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

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW INTERSECTION CONTROL BEACON AND STREET LIGHTING AT THE INTERSECTION OF MD 97 AND McKENDREE ROAD/CARRS MILL ROAD IN HOWARD COUNTY. MD 97 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CONTROL WILL OPERATE IN A FLASHING MODE WITH MD 97 SIGNAL INDICATIONS FLASHING YELLOW AND McKENDREE ROAD/CARRS MILL ROAD SIGNAL INDICATIONS FLASHING RED.

CONTROLLER REQUIREMENTS

INSTALL A NEMA SIZE '6' BASE MOUNTED CABINET, TWO-CIRCUIT FLASHER UNIT WITH PHOTOCELL, DIMMER SWITCH AND INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP.

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.

MAINTENANCE OF TRAFFIC

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

STANDARD NO. MD-104.00 - 104.00-12

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

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.34 (LANE SHIFT)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. ROBERT FISHER
DISTRICT ENGINEER
PHONE: (301) 694-2145

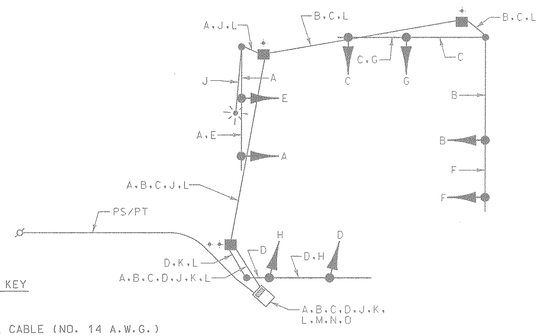
MR. JOHN WRIGHT
DISTRICT UTILITIES ENGINEER
PHONE: (301) 694-2025

MR. JOHN CONCANNON
ACTING ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 694-2595

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

MR. LEON KERNS
ACTING ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 694-1966

WIRING DIAGRAM



WIRING KEY

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

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

J — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)

K — 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

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

M, N, O — 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

PS - PROPOSED UNDERGROUND ELECTRICAL SERVICE

PT - PROPOSED UNDERGROUND TELEPHONE SERVICE

+ 3/4 IN. GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9012	4 EACH	12 IN., ONE-WAY, ONE-SECTION (Y) TRAFFIC SIGNAL HEAD - MAST ARM MOUNTING.
9012	4 EACH	12 IN., ONE-WAY, ONE-SECTION (R) TRAFFIC SIGNAL HEAD - MAST ARM MOUNTING.
9081	1 EACH	TWO-CIRCUIT FLASHER UNIT, DIMMER SWITCH AND INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
9089	78 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 2 EACH	D3-2 SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT.
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 97, LEFT ARROW" (36 IN. X 75 IN.) - POLE MOUNT.
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 97, RIGHT ARROW" (24 IN. X 51 IN.) - GROUND MOUNT.
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 97, LEFT ARROW" (36 IN. X 75 IN.) - GROUND MOUNT.
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 97, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT.
9000	1 EACH	23 FT. STEEL POLE WITH TWIN 56 FT./48 FT. MAST ARMS
9000	1 EACH	27 FT. STEEL POLE WITH SINGLE 34 FT. MAST ARM
9000	1 EACH	21 FT STEEL POLE WITH SINGLE 30 FT. MAST ARM

PHASE CHART

	1	2	3	4	5	6	7	8	9
	Y	Y	Y	Y	R	R	R	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
1003	1 EACH	MOBILIZATION FOR ASSIGNMENTS OUT OF CONTRACT AREA
2001	4 C.Y.	TEST PIT EXCAVATION
8001	13 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8011	9 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
8020	1 EACH	INSTALL CONTROLLER AND CABINET-BASE MOUNT
8030	50 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8032	140 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	3 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	4 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8043	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G.)
8044	120 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	765 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8046	155 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
8049	200 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8050	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1 CONDUCTOR - THHN/THWN (NO. 4 A.W.G.)
8052	40 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
8053	28 S.F.	INSTALL GROUND MOUNTED SIGN
8054	50 S.F.	INSTALL OVERHEAD SIGN
8056	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8057	1 EACH	FURNISH AND INSTALL LIGHTING BRACKET ARM TRAFFIC SIGNAL STRUCTURE
8070	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240 V, 1 PHASE 3 WIRE SYSTEM)
8073	1 EACH	FURNISH AND INSTALL PHOTOCELL
8079	2 EACH	INSTALL STEEL POLE AND SINGLE MAST ARM (ANY SIZE)
8080	1 EACH	INSTALL STEEL POLE AND TWIN MAST ARMS (ANY SIZE)

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 97 AND McKENDREE ROAD/CARRS MILL ROAD

DATE: 11-4-97	DRAWN BY: S.BLOSS	F.A.P. NO.	AC-STPG-0005(591)E	PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: N.LEARY	S.H.A. NO.	AW 278A56/B56	TS-3744	2 OF 2
APPROVED BY:	CHECKED BY: T.HANNAN	COUNTY	HOWARD		