PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 458 (SILVER HILL RD) AND MD 972a (OLD SILVER HILL RD) 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 SIX-PHASE, FULLY-TRAFFIC-ACTUATED MODE. THERE IS AN EXCLUSIVE/PERMISIVE LEFT TURN PHASE FOR BOTH THE EAST AND WEST APPROACHES OF MD 458. MD 458 THRU MOVEMENTS WILL OPERATE CONCURRENTLY AND MD 972a THRU MOVEMENTS WILL RUN AS A SPLIT PHASE. PEDESTRIAN PHASES RUN CONCURRENTLY 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 INT. EQUIPMENT: 1-8 CAMERAS
9110	1	EA	BATTERY BACKUP EQUIPMENT FOR 'S' CABINET
9118	2	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	900	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	165	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
634300	400	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
648150	10	LF	MONLITHIC CONCRETE MEDIAN 4 FEET 0 INCH WIDE TYPE A-3
655105	2100	SF	5 INCH CONCRETE SIDEWALK
655120	94	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	2-WIRE CENTRAL CONTROL UNIT
800000	12	EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	4	EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
801004	16	CY	CONCRETE FOR SIGNAL FOUNDATION
801104	30	LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
801106	40	LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801605	210	SF	SHEET ALUMINUM SIGNS
	32	SF	SHEET ALUMINUM GROUND MOUNTED SIGN
	1	EA	OM1-3 (18"x 18")
	1	EA	R1-2 (36"x 36"x 36")
	4	EA	W11-2 (30"x 30")
	178	SF	SHEET ALUMINUM MAST ARM/ POLE MOUNTED SIGN
	6	EA	D-3(1) (VAR. x 16") MAST ARM MOUNTED
	1	EA	R3-5(L) (30"x 36") MAST ARM MOUNTED
	2	EA	R3-6(L) (30"x 36") MAST ARM MOUNTED
	1	EA	R3-5(R) (30"x 36") MAST ARM MOUNTED
	8	EA	R10-3(1) (9"x 15") POLE MOUNTED
	2	EA	M1-5(6) (30"x 48") POLE MOUNTED
	2	EA	M1-5(6) (48"x 72") POLE MOUNTED
802501	540	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
802570	350	LF	1 CONDUCTOR #2/0 AWG CABLE
805115	110	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805118	325	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805125	140	LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	55	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	140	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
807500	1	EA	EMBEDDED METERED SERVICE PEDESTAL
810022	30	LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
810601	3	EA	NONINVASIVE DETECTOR, 500 FOOT LEAD IN CABLE
810605	3	EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	8	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
811004	8	EA	REMOVE ELECTRICAL HANDHOLE
813022	42.75	SF	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
818004	8	EA	10 FOOT BREAKAWAY PEDESTAL POLE
818041	2	EA	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM
818050	1	EA	STEEL POLE WITH TWIN 50 FOOT AND 60 FOOT MAST ARMS
837001	7	EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	36	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	1250	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	1400	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1900	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
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

