PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 458 (SILVER HILL ROAD) AND NAVY DAY DRIVE/METRO STATION ENTRANCE IN PRINCE GEORGE'S COUNTY.

MD 458 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION:

THE PROPOSED TRAFFIC SIGNAL WILL CONTINUE TO OPERATE IN A FULLY ACTUATED MODE USING SIX (6) NEMA PHASES.

MAINLINE MD 458 OPERATES CONCURRENTLY WITH EXCLUSIVE LEFT TURN PHASES IN BOTH DIRECTIONS.
NAVY DAY DRIVE AND THE METRO STATION ENTRANCE OPERATE IN A SIDE STREET SPLIT PHASE MODE WITH AN ACTUATED PEDESTRIAN MOVEMENT ACROSS THE WEST LEG OF THE INTERSECTION.
THIS INTERSECTION IS PART OF THE MD 458 INTERCONNECT SIGNAL SYSTEM.

PEDESTRIAN FACILITIES WILL BE UPGRADED INCLUDING ADA RAMPS APS/CPS SIGNALS AND A NEW 2-WIRE CENTRAL CONTROL UNIT WILL BE INSTALLED IN THE EXISTING CABINET. NON-INVASIVE PASSAGE DETECTORS WILL BE INSTALLED ON THE MAINLINE APPROACHES.

AUDIBLE PUSHBUTTON FUNCTION SHALL BE AS FOLLOWS:

1. WHEN A PEDESTRIAN PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

FOR WEST LEG RAMPS, "WAIT TO CROSS SILVER HILL AT NAVY DAY AND METRO, WAIT."
FOR NORTH LEG RAMP, "WAIT TO CROSS METRO AT SILVER HILL, WAIT"
FOR SOUTH LEG RAMP, "WAIT TO CROSS NAVY DAY AT SILVER HILL, WAIT"

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

PROJECT CONTACTS

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MR. VENU NEMANI
ASST. DISTRICT ENGINEER-TRAFFIC
PHONE: 301-513-7404

MR. EDWARD RODENHIZER
CHIEF-SIGNAL OPERATIONS SECT.
PHONE: 410-787-7650

MR. TOM FOUNTAIN
ASST. DISTRICT ENGINEER-MAINTENANCE
PHONE: 301-513-7304

MR. SONNY BAILEY
CHIEF-SIGN SHOP
PHONE: 410-787-7670

MR. VICTOR GRAFTON
UTILITY ENGINEER
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MR. MIKE STOCKER
SUPERVISOR, SIGNAL WAREHOUSE
PHONE: 410-787-7668

MR. AVIJIT MAJI
CHIEF-TRAFFIC OPERATIONS DIV.
PHONE: 410-787-7630

POWER COMPANY REPRESENTATIVE - PEPCO (PG):
MR. RICHARD CHILCOAT, SERVICE ASSOCIATE
PEPCO ENGINEERING
8300 OLD MARLBORO PIKE
UPPER MARLBORO MARYLAND 20772
PHONE: 301-967-5805, FAX: 301-967-5820
EMAIL RACHILCOAT@PEPCO.COM

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES.

EQUIPMENT LIST "A"

