PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of MD 162 (Aviation Blvd.) and Hollins Ferry Road in Anne Arundel County, Maryland. MD 162 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA two (2) phase, full-traffic-actuated mode. There will be an exclusive left turn phase for the southbound movement of MD 162. The northbound MD 162 through movements will operate alone. The southbound MD 162 through movements will operate at all times The Hollins Ferry Road movement will operate as a right out.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, and (1) four-channel rack mounted time delay output loop detector amplifier housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

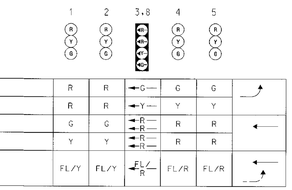
A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
1	EA	818	27 ft. steel twin mast arm pole with two 50 ft. mast arms.
1	EA	818	14 ft. steel pedestal pole with break away transformer base.
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, and one (1) four-channel loop detector amplifier [Note: Controller and cabinet shall be purshed from by Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
1	EA	814	12 in., one-way, four section (,RA,YA,GA) adjustable black faced 3M optically programmable traffic signal head with post top mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, four section (RA,RA,YA,GA) adjustable black faced 3M optically programmable traffic signal head with mast arm mounting hardware and tunnel visors.
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.
1	EA	813	16 in. x Var. D-3(1) sign with mast arm mounting hardware.
1	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.
3	EA	---	Micro-loop probe (set of 3) with 750 ft. lead-in cable.

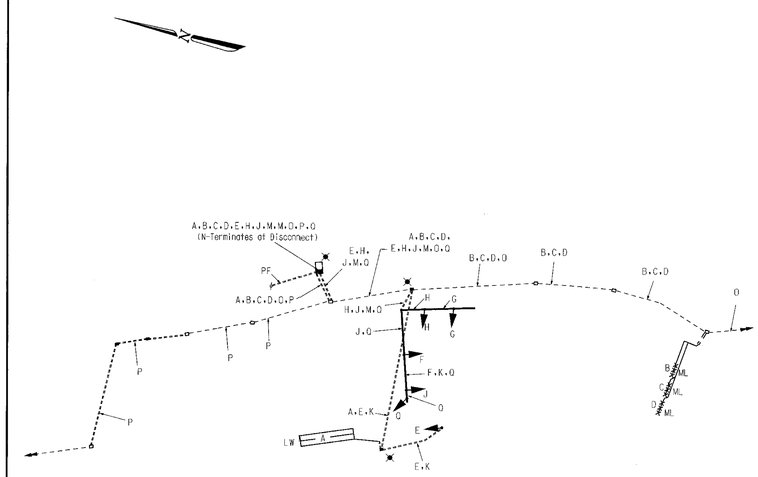
B. Equipment to be furnished and/or installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
3	CY	205	Test pit excavation.
4	EA	811	Handhole.
205	LF	815	Sawcut for signal loop detector.
410	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
160	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
180	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
1125	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
5	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
175	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
20	LF	805	1 in. liquid tight flexible non-metalic conduit for loop detector sleeve.
10	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
400	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
175	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
20	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
8.0	CY	801	Concrete foundation for traffic signal equipment.
3	EA	804	Ground rod - ¾in. diameter x 10 ft. length.
1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type B-2 underground electrical service.
110	LF	549	24 in. wide HAPPTPM - white for stop line.
41	LF	812	4 in. x 6 in. wood sign support.
1	EA	---	Cut, clean, cap, and galvanize mast arm.
Lump Sum	LS	---	Pull back and rerun existing interconnect cable. (Aprox. 750 Ft.)
Lump Sum	LS	---	Removal of existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A. (on CADD).

Phase Chart



Wiring Diagram



A — 2-Conductor Cable (Aluminum Shielded)

B, C, D — Micro-loop Detector Lead-in Cable

F, G — 5-Conductor Electrical Cable (No. 14 A.W.G.)

E, H, J, Q — 7-Conductor Electrical Cable (No. 14 A.W.G.)

K, M — Bare Copper Ground Wire (No. 6 A.W.G.)

N — 3-Wire (No. 4 A.W.G.) for Traffic Signal Electrical Service

O — Existing Interconnect Cable (Cromwell Park Drive - Hollins Ferry Road Run)

P — Existing Interconnect Cable (Allwood Road - Hollins Ferry Road Run)

LW — Loop Detector Wire (No. 14 A.W.G.) in Flexible Tubing

PF — Proposed Underground Electrical Service By BGE

Proposed Grounding Rod

ML — Micro-loop Detector

CONTACT LIST

The contact persons for District #5 are as follows:

Mr. Lawrence Elliot
Assistant District Engineer - Traffic
410-841-1003

Mr. Ernest Hodshon
Assistant District Engineer - Utility
410-841-5462

Mr. Chuck George
Assistant District Engineer - Maintenance
410-841-5461

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

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 162 (Aviation Blvd) at Hollins Ferry Road

DRAWN BY:	Frank Hoeckel	F.A.P. NO.	N/A	TS NO. 4206	SHEET NO.
CHECKED BY:		S.H.A. NO.	BW996M82		
SCALE:	N/A	COUNTY:	Anne Arundel	T.I.M.S. NO. F-428	2 OF 2
DATE:	October 4, 2002	LOG MILE:	02000200.25		

F:\1999\99121\0.\ea\gdlnv.dgn 10/11/2002