PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of MD 214 and Pike Ridge Road in Anne Arundel County, Maryland. MD 214 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA 6 four (4) phase, full-traffic-actuated mode. There will be an exclusive/permissive left turn phase for the eastbound movement of MD 214. The MD 214 through movements will operate concurrently. The Pike Ridge Road movements will operate alone.

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

III. SPECIAL NOTE:

The Contractor shall notify Mr. Robert Snyder of SHA at 410-787-7635 to arrange for the phone drop installation. The Contractor is to provide Mr. Snyder with the nearest street number, zip code, and telephone number.

EQUIPMENT LIST

A. S.H.A. furnished equipment material.

None.

B. Equipment to be furnished 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
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
1	EA	818	27 ft. steel mast arm pole with a 70 ft. mast arm.
1	EA	818	15 ft. steel pedestal pole with break away transformer base.
1	EA	816	Standard S.H.A. NEMA 6, traffic signal controller, base mounted cabinet, one (1) four-channel loop detector amplifier, and video detection equipment. (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).
1	EA	814	8 in./12 in., one-way, five section, L.E.D. (8 in. R,Y,G/ 12 in. YA,GA) adjustable black faced traffic signal head with post top mounting hardware and tunnel visors.
5	EA	814	12 in., one-way, three section, L.E.D (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, five section, L.E.D (R,Y,YA,G,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	---	Video Detection Equipment (to include detector cables). (2 - 200 LF)
1	EA	813	16 in. x Var. D-3(1) dual-faced sign with mast arm mounting hardware.
1	EA	813	42 in. x 30 in. W 9-2(4)R sign with mast arm mounting hardware.
2	EA	813	48 in. x 48 in. W 3-3 "NEW", 72 in. x 12 in. D-3(2) sign for ground mounting.
2	EA	---	Micro-loop probe (set of 3) with 500 ft. lead-in cable.
2	EA	---	Micro-loop probe (set of 3) with 750 ft. lead-in cable.
1	EA	806	15 ft. luminaire arm.
1	EA	806	250 W H.P.S. lamp and luminarie.
3	CY	205	Test pit excavation.
12	EA	811	Handhole.
215	LF	815	Sawcut for signal loop detector.
90	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
575	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
145	LF	810	Bare copper stranded ground wire (No. 6 A.W.G.).
15	LF	804	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
15	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
560	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
65	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
110	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
195	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
7.5	CY	801	Concrete foundation for traffic signal equipment.
4	EA	804	Ground rod -3/4in. diameter x 10 ft. length.
1	EA.	807	Electrical utility service equipment (120/240 V, signal phase, three wire system) for an underground electrical power service as per MD-SHA Typical No. 807.05-01. (200 amp. electrical pedestal).
60	LF	549	24 in. wide HAPPTPM - white for stop line.
64	LF	812	4 in. x 6 in. wood sign support.
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

CONTACT LIST

The contact persons for District #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
410-841-1019

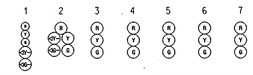
Mr. John Mays
Assistant District Engineer - Utility
410-841-1031

Mr. Chuck E. George
Assistant District Engineer - Maintenance
410-841-1013

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

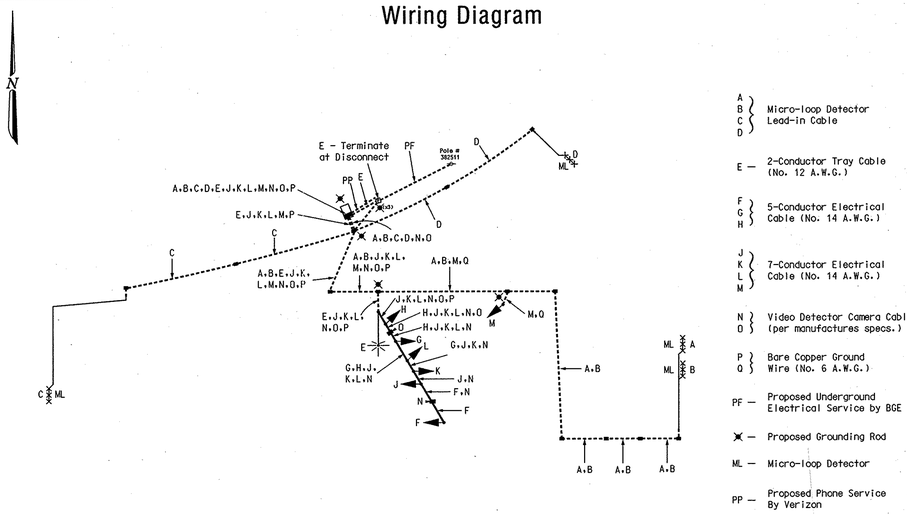
The Power Company Representative is:
Baltimore Gas and Electric Company
Mr. Doug Shenten
7317 Parkway Drive South
Hanover, Maryland 21076
410-859-9448
WMS #1359455

Phase Chart



Phase 1 & 6	G G	G G	G	R	R	R	R	
1 Change	G Y	G Y	G	R	R	R	R	
Phase 2 & 6	G	G	G	G	G	R	R	
2 & 6 Change	Y	Y	Y	Y	Y	R	R	
Phase 4	R	R	R	R	R	G	G	
4 Change	R	R	R	R	R	Y	Y	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	

Wiring Diagram



The Traffic Group
The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
MD 214 at Pike Ridge Road

DRAWN BY:	F. Brownley	F.A.P. NO.	N/A	TS NO. 4413-GI	SHEET NO.
CHECKED BY:		S.H.A. NO.	BW996M82		
SCALE:	N/A	COUNTY:	Anne Arundel	T.I.M.S. NO. G993	2 OF 2
DATE:	October 27, 2005	LOG MILE:	02021405.64		

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