

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing strain pole Traffic Control Signal with interconnect at the intersection of MD 355 (Frederick Rd) and MD 118 (Germantown Rd) in Montgomery County. MD 355 (Frederick Rd) is assumed to run on a north-south direction.

II. INTERSECTION OPERATION

- The intersection shall continue to operate in a NEMA eight-phase, semi-actuated mode, with the MD 355 (Frederick Rd) approaches running concurrently. Exclusive left turn phases shall continue to be provided for both approaches of MD 355 (Frederick Rd). The pedestrian phases with pushbutton actuation shall remain in operation across both legs of MD 355 (Frederick Rd). The pedestrian phases across MD 118 (Germantown Rd) shall remain on recall. Far-side sampling stations shall remain in operation on the south, north and west legs of this intersection. Exclusive left turn phases shall now be provided for both approaches of MD 118 (Germantown Rd). The MD 118 (Germantown Rd) approaches shall continue to run concurrently.
- A full-traffic-actuated, eight-phase controller with five (5) four channel, rack mount loop detector amplifiers, L.A.U. and L.A.U. Panel housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.
- Disconnecting and splicing of interconnect cable shall be performed by Montgomery County Forces. The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable. Contact Mr. Bob Gonzales at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- The re-wiring of the existing Montgomery County Surveillance camera is to be completed by Montgomery County forces. Contact Mr Bruce Mangum at (240) 777-8778 seventy-two hours in advance of intended work.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY THE SHA

THERE IS NO EQUIPMENT TO BE FURNISHED BY THE SHA

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

SPEC. NUMBER	DESCRIPTION	QUANTITY
814	12", one-way, three-section (R,Y,G) traffic signal head having proper span wire hangers, balance adjusters and tunnel visors. (Black Faced)	8 EA
814	12", one-way, three-section (R,Y,G) traffic signal head having proper span wire hangers, balance adjusters and tunnel visors. (Black Faced)	10 EA
814	12", one-way, two-section (D,W,W) symbolic pedestrian signal head with adjustable bracket for pole mounting and cutaway visors.	2 EA
	Eight-phase, full-traffic actuated, solid state digital controller with five 4-channel, rack mount loop detector amplifiers, two detector rack power supplies housed in a NEMA size "6" - base mounted cabinet.	1 EA

EQUIPMENT LIST (LIST)

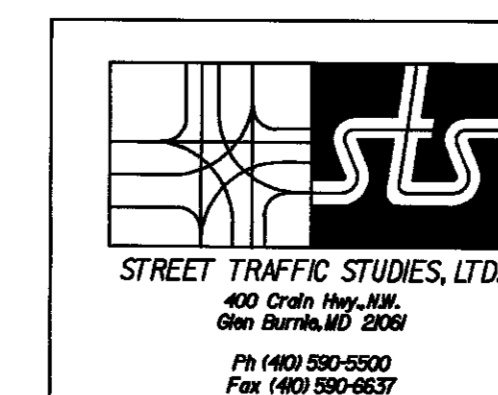
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. NUMBER	DESCRIPTION	QUANTITY
205	Test pit excavation.	2 C.Y.
206	Remove concrete sidewalk median section.	30 S.F.
610	4" concrete sidewalk median section.	30 S.F.
801	Furnish and install concrete for signal foundation.	5 C.Y.
813	Overhead span wire mounted sheet aluminum sign consisting of: R3-5L "LEFT TURN ONLY" sign, (30" x 36")	22.5 S.F. 3 EA
556	12" white heat applied permanent preformed thermoplastic pavement marking	525 L.F.
556	24" white heat applied permanent preformed thermoplastic pavement marking	155 L.F.
	Remove existing pavement markings	950 L.F.
815	Saw cut for signal (loop detector).	310 L.F.
805	1" liquid tight flexible non-metallic conduit for detector sleeve.	30 L.F.
805	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trenched	20 L.F.
805	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trenched	120 L.F.
805	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trenched	25 L.F.
805	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	140 L.F.
806	Furnish and install 250 watt HPS Luminaire with photocell.	1 EA
808	Furnish and install 20' lighting bracket arm for traffic signal structure.	1 EA
811	Furnish and install electrical handhole.	2 EA
810	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	1245 L.F.
810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.).	930 L.F.
810	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).	4050 L.F.

EQUIPMENT LIST (LIST)

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

SPEC. NUMBER	DESCRIPTION	QUANTITY
810	Furnish and install ground rod - 3/4" x 10'.	2 EA
810	Furnish and install No. 6 AWG stranded bare copper ground wire.	30 L.F.
	Canoga 4-conductor electrical cable (No. 14 A.W.G.) (shielded).	4180 L.F.
810	Furnish and install tray cable - 2 conductor (No. 12 AWG)	75 L.F.
	Relocate existing overhead sign	2 EA
	Remove existing handhole	3 EA
818	Furnish and install 32' steel strain pole.	1 EA
	Furnish and install down guy.	2 EA
819	Furnish and install 1/4" tether wire.	375 L.F.
819	Furnish and install steel span wire, 3/8" diameter.	375 L.F.
	Reroute existing interconnect cable.	1305 L.F.
817	Furnish and install pushbutton and pedestrian education sign R10-4(1).	1 EA
	Remove and dispose of existing foundation 12" below grade.	2 EA
807	Furnish and install control and distribution equipment (120/240 V, 1 phase 3 wire system).	1 EA
	Remove and dispose of existing signal equipment.	LUMP SUM
	Relocate pole mounted splice cabinet.	1 EA
	Furnish and install 36" flex post.	82 EA
	Remove guy wire.	2 EA



**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**  
**Office of Traffic & Safety**  
**TRAFFIC ENGINEERING DESIGN DIVISION**  
 MD 118 (GERMANTOWN RD) AND  
 MD 355 (FREDERICK RD)

DRAWN BY: R. C.	F.A.P. NO.	TS NO.
CHECKED BY: R. Z.	S.H.A. NO. BW-427-802-312	2475A
SCALE: NONE	COUNTY: MONTGOMERY	T.I.M.S. NO. G546
DATE: 7-16-04	LOG MILE: 15011807.39	SHEET NO. 3 OF 3