO SIGN SUPPORT	EA	15									
6	5 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS	LF	16									
7	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	17									
8	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS	SF	18									
9	5 INCH YELLOW THERMOPLASTIC PAVEMENT MARKINGS	LF	19									
10	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	20									

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.______ EXPIRATION DATE:______



							31103
				MONTGOMERY COUNT DEPARTMENT OF TRANSPOR GAITHERSBURG, MARYLA	Y RTATION ND	INDEX OF QUANTITIES	
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND	
				Chief, Division of Transportation Engineering	Date	SCALE : NONE	MAY 2021
NO.	REVISION	DATE	BY	Designed by: XXX Drown by: XXX	Checked by: XXX	Project No. : <u>501316</u> SHEET <u>60</u>	of <u>169</u>





REVISIONS	TRAFFIC SIGNALIZATION PLAN – PHASE 4
	SCALE <u>1" = 20</u> ′ DATE <u>8 / 14 / 1989</u> CONTRACT NO. <u>BW 340-802-312</u>
B REPLACE PEDESTAL POLE MCDOT NO. 501316 2/2020 SRB JDC A REBUILD TRAFFIC SIGNAL AND ADDED APS. TIMS# L488 SHA NO. M01175177 3/05/2013	DESIGNED BY R.R. ZACHERL COUNTY MONTGOMERY DRAWN BY B.K. MILLER LOGMILE 15035501.54 CHECKED BY TIMS NO. L488 MDE/PRD SEE TITLE SHEET TOD NO.
 SRB_NML	TS NO. 2581 B DRAWING SG – 02 OF 5 SHEET NO. 62 OF 169







			EQUIPMENT LIST "B"
EQUIPMENT	TO BE	FURNISHED AND/C	R INSTALLED BY THE CONTRACTOR
EGORY DES	QUA	ANT I TY	DESCRIPTION
)3030	0.5	С.Ү.	TEST PIT EXCAVATION
19609	815	L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
19617	100	L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS LINES
01004	1	С.Ү.	CONCRETE FOR SIGNAL FOUNDATION
)2145 ????	2	EACH	ADJUST EXISTING HANDHOLE
)2501	45	L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8004	1	EACH	10 FOOT BREAKAWAY PEDESTAL POLE
60265	2	EACH	RELOCATE EXISTING SIGNAL HEAD
61105	265	L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
51107	275	L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
5210	2	EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS

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~ ~			MC)T Pł	HASE	ES 3.	A-7E	3							
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PHASE 2 + 5	G	G	G G	R	R	wк	WK	WK	DARK	DARK	DW	1			
PED. CLEARANCE	G	G	G G	R	R	FL/DW	FL/DW	FL/DW	DARK	DARK	DW				
PHASE 4	R	R	R R	G	G	DW	DW	DW	DARK	DARK	DW	<u></u> ДЧ			
4 CHANGE	R	R	R R	Y	Y	DW	DW	DW	DARK	DARK	DW				
PHASE 4 ALT	R	R	R R	G	G	DW	DW	DW	DARK	DARK	WK				
4 ALT CHANGE	R	R	R R	G Y	G Y	DW	DW	DW	DARK	DARK	DW				
FLASHING	FL/Y	FL/Y	FL/Y FL/	Y FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	<u>↓</u>			
OPERATION												+			
				UI	_TIM	ATE									
	1 (R) (Y) (G)	2 R Y G	3 4 (R) (R) (Y) (Y) (G) (G)	5 (R) (Y) (G)	6 R Y G	² ∦∂8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	。 於田	10	11	12				
PHASE 2 + 5	G	G	G G	R	R	WК	WK	WK	WK	DW	DW	1			
PED. CLEARANCE	G	G	G G	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW				
2 + 5 CHANGE	Y	Y	Y Y	R	R	DW	DW	DW	DW	DW	DW	оо <u>т</u> Лн			
4 CHANGE	R	R	R R	Y	Y	DW	DW	DW	DW	DW	DW				
PHASE 4 ALT	R	R	R R	G	G	DW	DW	DW	DW	WК	WK	ρ Αμ			
PED. CLEARANCE	R	R	R R	G	G	DW	DW	DW	DW	FL/DW	FL/DW				
ELASHING				, <u> </u>								<u> </u>			
OPERATION	FL/Y	FL/Y	FL/Y FL/	r FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK				
										TRAF	OFFIC FIC E	E OF TF NGINEEF	RAFFIC RING DE	& SAFE ESIGN	ETY DIVISION
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			SCAL	EN			DAT	E <u>F</u> E	EBRUA	RY 202	20	CONTR	ACT NO	·	PENDING
			DESIG	INED E	SY	S.	BLOSS	5		(COUNT	Y	MON	NTGOM	ERY
			DRAW	'N BY		S.	BLOSS	;		l	OGMIL	.E	150	35501.5	54
			CHEC	- KED B`	Y	JEFF	CHE	NG		-	rims n	0	PE		
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			TS N) 2581	В		WING	دت	- 05	OF	5	<u>.</u> 91	FT NO	E!	5 OF
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SG-2	25	Callery Pear	Fair	-	Remove	T-09	15"	LACEBARK ELM
SG-3	29	Silver Maple	Fair	-	Remove	T-10	13"	Littleleaf Linden
SG-4	28	Norway Maple	Fair	-	Remove	T-11	13"	Japanese Zelkova
T-01	49.5 _	Tuliip Poplar	Good	-	Specimen. Save	T-12	15"	Magnolia sp.
T-02	30.5	Sawtooth Oak	Good	-	Specimen. Remove	T-13	13"	Sweetgum
T-03	11"	LACEBARK ELM	Good	-	Remove	T-14	13"	Sawtooth Oak
T-04	10"	LACEBARK ELM	Good	-	Remove	T-15	13"	Sweetgum
T-05	9"	LACEBARK ELM	Good	-	Remove	T-16	13"	Kousa Dogwood
T-06	12"	LACEBARK ELM	Good	-	Remove	T-17	24"	Callery Pear
T-07	16"	LACEBARK ELM	Good	-	Remove	T-18	13"	Eastern Hemlock

