DRILL HOLES

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BORDER REV: DATE: June 1, 2004

BY: BOSTIC

PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT MD 185 (CONNECTICUT AVENUE) AND MANOR ROAD IN CHEVY CHASE, MONTGOMERY COUNTY.

MD 185 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION OPERATES IN 6 PHASES WITH NORTHBOUND AND SOUTHBOUND EXCLUSIVE/PERMISSIVE LEFT TURNS. MD 185 THROUGH MOVEMENTS OPERATE CONCURRENTLY. MANOR ROAD (MOVEMENTS) OPERATE CONCURRENTLY. AUDIBLE PEDESTRIAN PUSHBUTTON MOVEMENTS SHALL BE PROVIDED TO CROSS THE NORTH/SOUTH LEGS OF MD 185 AND THE EAST/WEST LEGS OF MANOR ROAD.

A NEMA SIX-PHASE, FULL-ACTUATED CONTROLLER WITH VIDEO DETECTOR INTERFACE UNIT, 2 WIRE CENTRAL CONTROL UNIT, AND ALL OTHER NECESSARY EQUIPMENT HOUSED IN A BASE-MOUNTED CABINET SHALL BE INSTALLED AT THE INTERSECTION.

III. SPECIAL NOTES:

1. APS WILL FUNCTION AS FOLLOWS:

   TO CROSS MD 185 (CONNECTICUT AVENUE)
   - A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS CONNECTICUT AT MANOR."
   - B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

   TO CROSS MANOR ROAD
   - A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS MANOR AT CONNECTICUT."
   - B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

2. THE CONTRACTOR SHALL PURCHASE AND DELIVER THE 2-WIRE CENTRAL CONTROL UNIT FOR THE CONTROLLER TO SHA SIGNAL SHOP, AT 7491 CONNELLY ROAD, HANOVER, MD 21076. MR. EDWARD RODENHIZER AT 410-787-7652 SHALL BE CONTACTED AT LEAST 3 DAYS PRIOR TO THE DELIVERY.

PROJECT CONTACTS

THE CONTACT PERSONS FOR THE SHA ARE AS FOLLOWS:

1 MR. BRAIN YOUNG
ASSISTANT DISTRICT ENGINEER
MAINTENANCE
PHONE: 301-513-7311

1 MS. VICTOR GRAFTON
ASSISTANT DISTRICT ENGINEER
UTILITIES
PHONE: 301-513-7350

MR. EUGENE BAILEY
TEAM LEADER
SIGN OPERATIONS
PHONE: 410-787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF
TRAFFIC OPERATIONS
PHONE: 410-787-7631

1 MS. ANYESHA MOOKHERJEE
ASSISTANT DISTRICT ENGINEER
TRAFFIC
PHONE: 301-513-7318

1 MR. KEVIN NOWAK
ASSISTANT DISTRICT ENGINEER
CONSTRUCTION
PHONE: 301-513-7336

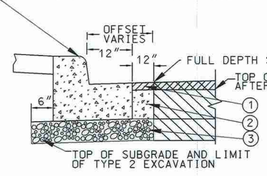
MR. EDWARD RODENHIZER
CHIEF, OOTS SIGNAL OPERATIONS
SIGNAL OPERATIONS
PHONE: 410-787-7336

EQUIPMENT LIST "C"

ALL EQUIPMENT AND OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

STANDARD TYPE "A" COMBINATION CURB AND GUTTER CONSTRUCTION DETAIL

STANDARD TYPE "A" COMBINATION CURB AND GUTTER
8" DEPTH, 12" PAN (MD 620.02)
(COST OF AGGREGATE PLACED UNDER CURB & GUTTER SHALL BE INCIDENTAL TO THE PRICE FOR CURB & GUTTER



NOT TO SCALE

1. 2.0" HOT MIX ASPHALT SUPERPAVE 12.5mm FOR SURFACE PG 64-22, LEVEL 2
2. 6.0" PLAIN PORTLAND CEMENT CONCRETE FOR SLOT BACKFILL 1 FT. WIDE MODIFIED MIX 6
3. 6.0" CRUSHER RUN AGGREGATE CR-6

