

F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT IS LOCATED AT THE INTERSECTION OF MD 458 AND BROOKS DRIVE IN PRINCE GEORGE'S COUNTY, MARYLAND AND INVOLVES ROADWAY IMPROVEMENTS, THE RECONSTRUCTION OF AN EXISTING SIGNAL THAT IS AFFECTED BY THESE IMPROVEMENTS. MD 458 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

II. INTERSECTION OPERATION

THE EXISTING TRAFFIC SIGNAL WILL OPERATE IN A NEMA SIX (6) PHASE, FULLY TRAFFIC ACTUATED MODE. THE MD 458 APPROACH WILL OPERATE CONCURRENTLY WITH AN EXCLUSIVE/PERMISSIVE EASTBOUND LEFT TURN PHASE. THE BROOKS DRIVE APPROACHES WILL OPERATE SEPERATELY.
AN EXISTING EIGHT PHASE FULLY TRAFFIC ACTUATED CONTROLLER WITH TWO (2) FOUR CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIERS, TELEMETRY MODULE, AND INTERSECTION MONITOR WITH BATTERY BACK UP HOUSED IN A NEMA SIZE SIX (6) BASE MOUNTED CABINET WILL REMAIN AT THE INTERSECTION.

III. SPECIAL NOTES

- THE SIGNAL SHOP WILL BE NOTIFIED TO PERFORM INTERNAL WIRING OF THE CABINET AT MD 458 AND BROOKS DRIVE. ALL CABLE SHALL BE IDENTIFIED AND BROUGHT INTO THE CONTROLLER BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY MR. EDWARD RODENHIZER, SHA SIGNAL SHOP AT (410) 787-7650 SEVENTY-TWO (72) HOURS IN ADVANCE OF THIS WORK.
- MOT PLATES FOR THIS PROJECT WILL BE AS FOLLOWS: 104.00 TO 104.00-12, 104.02-01, 104.03-01

EQUIPMENT LIST

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

ITEM NO.	QUANTITY	DESCRIPTION
900001	3 EA	12'-1-WAY, 3-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
900001	1 EA	8'-1/2'-1-WAY, 5-SECTION (R,Y,G,YA,GA) TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
900001	2 EA	12'-1-WAY, 5-SECTION (R,Y,G,YA,GA) TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
900001	1 EA	12'-1-WAY, 2-SECTION (DON'T WALK, WALK) PEDESTRIAN SIGNAL HEAD - POLE MOUNT
900001	1 EA	PEDESTRIAN PUSH BUTTON AND SIGN
900001	55/25 SF	SHEET ALUMINUM SIGNS
-	1 EA.	R10-12 SIGN (30 IN. X 36 IN.) *LEFT TURN YIELD ON GREEN*
-	1 EA.	SHIELD ASSEMBLY *EAST, MD 458, RIGHT ARROW* (80 IN. X 51 IN.) - POLE MOUNT
-	1 EA.	SHIELD ASSEMBLY *WEST, MD 458, LEFT ARROW* (88 IN. X 75 IN.) - POLE MOUNT
-	1 EA.	D2-1 *BROOKS DR.* (18 IN. X 96 IN.)

B. EQUIPMENT TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
585443	600 LF	FURNISH AND INSTALL 12" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE (CROSSWALK)
585445	110 LF	FURNISH AND INSTALL 24" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE (STOP BAR)
801004	5.35 CY	FURNISH AND INSTALL 12" CONCRETE SIGNAL FOUNDATION
805125	50 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 PVC CONDUIT - TRENCHED
805160	5 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT SLEEVE
813010	2 EA	BAND SIGN TO SIGN SUPPORT
813015	19.5 SF	INSTALL OVERHEAD SIGN
814004	4 EA	REMOVE AND SALVAGE EXISTING SIGNAL HEAD
818005	2 EA	REMOVE AND SALVAGE STRAIN POLE
832020	60 LF	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
860260	1 EA	INSTALL SIGNAL HEAD POLE MOUNT
860220	5 EA	INSTALL SIGNAL HEAD MAST ARM MOUNT
861104	175 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR ALUMINUM SHIELDED
861105	160 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO 14 AWG
861106	160 LF	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR NO 14 AWG
861107	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO 14 AWG
861108	550 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR NO.14 AWG
862101	400 LF	FURNISH AND INSTALL LOOP WIRE IN FLEXIBLE TUBING
862102	125 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
865201	1 EA	INSTALL PUSHBUTTON AND SIGN
8000000	1 EA	FURNISH AND INSTALL STEEL POLE WITH 38' X 60' TWIN MAST ARM
868201	1 EA	FURNISH AND INSTALL STEEL PEDESTAL POLE 12 IN. X 14 FT

