PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 458 (SILVER HILL ROAD) AND MARLBORO PIKE IN PRINCE GEORGE'S COUNTY. MD 458 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA EIGHT-PHASE, FULLY-TRAFFIC-ACTUATED MODE. THERE IS AN EXCLUSIVE LEFT TURN PHASE FOR BOTH THE EAST AND WEST APPROACHES OF MD 458. MD 458 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY. THERE IS AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR BOTH THE NORTH AND SOUTH APPROACHES OF MARLBORO PIKE. MARLBORO PIKE THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY. PEDESTRIAN PHASES RUN CONCURRENTLY ON MD 458 THRU PHASES FOR BOTH THE NORTH AND SOUTH LEGS OF THE INTERSECTION. ALTERNATE PEDESTRIAN PHASES ARE PROVIDED FOR BOTH THE EAST AND WEST LEGS OF THE INTERSECTION.

EQUIPMENT LIST FOR CONTRACT NO. PG7865777

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADIMISTRATION

ITEM	QUANTITY	UNIT	DESCRIPTION
9104	1	EA	SIZE 'S' CABINET WITH CONTROLLER AND VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9118	4	EA	4 CHANNEL DETECTOR AMPLIFIER

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

CATEGORY	QUANTITY	UNIT	DESCRIPTION
201032	4	CY	CLASS 2 EXCAVATION
203030	4	CY	TEST PIT EXCAVATION
585621	850	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	205	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
634300	360	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
648150	10	LF	MONOLITHIC CONCRETE MEDIAN 4 FEET 0 INCH WIDE TYPE A-3
655105	1460	SF	5 INCH CONCRETE SIDEWALK
655120	80	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
800000	8	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	8	EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	1	EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
800000	1	EA	LED LAMP & LUMINAIRE
800000	1	EA	2-WIRE CONTROL UNIT
800000	6	EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	4	EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
800000	425	LF	DISCONNECT, PULL-BACK & REROUTE CABLE
801004	19.2	CY	CONCRETE FOR SIGNAL FOUNDATION
801104	15	LF	WOOD SIGN SUPPORTS 4 INCH x 4 INCH
801106	20	LF	WOOD SIGN SUPPORTS 4 INCH x 6 INCH
801605	142	SF	SHEET ALUMINUM SIGNS
	33	SF	SHEET ALUMINUM GROUND MOUNTED SIGN
	3	EA	M1-5 (30"x 24")
	3	EA	M3-2 (24"x 12")
	1	EA	M6-1 (21"x 15")
	1	EA	R4-7 (24"x 30")
	1	EA	R8-7(1) (24"x 24")
	109	SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN
	4	EA	D-3(1) (VAR. x 16") MAST ARM MOUNTED DUAL-FACED
	8	EA	R10-3(1) (9"x 15") POLE MOUNTED
	2	EA	M1-5(6) (48"x 72") POLE MOUNTED
	1	EA	M1-5(6) (30"x 48") POLE MOUNTED
802145	2	EA	ADJUST EXISTING HANDHOLE
802501	350	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
802570	185	LF	1 CONDUCTOR #2/0 AWG CABLE
805118	805	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805125	105	LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	500	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	100	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805155	230	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
807500	1	EA	EMBEDDED METERED SERVICE PEDESTAL
810022	30	LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
810601	5	EA	NONINVASIVE DETECTOR, 500 FOOT LEAD IN CABLE
810605	5	EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	13	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
811004	7	EA	REMOVE ELECTRICAL HANDHOLE
813022	23	SF	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
818004	7	EA	10 FOOT BREAKAWAY PEDESTAL POLE
818036	1	EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
818041	1	EA	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM
818052	2	EA	STEEL POLE WITH A SINGLE 70 FOOT MAST ARM
822002	300	LF	12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
837001	10	EA	GROUND ROD - 3/4 INCH DIA. x 10 FOOT LENGTH
860284	44	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	1560	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	2275	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	2250	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	250	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
866103	1	EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
871202	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

C. EQUIPMENT TO BE REMOVED

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. ALL OTHER EXISTING SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL.

CONTACTS

Mr. Venu Nemani
Assistant District Engineer - Traffic
Phone: (301) 513-7404

Mr. Tom Fountain
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

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

Mr. Avijit Maji
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Supervisor, Signal Operations
Phone: (410) 787-7650

Mr. Sonny Bailey
Supervisor, Sign Shop
Phone: (410) 787-7676

Mr. Mike Stocker
Supervisor, Signal Warehouse
Phone: (410) 787-7668

Power Company Representative - PEPCO (PG)
Mr. Richard Chilcoat, Service Associate
PEPCO Engineering
8300 Old Marlboro Pike
Upper Marlboro, MD 20772
Phone: (301) 967-5805, Fax: (301) 967-5820
emaill: rachilcoat@pepco.com

MD 458 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION

WIRING KEY

A,B,D,E, G,H,J,K } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

C,F,L,M,N,P,Q R,S,T,U,V,W,X } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

Y,Z,AA,BB CC,DD,EE,FF } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

GG } 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG)

HH } RE-ROUTED 12-PAIR COMMUNICATION CABLE

JJ } NEW 12 PAIR FIRE HOUSE PRE-EMPTION CABLE

a,b,c,d } VIDEO CAMERA CABLE

e,f,g,h,j,k l,m,n,p } NON-INVASIVE CABLE

x } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)