			\			
ID	SIZE	COMMON NAME	CONDITION	CANOPY	REMARKS	
T-19	13"	Kousa Dogwood	Good	-	Remove	
T-20	13"	Callery Pear	Fair	-	Remove	
T-21	17"	White Pine	Fair	-	Remove	
T-22	17"	White Pine	Fair	-	Remove	
T-23	17"	White Pine	Fair	-	Remove	
T-24	17"	White Pine	Fair	-	Remove	
T-25	17"	White Pine	Fair	-	Remove	
T-26	19"	White Pine	Fair	-	Remove	
T-27	17"	American Elm	Fair		Remove	

	SCALE: 1" = 20'				
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS					
WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. <u>935</u>	A S S O C I A T E S I N C Whitehall Mill 3300 Clipper Mill Road Suite 200 Baltimore, MD 21211 410.235.6001				
EXPIRATION DATE: 03/22/2022		NO.	REVISION	DATE	BY





\$DGNSPEC\$\$\$\$\$\$\$\$\$\$ PRDATETIME\$







NOTES

- 1. Practice may be combined with sediment control fencing.
- 2. Location and limits of fencing should be
- coordinated in field with arborist. 3. Boundaries of protection area should be staked
- prior to installing protective device.
- Root damage should be avoided. 4. Protection signage is required.
- Fencing shall be maintained throughout 6. construction.

Montgomery County Planning Department 🔹 ष M-NCPPC MontgomeryPlanning.org

TREE PROTECTION FENCE DETAIL NOT TO SCALE



TREE PLANTING DETAIL FOR PAVEMENT CUT-OUTS NOT TO SCALE



NOTES:

1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.

2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.

3. EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INPECTOR.

4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.

5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.

6. ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.





TREE PLANTING IN LAWN PANELS DETAIL NOT TO SCALE

MAHAN RYKIEL

ASSOCIATES IN

PROFESSIONAL CERTIFICATION. HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 935 EXPIRATION DATE: 03/22/2022



Chief Transportation Planning and Design Section	Date	CAPITAL CRESCENT TRAIL					
APPROVED	Dute	UNDER MD 355 BETHESDA, MARYLAND					
Chief, Division of Transportation Engineering	Date	SCALE : 1" = 20'	FEBRUARY 2020				
Designed by: Drawn by:	Checked by:	Project No. : <u>501316</u>	SHEET <u>70</u> of <u>169</u>				







EXISTING UTILITY COMPOSITE PLAN SCALE: 1" = 10'-0"

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.__ EXPIRATION DATE:



Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

					UT	T-01		
			MONTGOMERY DEPARTMENT OF TR GAITHERSBURG,	COUNTY ANSPORTATION MARYLAND	EXISTING UTILITY COMPOSITE SHEET 1 OF 3			
			RECOMMENDED FOR APPROVAL		CAPITAL CRESCENT TRAIL			
			Chief, Transportation Planning and Design Section APPROVED	Date	UNDER MD 355 BETHESDA, MARYLAND			
			Chief, Division of Transportation Engineering	Dote	SCALE : $1" = 10' - 0"$ MAY	Y 2021		
NO.	REVISION	DATE	BY Designed by: Drown by:GS	C Checked by: <u>AC</u>	Project No. : <u>501316</u> SHEET <u>71</u> of	169		






801 South Caroline Street, Baltimore, Maryland 21231

NO.

REVISION

DATE

BY

Designed by: _____ Drawn by: _____GSC____



PROPOSED 3" DIA. PVC CONDUIT FROM EXISTING SIGNAL HANDHOLE TO TUNNEL. SEE TELECOMMUNICATION PLANS FOR CONTINUATION

PROPOSED UNDERGROUND ZAYO 4" PVC CONDUIT WITH 3 – 1.25" INNERDUCTS AND 1 FIBER CABLE TO BE SUPPORTED DURING TUNNEL CONSTRUCTION

PROPOSED UTILITY COMPOSITE PLAN SCALE: 1" = 10'-0"

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.______ EXPIRATION DATE:______



Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

								UT-04
				MONTGOMERY COUN DEPARTMENT OF TRANSP GAITHERSBURG, MARY	ITY ORTATION LAND	PROPOSED U SHEE	TILITY COMPOSITE T 1 OF 3	
				RECOMMENDED FOR APPROVAL		CAPITAL CI	RESCENT TRAIL	
				Chief, Transportation Planning and Design Section APPROVED	Dote	UNDE: BETHESD	R MD 355 A, MARYLAND	
				Chief, Division of Transportation Engineering	Date	SCALE : $1" = 10' - 0"$		MAY 2021
NO.	REVISION	DATE	BY	Designed by: Drawn by:AC	Checked by: <u>LF</u>	Project No. : <u>501316</u>	SHEET <u>74</u>	of <u>169</u>

<u>NOTES</u>

OF COVER.

