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

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 258 AND MD 2 IN ANNE ARUNDEL COUNTY. MD 258 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 258 APPROACHES OPERATING CONCURRENTLY AND THE MD 2 APPROACHES OPERATING CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH FIVE (5), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSES 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 IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIPCODE AND PHONE NUMBER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

ITEM NO.	QUANTITY	DESCRIPTION
9002	5 EACH	FOUR-CHANNEL, LOOP DETECTOR AMPLIFIER (DELAY OUTPUT).
9036	1 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD - POLE MOUNT.
9081	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER AND INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-12
STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)
STANDARD NO. MD-104.49-01 (SHOULDER WORK)
STANDARD NO. MD-104.44-01 (LEFT-LANE CLOSURE)
STANDARD NO. MD-104.45-01 (RIGHT-LANE CLOSURE)
STANDARD NO. MD-104.46-01 (CENTER LANE CLOSURE)
STANDARD NO. MD-104.35-01 (LANE SHIFT)
STANDARD NO. MD-104.33-01 (SHOULDER WORK)
STANDARD NO. MD-104.32-01 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. PAUL D. ARMSTRONG
DISTRICT ENGINEER
PHONE: (410) 841-5450

MR. LAWRENCE E. ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-5463

MR. RAYMOND E. HUTZLER
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-5462

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - UTILITY
PHONE: (410) 841-5450

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

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2001	1 C.Y.	TEST PIT EXCAVATION
8001	2 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8011	1 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
8017	5 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	1700 L.F.	SAW CUT FOR SIGNAL LOOP DETECTOR
8022	50 L.F.	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT GALVANIZED SLEEVE
8023	140 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	1800 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8026	155 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8030	30 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8032	300 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	17 EACH	FURNISH AND INSTALL HANDHOLE
8034	1 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8040	5900 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO 14. A.W.G.)
8041	1900 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.) ALUMINUM SHIELDED
8044	110 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	1000 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8049	30 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8050	60 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. - THHN/THWN
8059	1 EACH	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8060	1 EACH	DELIVERY OF REMOVED CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8061	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8065	1 EACH	INSTALL CONDUIT BEND IN EXISTING BASE

WIRING DIAGRAM

WIRING KEY

A B C D E F G H I J K L — 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)

M N O P Q — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

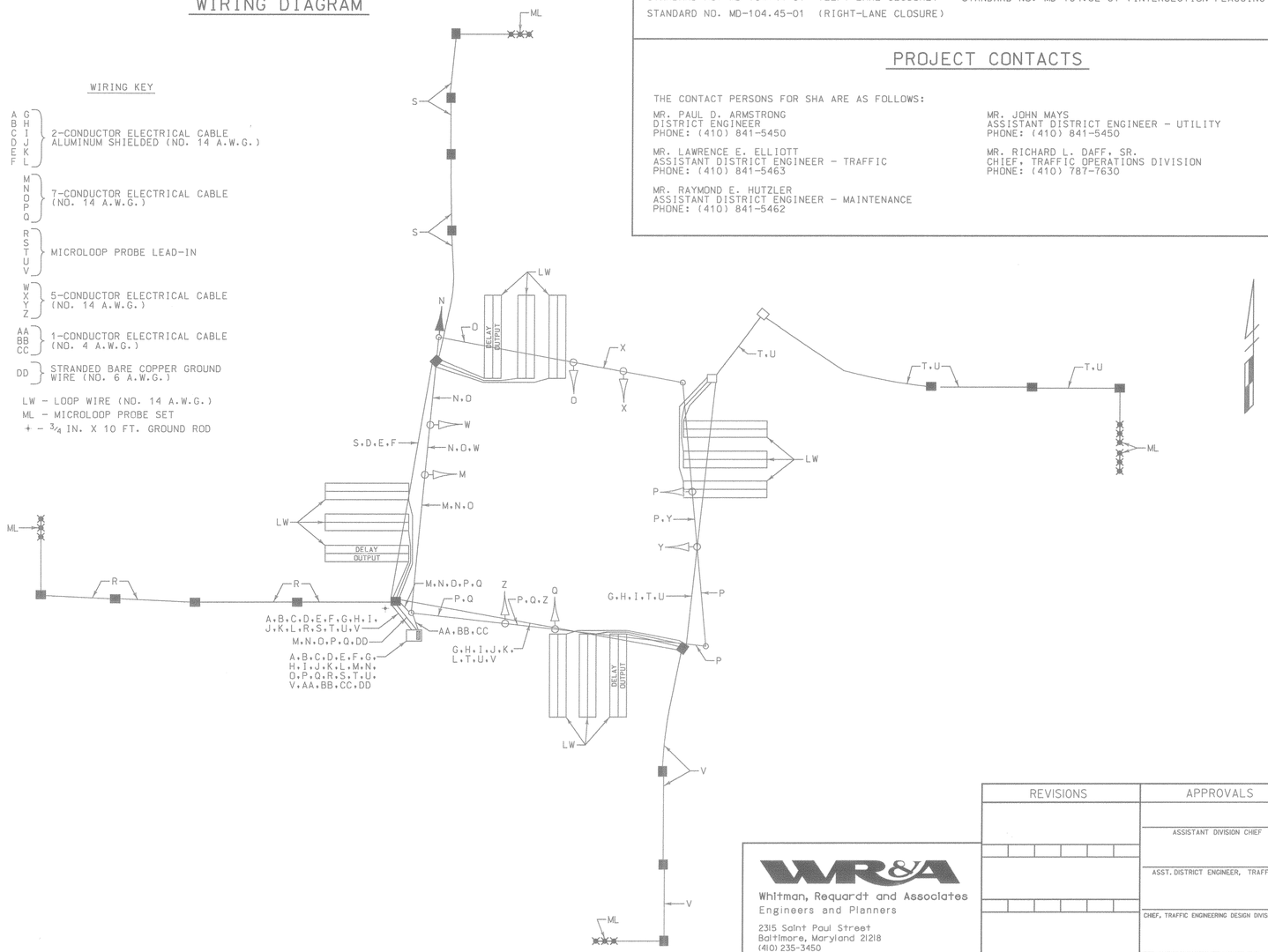
R S T U V — MICROLOOP PROBE LEAD-IN

W X Y Z — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

AA BB CC — 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

DD — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

LW - LOOP WIRE (NO. 14 A.W.G.)
ML - MICROLOOP PROBE SET
+ - 3/4 IN. X 10 FT. GROUND ROD



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 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

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 258 AND MD 2

DATE: 5-7-98	DRAWN BY: S.BLOSS	F.A.P. NO.		PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: N.LEARY	S.H.A. NO.	AW379ASC/AW279105C		2 OF 2
APPROVED BY:	CHECKED BY: T.HANNAN	COUNTY	ANNE ARUNDEL		