CONSTRUCTION DETAILS

- (A) EXISTING NEMA SIX PHASE CONTROLLER TO REMAIN
- (B) EXISTING STEEL STRAIN POLE WITH MAST ARM AND SIGNAL HEADS TO REMAIN
- (C) REMOVE EXISTING STEEL POLE INCLUDING MAST ARM, SIGNAL HEADS SIGNS AND PEDESTAL SIGNAL HEADS
- (D) INSTALL 12 INCH X 27 FOOT STEEL POLE WITH TWIN 38 FOOT MAST ARM, 60 FOOT MAST ARM SIGNALS, SIGNS AND SHIELD ASSEMBLY (NOTE: 1 - 4 INCH SCHEDULE 80, 90 DEGREE PVC CONDUIT BEND, 4-2"x90" ANCHOR BOLTS IN BASE)
- (E) INSTALL 12 INCH X 14 FOOT STEEL PEDESTAL POLE WITH ONE-WAY PEDESTRIAN SIGNAL HEADS (NOTE: 1-4 INCH SCHEDULE 80, 90 DEGREE PVC CONDUIT BEND, 4-1" X 40" ANCHOR BOLTS IN BASE)
- (F) EXISTING HAND HOLE TO REMAIN
- (G) EXISTING HAND HOLE TO BE REMOVED
- (H) INSTALL HAND HOLE
- (I) ABANDON EXISTING LOOP DETECTOR
- (J) INSTALL 6 FT. X 30 FT. LOOP DETECTOR 1/4IN. FLEXIBLE TUBING (3-6-3 TURNS)
- (K) EXISTING CONDUIT TO REMAIN
- (L) INSTALL 2 IN. SCHEDULE 80 POLYVINYL CHLORIDE CONDUIT-TRENCHED
- (M) EXISTING LOOP WIRES TO REMAIN
- (N) INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
- (O) ABANDON EXISTING CONDUIT
- (P) INSTALL 24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
- (Q) INSTALL 12 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE

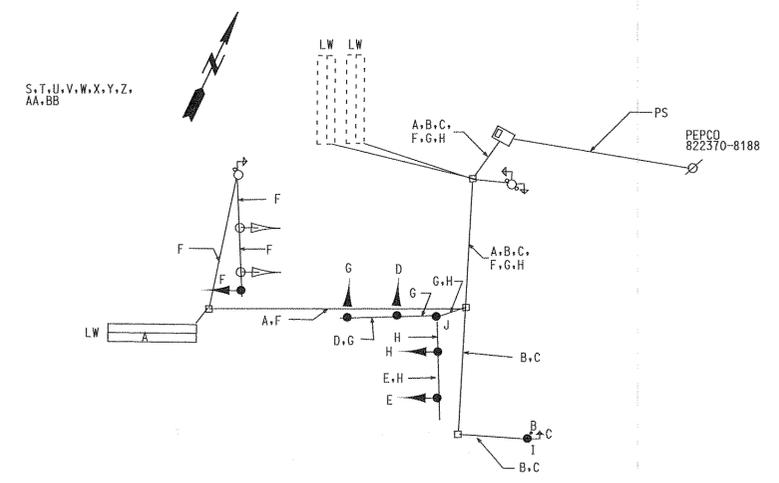
THE FOLLOWING CONTACT PERSONS FOR DISTRICT # 3 ARE AS FOLLOWS:

- Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
(410) 787-7630
- Mr. Majib Shakib
Asst. District Engineer - Traffic
(301) 513-7358
- Mr. Augustine Rebish
Acting Engineer - Utility
(301) 513-7350
- Mr. Charles Watkins
District Engineer
(301) 513-7311
- Mr. Randy Brown
Asst. District Engineer - Maintenance
(301) 513-7304

The Power Company Representative is:

POTOMAC ELECTRIC POWER COMPANY
8300 OLD MARLBORO PIKE
UPPER MARLBORO MARYLAND 20772
(301) 961-5325

WIRING DIAGRAM



WIRING KEY

- A 2 CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED
- B 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C 3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- D,E 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- F,G,H 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- I,J NO. 6 STRANDARD BARE COPPER GROUND WIRE
- LW LOOP WIRE
- PS POWER SOURCE

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11
PHASE 1 & 6	G	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 1 CHANGE TO PHASE 2 & 6											
PHASE 2 & 6	G	G	G	G	R	R	W	W	DW	DW	
PED CLEAR	G	G	G	G	R	R	FL/DW	FL/DW	DW	DW	
PHASE 2 & 6 CHANGE	Y	Y	Y	Y	R	R	DW	DW	DW	DW	
PHASE 4	R	R	R	R	R	G	G	DW	DW	DW	DW
PHASE 4 CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	G	G	DW	DW	W	W
PED CLEAR	R	R	R	R	R	G	G	DW	DW	FL/DW	FL/DW
PHASE 4 CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK



REVISIONS	APPROVALS
	DESIGN SECTION
	ASST. DISTRICT ENGINEER TRAFFIC
	CHEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

MD 458 (SILVER HILL ROAD)
@ BROOKS DRIVE

LOG MILE: 16045801.22

DRAWN BY: STEVE RENZI
CHK. BY: N.T.S.
SCALE: 6/8/72
DATE:

F.A.P. NO. US 9692 (I)
S.H.A. NO. 385-001-585
COUNTY PRINCE GEORGE'S

GI NO. 597-B
SHEET NO. OF