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

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND PAVEMENT MARKINGS AT THE INTERSECTION OF MD 980D/RITCHIE-MARLBORO ROAD AND OLD MARLBORO PIKE IN PRINCE GEORGES COUNTY. MD 980D/RITCHIE-MARLBORO ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE TRAFFIC SIGNAL WILL OPERATE IN A NEMA FIVE PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 980D/RICTHIE-MARLBORO ROAD APPROACHES OPERATING CONCURRENTLY AND THE OLD MARLBORO PIKE APPROACHES OPERATING CONCURRENTLY.

AN EXCLUSIVE/PERMISSIVE LEFT-TURN PHASE FOR WESTBOUND OLD MARLBORO PIKE WILL BE PROVIDED.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR SHALL PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIPCODE AND PHONE NUMBER.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CHARLES WATKINS
DISTRICT ENGINEER
PHONE: (301) 513-7311

MR. MAJIB SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358

MR. CARTER WILSON
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

MR. FRANCIS LAUER
DISTRICT UTILITIES ENGINEER
PHONE: (301) 513-7350

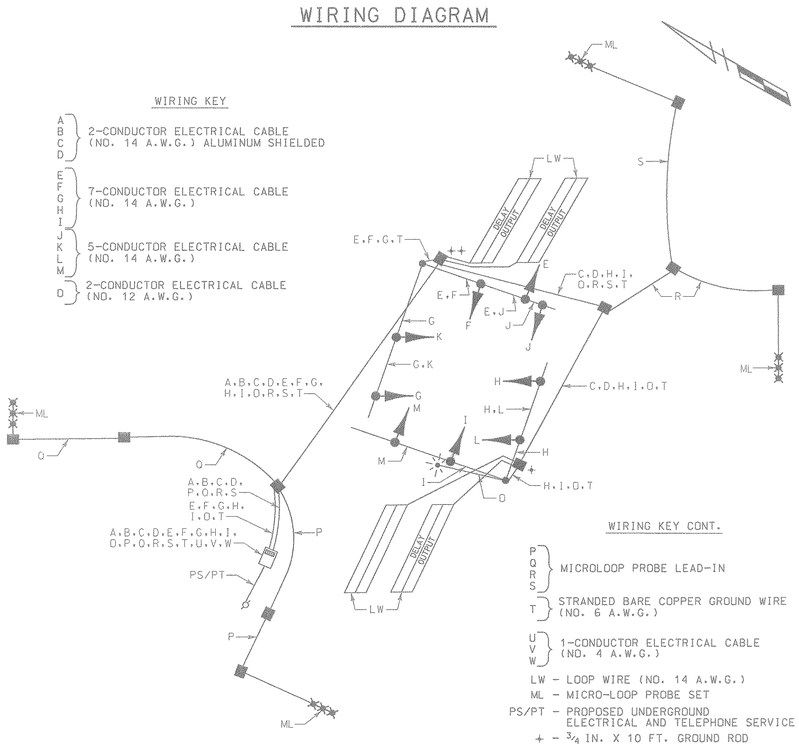
MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MAINTENANCE OF TRAFFIC

THE TRAFFIC CONTROL STANDARD NUMBERS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-12
STANDARD NO. MD-104.31-02 (FLAGGING OPERATION)
STANDARD NO. MD-104.49-02 (SHOULDER WORK)
STANDARD NO. MD-104.44-02 (LEFT-LANE CLOSURE)
STANDARD NO. MD-104.45-02 (RIGHT-LANE SHIFT)
STANDARD NO. MD-104.46-02 (CENTER LANE CLOSURE)
STANDARD NO. MD-104.68 (MOBILE INTERSECTION WORK)

