L		I R Y G	2 (R) (Y) (G)	3 (R) (Y) (G)	4 (R) (Y) (G)	5 R Y G G	6 (R) (Y) (G)	7 (R) (Y) (G) (G)	8 (R) (Y) (G)	
	PHASE 2+6	G	G	G	G	R	R	R	R	
	2+6 CHANGE	Υ	Υ	Υ	Υ	R	R	R	R	
	PHASE 3	R	R.	R	R	G∕∢G-	G	R	R	
	3 CHANGE	R	R	R	R	Υ	Υ	R	R	
	PHASE 4	R	R	R	R	R	R	G/ ∢ G-	G	
	4 CHANGE	R	R	R	R	R	R	Υ	Υ	
	FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	+

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE TRAFFIC SIGNAL AT JENNIFER ROAD AND US 50 RAMPS E AND F/MEDICAL BOULEVARD IN ANNE ARUNDEL COUNTY. JENNIFER ROAD IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

I. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA (4) FOUR-PHASE SEMI-TRAFFIC-ACTUATED MODE WITH EASTBOUND AND WESTBOUND JENNIFER ROAD APPROACHES OPERATING CONCURRENTLY. THE US 50 RAMP/MEDICAL BOULEVARD APPROACHES OPERATE AS SPLIT PHASES.

CONTROLLER REQUIREMENTS:

A FULLY-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER IN A BASE-MOUNTED SYSTEM READY CABINET WITH FOUR (4) FOUR - CHANNEL LOOP DETECTOR AMPLIFIERS. INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE: UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE 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.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

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

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

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

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

THE POWER COMPANY REPRESENTATIVE IS: BALTIMORE GAS ELECTRIC COMPANY ATTN: MR.BERNIE THUMAN SUPERVISOR INDUSTRIAL/COMMERCIAL SERVICES NEW BUSINESS CONSTRUCTION 7317 PARKWAY DRIVE SOUTH HANOVER, MARYLAND 21076 PHONE: (410) 859-9030

FOURMENT LIST *R*

205 SPI-555 SPI-555 80I 804 805 805 805 805	203030 585446 585448 801004 500000 500000 837001 800000 800000 805160 870127	OUANTITY 2 C.Y. 4 E.A. 1 E.A. 6 C.Y. 210 L.F. 60 L.F. 1 EACH 265 L.F. 40 L.F.	TEST PIT EXCAVATION FURNISH AND INSTALL PERMANENT PREFORMED PAVEMENT MARKING LETTER FURNISH AND INSTALL PERMANENT PREFORMED PAVEMENT MARKING ARROW FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED PERMANMENT PREFORMED PAVEMENT MARKING TAPE (STOP LINE) FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANMENT PREFORMED PAVEMENT MARKING TAPE (STOP LINE) FURNISH AND INSTALL GROWND ROD - 3/4 IN. DIAMETER × 10 FT. LENGTH FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
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805 805 805 805	800000 800000 805160 870127	265 L.F. 40 L.F.	IN. DIAMETER × 10 FT. LENGTH FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805 805 805	800000 805160 870127	40 L.F.	RIGID PVC CONDUIT - TRENCHED FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805 805	805160 870127		FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805	870127	30 L.F.	
			FURNISH AND INSTALL I IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
806	921717	135 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 SLOTTED IN ROADWAY
	831010	I EACH	FURNISH AND INSTALL 250 WATT H.P.S. LAMP AND LUMINAIRE
807	807205	I EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
810	861116	106 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR TYPE T/C (NO. 12 AWG)
810	802501	40 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
810	861104	5000 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED
810	861107	120 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
810	861108	840 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
810	862101	1.400 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO.14 AWG)
811	811001	5 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813	801605	52 S.F.	INSTALL OVERHEAD SIGN
814	800000	2 EACH	RELOCATE SIGNAL HEAD - SPAN MOUNT
816	800000	4 EACH	FURNISH AND INSTALL FOUR CHANNEL LOOP DETECTOR AMPLIFIERS (DELAY OUTPUT)
815	862102	475 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
816	800000	I EACH	FURNISH AND INSTALL EIGHT PHASE, FULLY-ACTUATED TRAFFIC SIGNAL CONTROLLER IN A NEMA SIZE "6" BASE MOUNTED SYSTEM READY CABINET
818	866104	I EACH	FURNISH AND INSTALL 20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
818	800000	LEACH	FURNISH AND INSTALL 14"x32" 2 PLY STEEL STRAIN POLE
	800000	L.S.	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
· ····································	873001	L.S.	REMOVE EXISTING SIGNAL EQUIPMENT TO BE SALVAGED
	800000	L.S.	DELIVERY OF SALVAGED MATERIALS
819	869101	180 L.F.	FURNISH AND INSTALL 1/4' SPAN WIRE
819	869102	315 L.F.	FURNISH AND INSTALL % SPAN WIRE
	800000	3 EA.	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FT. LEAD-II
814	806102	3 EACH	FURNISH AND INSTALL 12 IN., I-WAY, 3-SECTION (R.Y.G.) SIGNAL HEAD SPAN MOUNT
814	806107	I EACH	FURNISH AND INSTALL 12 IN., I-WAY.