PEPCO RELOCATION PLANS.

NOTES 1. FOR ADDITIONAL PROPOSED SANITARY SEWER AND WATER UTILITY INFORMATION SEE WSSC RELOCATION PLANS.

2. ZAYO BURIED CONDUITS SHALL BE PLACED WITH AT LEAST 42"

3. FOR ADDITIONAL PROPOSED PEPCO DUCTBANK DETAILS, SEE

N





				-
NO.	REVISION	DATE	BY	





GENERAL NOTES	
SPECIFICATIONS:	MDOT SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERI. DATED JULY 2019.
	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS DATED 2017.
LOADING:	EARTH PRESSURE 90 PSF LIVE LOAD SURCHARGE
LOAD RESTRICTIONS:	THERE ARE RESTRICTIONS FOR PLACING EQUIPMENT AND MATERIALS ON EXISTING AND NEW STRUCTURE(S). <u>REFER TO SECTION TC 6.14</u>
CONCRETE:	CONCRETE COMPRESSIVE STRENGTH FOR DESIGN SHALL BE: f'c = 3,000 PSI FOR ELEMENTS USING MIX NO. 3 AND MIX NO. 4
	ALL CONCRETE FOR CAST-IN-PLACE FACING SHALL BE MIX NO. 3 (3,500 F
	ALL CONCRETE FOR PREBORED HOLES SHALL BE MIX NO. 4 (3,500 PSI).
REINFORCING STEEL:	REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 60 WITH STRENGTH FOR DESIGN OF fy = $60,000$ PSI.
	ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS.
	REINFORCING STEEL SHALL BE EPOXY COATED WHEN NOTED WITH AN I THE PLANS.
	MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE 2".
	FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MOI TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES
TIMBER LAGGING:	MIXED HARDWOOD CONFORMING TO AASHTO M 168, WOOD PRODUCTS.
STRUCTURAL STEEL:	STRUCTURAL STEEL SHALL CONFORM TO A 709, GRADE 50 INCLUDING TH ADDITIONAL REQUIREMENTS FOR CHARPY V–NOTCH TESTING OF M 270.
COATING:	THE PORTION OF THE STEEL PILE ABOVE THE CAISSON SHALL HAVE A BITUMINOUS COATING APPLIED PER SECTION 913 ON BOTH SIDES OF TH AND INSIDE FACE OF FLANGES. BITUMINOUS COATING SHALL BE APPLIED TWO COATS WITH A TOTAL MINIMUM WET FILM THICKNESS OF 20 MILS.
KEYS:	ALL KEYS ARE NOMINAL SIZE.
EXISTING STRUCTURES:	ALL DIMENSIONS AFFECTED BY THE GEOMETRY AND/OR LOCATION OF TH STRUCTURE(S): EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD THE CONTRACTOR BEFORE ANY MATERIAL IS ORDERED OR FABRICATED CONSTRUCTION BEGINS.

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PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.______ EXPIRATION DATE:______ **WR** Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

				MONTGOMERY COUNTY DEPARTMENT OF TRANSPOR GAITHERSBURG, MARYLA	, RTATION ND	RETAINING WALL GENERAL NOTES	
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND	
				Chief, Division of Transportation Engineering	Date	SCALE : AS SHOWN	MAY 2021
NO.	REVISION	DATE	BY	Designed by: <u>GSC</u> Drawn by: <u>GSC</u>	Checked by: <u>AC</u>	Project No. : <u>501316</u> SHEET <u>77</u> of	169

RW-01





DATUM EL. 310.00

LEGEND:

- \bigcirc = CONTRACTION JOINT
- (E) = EXPANSION JOINT

RETAINING WALL B PLAN SCALE: $\frac{1}{8}$ " = 1'-0"

RETAINING WALL B DEVELOPED ELEVATION (FRONT FACE) SCALE: ½" = 1'-0"

NOTE: FENCE ON TOP OF RETAINING WALL NOT SHOWN FOR CLARITY.



RETAINING WALL B PILE SCHEDULE COORDINATES PREBORED MINIMUM PILE PILE NO. SECTION HOLE DIA. | TIP ELEV. NORTHING EASTING 3'–0" 311.50 W14x176 479325.8591 1286255.8579 W14x176 3'–0" 311.50 479325.2249 1286249.8915 2B 1286244.2926 3B W14x176 3'–0" 311.50 479323.0681 W14x145 3'–0" 313.50 479318.3582 1286237.8260 4B 1286231.3593 3'–0" 313.50 5B W14x145 479313.6483 3'-0" 6B W14x145 313.50 479308.9385 1286224.8927 2'–6" 318.50 7B HP12x53 479304.2286 1286218.4261 8B HP12x53 2'–6" 318.50 479299.5187 1286211.9595 2'–6" 9B HP12x53 318.50 479294.8088 1286205.4929 10B HP12x53 2'–6" 320.50 479290.0990 1286199.0263 2'–6" 11B HP12x53 320.50 479285.3891 1286192.5597 2'–6" HP12x53 324.50 12B 479280.1335 1286186.5282 13B HP12x53 2'–6" 324.50 479273.7388 1286181.7211 14B HP12x53 2'–6" 326.50 479266.4844 1286178.3487 15B HP12x53 2'–6" 326.50 1286175.7530 479258.9172 2'–6" 16B HP12x53 327.50 479251.1201 1286173.9626 2'–6" 17B HP12x53 327.50 1286172.9970 479243.1786

