F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD		2	2

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING FULL-TRAFFIC-ACTUATED SIGNAL AT MD 2/4 AND MD264 / MD 765 IN CALVERT COUNTY. MD 2/4 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

THE WORK CONSISTS OF THE INSTALLATION OF SIGNAL INDICATIONS FOR THE MD 765 TO NORTHBOUND MD 2/4 MOVEMENT AND THE INSTALLATION OF SAMPLING STATIONS FOR NORTHBOUND MD 2/4.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA THREE-PHASE, FULL-TRAFFIC ACTUATED MODE, WITH THE SOUTHBOUND MD 2/4 , NORTHBOUND MD 2/4 TO MD 264, AND EASTBOUND MD 264 TO NORTHBOUND MD 2/4 MOVEMENTS OPERATING AS SEPERATE PHASES.

NORTHBOUND MD 2/4 IS NOT SIGNALIZED.

THE INTERSECTION OPERATION WILL BE REVISED TO INCLUDE AN OVERLAP PHASE FOR WESTBOUND MD 765 TO NORTHBOUND MD 2/4.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. A FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER WILL BE INSTALLED INTO THE EXISTING CABINET.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

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

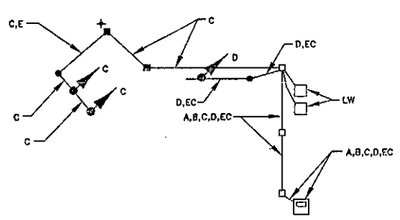
MR. LAWRENCE ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-5450

MR. RAYMOND HUTZLER
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-5461

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

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

WIRING DIAGRAM



NOTE: UNLESS OTHERWISE NOTED, ALL EXISTING WIRING WILL BE USED

WIRING KEY

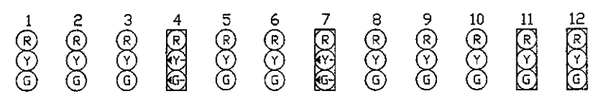
- A, B — 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)
- C, D — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- EC — EXISTING CABLE
- LW — LOOP WIRE (NO. 14 A.W.G.)
- + — 3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

QUANTITY	DESCRIPTION
2 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) OPTICALLY PROGRAMMED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
1 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
66 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 1 EACH "NOTICE TRAFFIC FROM LEFT DOES NOT STOP" SIGN (84 IN. X 60 IN.) - MAST ARM MOUNT
	- 1 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH NEW PANEL (30 IN. X 30 IN.) AND FLAGS - GROUND MOUNT
	- 1 EACH R1-2 SIGN (48 IN. X 48 IN.) - GROUND MOUNT
1 EACH	FOUR-CHANNEL, TIME DELAY OUTPUT, LOOP DETECTOR AMPLIFIER.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1	R	R	R	←G—	G	G	R	R	R	G	G	G
1 CHANGE	R	R	R	←Y—	Y	Y	R	R	R	G	G	G
PHASE 2	G	G	G	R	R	R	R	R	R	G	G	G
2 CHANGE	Y	Y	Y	R	R	R	R	R	R	Y	Y	Y
PHASE 4	R	R	R	R	R	R	←G—	G	G	R	R	R
4 CHANGE	R	R	R	R	R	R	←Y—	Y	Y	R	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/Y

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	TEST PIT EXCAVATION
5005	15 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
8001	3 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8011	3 EACH	INSTALL SIGNAL HEAD
8022	100 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8024	15 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8025	150 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
8027	30 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
8035	2 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8037	1 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8043	330 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8044	280 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
8047	620 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
8052	50 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8054	68 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN.
8056	31 S.F.	INSTALL GROUND MOUNTED SIGN
8057	35 S.F.	INSTALL OVERHEAD SIGN
8066	1 EACH	RESURVEY AND AS-BUILT TRAFFIC CONTROL DEVICES
8097	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 38 FT. ARM
NEG.	1 EACH	REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORT

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

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 2/4 AND MD 264 / MD 765

DATE: 10-15-96	DRAWN BY: T. ZAYDEL	F.A.P. NO.		PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO.S.:	AW009A58 AW009B58		
APPROVED BY:	CHECKED BY: K. SCHMID	COUNTY	CALVERT	TS-3483A GI	2 OF 2