

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the installation of a new traffic control signal at the intersection of MD 228 (Berry Road) and Relocated Middletown Road/Ironwood Drive in Charles County, Maryland. MD 228 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection is to operate in NEMA five (5) phase, full-traffic-actuated mode. There will be an exclusive dual left turn phase for the westbound movement of MD 228. The MD 228 through movements will operate concurrently. The Relocated Middletown Road/Ironwood Drive movements will operate in a side street split mode.

The existing controller from the MD 228 and Middletown Road/Briarwood Drive intersection shall be relocated to the new eight phase base mounted cabinet with four 4-channel rack mounted time delay output loop detector amplifiers.

EQUIPMENT LIST

Equipment to be furnished and installed by the Contractor. All equipment in this list shall have catalog cuts submitted to MD-SHA for approval prior to installation.

Quantity	Units	MD-SHA Specification Section	Description	Quantity	Units	MD-SHA Specification Section	Description
2	EA	818	27 ft. steel twin mast arm pole with a 50 ft. and a 70 ft. mast arms [Note: four 2 in. x 90 in. anchor bolts].	Lump Sum	LS	108	Mobilization for Traffic Signal Construction.
1	EA	816	Standard S.H.A. traffic signal base mounted cabinet, with four 4-channel rack mounted loop detector amplifiers [Note: Cabinet shall be supplied by Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].	3	CY	205	Test pit excavation.
				13	EA	811	Handhole.
6	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.	1250	LF	815	Sawcut for signal loop detector.
				3700	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
2	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.	1400	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
				430	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
2	EA	814	12 in., one-way, four section (R,Y,G,G) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.	530	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
				850	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
5	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.	25	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
1	EA	813	30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.	25	LF	810	3-wire (No. 8 A.W.G.) electrical cable.
1	EA	813	30 in. x 36 in. R 3-5(I) sign with mast arm mounting hardware.	325	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
1	EA	813	30 in. x 30 in. R 3-2 sign with mast arm mounting hardware.	75	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
1	EA	813	32 in. x Var. D-3(2) sign with mast arm mounting hardware.	815	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
1	EA	813	16 in. x Var. D-3(2) sign with mast arm mounting hardware.	70	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
2	EA	813	24 in. x 96 in. M95-1/D-3(2) (DF) sign with mast arm mounting hardware.	30	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
7	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.	65	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
6	EA	---	Micro-loop probe (set of 3) with 500 ft. lead-in cable.	275	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
2	EA	---	Micro-loop probe (set of 3) with 750 ft. lead-in cable.	30	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
1	EA	806	10 ft. luminaire arm.	10.55	CY	801	Concrete foundation for traffic signal equipment.
1	EA	806	20 ft. luminaire arm.	4	EA	804	Ground rod - 3/4 in. diameter x 10 ft. length.
2	EA	806	250 W H.P.S. lamp and luminaire.	1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a MD-SHA type B-13 underground electrical service.
				180	LF	556	24 in. wide HAPPTPM - white for stop line.
				287	LF	812	4 in. x 6 in. wood sign support
				1	EA	---	Out, clean, cap, and galvanize mast arm.
				1	EA	---	As-built for S.H.A. [on CADD].

CONTACT LIST

The contact persons for District #5 are as follows:

Mr. Paul Armstrong
District Engineer
410-841-5450

Mr. Lawrence Elliott
Assistant District Engineer - Traffic
410-841-5450

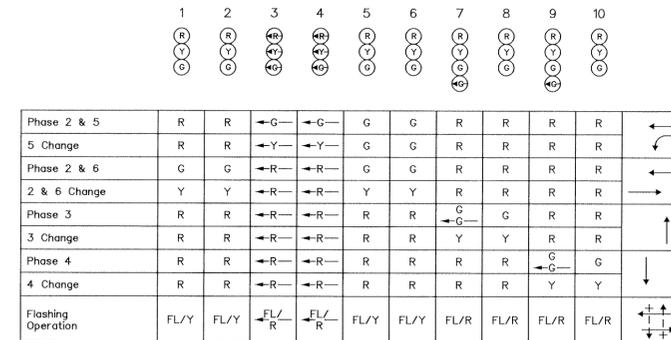
Mr. John Mays
Assistant District Engineer - Utility
410-841-5450

