

F H W A REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD		2	2

**PROJECT DESCRIPTION**

- I. GENERAL**  
This project involves the installation of a new Traffic Control Signal with street lighting at the intersection of US 301 and Heathermore Boulevard in Prince George's County. US 301 is assumed to run in a north-south direction.
- II. INTERSECTION OPERATION**
- The intersection is to operate in a NEMA four-phase, fully-actuated mode, with the US 301 approaches running concurrently. An Exclusive dual left turn phase shall be provided for the southbound approach of US 301. The Heathermore Boulevard approach shall run alone.
  - A full-traffic-actuated, eight-phase controller with four (4) two-channel, time delay output loop detector amplifiers, Telemetry Module and Intersection Monitor with battery back-up for phone drop and associated harnesses housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.
- III. SPECIAL NOTE**
- Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

**CONSTRUCTION DETAILS**

- Install 27' steel pole with a 60' mast arm, traffic signal heads, signs and 15' lighting arm with a 250W-HPS luminaire as shown. (Note: 1-2", 90 degree polyvinyl chloride (Schedule 40) bend.)
- Install 27' steel pole with a 40' twin mast arms, traffic signal heads, signs and 10' lighting arm with 250W-HPS luminaire as shown. (Note: 1-2", 90 degree polyvinyl chloride (Schedule 80) bend.)
- Install NEMA size "6" base-mounted cabinet and controller with all necessary equipment as shown. (Note: 1-2", 90 degree polyvinyl chloride (Schedule 80) bend and 2-4", 90 degree polyvinyl chloride (Schedule 40) bends.)
- Install 6' x 30' loop detector encased in 1/4" flexible tubing quadrapole type (2-4-2).
- Install 6' x 6' loop detector encased in 1/4" flexible tubing (3-turns).
- Install handhole.
- Install 1" liquid tight flexible non-metallic electrical conduit (detector wire sleeve).
- Install 1" galvanized steel electrical conduit (detector wire sleeve).
- Install 3" polyvinyl chloride electrical conduit (Schedule 80) (bored).
- Install 3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
- Install 2" polyvinyl chloride electrical conduit (Schedule 40) (trenched).
- Install 3" polyvinyl chloride electrical conduit (Schedule 40) (trenched).
- Install 4" polyvinyl chloride electrical conduit (Schedule 40) (trenched).
- Install 2" galvanized steel electrical conduit (Schedule 40) (trenched for service).
- Install 2" galvanized bend at pole base and 2" galvanized steel riser to a height of 10' above grade. (Note: Coil 25' of 3-wire electrical cable at top of riser for Pepco's use.)
- Use existing 3" polyvinyl chloride electrical conduit (Schedule 80).
- Install pavement markings as shown.
- Install ground mounted W3-3 sign as shown.
- Install ground mounted D3-2 (MOD) sign as shown.
- Install ground mounted signs as shown.

**EQUIPMENT LISTS**

**A. EQUIPMENT TO BE SUPPLIED BY S.H.A.**

QUANTITY	SPEC. SECTION	DESCRIPTION
6 EA	814	12", one-way, three-section (R,Y,G) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.
2 EA	814	12", one-way, three-section (RA,YA,GA,) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.
1 EA	816	Eight-phase, full-traffic-actuated, solid state digital controller with four (4) 2-channel, time delay output loop detector amplifiers, Telemetry Module and Intersection Monitor with battery back-up for phone drop and associated harnesses housed in a NEMA size "6" base-mounted cabinet.
127.5 SF	813	Sheet aluminum signs to consist of: 1 EA W3-3 NEW "SIGNAL AHEAD" sign, (36" x 36") ground mounted with hardware. 4 EA W3-3 NEW "SIGNAL AHEAD" sign, (48" x 48") ground mounted with hardware. 2 EA D3-2 (MOD) "Heathermore Blvd, NEXT SIGNAL" sign, (variable x 32") ground mounted with hardware. 1 EA M3-3 "SOUTH" sign, (24" x 12") ground mounted with hardware. 1 EA M1-4 "US 301" sign, (30" x 24") ground mounted with hardware.
72 SF	813	Sheet aluminum signs to consist of: 1 EA D3-2 "Blue Star Memorial Hwy" sign, (variable x 16") mast arm mounted. 2 EAD3-2 "Heathermore Blvd" sign, (variable x 16") mast arm mounted. 2 EA R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted. 1 EA Associated shield assembly, "M3-1 "NORTH" (30" x 15"), M1-4 "US 301" (45" x 36"), M6-1 "LEFT ARROW" (24" x 30") sign, (48" x 75") with hardware to be fabricated on a single panel for steel pole mounting.
10 CY	801	Furnish and install concrete foundation
3 EA	804	Furnish and install ground rod, 3/4" diameter x 10' length.
1 EA	818	Furnish and install 27' steel pole with twin 40' mast arms. (Note: 4 anchor bolts will be 1 3/4" x 90".)
1 EA	818	Furnish and install 27' steel pole with 60' mast arm. (Note: 4 anchor bolts will be 2" x 90".)
8 EA	814	Install 12", one-way, three-section traffic signal head, mast arm mount.
1 EA	816	Install base-mounted cabinet and controller.

