

**PROJECT DESCRIPTION**

**I. GENERAL**

This project involves the installation of a new traffic control signal at the intersection of US 301 (Berry Road) and Chadds Ford Drive in Prince George's County, Maryland. US 301/MD 5 (Robert S. Crain Hwy.) is considered to run in a north/south direction.

**II. INTERSECTION OPERATION**

The intersection is to operate in a NEMA four (4) phase, full-traffic-actuated mode. There will be an exclusive left turn phase for the northbound movement of US 301. The US 301 through movements will operate concurrently. The Chadds Ford Drive movements will operate alone.

An eight phase, full-traffic-actuated, solid state digital controller with Telemetry System, battery back-up, Video camera detection, and (2) four-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

**EQUIPMENT LIST**

A. Material to be furnished by S.H.A.  
None.

B2. 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.

B1. 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	Quantity	Units	Specification Section	Description
				Lump Sum	LS	108	Mobilization.
				Lump Sum	LS	104	Maintenance of traffic (to include temporary police control).
1	EA	818	27 ft. steel mast arm pole with a 70 ft. mast arm.	4	CY	205	Test pit excavation.
1	EA	818	27 ft. steel twin mast arm pole with 50 ft. and 70 ft. mast arms.	14	EA	811	Handhole.
2	EA	---	Video camera detection with cables (per manufacture specification). (1 - 350 ft., 1 - 275 ft.) [1 - pole mount, 1 - mast arm mount]	425	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, video detection equipment, telemetry equipment and two (2) four-channel loop detector amplifiers [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].	1225	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
8	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.	310	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
2	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.	1440	LF	810	12-pair telemetry interconnect cable (No. 19 AWG) - jelly filled
1	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with pole mounting hardware and tunnel visors.	75	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
1	EA	813	16 in. x Var. D-3(1) sign with mast arm mounting hardware.	325	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
2	EA	813	16 in. x Var. D-3(1) (Dual Faced) sign with mast arm mounting hardware.	1125	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
1	EA	813	30 in. x 51 in. M 95-2 sign with pole mounting hardware.	150	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
1	EA	813	48 in. x 72 in. M 95-2 sign with pole mounting hardware.	10	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
3	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.	310	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
1	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.	11.5	CY	801	Concrete foundation for traffic signal equipment.
4	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.	4	EA	804	Ground rod - 3/4 in. diameter x 10 ft. length.
6	EA	---	Non-invasive probe (set of 3) with 750 ft. lead-in cable.	1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type B-13 underground electrical service.
2	EA	806	20 ft. luminaire arm.	140	LF	556	24 in. wide HAPPTM - white for stop line.
2	EA	806	250 W H.P.S. lamp and luminaire.	130	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 #3 are as follows:

Mr. Majb Shakh  
Assistant District Engineer - Traffic  
301-513-7358

Mr. Augie Rebish  
Assistant District Engineer - Utility  
301-513-7350

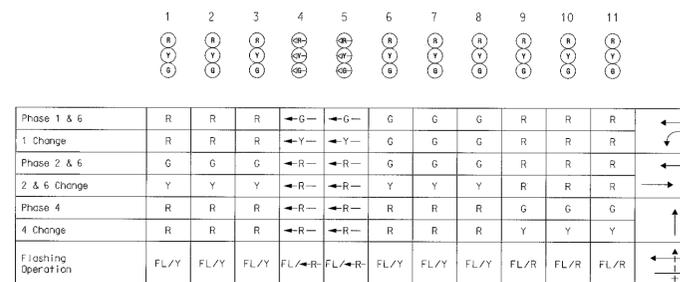
Mr. Randy Brown  
Assistant District Engineer - Maintenance  
301-513-7304