A. NO EQUIPMENT WILL BE SUPPLIED BY THE ADMINISTRATION.

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
201032	22 CY	CLASS 2 EXCAVATION
203030	1 CY	TEST PIT EXCAVATION
585621	800 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	125 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	MONOLITHIC CONCRETE MEDIAN 4 FEET 0 INCH WIDE TYPE A-3
648170	10 LF	MONOLITHIC CONCRETE MEDIAN 6 FEET 0 INCH WIDE TYPE A-3
655105	1350 SF	5 INCH CONCRETE SIDEWALK
655120	110 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS (RED)
800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
800000	6 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	400 LF	DISCONNECT, PULL-BACK AND REROUTE CABLES
800000	6 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
800000	1 EA	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
801004	1 CY	CONCRETE FOR SIGNAL FOUNDATION
801104	28 LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
801106	46 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801605	35 SF	SHEET ALUMINUM SIGNS CONSISTING OF:
	1 EA	W16-7p(R) RIGHT DIAGONAL ARROW (24"X 12") GROUND MOUNT
	1 EA	W16-7p(L) LEFT DIAGONAL ARROW (24"X 12") GROUND MOUNT
	2 EA	W11-2 PEDESTRIAN TRAFFIC (30"X 30") GROUND MOUNT
	2 EA	R4-7 SYMBOLIC KEEP RIGHT (18"X 24") GOUND MOUNT
	1 EA	R5-1 "DO NOT ENTER" (30"X 30") GROUND MOUNT
	2 EA	R10-3(1) PUSHBUTTON SIGN (9"X 15") POLE MOUNT "TO CROSS SILVER HILL ROAD"
	2 EA	R10-3(1) PUSHBUTTON SIGN (9"X 15") POLE MOUNT "TO CROSS NAVY DAY DRIVE"
	2 EA	R10-3(1) PUSHBUTTON SIGN (9"X 15") POLE MOUNT "TO CROSS METRO ENTRANCE"
802145	1 EA	ADJUST EXISTING HANDHOLE
802501	150 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	50 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	80 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	25 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805150	205 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
805155	80 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
810601	6 EA	NON INVASIVE DETECTOR, 500 FOOT LEAD IN CABLE
811001	4 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
811004	1 EA	REMOVE ELECTRICAL HANDHOLE
813022	68 SF	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
818004	5 EA	10 FOOT BREAKAWAY PEDESTAL POLE
861105	1100 LF	ELECTRICAL CABLE- 2 CONDUCTOR (NO. 14 AWG)
861107	1200 LF	ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 AWG)

EQUIPMENT LIST "C"

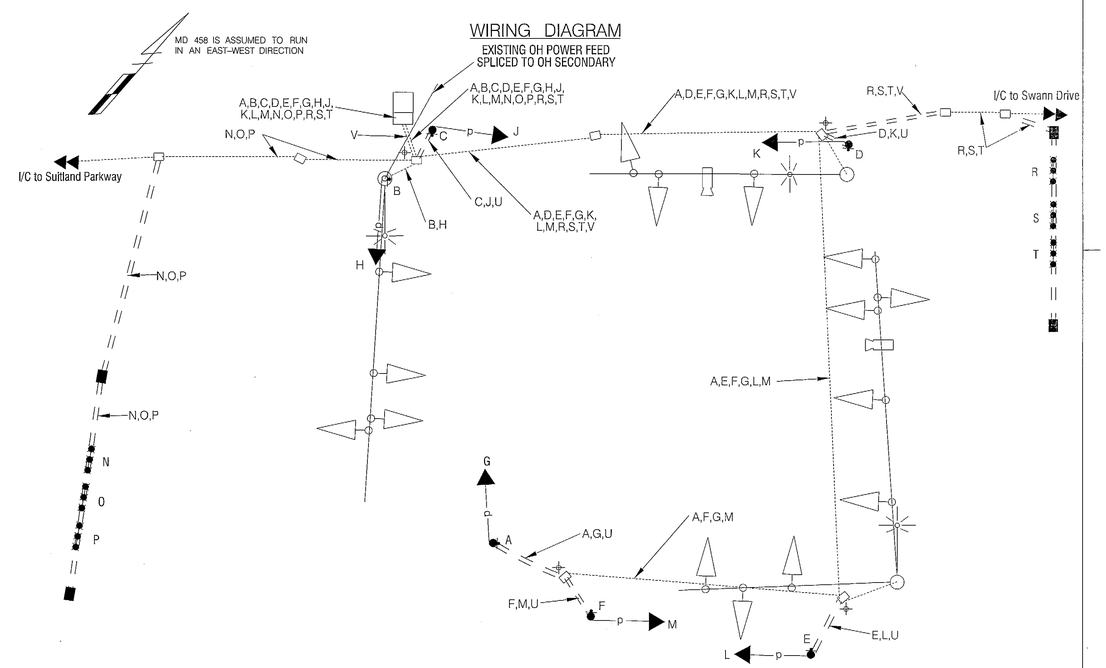
ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

