

PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of the existing traffic control signal at the intersection of MD 166 (Rolling Rd.) and MD 372 (Wilkins Ave.) & the Entrance to St. John's Assisted Living Facility in Baltimore County, Maryland. MD 166 is considered to run in a north/south direction. This reconstruction is due to the addition of the Entrance to St. John's Assisted Living Facility to the intersection as the fourth leg to the existing "T" intersection.

II. INTERSECTION OPERATION

The intersection is to be modified to operate in a NEMA six (6) phase, full-traffic-actuated mode. There will be exclusive/permissive left turn phases for the both the north and southbound movements of MD 166. The MD 166 through movements will operate concurrently. The MD 372 & the Entrance to St. John's Assisted Living Facility movements will operate as a side street split operation.

The existing traffic signal controller, 4-channel loop detector equipment, and fiber optic interconnect equipment are to be utilized and relocated to the new base mounted cabinet. One additional 4-channel amplifier will be installed.

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
1	EA	818	27 ft. steel twin mast arm pole with two 50 ft. mast arms [Note: four 1-3/4 in. x 90 in. anchor bolts].
1	EA	818	27 ft. steel twin mast arm pole with a 50 ft. and a 60 ft. mast arms [Note: four 2 in. x 90 in. anchor bolts].
1	EA	816	Standard S.H.A. traffic signal base mounted cabinet. Existing controller, 4-channel loop detectors, & fiber-optic interconnect equipment are to be utilized [Note: Cabinet shall be supplied by Econofite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
1	EA	816	4-channel loop detector amplifier.
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	12 in./8in., 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.
1	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.
2	EA	813	16 in. x Var. D-3(2) (Dual Faced) sign with mast arm mounting hardware.
1	EA	813	30 in. x 51 in. shield assembly sign with pole mounting hardware.
1	EA	813	48 in. x 75 in. shield assembly sign with pole mounting hardware.
2	EA	806	15 ft. luminaire arm.
2	EA	806	250 W HPS lamp and luminaire.

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.
3	CY	205	Test pit excavation.
8	EA	811	Handhole.
660	LF	815	Sawcut for signal loop detector.
2300	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
1800	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
350	LF	810	2-conductor electrical tray cable (No. 14 A.W.G.).
120	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
1400	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
25	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
250	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
25	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
160	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trench.
375	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trench.
90	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
30	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trench.
90	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
8.55	CY	801	Concrete foundation for traffic signal equipment.
4	EA	804	Ground rod - 3/4 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-5 underground electrical service.
1	EA	---	Micro-loop probe (set of 3) with 500 ft. lead-in cable.
3	EA	---	Loop detector splice.
2	EA	---	Cul, clean, cap, and galvanize mast arm.
4	EA	811	Replace/raise handhole frame & cover and installed to current MD-SHA standards.
110	LF	556	24 in. wide HAPPTM - white for stop line.
Lump Sum	LS	---	Relocate existing fiber-optic interconnect cable.
Lump Sum	LS	---	Removal of existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

CONTACT LIST

The contact persons for District #4 are as follows:

Mr. Dave Malkowski
District Engineer
410-321-2810

Mr. Randall Scott
Assistant District Engineer - Traffic
410-321-2781

Mr. Joseph McManon
Assistant District Engineer - Utility
410-321-2841

Mr. Dave Ramsey
Assistant District Engineer - Maintenance
410-321-2761

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

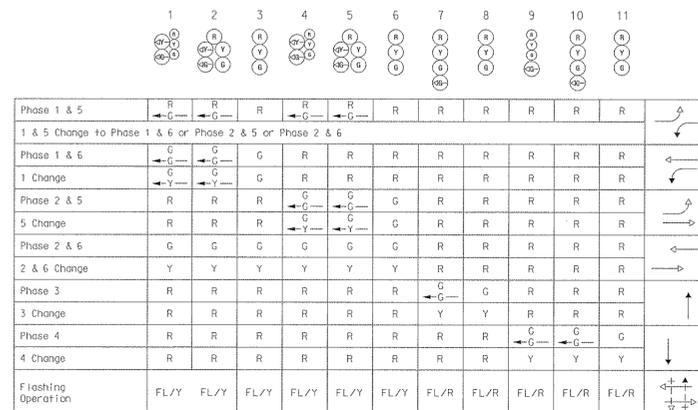
The Power Company Representative is:
Baltimore Gas and Electric Company
7317 Parkway Drive South
Hanover, Maryland 21076
410-859-9070