<u>NOTES</u>

1. STATION AND OFFSETS TAKEN FROM ₿ CONSTRUCTION CCT SURFACE TRAIL.

2. FOR RETAINING WALL GENERAL NOTES, SEE DRAWING RW-01.

- 3. FOR RETAINING WALL C GENERAL PLAN AND ELEVATION, SEE DRAWING RW-03.
- 4. FOR RETAINING WALL TYPICAL SECTION AND DETAILS, SEE DRAWINGS RW-04 AND RW–05.
- 5. FOR FENCE DETAILS, SEE DRAWING S-18.

6. FOR PROPOSED GRADING AND FEATURES ON REAR SIDE OF WALL, SEE ELM STREET PARK DRAWINGS.

				RW-02
MONTGOMERY COUNTY DEPARTMENT OF TRANSPOR GAITHERSBURG, MARYLA	, RTATION ND	RETAINING V PLAN AND EI	WALL B LEVATION	
RECOMMENDED FOR APPROVAL		CAPITAL CRESC	CENT TRAIL	
Chief, Transportation Planning and Design Section APPROVED	Dote	UNDER M BETHESDA, M	D 355 IARYLAND	
Chief, Division of Transportation Engineering	Date	SCALE : 1/8" = 1'-0"		MAY 2021
Designed by: <u>GSC</u> Drawn by: <u>GSC</u>	Checked by: <u>AC</u>	Project No. : <u>501316</u>	SHEET <u>78</u>	of <u>169</u>



PROFESSIONAL CERTIFICATION. 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. EXPIRATION DATE:__



								RW-03
				MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYLA	Y RTATIO AND	N	RETAINING WALL C PLAN AND ELEVATION	
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED		Date	CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND	
				Chief, Division of Transportation Engineering		Dote	SCALE : $1/4" = 1'-0"$	MAY 2021
NO.	REVISION	DATE	BY	Designed by: <u>GSC</u> Drawn by: <u>GSC</u>	Checked	by: <u>AC</u>	Project No. : <u>501316</u> SHEET <u>79</u>	of <u>169</u>

Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

RETAINING WALL C PILE SCHEDULE							
	PILE	PREBORED	MINIMUM	COORDINATES			
FILE INO.	SECTION	HOLE DIA.	TIP ELEV.	NORTHING	EASTING		
1C	HP12x53	2'–6"	320.50	479339.3065	1286294.5293		
2C	HP14x89	2'-6"	315.50	479332.7710	1286290.8500		
3C	W14x145	3'-0"	311.50	479326.2355	1286287.1707		
4C	W14x176	3'-0"	308.50	479319.7000	1286283.4914		

<u>NOTES</u>

- 1. STATION AND OFFSETS TAKEN FROM ₿ CONSTRUCTION CCT TUNNEL.
- 2. FOR RETAINING WALL GENERAL NOTES, SEE DRAWING RW-01.
- 3. FOR RETAINING WALL TYPICAL SECTION AND DETAILS, SEE DRAWINGS RW-04 AND RW-05.
- 4. FOR FENCE DETAILS, SEE DRAWING S-18.
- 5. FOR PROPOSED GRADING AND FEATURES ON REAR SIDE OF WALL, SEE ELM STREET PARK DRAWINGS.



NO.	REVISION	DATE	BY	

Designed by: <u>GSC</u> Drawn by: <u>GSC</u>

Checked by: <u>AC</u>





SCALE: 1½" = 1'-0"



 $\frac{\text{DETAIL B}}{\text{SCALE: 1"}=1'-0"}$



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				MONTGOMERY COUNTY DEPARTMENT OF TRANSPOR GAITHERSBURG, MARYLA	, RTATION ND	RETAINING WALL TYPICAL SECTION AND DETAILS	
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND	
				Chief, Division of Transportation Engineering	Date	SCALE : AS SHOWN	MAY 2021
NO.	REVISION	DATE	BY	Designed by: <u>GSC</u> Drawn by: <u>GSC</u>	Checked by: <u>AC</u>	Project No. : <u>501316</u> SHEET <u>81</u> o	of <u>169</u>

<u>NOTES</u>

1. JOINT SHALL BE 1" CLOSED CELL NEOPRENE IN CONFORMANCE WITH SECTION 911.10.

RW-05

2. FOR LOCATION OF DETAIL B, SEE DRAWING RW-03.





FRAMING PLAN AT GARAGE LEVEL 2 SCALE: 1/8" = 1'-0"

						MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYL	Y RTATIC AND	DN	STRUCTURAL GENER	AL NOTES AND F	PLAN
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	WRA					RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED		Date	CAPITAL CRE UNDER BETHESDA,	SCENT TRAIL MD 355 MARYLAND	
OF MARYLAND, LICENSE NO	Whitman, Requardt & Associates, LLP					Chief, Division of Transportation Engineering		Date	SCALE : 1/8" = 1'-0"		MAY 202
	801 South Caroline Street, Baltimore, Maryland 21231	NO.	REVISION	DATE	BY	Designed by: <u>CJS</u> Drawn by: <u>JL</u>	Checked	lby: <u>PSO</u>	Project No. : <u>501316</u>	SHEET <u>82</u>	of <u>169</u>