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

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PHASE 1 + 5	◁G—	◁G—	◁G—	R	R	◁G—	◁G—	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 1 & 5 CHANGE TO PHASE 1 & 6, 2 & 5 OR 2 & 6																					
PHASE 1 + 6	◁G—	◁G—	◁G—	G	G	◁R—	◁R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK
PHASE 1+6 CHANGE	◁Y—	◁Y—	◁Y—	G	G	◁R—	◁R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	◁R—	◁R—	◁R—	R	R	◁G—	◁G—	G	G	R	R	R	R	R	R	DW	DW	WK	WK	DW	DW
PHASE 2+5 CHANGE	◁R—	◁R—	◁R—	R	R	◁Y—	◁Y—	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	◁R—	◁R—	◁R—	G	G	◁R—	◁R—	G	G	R	R	R	R	R	R	DW	DW	WK	WK	WK	WK
PED CLEAR & COUNTDOWN	◁R—	◁R—	◁R—	G	G	◁R—	◁R—	G	G	R	R	R	R	R	R	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 2 & 6 CHANGE	◁R—	◁R—	◁R—	Y	Y	◁R—	◁R—	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	◁R—	◁R—	◁R—	R	R	◁R—	◁R—	R	R	G ◁G—	G ◁G—	G	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3 CHANGE	◁R—	◁R—	◁R—	R	R	◁R—	◁R—	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	◁R—	◁R—	◁R—	R	R	◁R—	◁R—	R	R	R	R	R	G ◁G—	G ◁G—	G	DW	DW	DW	DW	DW	DW
PHASE 4 CHANGE	◁R—	◁R—	◁R—	R	R	◁R—	◁R—	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	◁R—	◁R—	◁R—	R	R	◁R—	◁R—	R	R	R	R	R	G ◁G—	G ◁G—	G	WK	WK	DW	DW	DW	DW
PED CLEAR & COUNTDOWN	◁R—	◁R—	◁R—	R	R	◁R—	◁R—	R	R	R	R	R	G ◁G—	G ◁G—	G	FL/DW	FL/DW	DW	DW	DW	DW
PHASE 4 ALT CHANGE	◁R—	◁R—	◁R—	R	R	◁R—	◁R—	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/ ◁R—	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

WIRING DIAGRAM



WIRING KEY

A,B,C,D,E,F — 2 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE

G,H,J,K,L,M — 5 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE

N,O,P,R,S,T — NON INVASIVE DETECTOR LEAD IN CABLE

U — NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

V — EXISTING INTERCONNECT CABLE RE-ROUTED TO CONTROLLER SEE NOTE ON SHEET SG-08

⊕ — EXISTING GROUND ROD

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

MD 458 (SILVER HILL ROAD)
NAVY DAY DRIVE/METRO ENTRANCE
SUITLAND, MARYLAND

GENERAL INFORMATION PLAN

SCALE NONE ADVERTISED DATE 01-2013 CONTRACT NO. PG7865777

DESIGNED BY PMH
DRAWN BY PMH
CHECKED BY WS
F.A.P. NO.

COUNTY PRINCE GEORGE'S
LOGMILE 16045801.07
TIMS NO. K099
TOD NO.

TS NO. 3514-B | DRAWING SG-10 OF 23 | SHEET NO. OF

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BY: mhusselbee

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FILE: \\Server02\wae files\01_Project\061_TEDD-BA\01_Task Work\061_0108_Task08 - MD 458 at Navy Day\061_016702_Analysis\CADD\gSG-P003_MD458_Navy_Day.dgn