PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the installation of a new traffic control signal at the intersection of MD 85 and Westview Entertainment Complex /MD-SHA Entrances in Frederick County, Maryland. MD 85 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA six (6) phase, full-traffic-actuated mode. There will be an exclusive/permissive left turn phase for both the north and southbound movements of MD 85. The MD 85 through movements will operate concurrently. The Westview Entertainment Complex & MD-SHA Entrances will operate in a side street split phase mode.

This signal will be interconnected to the existing traffic signal at the MD 85 and Crestwood Blvd./ Shockley Drive intersection.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, and 4 four-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
2	EA	818	27 ft. steel mast arm pole with a 70 ft. mast arm.
2	EA	818	27 ft. steel mast arm pole with a 60 ft. mast arm.
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, and four (4) four-channel loop detector amplifiers [Note: Controller and cabinet shall be purchased from Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
4	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, four section (R,Y,G,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	8 in./12 in., one-way, four section (8 in. R,Y,G /12 in. GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in./8 in., one-way, five section (12 in. YA, GA/ 8 in R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	813	36 in. x 42 in. R 10-12 sign with mast arm mounting hardware.
1	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.
1	EA	813	30 in. x 36 in. R 3-6(L) sign with mast arm mounting hardware.
2	EA	813	30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.
2	EA	813	36 in. x 78 in. D-3(1)/ M95-1 sign with mast arm mounting hardware.
2	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.
3	EA	---	Micro-loop probe (set of 3) with 500 ft. lead-in cable.
4	EA	---	Micro-loop probe (set of 3) with 750 ft. lead-in cable.
2	EA	806	15 ft. luminaire arm.
2	EA	806	250 W H.P.S. lamp and luminarie.

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

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
5	CY	205	Test pit excavation.
14	EA	811	Handhole.
1035	LF	815	Sawcut for signal loop detector.
3250	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
1200	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
450	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
120	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
2500	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
1200	LF	810	12-pair [jelly filled] voice grade telemetry cable (No. 19 A.W.G.).
5	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
525	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
120	LF	805	1 in. liquid tight flexible non-metalic conduit for loop detector sleeve.
90	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
740	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
50	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
200	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
300	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
19.85	CY	801	Concrete foundation for traffic signal equipment.
5	EA	804	Ground rod - 5/8 in. diameter x 10 ft. length.
1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type B-13 underground electrical service.
2	EA	---	Cut, clean, galvanized, and cap mast arm pole.
345	LF	556	12 in. wide HAPPTPM - white for crosswalk.
200	LF	556	24 in. wide HAPPTPM - white for stop line.
82	LF	812	4 in. x 6 in. wood sign support.
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

C. Existing equipment to be removed by the Contractor shall become the property of the Contractor.

CONTACT LIST

The contact persons for District #7 are as follows:

Mr. Robert Fisher
District Engineer
301-624-8101

Mr. John Concannon
Assistant District Engineer - Traffic
301-624-8140

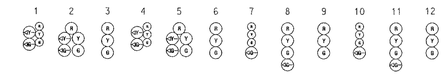
Mr. Jim Buckalew
Assistant District Engineer - Utility
301-624-8115

Mr. Dave Coyne
Assistant District Engineer - Maintenance
301-624-8105

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

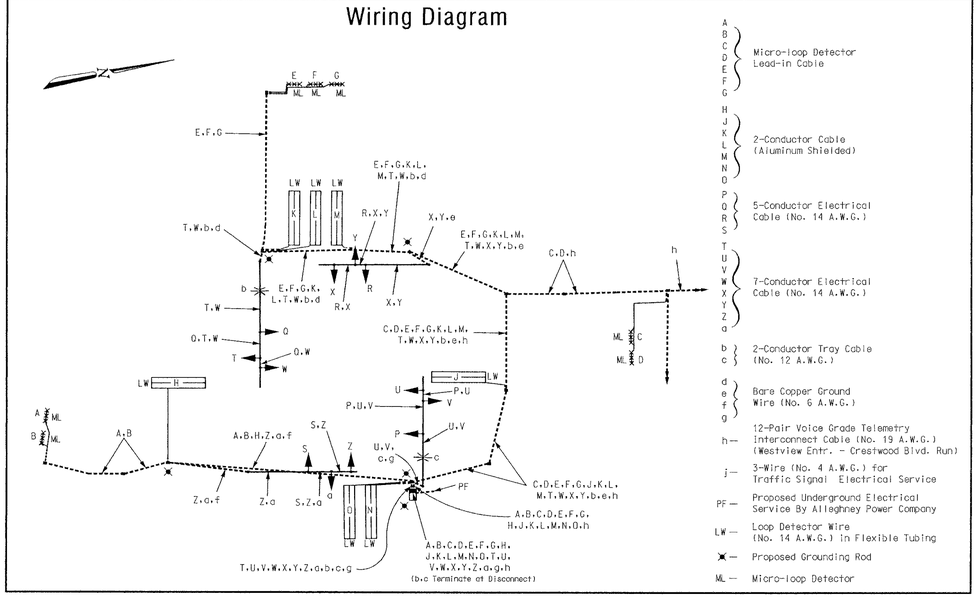
The Power Company Representative is:
Alegheny Power Company
421 E. Patrick Street
Frederick, Maryland 21701
1-800-255-3443

Phase Chart



Phase 1 & 5	R G	R G	R	R G	R G	R	R	R	R	R	R	R	
1 & 5 Change to Phase 1 & 6 or 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 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	
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	R	R	R	R	R	R	G G	G G	G	R	R	R	
3 Change	R	R	R	R	R	R	Y	Y	Y	R	R	R	
Phase 4	R	R	R	R	R	R	R	R	R	G G	G G	G	
4 Change	R	R	R	R	R	R	R	R	R	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	

Wiring Diagram



The Traffic Group
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410-931-6600
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APPROVALS

TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION

ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
MD 85 at MD-SHA Entr./Westview Complex Entr.

DRAWN BY:	J Dirndorfer	F.A.P. NO.	N/A	TS NO. 4120	SHEET NO.
CHECKED BY:		S.H.A. NO.	BW996M82		
SCALE:	N/A	COUNTY:	Frederick	T.I.M.S. NO. E570	2 OF 7
DATE:	June 27, 2001	LOG MILE:	10008508.58		

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