C. Existing equipment to be removed by the Contractor and delivered to the MSHA Office of Traffic and Safety, Traffic Operations Division, Traffic Signal Shop, 7491 Connelley Drive, Hanover MD, 21076. A twenty-four (24) hour notice is required prior to delivery. Please contact Mr. Ed Rodenhizer at (410) 787-7650.

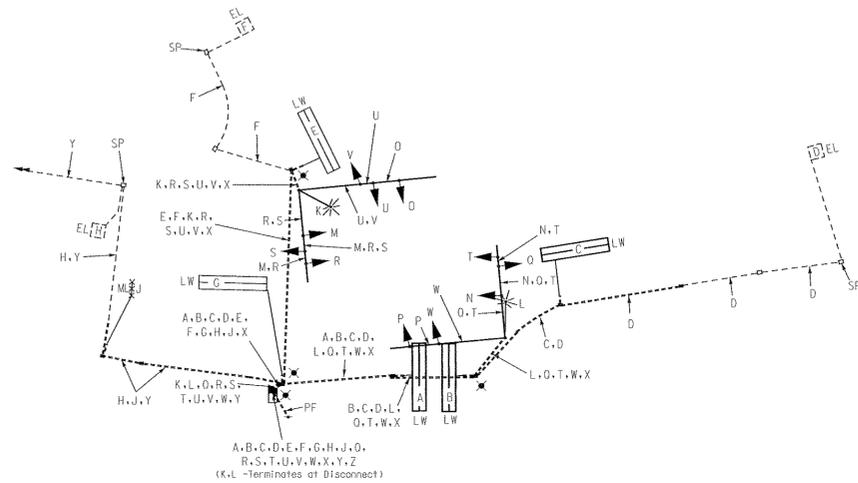
Quantity	Units	Description
1	EA	Base mounted cabinet.

Note: All equipment and/or material not listed above shall become the property of the Contractor.

Phase Chart



Wiring Diagram



- A } 2-Conductor Cable
- B } (Aluminum Shielded)
- C } Lead-in Cable
- D } Micro-loop Detector
- E } Lead-in Cable
- F } 2-Conductor Tray Cable
- G } (No. 12 A.W.G.)
- H } 5-Conductor Electrical
- I } Cable (No. 14 A.W.G.)
- J } 7-Conductor Electrical
- K } Cable (No. 14 A.W.G.)
- L } Bare Copper Ground
- M } Wire (No. 6 A.W.G.)
- N } Existing Fiber-Optic
- O } Interconnect Cable
- P } 3-Wire (No. 4 A.W.G.) for
- Q } Traffic Signal Electrical Service
- R } Existing Loop Detector Wire
- S } Loop Detector Wire
- T } (No. 14 A.W.G.) in Flexible Tubing
- U } Splice New Aluminum Shielded
- V } Cable To Existing Loop Wire
- W } Micro-loop Detector
- X } Proposed Underground Electrical
- Y } Service By BGE
- Z } Proposed Grounding Rod



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 166 (Rolling Rd.) at MD 372 (Wilkins Ave)/
Entr. to St. Johns Assisted Living

DRAWN BY: Frank Hoeckel	F.A.P. NO. N/A	TS NO. 2258D-GI	SHEET NO.
CHECKED BY: N/A	S.H.A. NO. BW996M82	T.I.M.S. NO. D-600	2 OF 2
SCALE: N/A	COUNTY: Baltimore	LOG MILE: 0.3016600.66	
DATE: March 13, 2001			

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