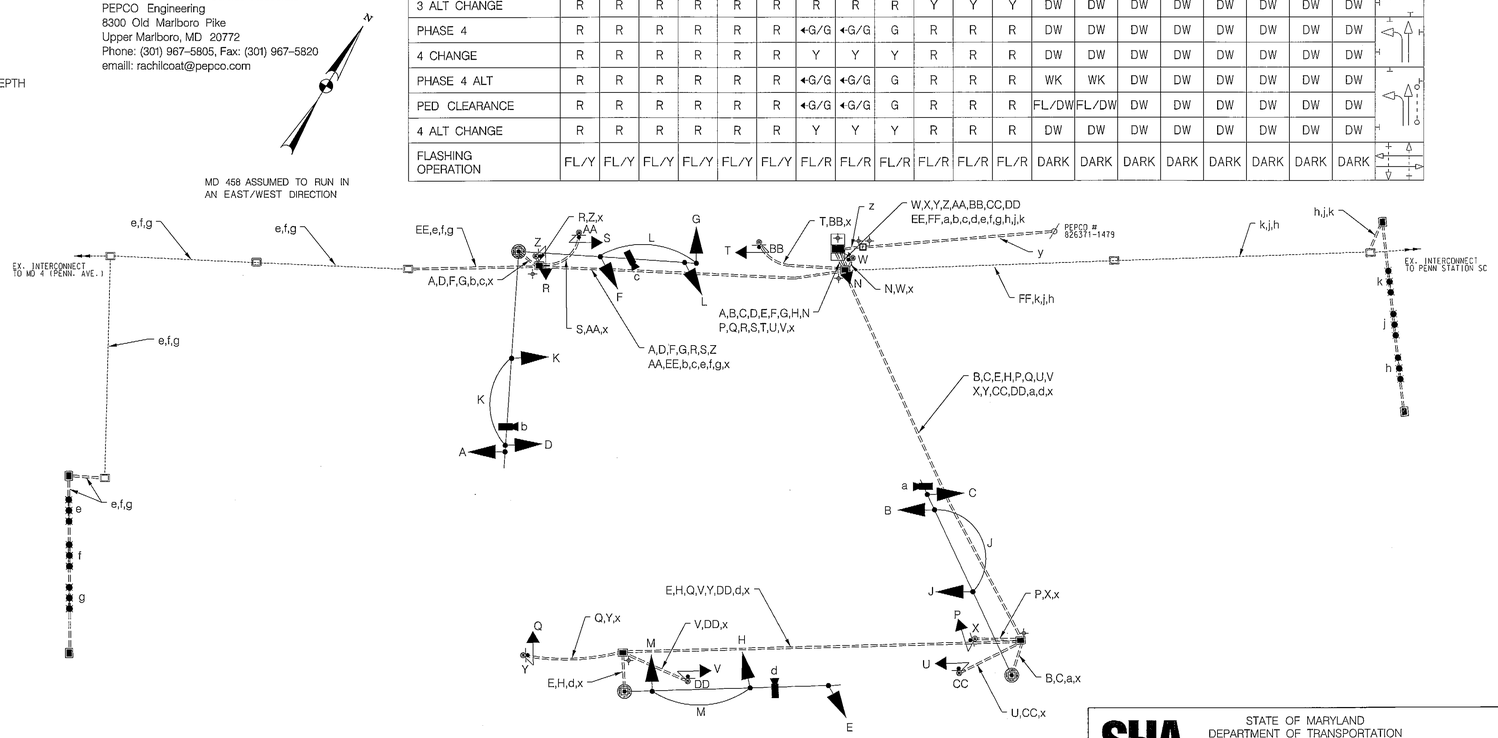
Mr. Sonny Bailey
Supervisor, Sign Shop
Phone: (410) 787-7676

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
email: rachilcoat@pepco.com

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 AND 5	◄G/R	◄G/R	R	◄G/R	◄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	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 CHANGE	◄Y/G	◄Y/G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	◄G/G	◄G/G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
5 CHANGE	R	R	R	◄Y/G	◄Y/G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	R	R	R	◄G/G	◄G/G	G	DW	DW	DW	DW	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 ALT	R	R	R	R	R	R	R	R	R	◄G/G	◄G/G	G	DW	DW	WK	WK	DW	DW	DW	DW
PED CLEARANCE	R	R	R	R	R	R	R	R	R	◄G/G	◄G/G	G	DW	DW	FL/DW	FL/DW	DW	DW	DW	DW
3 ALT CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	◄G/G	◄G/G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	R	◄G/G	◄G/G	G	R	R	R	WK	WK	DW	DW	DW	DW	DW	DW
PED CLEARANCE	R	R	R	R	R	R	◄G/G	◄G/G	G	R	R	R	FL/DW	FL/DW	DW	DW	DW	DW	DW	DW
4 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	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	DARK	DARK	DARK	DARK



WIRING KEY

A,B,C,D E,F,G,H } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	e,f,g h,j,k } NON-INVASIVE CABLE
J,K,L,M,N,P Q,R,S,T,U,V } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	x } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
W,X,Y,Z,AA BB,CC,DD } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	y } 3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN)
EE,FF } RE-ROUTED 12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)	z } 3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (1 CONDUCTOR #2/0 AWG CABLE)
a,b,c,d } VIDEO CAMERA CABLE	+ } PROPOSED GROUND ROD

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

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 458 (SILVER HILL RD) AND
MD 972a (OLD SILVER HILL RD)
PROJECT DESCRIPTION

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 16045802.40
TIMS NO. K099
TOD NO.

TS NO. 2615C | DRAWING SG – 20 OF 23 | SHEET NO. OF

PLOTTED: Monday, January 21, 2013 AT 01:18 PM
FILE: P:\09-032 TEDD\Task 101 MD 458 @ MD 972A\Drawings\CADD\Working\pGN-P001_MD458@MD972a.dgn

BY: fanyong