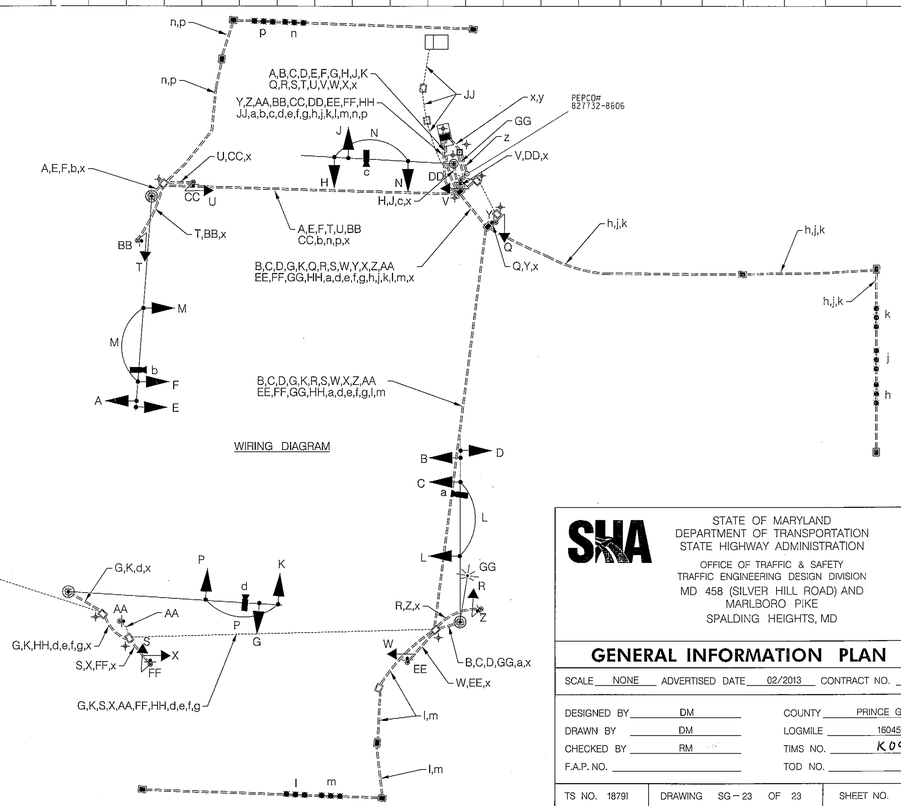
y } 3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG-THHN/THWN)

z } 3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (#2/0 AWG CABLE)

+ } GROUND ROD

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
PHASE 1 AND 5	←G	←G	R	R	←G	←G	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5 OR 2 AND 6																						
PHASE 1 AND 6	←G	←G	G	G	←R	←R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	WK	WK
1 CHANGE	←Y	←Y	G	G	←R	←R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	WK	WK
PHASE 2 AND 5	←R	←R	R	R	←G	←G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK	DW	DW
5 CHANGE	←R	←R	R	R	←Y	←Y	G	G	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK	DW	DW
PHASE 2 AND 6	←R	←R	G	G	←R	←R	G	G	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	←R	←R	G	G	←R	←R	G	G	R	R	R	R	R	R	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
2 AND 6 CHANGE	←R	←R	Y	Y	←R	←R	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 AND 7	←R	←R	R	R	←R	←R	R	R	←G/R	←G/R	R	←G/R	←G/R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 AND 7 CHANGE TO 3 AND 8, 4 AND 7 OR 4 AND 8																						
PHASE 3 AND 8	←R	←R	R	R	←R	←R	R	R	←G/G	←G/G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 CHANGE	←R	←R	R	R	←R	←R	R	R	←Y/G	←Y/G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 7	←R	←R	R	R	←R	←R	R	R	R	R	R	←G/G	←G/G	G	DW	DW	DW	DW	DW	DW	DW	DW
7 CHANGE	←R	←R	R	R	←R	←R	R	R	R	R	R	←Y/G	←Y/G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	←R	←R	R	R	←R	←R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 AND 8 CHANGE	←R	←R	R	R	←R	←R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 ALT.	←R	←R	R	R	←R	←R	R	R	G	G	G	G	G	G	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	←R	←R	R	R	←R	←R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
4 AND 8 ALT. CHANGE	←R	←R	R	R	←R	←R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/←R	FL/←R	FL/Y	FL/Y	FL/←R	FL/←R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK
EMERGENCY VEHICLE PRE-EMPTION																						
4 PRE-EMPTION 1	R	R	R	R	R	R	R	R	R	R	R	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 PRE-EMP. 1 CHANGE	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW



NOTE:

THE CONTRACTOR WILL "WORK WITH" PEPCO ON THE INSTALLATION OF THE 3 WIRES, 1 CONDUCTOR ELECTRICAL CABLE #2/0 AWG CABLE.
IT HAS BEEN ASSUMED THAT DURING THE "WORK WITH" ADDITIONAL CABLE WILL BE COILED AND ATTACHED (TO THE WOOD POLE) TO PEPCO STANDARDS.

BRUDIS & ASSOCIATES, INC.
Consulting Engineers
9240 Rumsey Road; Suite C
Columbia, Maryland 21045
Phone 410-884-3607
www.brudis.com

BY: fanyong

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 458 (SILVER HILL ROAD) AND
MARLBORO PIKE
SPALDING HEIGHTS, MD

GENERAL INFORMATION PLAN SHEET

SCALE NONE ADVERTISED DATE 02/2013 CONTRACT NO. PG7865777

DESIGNED BY DM
DRAWN BY DM
CHECKED BY RM
F.A.P. NO.
COUNTY PRINCE GEORGE'S
LOGMILE 16045802.71
TIMS NO. K099
TOD NO.

TS NO. 18791 | DRAWING SG-23 OF 23 | SHEET NO. OF

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