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

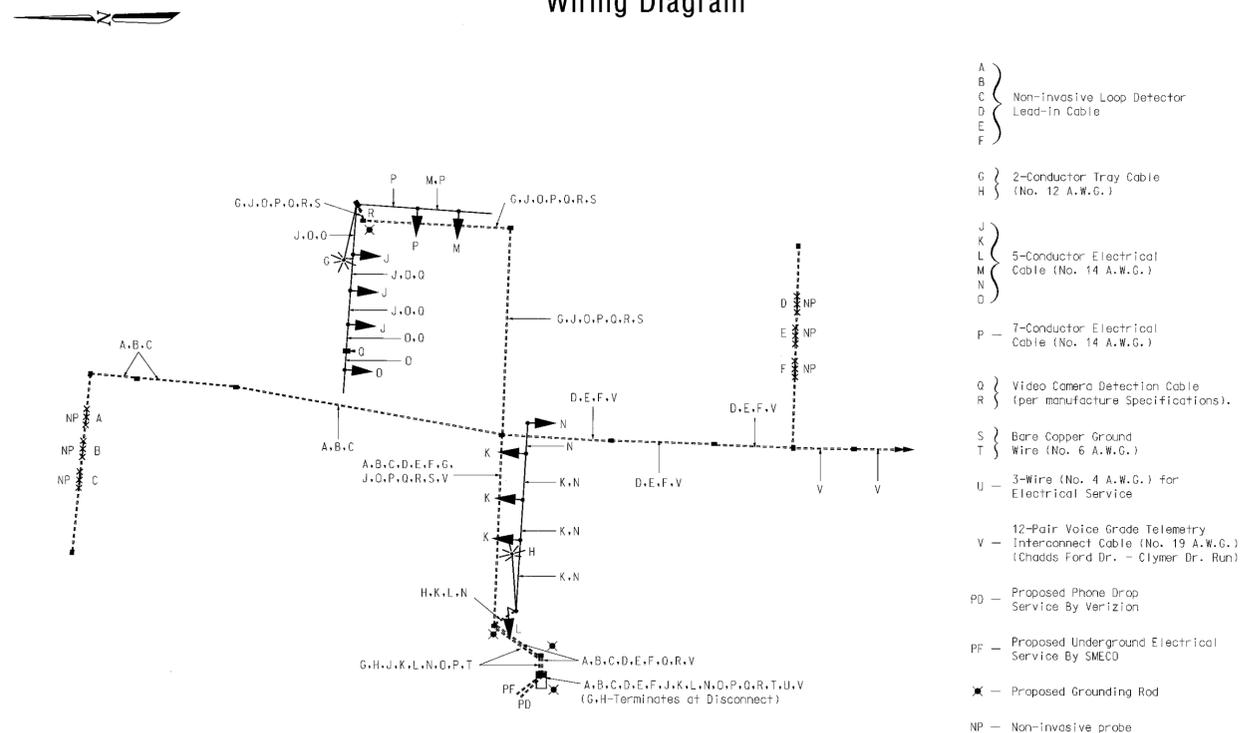
The Power Company Representative is:  
SMECO  
Mr. Chuck Stone  
4415 Crain Highway  
White Plains, Maryland 20695  
1-301-705-8686

Verizon Representative is:  
Bart Herman  
3901 calverton Road 3rd Fl.  
beltville MD 20702  
301-595-6134

**Phase Chart**



**Wiring Diagram**



**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**  
Office of Traffic & Safety  
**TRAFFIC ENGINEERING DESIGN DIVISION**  
(General Information Plan)  
**US 301/MD 5 (Robert S. Crain Hwy.) at Chadds Ford Drive**

DRAWN BY: Frank Hoeckel	F.A.P. NO. N/A	TS NO. 4238-G1	SHEET NO. 2 OF 3
CHECKED BY: <i>gan</i>	S.H.A. NO. BW996M82	T.I.M.S. NO. F-616	
SCALE: N/A	COUNTY: Prince George's	LOG MILE: 16030101.25	
DATE: May 13, 2003			

15971997-013A/DSS/GH/ML/DP 5/14/2003