GENERAL STRUCTURAL NOTES

GENERAL

- 1. FIELD VERIFY DIMENSIONS, LOCATIONS AND ELEVATIONS SHOWN ON DRAWINGS FOR EXISTING STRUCTURES. BRING DISCREPANCIES TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 2. COORDINATE ACTIVITIES WITH THE ENGINEER.
- 3. THE DRAWINGS SHOW THE FINAL CONDITION OF THE STRUCTURES. PROVIDE MEANS TO STABILIZE THE STRUCTURES DURING TEMPORARY CONDITIONS.
- 4. SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DO NOT OBTAIN DIMENSIONAL INFORMATION FROM DIRECT SCALING OF THE DRAWINGS.
- 5. DEMOLITION EXISTING BEAM AFTER INSTALLATION OF PROPOSED WORK. EXISTING WORK SHALL NOT BE DAMAGED BY DEMOLITION OPERATIONS.
- 6. TOS DEFINES "TOP OF STEEL" ELEVATION.

STRUCTURAL STEEL

- 1. FABRICATE AND ERECT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), "STEEL CONSTRUCTION MANUAL – 14TH EDITION".
- 2. SUBMIT ERECTION PLANS AND SHOP DETAILS AND RECEIVE APPROVAL FROM THE ENGINEER BEFORE PROCEEDING WITH FABRICATION.
- 3. PROVIDE STRUCTURAL STEEL WIDE-FLANGE SHAPES CONFORMING TO ASTM A992 AND ALL OTHER MEMBERS CONFORMING TO ASTM A36 UNLESS OTHERWISE NOTED.
- 4. PROVIDE A COATING SYSTEM PER THE SPECIFICATIONS. COLOR TO MATCH EXISTING.
- 5. FIELD MODIFICATION OF THE STRUCTURAL STEEL IS NOT PERMITTED WITHOUT APPROVAL FROM THE ENGINEER.
- 6. WELD IN COMPLIANCE WITH AMERICAN WELDING SOCIETY, AWS D1.1, "STRUCTURAL WELDING CODE".

CODES AND STANDARDS

- 1. INTERNATIONAL BUILDING CODE IBC (2015), INCLUDING THE MODIFICATIONS MADE BY LOCAL JURISDICTION
- 2. AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISC-360 (2010) "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
- 3. AMERICAN SOCIETY OF CIVIL ENGINEERS ASCE 7 (2010), "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"
- 4. AMERICAN WELDING SOCIETY AWS D1.1 (2015), "STRUCTURAL WELDING CODE -STEEL"

S-101



ASECTION S-301 SCALE: 1/4" = 1'-0" REF: S-101





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 WRA OF MARYLAND, LICENSE NO.____ Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231 EXPIRATION DATE: Designed by: <u>CJS</u> Drawn by: <u>JL</u> Checked by: <u>PSO</u> REVISION DATE BY NO.

 $\begin{array}{rcl}
 1 & DETAIL \\
 S-301 & SCALE: 1 1/2" &= 1'-0" \\
 REF: S-301 &= 1'-0"
\end{array}$



MONTGOMERY COUNTY DEPARTMENT OF TRANSPORT GAITHERSBURG, MARYLAN	ATION D	STRUCTURAL SECTIONS AND	DETAILS
RECOMMENDED FOR APPROVAL		CAPITAL CRESCENT T	'RAIL
Chief, Transportation Planning and Design Section APPROVED	Date	UNDER MD 355 BETHESDA, MARYLA	ND
Chief, Division of Transportation Engineering	Date	SCALE : AS SHOWN	MAY 2021

Project No. : <u>501316</u>

S-301

SHEET <u>83</u> of <u>169</u>

	EXIS RIG WAY I I I I SDWL 1'-7%" I '-7%"
	E CONSTRUCTION CCT TUNNEL BEGIN TUNNEL STA. 106 + 75.24 SEE NOTE 5
BASEMENT FO WISCONSIN A	PLAN SCALE: ½" = 1'-0" EXISTING BUILDING TO REMAIN APPROXIMATE TOP OF PROPOSED LIGHTWEIGHT FOAMED CONCRETE FILL, SEE NOTE 7 PROPOSED UNDERGROUND ZAYO 4" PVC CONDUIT WITH 3 - 1.25" INNERDUCTS AND 1 FIBER CABLE TO BE SUPPORTED DURING TUNNEL CONSTRUCTION, INVERT EL. 345.26 APPROXIMATE EXISTING AND PROPOSED GROUNDLINE EXISTING UNDERGROUND 24" x 24" CONCRETE PEPCO DUCTBANK TO REMAIN AND BE SUPPORTED DURING CONSTRUCTION, INVERT EL. 341.54 EXISTING UNDERGROUND 1½" DIA. PLASTIC ELECTRIC LINE TO REMAIN AND BE SUPPORTED DURING CONSTRUCTION, INVERT EL. 343.42 EXISTING UNDERGROUND (18) 4" DIA. PLASTIC VERIZON LINES TO REMAIN AND BE SUPPORTED DURING CONSTRUCTION, INVERT EL. 342.00 TOP OF TUNNEL BOTTOM SLAB EL. 321.68 STA. 106+75.24
DATUM EL. 300.00	EXISTING UNDERGROUND 20"x 20" CONCRETE VERIZON DUCTBANK TO REMAIN AND BE SUPPORTE DURING CONSTRUCTION, INVERT EL. 342.98 APPROXIMATE LOCATION OF EXISTING UNDERGROUND DIA. PLASTIC ZAYO FIBER OPTIC LINE TO REMAIN ANE BE SUPPORTED DURING CONSTRUCTION, INVERT EL. 33 EXISTING UNDERGROUND 12" DIA. C/I WSSC WATER LINE TO BE SUPPORTE DURING CONSTRUCTION, INVERT EL. 3 ELEVATION SCALE: 1/8" = 1'-0"







