

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE FULL RECONSTRUCTION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF MD 450 (ANNAPOLIS ROAD) AND BLADENSBURG ELEMENTARY SCHOOL ENTRANCE IN PRINCE GEORGE'S COUNTY. LED VEHICULAR SIGNAL HEADS, ACCESSIBLE PEDESTRIAN SIGNALS, COUNTDOWN PEDESTRIAN SIGNALS, VIDEO DETECTION FOR PRESENCE AND SAMPLING WILL BE INSTALLED. MD 450 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULL TRAFFIC-ACTUATED MODE. THE CONCURRENT MAINLINE PEDESTRIAN PHASES AND THE ALTERNATE SIDE STREET PEDESTRIAN PHASE SHALL REMAIN.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER, AND ASSOCIATED HARDWARE IN A NEMA SIZE "G" BASE MOUNTED CABINET. INSTALL ONE (1) VIDEO DETECTION INTERFACE FOR 1-4 CAMERAS AND ONE (1) CENTRAL CONTROL UNIT.

APS WILL FUNCTION AS FOLLOWS:

TO CROSS ANNAPOLIS ROAD

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS ANNAPOLIS".

B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

TO CROSS SCHOOL ENTRANCE

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS SCHOOL ENTRANCE".

B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO NOTIFY MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #3 / OOTS ARE AS FOLLOWS:

District #3

Ms. Felicia Murphy  
Assistant District Engineer - Traffic  
Phone: 301-513-7358

Mr. Victor Grafton  
District Utility Engineer  
Phone: 301-513-7350

Mr. Vernon Stinnett  
Assistant District Engineer - Maintenance  
Phone: 301-513-7304

Mr. Kevin Nowak  
Assistant District Engineer - Construction  
Phone: 301-513-7385

Office Of Traffic & Safety

Mr. Richard L. Daff Sr.  
Chief, Traffic Operations Division  
Phone: 410-787-7630

Mr. Robert Snyder  
Assistant Division Chief, Traffic Operations  
410-787-7630

Mr. Edward Rodenhizer  
Team Leader Signal Operations  
Phone: 410-787-7650

Mr. Eugene Bailey  
Team Leader Sign Operations  
410-787-7670

The Power Company Representative is:  
Potomac Electric Power Company  
8300 Old Marlboro Pike  
Upper Marlboro, Maryland 20772  
Phone: 301-961-5325