**EQUIPMENT LISTS (CONT.)**

**B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR (CONT.)**

QUANTITY	SPEC. SECTION	DESCRIPTION
127.5 SF	813	Install ground mounted signs.
72 SF	813	Install overhead mounted signs.
650 LF	815	Furnish and install sawcut.
88 LF	805	Furnish and install 1" galvanized steel electrical conduit (detector wire sleeve).
12 LF	805	Furnish and install 1" liquid tight flexible non-metallic electrical conduit (detector wire sleeve).
20 LF	805	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
150 LF	805	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 80) (bored).
30 LF	805	Furnish and install 2" polyvinyl chloride electrical conduit (Schedule 40) (trenched).
850 LF	805	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 40) (trenched).
30 LF	805	Furnish and install 4" polyvinyl chloride electrical conduit (Schedule 40) (trenched).
1 EA	807	Furnish and install control and distribution equipment.
11 EA	811	Furnish and install handhole (frame and cover)
425 LF	810	Furnish and install stranded bare copper ground wire (No. 6 A.W.G.).
1490 LF	810	Furnish and install loop wire (No. 14 A.W.G.) encased in 1/4" flexible tubing.
2530 LF	810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.) (aluminum shielded).
150 LF	810	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).
750 LF	810	Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).
510 LF	810	Furnish and install 2-conductor electrical cable (No. 12 A.W.G.) type THHN tray cable.
100 LF	810	Furnish and install 3-wire electrical cable (No. 4 A.W.G.).
144 LF	812	Furnish and install wood sign supports (4" x 4").
90 LF	812	Furnish and install wood sign supports (4" x 6").
2 EA	806	Furnish and install 250W-HPS luminaire.
1 EA	808	Furnish and install 10' lighting arm.
1 EA	808	Furnish and install 15' lighting arm.
1 EA		Use existing plan on disk and as-built traffic control device.

**MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS**

The following Traffic Control Standard Numbers shall be referenced for the project.

Standard 105.00	Standard 105.01
Standard 105.02	Standard 105.03
Standard 105.301	Standard 105.302
Standard 105.303	Standard 105.304
Standard 105.305	Standard 105.306
Standard 105.307	Standard 105.308
Standard 105.309	Standard 105.310
Standard 105.311	Standard 105.312

**CATEGORY 800 UTILITIES**

**SECTION 875-UTILITIES**

The following contact persons for District #3 are as follows:

Mr. Cres Mills  
District Engineer  
Phone: (301) 513-7311

Mr. Majid Shakib  
Assistant District Engineer - Traffic  
Phone: (301) 513-7359

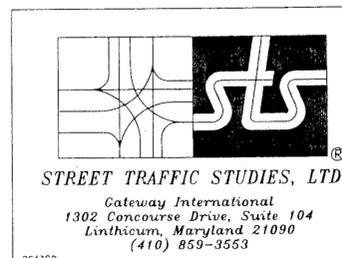
Mr. Carter Wilson  
Assistant District Engineer - Maintenance  
Phone: (410) 513-7304

Mr. Sonny Lauer  
Assistant District Engineer - Utility  
Phone: (410) 513-7350

Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations Division  
Phone: (410) 787-7630

The power company representative is:

Mr. Raymond Durant  
PEPCO  
Customer Engineering  
Prince George's County Region  
8300 Old Marlboro Pike  
Upper Marlboro, MD 20772  
Phone: (301) 967-5323



REVISIONS	APPROVALS
	CHIEF, SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, OFFICE OF TRAFFIC AND SAFETY

MDOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic and Safety  
TRAFFIC ENGINEERING DESIGN DIVISION

DRAWN BY: W J NIES (FOR STS)	US 301 (BLUE STAR MEMORIAL HWY) AND HEATHERMORE BLVD
DES. BY: R R ZACHERL (FOR STS)	GENERAL INFORMATION COUNTY PRINCE GEORGE'S
CHK. BY:	
DATE: 10-6-95	F.A.P. NO.
SCALE: 1" = 20'	S.H.A. NO. BW 841-802-312
	TS/STD. NO. 3565-G1
	SHEET NO. 2 OF 2