

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new Traffic Control Signal with interconnect at the intersection of US 13 and Connelly Mill Rd. in Wicomico County. The interconnect cable shall be installed southbound from US 13 at Connelly Mill Rd. to US 13 at Dagsboro Road. A Hazard Identification Beacon shall be provided for the southbound the approach. US 13 is assumed to run in a north-south direction.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA 6-phase, fully-actuated mode. The southbound approach shall be dark except during main line red, then it will operate as red strobes. An Exclusive left turn phase shall be provided for both the northbound and southbound approaches of US 13. The northbound left turn phase shall operate in a lead fashion while the southbound left turn shall operate in a lag fashion. The eastbound and westbound approaches shall operate as a split phase.
- A full-traffic-actuated, eight-phase controller with four-channel, rack mount loop detector amplifiers, ~~Panel and Intersection~~ Telemetry Module, Telemetry Isolation Board, Quick Connect Terminal Block and associated harnesses housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- All controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Dave Swartz at (410) 787-7650 seventy-two hours in advance of intended work.
- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.

EQUIPMENT LISTS

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

ITEM NO.	DESCRIPTION	QUANTITY
9012	12" one-way, one-section (R-STROBE) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.	2 EA
9078	NEMA size "6" cabinet.	1 EA
9086	Eight-phase, full-traffic actuated, solid state digital controller with 4-channel, rack mount loop detector amplifiers, Panel and Intersection Telemetry Module, Telemetry Isolation Board, Quick Connect Terminal Block and associated harnesses housed in a NEMA size "6" base-mounted cabinet.	1 EA
9089	Sheet aluminum ground mounted signs to consist of: W3-3 NEW "SIGNAL AHEAD" sign, (48" x 48") ground mounted. Guide shield assembly consisting of: M3-2 "NORTH" (24"x12"), M1-4 "US 13" (30"x24"), and M6-1 "arrow" (21"x15") signs. Guide shield assembly consisting of: M3-2 "SOUTH" (24"x12"), M1-4 "US 13" (30"x24"), and M6-1 "arrow" (21"x15") signs.	83 SF 4 EA 1 EA
9090	Sheet aluminum over head mounted signs to consist of: (blue/green) D3-2 "(arrow) Connelly Mill Rd / Winner Blvd (arrow)" sign, (variablex32") mast arm mounted. D3-2 "(arrow) Winner Blvd / Connelly Mill Rd (arrow)" sign, (variablex32") mast arm mounted. D3-2 "OCEAN Hwy" (variablex16") mast arm mounted.	59.5 SF 2 EA 2 EA 2 EA
9089	Sheet aluminum over head mounted signs to consist of: (white/silver) R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted. R3-6 "LEFT TURN AND THRU" sign, (30" x 36") mast arm mounted. W3-3 "SIGNAL AHEAD" sign, (48" x 48") mast arm mounted with hardware.	53.5 S.F. 4 EA 1 EA 1 EA

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

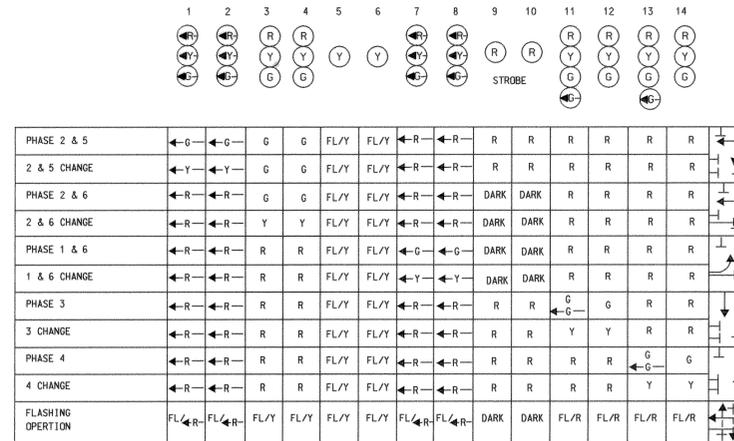
ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	3 EA
2001	Test pit excavation.	3 C.Y.
5004	24" white applied permanent performed thermoplastic pavement marking.	160 L.F.
5008	Remove existing pavement marking letter or arrow.	2 EA

EQUIPMENT LISTS (Cont.)