<u>NOTES</u>

- 1. FOR EXISTING UTILITY DESIGNATION THROUGH UT-03. FOR PROPOSED DRAWINGS UT-04 THROUGH UT-06.
- 2. FOR SECTION A, SEE DRAWING S-(
- 3. STATION AND ELEVATIONS ARE TAK CONSTRUCTION CCT TUNNEL.
- 4. FOR JOINT DETAILS, SEE DRAWING
- 5. EXISTING APEX BUILDING FOUNDA REMOVED AS NECESSARY SEE DRA
- 6. TRANSITION CROSS SLOPE OF TUN NONE AT STA. 106 + 75.24 TO 1% AT
- 7. LIGHTWEIGHT FOAMED CONCRETE ACCORDANCE WITH THE SPECIAL



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. EXPIRATION DATE:__



		<u>GENERAL NOTES</u> SPECIFICATIONS:	MDOT SHA STANDARD SPECIFICATIONS F DATED JULY 2019.	FOR CONSTRUCTION AND MATERIAL	S,	
			AASHTO LRFD BRIDGE DESIGN SPECIFIC	CATIONS DATED 2017.		
			REINFORCING STEEL: $fy = 60,000$ PSI.	TON DESIGN METHOD.		
		LOADING:	HL93			
			10 KIP/LF COMPRESSION LOAD ON TUNI BOTTOM SLAB FROM TEMPORARY SUPP	NEL BOTTOM SLAB AND EGRESS ST PORT OF EXCAVATION	AIR	
		LOAD RESTRICTIONS:	THERE ARE RESTRICTIONS FOR PLACING EXISTING AND NEW STRUCTURE(S). REF	G EQUIPMENT AND MATERIALS ON FER TO SECTION TC 6.14		
		CONCRETE:	CONCRETE COMPRESSIVE STRENGTH FO f'c = 4000 PSLEOR FLEMENTS USING	DR DESIGN SHALL BE: MIX NO 6 AND MIX NO 8		
			ALL CONCRETE FOR TUNNEL WALLS, TUN FAN CONCRETE CHASE, AND EMERGENC (4,500 PSI) CONTAINING SYNTHETIC FIBER CRYSTALLINE WATERPROOFING ADMIXTUR	NNEL TOP AND BOTTOM SLABS, EXH CY EGRESS STAIR SHALL BE MIX NO RS (SEE SECTION 902.15) AND RE (SEE SECTION 902.06.06)	AUST . 6	
			ALL CONCRETE FOR TUNNEL AND EMER SHALL BE MIX NO. 8 (4,000 PSI) CONTAIN 902.15).	RGENCY EGRESS STAIR TOPPING SLA IING SYNTHETIC FIBERS (SEE SECTIO	4B)N	
		REINFORCING STEEL:	REINFORCING STEEL SHALL CONFORM T STRENGTH FOR DESIGN OF $fy = 60000 \text{ ps}$	TO ASTM A 615 GRADE 60, WITH A psi.	YIELD	
			ALL SPLICES, NOT SHOWN, SHALL BE LAP	PPED AS PER BAR LAP CHARTS.		
			REINFORCING STEEL SHALL BE EPOXY C THE PLANS.	COATED WHEN NOTED WITH AN EP	IN	
			MINIMUM CLEAR COVER FOR REINFORC BOTTOM OF THE BOTTOM SLAB WHERE	CING STEEL SHALL BE 2" EXCEPT IN E IT SHALL BE 3".	THE	
			FOR TIES AND STIRRUPS: STANDARD AC	CI BENDING TOLERANCES ARE MODIF	IED	
		KEYS:	ALL KEYS ARE NOMINAL SIZE.			
		EXISTING STRUCTURES:	ALL DIMENSIONS AFFECTED BY THE GEO STRUCTURE(S): EXISTING STRUCTURE(S) S THE CONTRACTOR BEFORE ANY MATERIA CONSTRUCTION BEGINS.	OMETRY AND/OR LOCATION OF THE SHALL BE CHECKED IN THE FIELD E AL IS ORDERED OR FABRICATED OF	;Y }	
		TUNNEL COVER:	NO CONSTRUCTION EQUIPMENT SHALL F TUNNEL UNTIL A MINIMUM OF 3 FEET C OVER THE TUNNEL.	BE PERMITTED TO PASS OVER THE DF COMPACTED FILL HAS BEEN PLA	CED	
		 2. EXCAVATE BETWE OR BOTTOM OF DURING EXCAVAT 3. INSTALL GEOCOM 4. PLACE PVC DRAIL OF CAST-IN-PLAC 5. ALLOW FOR CON LOWER SUPPORT 6. CONSTRUCT SIDE WITH SECTION 42 7. INSTALL WATERPF 8. PLACE BACKFILL APPROVED S.O.E. GRADE. 9. DEDEAT STEPS 2 	250 OTAIN. FLATE OVER 0.0.2 FILLO FOR 25 TUNNEL. 25 TUNNEL. 25 TUNNEL. 25 TORM DRAIN (VARIES ALONG LENGTH (27 TON AS REQUIRED IN ACCORDANCE WITH 26 IPOSITE WALL DRAIN ON INSIDE FACE OF 27 NO. 57 STONE AGGREGATE SU 26 CONCRETE TUNNEL. 27 NO. 57 STONE AGGREGATE SU 28 CONCRETE TUNNEL. 29 NO. 57 STONE AGGREGATE SU 29 CONCRETE TUNNEL. 20 NO. 57 STONE AGGREGATE SU 20 CONCRETE TUNNEL. 20 NO. 57 STONE AGGREGATE SU 20 NO. 57 STONE AGGREGATE SU 20 NO. 57 STONE AGGREGATE SU 20 CONCRETE TUNNEL. 20 NO. 57 STONE AGGREGATE SU 20 NO. 50 STONE SU 20 NO. 50 STONE AGGREGATE SU 20 NO. 50 STONE AG	6" BELOW BOTTOM OF BOTTOM S OF TUNNEL). INSTALL SUPPORT STRU H APPROVED S.O.E. WORKING DRAW S.O.E. JBBASE AND CONSTRUCT BOTTOM S E STRENGTH IN BOTTOM SLAB. REN OF S.O.E. FOR EXCESSIVE DEFLECTIO E CONCRETE TUNNEL IN ACCORDAN OF TUNNEL. NAL STRUTS AS SHOWN IN THE A MINIMUM OF 1'-6" BELOW FINISH	ILAB TS NGS. SLAB IOVE NS. CE IED	
		9. REPEAT STEPS 2	- 8 FOR EMERGENCY EGRESS STAIRS.	- <u>-</u> λ		
DNS, SEE DRAWINGS UT-01 UTILITY DESIGNATIONS, SEE 5. -05.			S.O.E. SUPPORT STRUT (TYP.)		- S.O.E. - SUPPORT STRUT (TYP.) - ½" GEOCOMPOSITE	
aken along the g			EXISTING GROUND		- SIDEWALL & TOP SLAB	
ATION WALL SHALL BE RAWING S-11 FOR DETAILS.	× =	<u> </u>	WALL DRAIN			
NNEL TOPPING SLAB FROM AT STA. 106 + 80.24.			BOTTOM SLAB		- BOTTOM SLAB	
FILL SHALL BE PLACED IN	-A 2000	i 🦯	(WET CONCRETE)		(CURED)	
	цт <u>ТҮРІ(</u>	CAL SECTION - S	STEP 4 TY	λμ <u>PICAL SECTION – STEP 6</u>		
		NOT TO SCALE		NOT TO SCALE	S-	-01
		MON DEPARTM GAITH	NTGOMERY COUNTY ENT OF TRANSPORTATION ERSBURG, MARYLAND	CCT TU PART	INNEL C	
		RECOMMENDED FOR APPROVAL				
		Chief, Transportation Planning ar APPROVED	nd Design Section Dote	UNDER M BETHESDA,	MD 355 MARYLAND	
		Chief, Division of Transportation	Engineering Date	SCALE : $1/8'' = 1'-0''$		2021
NO. REVISION	DATE BY	ocargineu by. <u>636</u>	Checked Dy: AL			<u> </u>