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

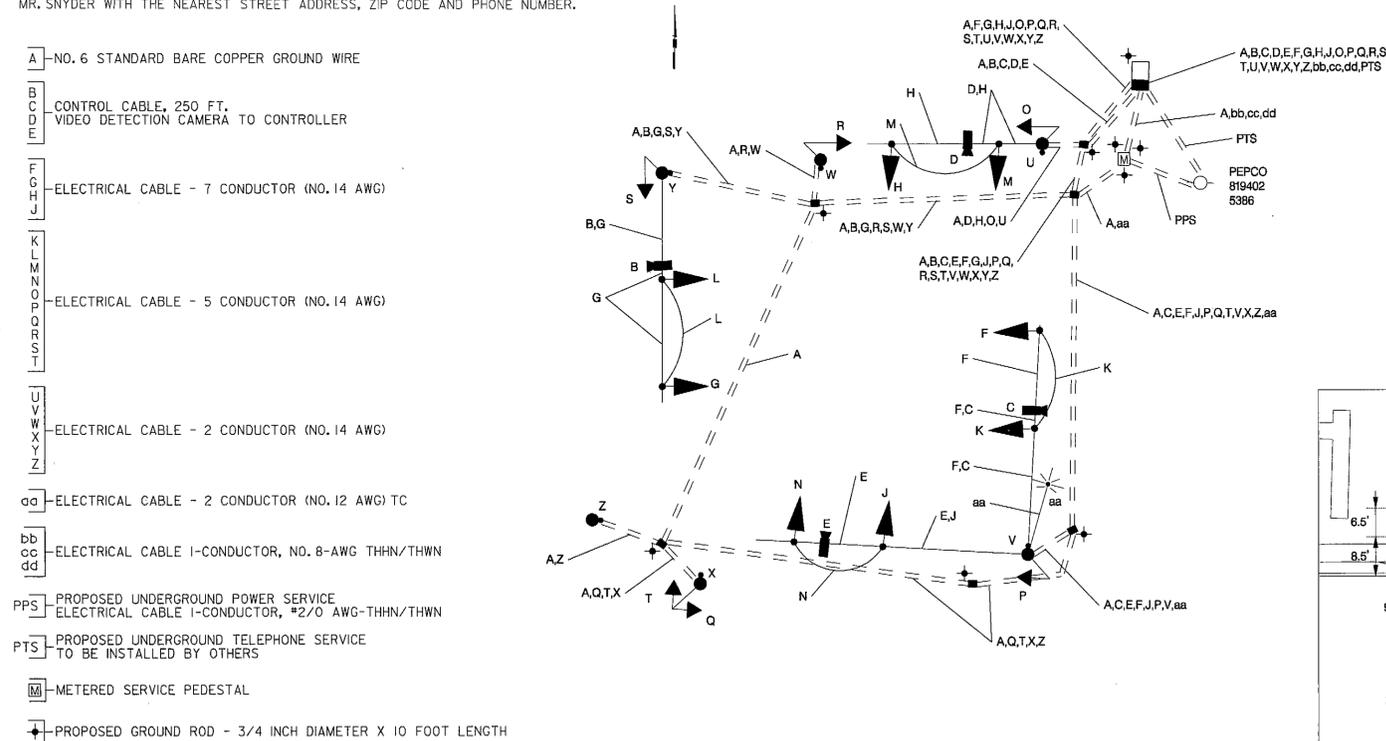
ITEM NO	QUANTITY	DESCRIPTION
9044	1 EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9086	1 EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9570	III SF	[UPDATED] SHEET ALUMINIUM GROUND MOUNTED SIGN 1 EA - MI-5(6) (30 IN. X 48 IN.) "EAST, MD 450, RIGHT ARROW" 1 EA - MI-5(6) (30 IN. X 48 IN.) "WEST, MD 450, RIGHT ARROW" 1 EA - MI-5(6) (48 IN. X 72 IN.) "WEST, MD 450, LEFT ARROW" 1 EA - MI-5(6) (48 IN. X 72 IN.) "EAST, MD 450, LEFT ARROW" 4 EA - SI-1 (30 IN. X 30 IN.) 4 EA - M6-2(MOD) FYC (21 IN. X 15 IN.)
9571	39 SF	[UPDATED] SHEET ALUMINIUM MAST ARM/POLE MOUNTED SIGN: 4 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS SCHOOL ENTRANCE" 2 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS ANNAPOLIS ROAD" 3 EA - R10-1(1b) (24 IN. X 24 IN.) 2 EA - D3-1 (96 IN. X 16 IN.) "ANNAPOLIS ROAD" DUAL FACED

EQUIPMENT LIST 'B'

