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 EXISTING TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF MD 2 (GOV. RITCHIE HIGHWAY) AND MD 710 (ORDNANCE ROAD) AND MD 2 AND GLEN BURNIE MALL/CHESAPEAKE PLAZA IN ANNE ARUNDEL COUNTY. MD 2 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION. THIS WORK IS NECESSITATED BY THE RESURFACING AND GEOMETRIC IMPROVEMENTS ALONG MD 2 AND THE EAST LEG OF MD 710.

INTERSECTION OPERATION

A. MD 2 AND MD 710.

THE INTERSECTION WILL BE CHANGED FROM SINGLE EXCLUSIVE LEFT-TURN PHASES TO DOUBLE EXCLUSIVE LEFT-TURN PHASES FOR MD 2 APPROACHES. WORK WILL ALSO INVOLVE THE REPLACEMENT OF DAMAGED DETECTION.

B. MD 2 AND GLEN BURNIE MALL/CHESAPEAKE PLAZA.

THE INTERSECTION OPERATION WILL BE CHANGED FROM EXCLUSIVE/PERMISSIVE LEFT-TURN PHASES TO DOUBLE EXCLUSIVE LEFT-TURN PHASES FOR MD 2 APPROACHES. WORK WILL ALSO INVOLVE REPLACEMENT OF DAMAGED DETECTION.

CONTROLLER REQUIREMENTS

A. MD 2 AND MD 710.

ONE (1) FOUR-CHANNEL, TIME-DELAY LOOP DETECTOR AMPLIFIER WILL BE INSTALLED IN THE EXISTING BASE MOUNTED EIGHT PHASE CONTROLLER.

B. MD 2 AND GLEN BURNIE MALL/CHESAPEAKE PLAZA.

ONE (1) FOUR-CHANNEL, TIME-DELAY LOOP DETECTOR AMPLIFIER WILL BE INSTALLED IN THE EXISTING BASE MOUNTED EIGHT PHASE CONTROLLER.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

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

MR. LAWRENCE E. ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-5450

MR. ERNEST L. HODSHON
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

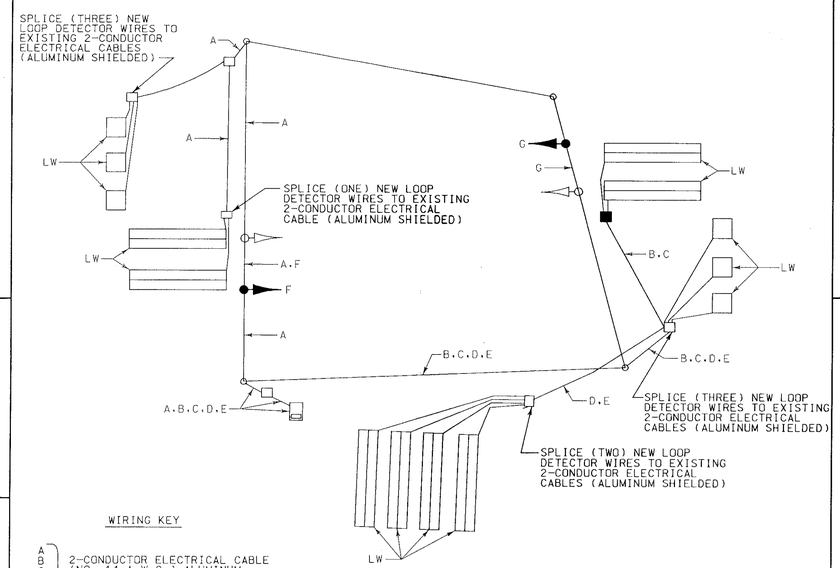
PHASE CHART - MD 2 AND MD 710

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G G	R Y G G	R Y G	R Y G G	R Y G G	R Y G
PHASE 1 + 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	R	R	R
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5, OR PHASE 2 + 6													
PHASE 1 + 6	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	R	R	R
1 + 6 CHANGE	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R	R
PHASE 2 + 5	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	R
2 + 5 CHANGE	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R
PHASE 2 + 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R	R
PHASE 3	←R—	←R—	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R
3 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	R	R	R
PHASE 4	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	G ←G—	G ←G—	G
4 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	Y	Y	Y
FLASHING OPERATION	←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