Mr. Charles George
Assistant District Engineer - Maintenance
410-841-5450

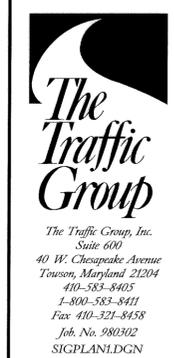
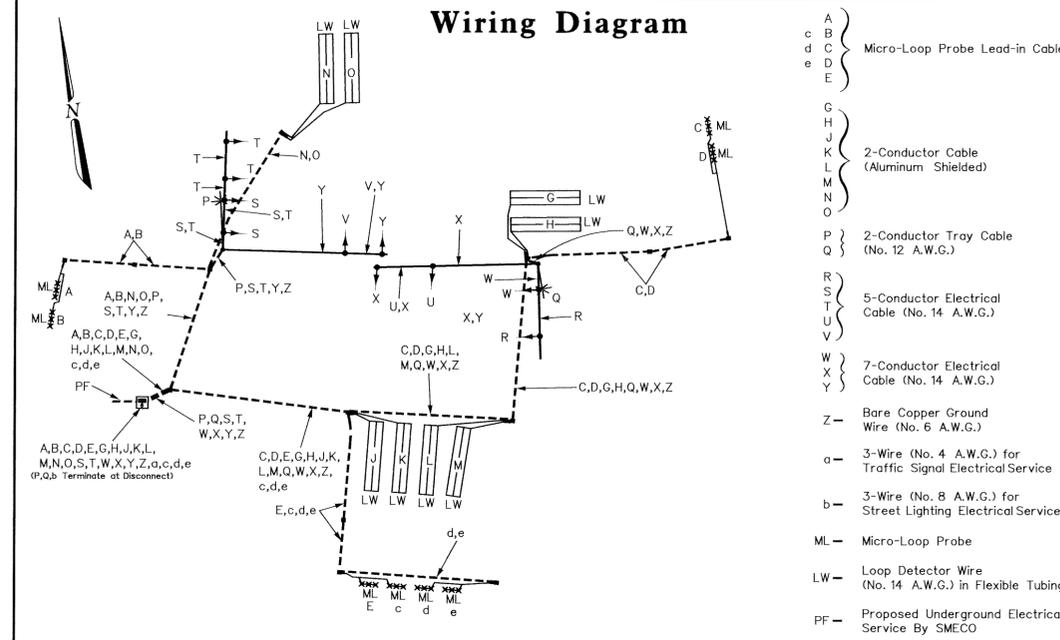
Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Southern Maryland Cooperative, Inc. (SMECO)
Mr. William Lawman
P.O. Box 248
White Plains, Maryland 20695
301-934-2201

Phase Chart



Wiring Diagram



APPROVALS		MDOT - STATE HIGHWAY ADMINISTRATION <i>Office of Traffic & Safety</i> TRAFFIC ENGINEERING DESIGN DIVISION (General Information) MD 228 at Rel. Middletown Rd./Ironwood Dr.			
ASST. TRAFFIC ENGINEERING DESIGN DIVISION				DATE: June 16, 1998	LOG MILE # 08228007.57
ASST. DISTRICT ENGINEER - TRAFFIC				DRAWN BY: F. Hoeckel	F.A.P. NO. N/A
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION				CHK. BY: [Signature]	S.H.A. NO. 3786-GI
DIRECTOR, OFFICE OF TRAFFIC & SAFETY		SCALE: N/A	COUNTY: CHARLES		
			PLAN SHEET NO.: 3786-GI		
			SHEET NO.: 2 of 5		