N:\31951-018\CADD\Bridge\pBR-GP02_31951018.d 5/17/2021 - 1:05 PM

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.______ EXPIRATION DATE:______



							S-02
				MONTGOMERY COUNT DEPARTMENT OF TRANSPO GAITHERSBURG, MARYLA	Y RTATION AND	CCT TUNNEL PART D	
				RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED	Dote	CAPITAL CRESCENT TRAIL UNDER MD 355 BETHESDA, MARYLAND	
				Chief, Division of Transportation Engineering	Dote	SCALE : $1/8" = 1'-0"$	MAY 2021
NO.	REVISION	DATE	BY	Designed by: <u>GSC</u> Drawn by: <u>GSC</u>	Checked by: <u>AC</u>	Project No. : <u>501316</u> SHEET <u>85</u>	of <u>169</u>

<u>NOTES</u>

- 1. FOR EXISTING UTILITY DESIGNATIONS, SEE DRAWINGS UT-01 THROUGH UT-03. FOR PROPOSED UTILITY DESIGNATIONS SEE DRAWINGS UT-04 THROUGH UT-06.
- 2. FOR SECTION A, SEE DRAWING S-05.
- 3. STATION AND ELEVATIONS ARE TAKEN ALONG THE B CONSTRUCTION CCT TUNNEL.
- 4. FOR JOINT DETAILS, SEE DRAWING S-10.
- 5. FOR SECTION F-F AT TUNNEL EXHAUST FAN, SEE DRAWING S-08.
- 6. LIGHTWEIGHT FOAMED CONCRETE FILL SHALL BE PLACED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.