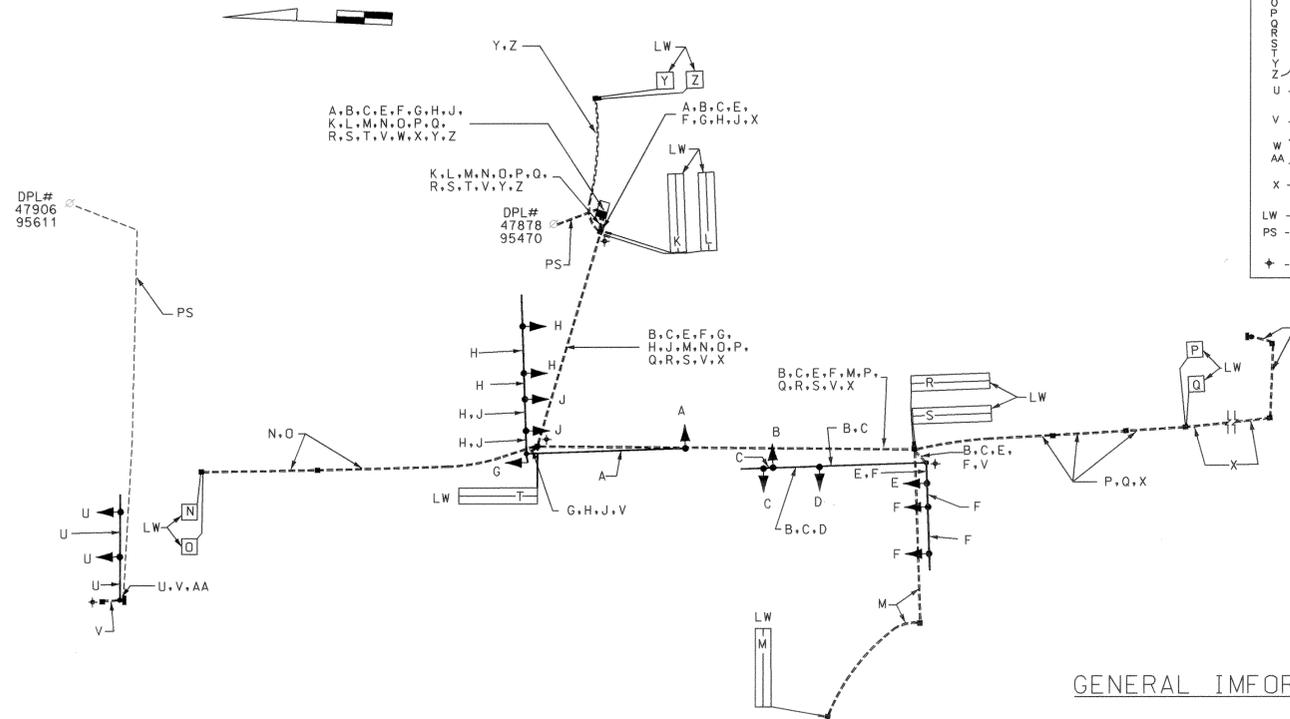
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
8001	Furnish and install concrete for signal foundation.	14 C.Y.
8006	Furnish and install 12" x 30" strain pole.	2 EA
8006	Cut, clean galvanize and cap traffic signal structure.	1 EA
8008	Furnish and install 3" weatherhead.	2 EA
8009	Furnish and install steel span struts, 2" diameter.	270 L.F.
8011	Install 12" vehicular traffic signal head.	2 EA
8019	Install controller and cabinet pole mount.	1 EA
8020	Install controller and cabinet base mount.	1 EA
8021	Furnish and install saw cut for signal (loop detector).	775 L.F.
8023	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeves.	72 L.F.
8027	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trenched.	1500 L.F.
8029	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - bored.	50 L.F.
8030	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trenched.	30 L.F.
8032	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	320 L.F.
8033	Furnish and install electrical handhole.	13 EA
8034	Furnish and install ground rod 3/4" x 10'.	5 EA
8039	Furnish and install 12-pair communication cable, fully shielded, underground.	3500 L.F.
8040	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	3655 L.F.
8041	Furnish and install electrical cable - 2 conductor (aluminum shielded).	3770 L.F.
8043	Furnish and install electrical cable - 3 conductor (No. 14 AWG).	90 L.F.
8044	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	1340 L.F.
8045	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	900 L.F.
8048	Furnish and install No. 6 AWG stranded bare copper ground wire.	350 L.F.
8049	Furnish and install electrical cable 1-conductor No. 4 AWG THHN/THWN.	200 L.F.
8051	Furnish and install wood sign supports 4" x 4".	170 L.F.
8052	Install ground mounted sign.	83 S.F.
8053	Install overhead sign.	113 S.F.
8064	Install breakaway base support system for signal structure.	2 EA
8066	Furnish and install control and distribution equipment (120/240 V, 1 phase 3 wire system).	2 EA
8077	Furnish and install mast arm pole and 50' mast arm.	1 EA
8081	Furnish and install mast arm pole and twin (50'/60') mast arms.	1 EA
8082	Furnish and install mast arm pole and twin (50' / 70') mast arms (50' arm cut to 40').	1 EA
8084	Furnish and install 12" vehicular traffic signal head section.	38 EA

PHASING CHART



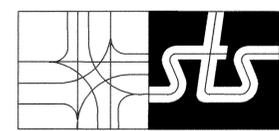
WIRING DIAGRAM



WIRING KEY

- A, B, C, D, E, F, G, H, J, K, L, M, N, O, P, Q, R, S, T, V, W, X, Y, Z - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D, E, F, G, H, J, K, L, M, N, O, P, Q, R, S, T, V, W, X, Y, Z - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K, L, M, N, O, P, Q, R, S, T, V, W, X, Y, Z - 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- U - 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- V - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- W - (3) 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- X - 12-PAIR VOICE GRADE INTERCONNECT CABLE (JELLY FILLED)
- LW - LOOP WIRE (NO. 14 A.W.G.)
- PS - PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY PEPCO
- +

GENERAL INFORMATION



STREET TRAFFIC STUDIES, LTD.
Gateway International
1302 Concourse Drive, Suite 104
Linthicum, Maryland 21090
Ph (410) 859-3553
Fax (410) 859-3579

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
US 13 (OCEAN HWY) AND CONNELLY MILL RD.

TS NO.
3930 GI

SHEET NO.
2 OF 2

DRAWN BY: R. CICCHINI	COUNTY: WICOMICO	LOG MILE: N/A	DATE: 7-22-99	F.A.P. NO: AC-STPG-000S(683)	S.H.A. NO: W170TA52/B52
CHECK BY: R.R.ZACHERL					
SCALE: N/A					