INSTALL SHEET ALUMINUM SIGNS - 2 EACH R3-5L SIGN (30"x36") "LANE USE CONTROL - LEFT TURN ONLY" SPAN WIRE MOUNT

FURNISH AND INSTALL EIGHT PHASE, FULLY-ACTUATED TRAFFIC SIGNAL CONTROLLER IN A NEMA SIZE "6" BASE

- I EACH R3-5R SIGN (30"x36") "LANE USE CONTROL - RIGHT TURN ONLY" SPAN WIRE MOUNT
- I EACH R3-6 SIGN (30"x36") "LANE USE CONTROL - THRU LEFT" SPAN WIRE MOUNT

MOUNTED SYSTEM READY CABINET

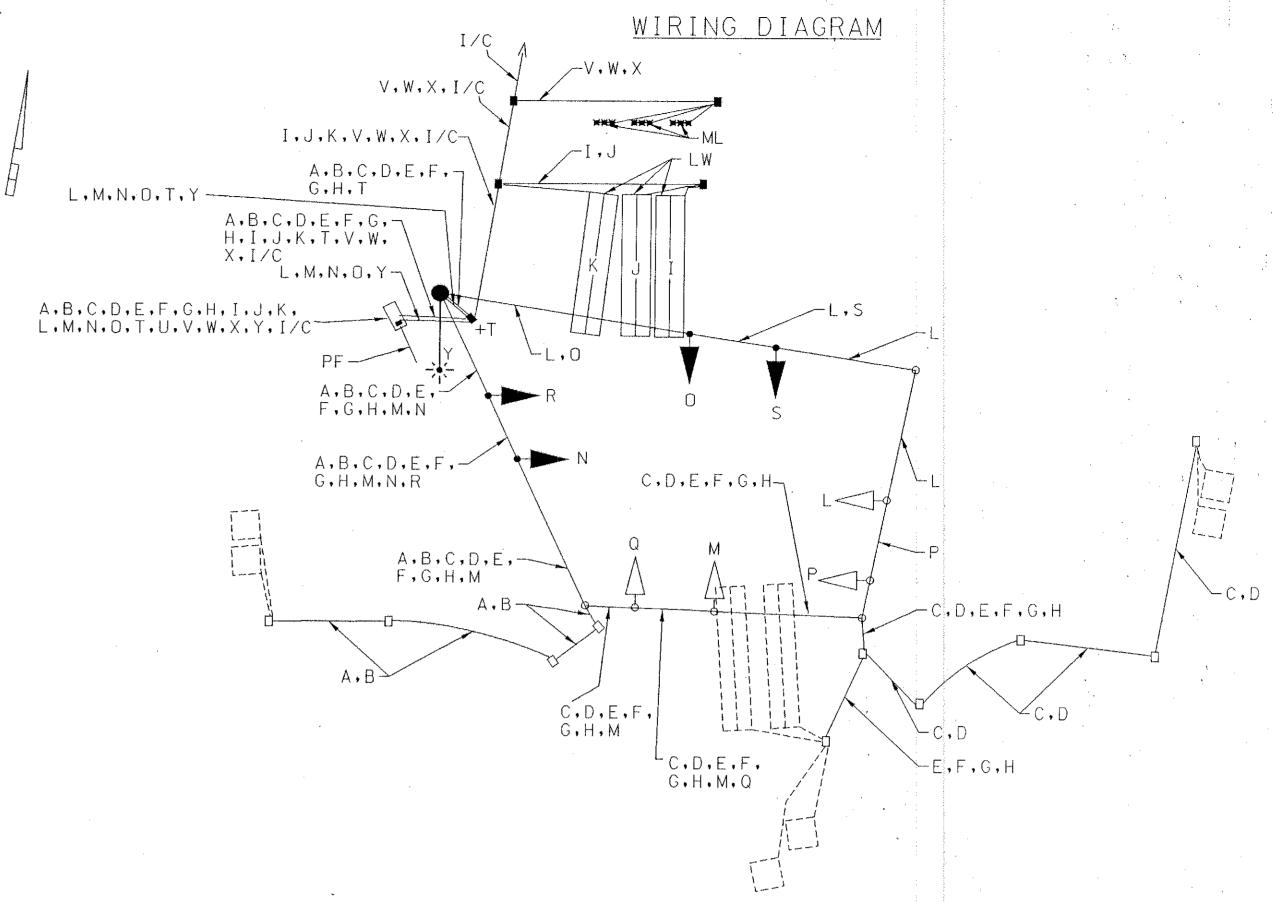
800000

800000

I EACH

52 S.F.

- 2 EACH D3-I SIGN (VARIABLEXI6*) (ADVANCE STREET NAME PANEL) DUAL FACED - SPAN WIRE MOUNT



WIRING KEY

A,B,C,D,E, \ 2-CONDUCTOR ELECTRICAL CABLE F,G,H,I,J,K) (ALUMINUM SHIELDED)

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

7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

3-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

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

ML - MICRO LOOP PROBE SET WITH 500 LEAD-IN LW - LOOP WIRE (NO. 14 A.W.G.)

I/C - 12 PAIR JELLY FILLED COMMUNICATION CABLE

MICRO LOOP LEAD-IN

PF - POWER FEED (NO. 4 A.W.G.)

 $+ - \frac{1}{2}$ IN. \times 10 FT. GROUND ROD