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EA	SPLICE CABINET - POLE MOUNTED
9042	1 EA	CONTROLLER ASC II WITH TELEMETRY
9044	1 EA	NEMA SIZE "6" BASE MOUNTED CABINET
9087	1 EA	VIDEO DETECTION INTERFACE UNIT: 5 - 8 CAMERAS
9570	20 SF	SHEET ALUMINIUM GROUND MOUNTED SIGNS
		2 EA R4-7 (24" x 30")
		2 EA R10-7 (24" x 30")
9571	62 SF	SHEET ALUMINIUM POLE MOUNTED SIGNS
		4 EA R10-4(1) COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS CONNECTICUT AVENUE" (9"x 15")
		4 EA R10-4(1) COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS MANOR ROAD" (9"x 15")
		1 EA ASSOCIATED SHIELD ASSEMBLY SIGN, " NORTH, MD 185, (RIGHT ARROW)" 24" X 51", POLE MOUNTED HARDWARE
		1 EA ASSOCIATED SHIELD ASSEMBLY SIGN, " NORTH, MD 185, (LEFT ARROW)" 36" X 75", POLE MOUNTED HARDWARE
		1 EA ASSOCIATED SHIELD ASSEMBLY SIGN, " SOUTH, MD 185, (RIGHT ARROW)" 24" X 51", POLE MOUNTED HARDWARE
		1 EA ASSOCIATED SHIELD ASSEMBLY SIGN, " SOUTH, MD 185, (LEFT ARROW)" 36" X 75", POLE MOUNTED HARDWARE
9573	115 SF	SHEET ALUMINIUM OVERHEAD SIGNS
		4 EA R3-5 (30" x 36")
		4 EA D-3(1) (96" x 16")
		4 EA D-3(1) (96" x 20")

EQUIPMENT LIST "B"

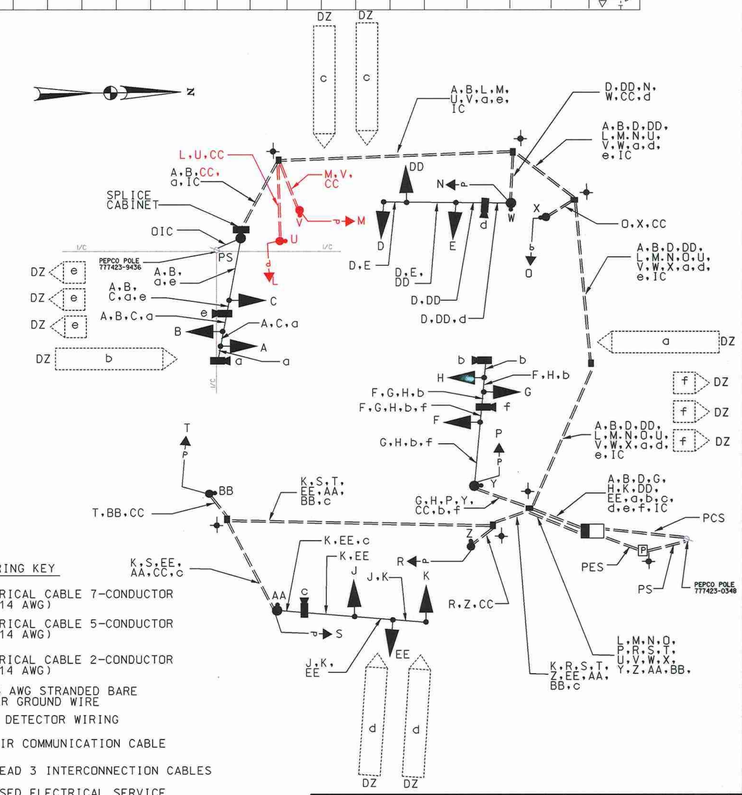
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	4 CY	TEST PIT EXCAVATION
5004	660 LF	12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	170 LF	24" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	800 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS (ANY WIDTH)
6001	~~220~~ 50 LF 1	STANDARD TYPE 'A' COMBINATION CURB AND GUTTER 12" GUTTER PAN / 8" DEPTH
6002	~~1210~~ 1230 SF 1	5" CONCRETE SIDEWALK
8001	1 EA	2 WIRE CENTRAL CONTROL UNIT
8007	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8008	~~4~~ 5 EA 1	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8013	8 EA	LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEAD
8018	~~4~~ 3 EA 1	MAST ARM POLE + 50 FT MAST ARM
8019	1 EA	MAST ARM POLE + 60 FT MAST ARM
8021	1 EA	REMOVE AND DISPOSE OF EXISTING EXUIPMENT (PER ASSIGNMENT)
8025	6 EA	VIDEO DETECTION CAMERA AND CABLE
8028	300 LF	12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
8029	1 EA	3" WEATHERHEAD
8030	150 LF	1 COND 250 KCMIL
8031	60 LF	PULL BACK AND RE-ROUTE EXISTING CABLE
8033	270 LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT (SLOTTED)
8035	~~230~~ 250 LF 1	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
8036	~~150~~ 73 LF 1	WOOD SIGN SUPPORT 4"X4"
8037	~~80~~ 120 SF 1	DETECTABLE WARNING SURFACES
8038	197 SF	INSTALL GROUND MOUNTED / OVERHEAD SIGN
8040	50 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EA	METERED SERVICE PEDESTAL
8044	40 FT	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG
8046	7 EA	ELECTRICAL HANDHOLE
8050	48 EA	12" LED SIGNAL HEAD SECTION
8054	~~1200~~ 1400 LF 1	ELECTRICAL CABLE - 2 CONDUCTOR NO. 14 AWG
8056	~~1300~~ 1500 LF 1	ELECTRICAL CABLE - 5 CONDUCTOR NO. 14 AWG
8057	~~1500~~ 1800 LF 1	ELECTRICAL CABLE - 7 CONDUCTOR NO. 14 AWG
8064	1 EA	INSTALL SPLICE CABINET - POLE MOUNTED
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

