

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF U.S. 1 AND JARRETTSVILLE ROAD IN HARFORD COUNTY. U.S. 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE U.S. 1 APPROACHES OPERATING CONCURRENTLY AND THE JARRETTSVILLE ROAD APPROACH OPERATING ALONE. AN EXCLUSIVE/PERMISSIVE LEFT-TURN PHASE FOR NORTHBOUND U.S. 1 WILL BE ADDED.

**CONTROLLER REQUIREMENTS**

THE DETECTOR RACK SHALL BE RETROFITTED WITH TWO (2) FOUR-CHANNEL, TIME-DELAY LOOP DETECTOR AMPLIFIERS IN THE EXISTING POLE MOUNTED CABINET, EIGHT PHASE CONTROLLER.

**EQUIPMENT LIST "A"**

**A. EQUIPMENT TO BE SUPPLIED BY THE SHA**

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EACH	RETROFIT DETECTOR RACK
9002	2 EACH	FOUR CHANNEL, TIME-DELAY OUTPUT, LOOP DETECTOR AMPLIFIER
9016	1 EACH	12 IN. ONE-WAY, FIVE-SECTION (R.Y.YA.G.GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9019	1 EACH	8 IN./12 IN. ONE-WAY, FIVE-SECTION (R.Y.YA.G.GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9089	11 S.F.	SHEET ALUMINUM SIGN TO CONSIST OF : - 1 EACH R10-12 (36 IN. X 42 IN.) - MAST ARM MOUNT

**EQUIPMENT LIST "B"**

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
5004	15 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
8011	2 EACH	INSTALL SIGNAL HEAD
8021	140 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	20 L.F.	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8040	520 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	150 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.) ALUMINUM SHIELDED
8044	25 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	270 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8054	11 S.F.	INSTALL OVERHEAD SIGN
8061	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT

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

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. DAVE MALKOWSKI  
DISTRICT ENGINEER  
PHONE: (410) 321-3461

MR. JOSEPH MCMAHON  
DISTRICT UTILITIES ENGINEER  
PHONE: (410) 321-3456

MR. RANDALL SCOTT  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 321-3514

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

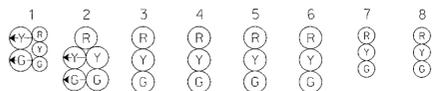
MR. RUSS YUREK  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 321-3468

**MAINTENANCE OF TRAFFIC**

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

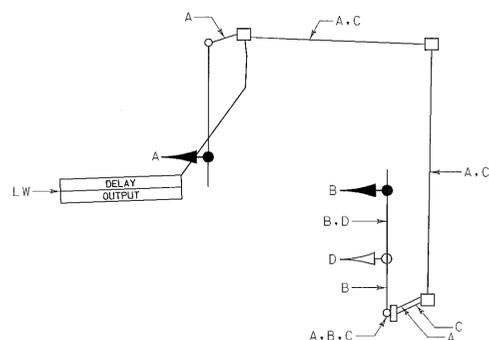
- STANDARD NO. MD-104.00 - 104.00-12
- STANDARD NO. MD-104.31-02 (FLAGGING OPERATION)
- STANDARD NO. MD-104.49-02 (SHOULDER WORK)
- STANDARD NO. MD-104.44-02 (LEFT-LANE CLOSURE)
- STANDARD NO. MD-104.45-02 (RIGHT-LANE SHIFT)
- STANDARD NO. MD-104.46-02 (CENTER LANE CLOSURE)
- STANDARD NO. MD-104.68 (MOBILE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

**PHASE CHART**



	1	2	3	4	5	6	7	8	
PHASE 1 + 6	G	G	G	R	R	R	R	R	↑
1 + 6 CHANGE	G	G	G	R	R	R	R	R	→
PHASE 2 + 6	G	G	G	G	G	G	R	R	←
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	←
PHASE 4	R	R	R	R	R	R	G	G	↓
4 CHANGE	R	R	R	R	R	R	Y	Y	↓
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	↔

**WIRING DIAGRAM**



WIRING KEY

- A } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- C } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- LW - LOOP WIRE (NO. 14 A.W.G.)

**WR&A**  
Whitman, Reardon 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  
U.S. 1 AND JARRETTSVILLE ROAD

DATE: 9-11-97	DRAWN BY: S. BLOSS	F.A.P. NO.: AC-STPG-0005-(589)E	PLAN SHEET NO.: TS-3326A	SHEET NO.: 2 OF 2
SCALE: NONE	DESIGNED BY: N. LEARY	S.H.A. NO.: AW-278-5185		
APPROVED BY:	CHECKED BY: T. HANNAN	COUNTY: HARFORD		