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

> INTERCONNECT CABLE WILL BE INSTALLED AFTER THE SIGNAL TO THE NORTH IS INSTALLED BY THE SIGNAL CONTRACTOR.

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY

DESCRIPTION

1 EACH

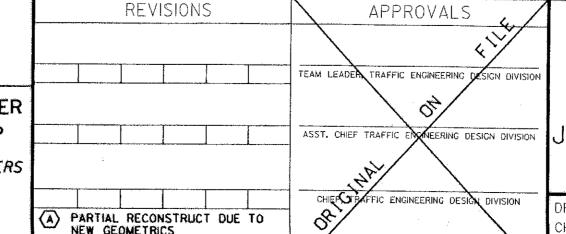
TRAFFIC SIGNAL STRAIN POLE.

1 EACH

TRAFFIC SIGNAL CONTROLER AND CABINET.

NOTES: I. THE CONTRACTOR SHALL NOTIFY THE SHA AT 410-787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

> 2. ALL EQUIPMENT TO BE REMOVED AND NOT LISTED ABOVE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



DIRECTOR, TRAFFIC & SAFETY

4/27/2000

A.A. CO. PROJECT NO. 361000



DATE:

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety

SHEET NO.

2 OF 2

TRAFFIC ENGINEERING DESIGN DIVISION

JENNIFER ROAD @ US 50 RAMP/MEDICAL PARKWAY SIGNAL PLAN

DRAWN BY: CH GE 5/00 F.A.P. NO. 2403A CHECKED BY: SMH S.H.A. NO: BW294M83 NOT TO SCALE COUNTY: ANNE ARUNDEL T.I.M.S. NO. 4/27/2000 LOG MILE: 02CJEN00.56 D795

RUMMEL, KLEPPER & KAHL, LLP CONSULTING ENGINEERS

BALTIMORE, MARYLAND 21217 TEL: (410) 728-2900 FAX: (410) 383-3270

81 MOSHER STREET