

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the installation of a new traffic control signal at the intersection of MD 30 and Eagle Ridge Court/Relocated Brodbeck Road in Carroll County, Maryland. MD 30 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 30. The MD 30 through movements will operate concurrently. The Eagle Ridge Court/Relocated Brodbeck Road will operate concurrently.

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

A phone drop shall be provided to the controller for this intersection.

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 mast arm pole with 38 ft. mast arm (Note: four 1-1/2 in. x 60 in. anchor bolts).   |
| 3        | EA    | 818                   | 27 ft. steel mast arm pole with 50 ft. mast arm (Note: four 1-3/4 in. x 90 in. anchor bolts).   |
| 1        | EA    | 816                   | Standard S.H.A. traffic signal controller, base mounted cabinet, and two 4-channel loop detector amplifiers (Note: Controller and 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). |
| 4        | EA    | 814                   | 12 in., one-way, three section (R,Y,G) adjustable traffic black faced signalhead with mast arm mounting hardware and tunnel visors.   |
| 2        | EA    | 814                   | 12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic black faced signalhead 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 signalhead 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.   |
| 3        | EA    | 813                   | 30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.  |
| 2        | EA    | 813                   | 16 in. x Var. D3-1 (Dual Faced) sign with mast arm mounting hardware.   |
| 2        | EA    | 813                   | 24 in. x 72 in. M95-1 sign with mast arm mounting hardware.   |
| 2        | EA    | 813                   | 36 in. x 36 in. W 3-3 "NEW" sign for ground mounting.   |
| 2        | EA    | 813                   | 48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.   |
| 1        | EA    | ---                   | 20 ft. luminaire arm.   |
| 1        | EA    | ---                   | 250 W HPS luminaire.  |
| 2        | EA    | ---                   | Micro-loop ( set of 3) with 500 ft. lead-in cable.  |

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.   |
| 9        | EA    | 811                   | Handhole.  |
| 315      | LF    | 815                   | Sawcut for signal loop detector.   |
| 1700     | LF    | 810                   | Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.   |
| 950      | LF    | 810                   | 2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).  |
| 190      | LF    | 810                   | 2-conductor electrical tray cable (No. 12 A.W.G.).   |
| 120      | LF    | 810                   | 5-conductor electrical cable (No. 14 A.W.G.).  |
| 1040     | LF    | 810                   | 7-conductor electrical cable (No. 14 A.W.G.).  |
| 35       | LF    | 810                   | 3-wire (No. 4 A.W.G.) electrical cable.  |
| 315      | LF    | 804                   | Bare copper stranded ground wire (No. 6 A.W.G.).   |
| 30       | LF    | 805                   | 1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.   |
| 585      | LF    | 805                   | 2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.  |
| 45       | LF    | 805                   | 2 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.   |
| 55       | LF    | 805                   | 3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.  |
| 175      | LF    | 805                   | 3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.  |
| 25       | LF    | 805                   | 4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.  |
| 85       | LF    | 805                   | 4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.  |
| 11.85    | CY    | 801                   | Concrete foundation for traffic signal equipment.  |
| 5        | 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-4 overhead electrical service. |
| 120      | LF    | 556                   | 24 in. wide HAPPTPM - white for stop line.   |
| 120      | LF    | 812                   | 4 in. x 6 in. wood sign supports.  |
| Lump Sum | LS    | ---                   | Removal of existing sign.  |
| Lump Sum | LS    | ---                   | As-built for S.H.A. (on CADD).   |

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  
301-623-810-1

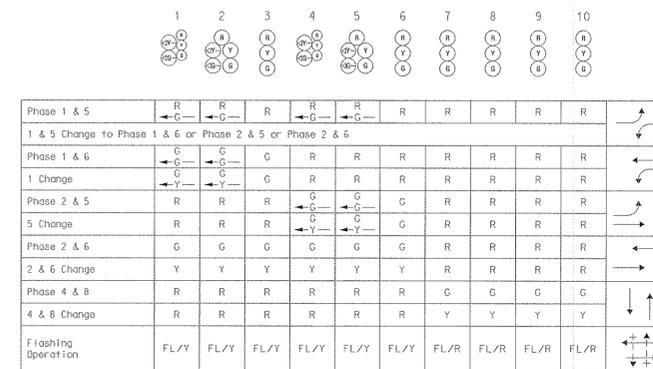
Mr. John Wright  
Assistant District Engineer - Utility  
410-321-3460

Mr. Leon Kerns  
Assistant District Engineer - Maintenance  
301-624-8101

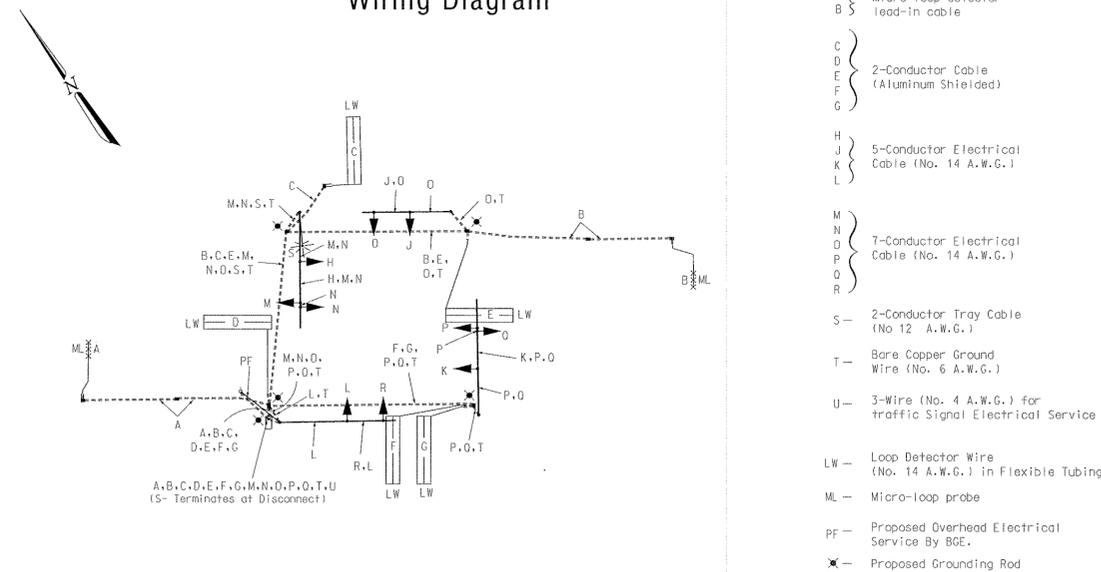
Mr. Richard L. Daff  
Chief, Traffic Operations Division  
410-787-7630

The Power Company Representative is:  
Baltimore Gas and Electric Company  
Mr. Bernie Thuman  
7317 Parkway Drive South  
Hanover, Maryland 21076  
410-859-9030

Phase Chart



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 30 at Eagle Ridge Ct./Relocated Brodbeck Road**

APPROVALS  
TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION  
ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION  
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION  
DIRECTOR, TRAFFIC & SAFETY

DRAWN BY: Frank Hoeckel  
CHECKED BY:  
SCALE: N/A  
DATE: March 28, 2000

F.A.P. NO. N/A  
S.H.A. NO. 3989GI  
COUNTY: Carroll  
LOG MILE: 0603004.53

TS NO. 3989GI  
T.I.M.S. NO. D720  
SHEET NO. 2 OF 4

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