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

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF A TEMPORARY TRAFFIC CONTROL SIGNAL WITH INTERCONNECT FOR PHASES 2 AND 3 OF THE MAINTENANCE OF TRAFFIC AT MD 162 (AVIATION BLVD) AND I-97 RAMP CONNECTION IN ANNE ARUNDEL COUNTY. MD 162 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

DURING PHASES 2 AND 3 OF THE MAINTENANCE OF TRAFFIC, THE INTERSECTION WILL OPERATE IN A NEMA THREE PHASE, SEMI-TRAFFIC-ACTUATED MODE, WITH MD 162 THROUGH MOVEMENTS OPERATING CONCURRENTLY AND THE I-97 RAMP CONNECTION APPROACH OPERATING ALONE.

THIS INTERSECTION WILL BE INTERCONNECTED TO THE INTERSECTION OF THE I-97 RAMP AND CROMWELL BLVD.

CONTROLLED REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SEVEN (7) TWO-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS. INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, TELEMETRY MODULE, ISOLATION BOARD, AND SPECIAL RELAY TO BE 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)787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
960015	6 EACH	12 IN., ONE WAY, THREE SECTION (R,Y,G) POLYCARBONATE SIGNAL HEAD-SPAN MOUNT
960041	1 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) SIGNAL HEAD-PEDESTAL MOUNT
963007	7 EACH	TWO CHANNEL LOOP DETECTOR AMPLIFIER (DELAY OUTPUT)
971017	1 EACH	EIGHT PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH INTERSECTION MONITOR AND BATTERY BACK-UP FOR PHONE DROP, TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
973023	92 S.F.	SHEET ALUMINUM SIGNS
	- 4 EACH	W3-3 (48 IN. X 48 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND FLAGS-GROUND MOUNT
900000	3 EACH	MICROLOOP PROBE SET WITH 500 FT. LEAD-IN

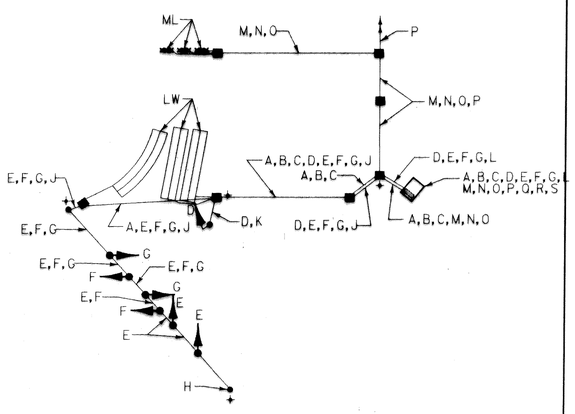
EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
114425	125 L.F.	24 IN. WHITE REMOVABLE PREFORMED PAVEMENT MARKING TAPE
230030	4 C.Y.	TEST PIT EXCAVATION
801004	8 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
801104	144 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS - 4 IN. X 4 IN.
802501	240 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805118	100 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
805125	30 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
805140	520 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
805160	50 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807205	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
810010	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. THHN/THWN
811011	9 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	92 S.F.	INSTALL GROUND MOUNTED SIGN
822002	540 L.F.	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)
837001	4 EACH	FURNISH AND INSTALL GROUND ROD- 3/4 IN. DIAMETER X 10 FT. LENGTH
860015	6 EACH	INSTALL 12 IN., ONE-WAY, THREE-SECTION (R,Y,G) POLYCARBONATE SIGNAL HEAD-SPAN MOUNT
860041	1 EACH	INSTALL 12 IN., ONE-WAY, THREE-SECTION (R,Y,G) SIGNAL HEAD-PEDESTAL MOUNT
860265	4 EACH	RELOCATE EXISTING SIGNAL HEAD
861104	480 L.F.	FURNISH AND INSTALL ELECTRICAL- CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861107	1440 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO. 14 A.W.G.)
862101	950 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	410 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
868201	1 EACH	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE
869102	210 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE- 3/8 IN. DIAMETER
871117	1 EACH	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET-BASE MOUNT
800000	3 EACH	INSTALL MICROLOOP PROBE SET
800000	1 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH A 56 FT. MAST ARM
* 800000	60 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	230 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	1 EACH	FURNISH AND INSTALL 50 FT. CLASS 2 WOOD POLE
800000	2 EACH	FURNISH AND INSTALL GUY WIRE FOR WOOD POLE

* THE MAST ARM WILL BE INSTALLED FOR THE FINAL PLAN

WIRING DIAGRAM



LEGEND

- A B C } 2-CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.) ALUMINUM SHIELDED
- D E F G } 5-CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
- H J K L } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- M N O } MICRO-LOOP PROBE LEAD-IN
- P } 12 PAIR COMMUNICATION CABLE, JELLY FILLED
- Q R S } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- ✦ - 3/4 " X 10' GROUND ROD
- LW - LOOP WIRE (NO. 14 A.W.G.)
- ML - MICRO-LOOP PROBE
- PS - PROPOSED ELECTRICAL SERVICE

PHASE CHART

	1	2	3	4	5	6	7
	(R)(Y)(G)	(R)(Y)(G)	(R)(Y)(G)	(R)(Y)(G)	(R)(Y)(G)	(R)(Y)(G)	(R)(Y)(G)
PHASE 2 + 6	G	G	G	G	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R
PHASE 4	R	R	R	R	G	G	G
4 CHANGE	R	R	R	R	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R

MAINTENANCE OF TRAFFIC

PHASE 2 & 3

SIGNAL NO.

REVISIONS	APPROVALS	REVISIONS
	CHIEF, SIGNAL DESIGN SECTION	
	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 162 (AVIATION BLVD) AND I-97 RAMP CONNECTION

DATE: 2-8-96	DRAWN BY: S. BLOSS	F.A.P. NO.		PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO.	AA 893-251-572	TS-3584A GI	OF
APPROVED BY:	CHECKED BY: T. HANNAN	COUNTY	ANNE ARUNDEL		

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