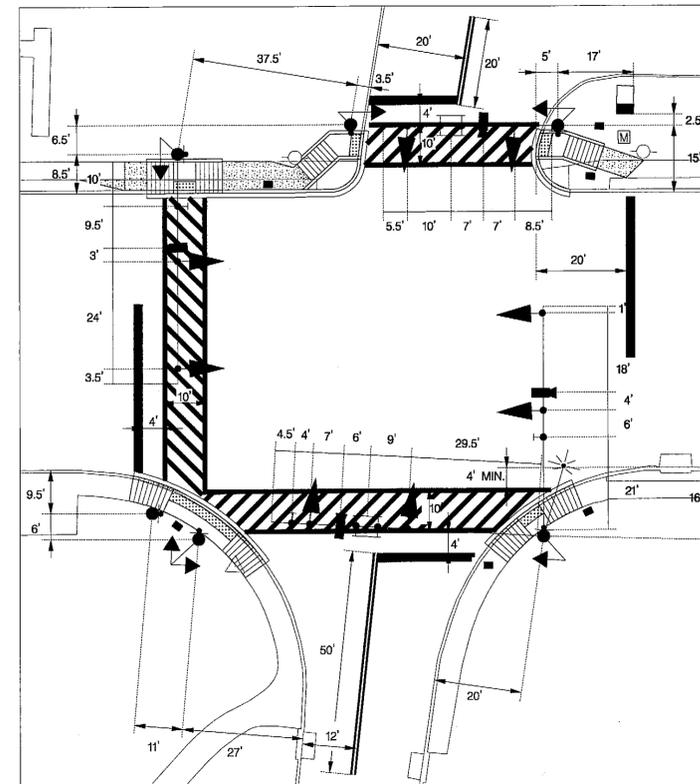
EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC
2002	4 CY	TEST PIT EXCAVATION
5004	765 LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	135 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5006	70 LF	5 INCH HEAT APPLIED WHITE OR YELLOW PERMANENT PREFORMED PAVEMENT MARKINGS
5007	800 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
6001	210 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER (2 INCH GUTTER PAN 8 INCH DEPTH
6002	600 SF	5 INCH CONCRETE SIDEWALK
8001	1 EA	2 WIRE CENTRAL CONTROL UNIT
8006	1 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP AND LUMINAIRE
8007	6 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8008	3 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8013	6 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8015	1 EA	MAST ARM POLE & 38 FT MAST ARM ANY "T" DIMENSION
8018	1 EA	MAST ARM POLE & 50 FT MAST ARM ANY "T" DIMENSION
8021	1 EA	REMOVE AND DISPOSE OF MATERIALS AND EQUIPMENT PER ASSIGNMENT
8022	1 EA	TWIN MAST ARM POLE WITH 50 FT. & 60 FT. MAST ARMS ANY "T" DIMENSION
8025	4 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8030	50 LF	CABLE 1-CONDUCTOR, 2/0 AWG THHN, THWN (ALUMINIUM)
8034	320 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8035	190 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	143 LF	WOOD SIGN SUPPORTS UP TO 4 X 6
8037	70 SF	DETECTABLE WARNING SURFACES
8038	150 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	510 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EA	METERED SERVICE PEDESTAL EMBEDDED (100 OR 200 AMP)
8045	100 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
8046	6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	24 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8054	830 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	1030 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	655 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8058	165 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

WIRING DIAGRAM



PROPOSED SIGNAL EQUIPMENT AND PAVEMENT MARKING LAYOUT



EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO	QUANTITY	DESCRIPTION
NONE		ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

TOD No: XX351-08  
SHA No: PG769K56  
MD 450 @ Bladensburg Elementary

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 450 (ANNAPOLIS ROAD)  
AT BLADENSBURG ELEMENTARY SCHOOL  
BLADENSBURG, MARYLAND

GENERAL INFORMATION

SCALE NONE ADVERTISED DATE 8/2010 CONTRACT NO. XX3515168

DESIGNED BY MCG COUNTY PRINCE GEORGE'S  
DRAWN BY MCG LOGMILE 160045000.59  
CHECKED BY BAB CSW TMS NO. K036  
F.A.P. NO. TOD NO.

TS NO. 540A-GI DRAWING SG-02 OF 02 SHEET NO. 02 OF 02

PHASE CHART	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	(R) (Y) (G)													
PHASE 2 & 6	G	G	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW
2 & 6 PED CLEARANCE	G	G	G	G	R	R	R	R	FLDW	FLDW	FLDW	FLDW	DW	DW
PHASE 2 & 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW
PHASE 4 & 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 & 8 ALT.	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK
4 & 8 ALT. PED. CLEARANCE	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FLDW	FLDW
PHASE 4 & 8 ALT. CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

BY: Guiliano -

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