WIRING DIAGRAM



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

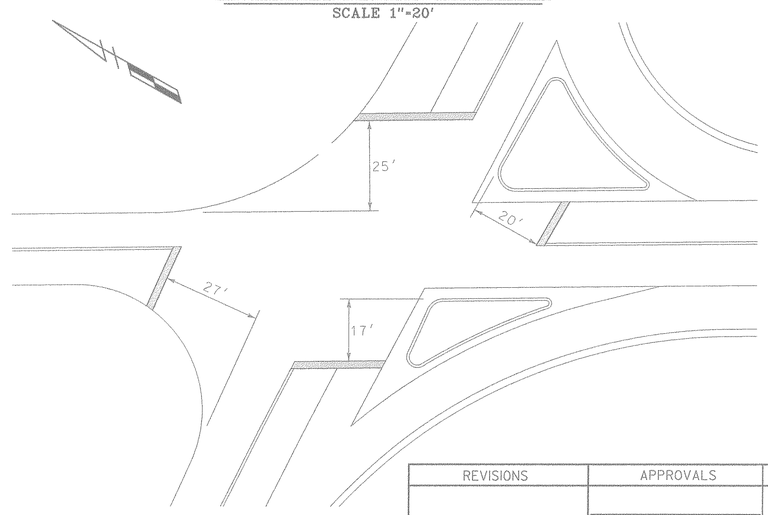
QUANTITY	DESCRIPTION
7 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD - MAST ARM MOUNT.
1 EACH	12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) TRAFFIC SIGNAL - MAST ARM MOUNT.
1 EACH	8 IN./12 IN., ONE-WAY, FIVE-SECTION (8 IN. R,Y,G / 12 IN. YA,GA) TRAFFIC SIGNAL HEAD - MAST ARM MOUNT.
1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER.
1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER AND INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
97 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 1 EACH R10-12 SIGN (36 IN. X 42 IN.) - MAST ARM MOUNT
	- 2 EACH D-3(1) SIGN "MARLBORO ROAD PIKE" (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT
	- 4 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND FLAGS - GROUND MOUNT.
1 EACH	27 FT. MAST ARM POLE AND TWIN 44 FT./44 FT. MAST ARMS
4 EACH	MICROLOOP PROBE SET WITH 500 FT. LEAD-IN
1 EACH	23 FT. MAST ARM POLE AND TWIN 44 FT./44 FT. MAST ARMS

PHASE CHART

	1	2	3	4	5	6	7	8	9
PHASE 2 + 6	G	G	G	G	R	R	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	R
PHASE 3 + 8	R	R	R	R	R	R	G	G	G
3 + 8 CHANGE	R	R	R	R	R	R	Y	Y	C
PHASE 4 + 8	R	R	R	R	G	G	G	G	G
4 + 8 CHANGE	R	R	R	R	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R

PAVEMENT MARKING DETAIL

SCALE 1"=20'



EQUIPMENT LIST "B"

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

QUANTITY	DESCRIPTION
LUMP SUM	MAINTENANCE OF TRAFFIC
5 U.D.	ARROW PANEL
300 S.F.	TEMPORARY TRAFFIC SIGNS
LUMP SUM	MOBILIZATION
3 C.Y.	TEST PIT EXCAVATION
8 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
144 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN.
300 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
700 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
245 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
40 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
64 S.F.	INSTALL GROUND MOUNTED SIGN
33 S.F.	INSTALL OVERHEAD SIGN
1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTO-CELL
3 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
7 EACH	INSTALL 12 IN., ONE-WAY, THREE-SECTION (R,Y,G) SIGNAL HEAD - MAST ARM MOUNT
1 EACH	INSTALL 12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) SIGNAL HEAD - MAST ARM MOUNT
1 EACH	INSTALL 8 IN./12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) SIGNAL HEAD - MAST ARM MOUNT
950 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
90 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
1445 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
350 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 A.W.G.)
1870 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
590 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
1 EACH	FURNISH AND INSTALL 20 FT. STREET LIGHTING ARM ON SIGNAL STRUCTURE
45 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
2 EACH	INSTALL MAST ARM POLE AND TWIN 44 FT./44 FT. MAST ARMS
4 EACH	INSTALL MICROLOOP PROBE SET WITH 500 FT. LEAD-IN
LUMP SUM	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
80 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
100 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKINGS
2 EACH	PERMANENT PREFORMED PAVEMENT MARKING ARROW
4 EACH	PERMANENT PREFORMED PAVEMENT MARKING LETTER
60 L.F.	REMOVE EXISTING PAVEMENT MARKINGS

WR&A
Whitman, Requardt and Associates
Engineers and Planners
2315 Saint Paul Street
Baltimore, Maryland 21218
(410) 235-3450

REVISIONS	APPROVALS	REVISIONS
	ASSISTANT DIVISION CHIEF	
	ASST. DISTRICT ENGINEER, TRAFFIC	
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 980D/RITCHIE-MARLBORO RD AND OLD MARLBORO PIKE

DATE:	12-2-98	DRAWN BY:	S.BLOSS	F.A.P. NO.		PLAN SHEET NO.:	SHEET NO.
SCALE:	NONE	DESIGNED BY:	N.LEARY	S.H.A. NO.			2 OF 8
APPROVED BY:		CHECKED BY:	T.HANNAN	COUNTY	PRINCE GEORGES		

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