LEGEND:

 \bigcirc = CONTRACTION JOINT

(E) = EXPANSION JOINT

6" T	P + 63.00	34'-10"	6" TRANSITION SECTION B		EXISTING EDGE DF ROADWAY EXIST OF R UTH UTH UTH UTH UTH UTH UTH UTH UTH UTH	EXISTING PHASI RETAINING WAL 48'-0" SECTION C SECTION C ING EDGE CADING REMAIN EXISTING UT TO BE REMO C I AO C I AO PT S A	TUTY POLE DVED SAN R=150'	MATCH LINE - STA. 110+60 SEE DRAWING NO.			
	SC	$\frac{\text{PLAN}}{\text{ALE: } \frac{1}{8} = 1 - 0$									
6"T	TRANSITION	ES AT 30'-0" = 510'-0" ND CONTRACTION JOINTS EXISTING UNDERGRI PLASTIC VERIZON L BE SUPPORTED DUI INVERT EL. 338.58	6" TRANSITION SECTION B OUND (6) 2" DIA. INES TO REMAIN AND RING CONSTRUCTION, B B B C B C C B C C C C C C C C C C C C C		ROPOSED	48'-0" SECTION C PROPOSED UNDERGRO COMCAST 2 - 4" SCHE PVC CONDUITS, INVERT DUND 2" DIA. PLASTIC NE FOR STREET DVED, INVERT EL. 338.95	DUND EDULE 40 EL. 339.40	E DRAWING NO. S-04			
C/I AINED PLACED 9.56 09 + 45.0 - BOTTC	00 TOP C BOTTC DM OF TUNNE DM SLAB	DF TUNNEL DM SLAB EL INV.	DPOSED UNDERGROUND DIA. D/I WSSC WATER LINE, 5 5 5 75.00 75.00 75.00 FL. 321.12 STA. 110 + 05.00 EL. 321.12 STA. 110 + 05.00 FEL 315.25 FEL 315.25 FROPOSED INLET I-2 FROPOSED INLET I-2 FROPOSED INLET I-2 FROPOSED INLET I-2 FROPOSED INLET I-2 FROPOSED FROP	ED UNDERGE PE WITH 1 FI PORTED DUR UCTION, INVER EXIS SANI AS M	21.53 110 + 15.00 → C ROUND ZAYO 4 BER CABLE TO ING TUNNEL RT EL. 338.58 TING UNDERGROU TARY SEWER LINE NECESSARY, INVERT	C "G BE RELOCATED		MATCH LINE - STA. 110 + 60 SEI	NOTES 1. FOR EXISTING U THROUGH UT-03 DRAWINGS UT-04 2. FOR SECTIONS A SEE DRAWING S 3. STATION AND EL CONSTRUCTION 4. FOR JOINT DETA 5. BLOCK OUT OPE COORDINATE BLO 6. FOR EMERGENCY THROUGH S-17.	TILITY DESIGNATIONS, SEE DRAWINGS UT-01 FOR PROPOSED UTILITY DESIGNATIONS, SEE THROUGH UT-06. A AND B, SEE DRAWING S-05. FOR SECTION (-06. EVATIONS ARE TAKEN ALONG THE CCT TUNNEL. ILS, SEE DRAWING S-10. NING FOR EMERGENCY EGRESS STAIR DOOF DCK-OUT SIZE WITH ARCHITECTURAL DRAWING Y EGRESS STAIR DETAILS, SEE DRAWINGS S-13	C, }. GS. 3
	<u>E</u> sc	$\frac{1}{2} \frac{1}{1} \frac{1}{2} \frac{1}$						MONTGOMERY COU		CCT_TUNNFI	S-03
	PROFESSIONAL I HEREBY CER WERE PREPAR THAT I AM A ENGINEER UNI OF MARYLAND EXPIRATION DA	CERTIFICATION. RTIFY THAT THESE DOCUMENTS ED OR APPROVED BY ME, AND DULY LICENSED PROFESSIONAL DER THE LAWS OF THE STATE , LICENSE NO ATE:	Whitman, Requardt & Associates, L 801 South Caroline Street, Baltimore, Maryland 21	LP 231 NO.	REVISION	Image: Constraint of the second sec	Chief, Transportation F APPROVED Chief, Division of Trans	CALTHERSBURG, MAR PROVAL Planning and Design Section sportation Engineering Drawn by: <u>GSC</u>	Dote Checked by: <u>AC</u>	PART E CAPITAL CRESCENT UNDER MD 355 BETHESDA, MARYL SCALE : 1/8" = 1'-0" Project No. : 501316 SHEET	TRAIL) AND





Designed by: <u>GSC</u>	Drawn by: <u>GSC</u>	Checked by: <u>AC</u>	Project No. : <u>501316</u>	SHEET <u>8</u>	57
	•	·	-		





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.___ EXPIRATION DATE:__



NO.	REVISION	DATE	BY

Whitman, Requardt & Associates, LLP 801 South Caroline Street, Baltimore, Maryland 21231

Date

Chief, Division of Transportation Engineering

SCALE : AS SHOWN

SHEET <u>88</u> of <u>169</u>

MAY 2021





			-
NO.	REVISION	DATE	BY

Project No. : <u>501316</u>

Checked by: <u>AC</u>

Designed by: <u>GSC</u> Drawn by: <u>GSC</u>

801 South Caroline Street, Baltimore, Maryland 21231