PHASE CHART - MD 2 AND GLEN BURNIE MALL/CHESAPEAKE SQ.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G
PHASE 1 + 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	R	R	R
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5, OR PHASE 2 + 6													
PHASE 1 + 6	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	R	R	R
1 + 6 CHANGE	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R	R
PHASE 2 + 5	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	R
2 + 5 CHANGE	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R
PHASE 2 + 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R	R
PHASE 4 + 8	←R—	←R—	R	R	←R—	←R—	R	R	G	G	G	G	G	G
4 + 8 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	←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

WIRING DIAGRAM - MD 2 AND MD 710



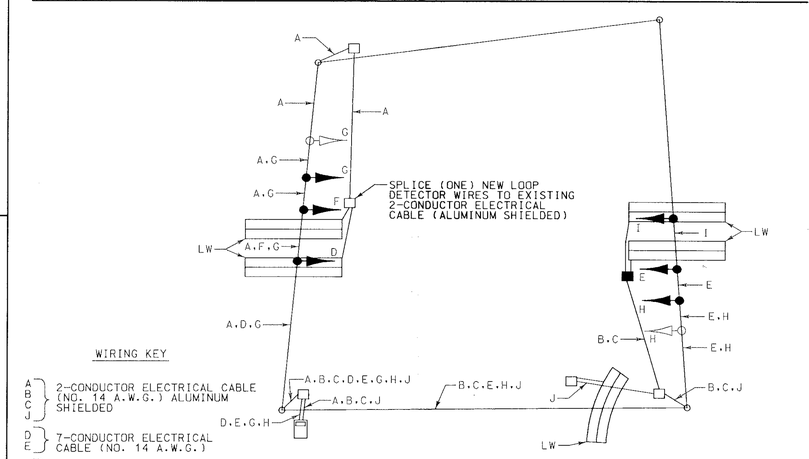
WIRING KEY

A, B, C, D, E — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED

F, G — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

LW - LOOP WIRE (NO. 14 A.W.G.)

WIRING DIAGRAM - MD 2 AND GLEN BURNIE MALL/CHESAPEAKE SQ.



WIRING KEY

A, B, C, J — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED

D, E — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

F, G, H, I — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

LW - LOOP WIRE (NO. 14 A.W.G.)

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
960002	2 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD - SPAN MOUNT.
960003	6 EACH	12 IN., ONE-WAY, THREE-SECTION (RA,YA,GA) TRAFFIC SIGNAL HEAD - SPAN MOUNT.
963007	2 EACH	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER (DELAY OUTPUT).
973023	79 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 9 EACH R3-5 SIGN (30 IN. X 36 IN.) - SPAN MOUNT. - 1 EACH R3-7R SIGN (30 IN. X 30 IN.) - GROUND MOUNT.

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
585407	650 L.F.	5 IN. WHITE REFLECTIVE THERMOPLASTIC
585409	540 L.F.	5 IN. YELLOW REFLECTIVE THERMOPLASTIC
585445	45 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
585448	10 EACH	PERMANENT PREFORMED PAVEMENT MARKING LETTER
801104	15 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS - 4 IN. X 4 IN.
805011	40 L.F.	FURNISH AND INSTALL 1 IN. GALVANIZED ELECTRICAL CONDUIT (DETECTOR WIRE SLEEVE)
805115	50 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805135	165 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
805145	110 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805150	40 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805160	90 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
811001	4 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	7 S.F.	INSTALL GROUND MOUNTED SIGN
813015	72 S.F.	INSTALL OVERHEAD SIGN
860002	2 EACH	INSTALL 12 IN., ONE-WAY, THREE-SECTION (R,Y,G) SIGNAL HEAD - SPAN MOUNT
860003	6 EACH	INSTALL 12 IN., ONE-WAY, THREE-SECTION (RA,YA,GA) SIGNAL HEAD - SPAN MOUNT
860265	3 EACH	RELOCATE EXISTING TRAFFIC SIGNAL HEAD
861104	2850 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
861107	490 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861108	410 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
862101	2450 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	620 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
800000	LUMP SUM	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	720 L.F.	PULL BACK AND REFEED EXISTING CABLE

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

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

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 2 (GOV. RITCHIE HIGHWAY) INTERSECTIONS

DATE: 11-4-97	DRAWN BY: S.BLOSS	F.A.P. NO.	STP-G-3003(4)E	PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: N.LEARY	S.H.A. NO.	AA-600-517-7		3 OF 3
APPROVED BY:	CHECKED BY: T.HANNAN	COUNTY	ANNE ARUNDEL		

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