PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTIONOF MD 26 (LIBERTY ROAD) AND MD 27 (RIDGE ROAD) IN CARROLL COUNTY. MD 26 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 26 APPROACHES OPERATING CONCURRENTLY AND THE MD 27 APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED ON EASTBOUND AND WESTBOUND MD 26 APPROACHES AND NORTHBOUND AND SOUTHBOUND MD 27 APPROACHES.

CONTROLLER REQUIREMENTS

THE EXISTING POLE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE DETECTOR RACK SHALL BE RETRO-FITTED WITH THREE (3), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS.

MAINTENANCE OF TRAFFIC

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

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

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. ROBERT FISHER
DISTRICT ENGINEER
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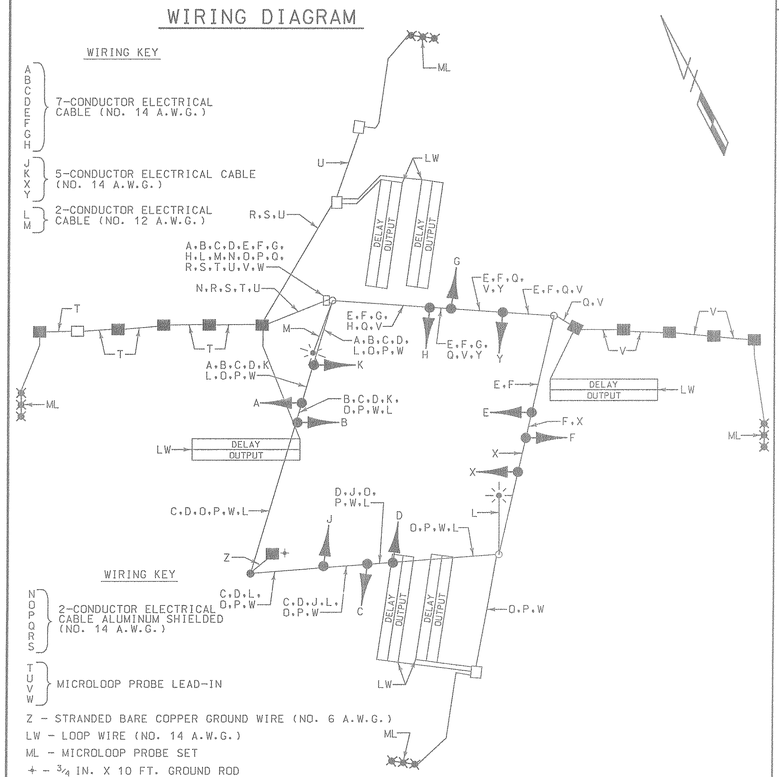
MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 624-8141

MR. LEON KERNS
ACTING ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 624-8140

MR. JIM BUCKALOO
ACTING UTILITIES ENGINEER
PHONE: (301) 729-8436

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

WIRING DIAGRAM

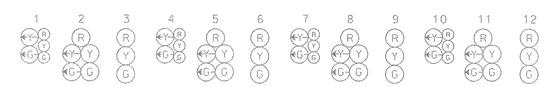


EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
900000	3 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
900000	1 EACH	DETECTOR RACK RETRO-FIT
900000	4 EACH	8 IN./12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) POLYCARBONATE TRAFFIC SIGNAL HEAD - SPAN MOUNT
960002	4 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) POLYCARBONATE TRAFFIC SIGNAL HEAD - SPAN MOUNT
960008	4 EACH	12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) POLYCARBONATE TRAFFIC SIGNAL HEAD - SPAN MOUNT
973023	233 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 4 EACH R10-12 SIGN (36 IN. X 42 IN.) - SPAN MOUNT.
		- 1 EACH R3-5R SIGN (30 IN. X 36 IN.) - SPAN MOUNT.
		- 1 EACH D-3(1) SIGN "RIDGE RD" (VARIABLE X 16 IN.) DUAL FACED - SPAN MOUNT.
		- 2 EACH D-3(1) SIGN "LIBERTY RD" (VARIABLE X 16 IN.) DUAL FACED - SPAN MOUNT.
		- 2 EACH D-3(2) SIGN (BLACK ON YELLOW) "RIDGE RD" (72 IN. X 12 IN.) - POLE MOUNT.
		- 1 EACH D-3(3) SIGN MODIFIED "MD 26, LIBERTY ROAD, NEXT SIGNAL" - GROUND MOUNT. (SEE SIGN DETAIL)
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, MD 26, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT.
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, MD 26, LEFT ARROW" (36 IN. X 75 IN.) - POLE MOUNT.
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, MD 26, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT.
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, MD 26, LEFT ARROW" (36 IN. X 75 IN.) - POLE MOUNT.
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 27, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT.
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 27, LEFT ARROW" (36 IN. X 75 IN.) - POLE MOUNT.
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 27, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT.
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 27, LEFT ARROW" (36 IN. X 75 IN.) - POLE MOUNT.

PHASE CHART



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

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
120500	LUMP SUM	MAINTENANCE OF TRAFFIC
120610	4 U.D.	ARROW PANEL
120620	300 S.F.	TEMPORARY TRAFFIC SIGNS
130850	LUMP SUM	MOBILIZATION
203030	1 C.Y.	TEST PIT EXCAVATION
500000	90 L.F.	12 IN. YELLOW THERMOPLASTIC PAVEMENT MARKINGS
585407	5000 L.F.	5 IN. WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585409	5500 L.F.	5 IN. YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585416	125 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKINGS
585448	10 EACH	PERMANENT PREFORMED PAVEMENT MARKING ARROW
801004	3 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
801106	34 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
801711	80 S.F.	REMOVE EXISTING GROUND MOUNTED SIGNS
802501	40 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805105	300 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805160	100 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
811001	11 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	24 S.F.	INSTALL GROUND MOUNTED SIGN
813015	209 S.F.	INSTALL OVERHEAD SIGN
813022	8 S.F.	RELOCATE EXISTING GROUND MOUNTED SIGN AND SUPPORT
831010	2 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
837001	1 EACH	FURNISH AND INSTALL GROUND ROD- 3/4 IN. DIAMETER X 10 FT. LENGTH
861104	930 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861107	120 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
861108	1100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
861116	350 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 A.W.G.)
862101	2950 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	1700 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
866104	2 EACH	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM
869101	225 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 3/8 IN. DIAMETER
869102	225 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 1/4 IN. DIAMETER
800000	625 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
800000	30 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT -TRENCHED
800000	12 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
800000	4 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN
800000	LUMP SUM	REMOVAL AND DISPOSAL OF EXISTING MATERIAL AND EQUIPMENT
800000	1 EACH	FURNISH AND INSTALL 12 IN. X 30 FT. STEEL STRAIN POLE
800000	2 EACH	FURNISH AND INSTALL CONDUIT BEND IN EXISTING STRAIN POLE

TS P-4

WR&A
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2315 Saint Paul Street
Baltimore, Maryland 21218
(410) 235-3450

REVISIONS

APPROVALS

ASST. TRAFFIC ENGINEERING DESIGN DIVISION

ASST. DISTRICT ENGINEER, TRAFFIC

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 26 (LIBERTY RD.) & MD 27 (RIDGE RD.)

DRAWN BY:	S.BLOSS	F.A.P. NO.		TS 1	SHEET NO.
CHECKED BY:	N.LEARY	S.H.A. NO.	AW-555-507-776	TS-1	
SCALE:	NONE	COUNTY:	CARROLL	T.I.	OF
DATE:	10/13/99	LOG MILE:	06002601.76		