REDLINE REVISON
1 6/2010

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	14,15	13,16	17,20	18,19
Phase 1 + 5	R, G	R, G	R	R	R, G	R, G	R	R	R	R	R	R	DW	DW	DW	DW
1 & 5 Change	THE CONTROLLER MAY SKIP TO PHASES 1 + 6 OR 2 + 5 OR 2 + 6												DW	DW	DW	DW
Phase 1 + 6	G, G	G, G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 6 Change	G, Y	G, Y	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
Phase 2 + 5	R	R	R	G, G	G, G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 + 5 Change	R	R	R	G, Y	G, Y	G	R	R	R	R	R	R	DW	DW	DW	DW
Phase 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	DW	DW
Ped Clearance and Countdown	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 + 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
Phase 4 + 8	R	R	R	R	R	R	G, G	G	G	G, G	G	G	DW	DW	DW	DW
4 + 8 Change	R	R	R	R	R	R	Y, Y	Y	Y	Y, Y	Y	Y	DW	DW	DW	DW
Phase 4 Alt + 8 Alt	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	WK	WK
Ped Clearance and Countdown	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	FL/DW	FL/DW
4 Alt + 8 Alt Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK



WIRING KEY

A.B.D.G.H.K.DD.EE	–	ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
C.E.F.J.L.M.N.O.P.R.S.T	–	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
U.V.W.X.Y.Z.AA.BB	–	ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 AWG)
CC	–	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
a.b.c.d.e.f	–	VIDEO DETECTOR WIRING
IC	–	12-PAIR COMMUNICATION CABLE
OIC	–	OVERHEAD 3 INTERCONNECTION CABLES
PES	–	PROPOSED ELECTRICAL SERVICE
PCS	–	PROPOSED COMMUNICATION SERVICE
PS	–	PROPOSED SERVICE
DZ	–	CAMERA DETECTOR ZONE
⏚	–	GROUND ROD 3/4" DIA x 10' LENGTH
P	–	PROPOSED METERED SERVICE PEDESTAL
■	–	ELECTRICAL HANDHOLE

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 185 (CONNECTICUT AVENUE) AT MANOR ROAD IN CHEVY CHASE, MD

GENERAL INFORMATION SHEET

SCALE NONE DATE AUG 13, 2009 CONTRACT NO. AT9255185R01

DESIGNED BY ENB
DRAWN BY ENB
CHECKED BY
F.A.P. NO.

COUNTY MONTGOMERY
LOGMILE 15018501.95
T.I.M.S. NO. H 990
TOD NO.

DRAWING NO. TS-2648B-GI | SHEET NO. 2 OF 2

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031

REVISION B 25003.56

PLOTTED: TUESDAY, JULY 06, 2010 AT 03:59 PM
FILE: G:\TRANSDWG\25003\25003.56 MD185 @ MANOR ROAD\DRAWINGS\RECONSTRUCT\REDLINE\PSG-P002_MD185&MANOR RL2.DGN