DRILL HOLES

DRILL HOLES

DRILL HOLES

BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with street lighting and interconnect at the intersection of MD 150 (Eastern Blvd) and Orville Rd / Wallace Engine Co. Entrance in Baltimore County. The existing pedestrian signals shall be replaced by Countdown pedestrian signals with audible pushbuttons. MD 150 (Eastern Blvd) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six-phase, fully-actuated mode, with the MD 150 (Eastern Blvd) approaches running concurrently. Exclusive/Permissive left turn phases for both approaches of MD MD 150 (Eastern Blvd) shall remain in operation. The pedestrian phase across the east leg of MD 150 (Eastern Blvd) shall now be a Countdown pedestrian phase with audible pushbutton actuation. The pedestrian phase across Orville Rd on recall shall now be a Countdown pedestrian phase with audible pushbuttons. The Orville Rd / Wallace Engine Co. Driveway shall continue to run concurrently. The pre-emption phase for the westbound phase of MD 150 (Eastern Blvd) shall remain in operation.
2. The existing full traffic-actuated, eight-phase controller with opticom interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.
3. SHA signal shop shall install APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the SHA Signal Shop for testing and programming.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7652 seventy-two hours in advance of intended work.
3. 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.

4. APS will function as follows:

FOR MD 150 (EASTERN BLVD)

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Eastern Boulevard at Orville Road."

b. When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

FOR ORVILLE ROAD

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Orville Road at Eastern Blvd."

b. When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #4 are as follows:

Ms. Erin Kuhn
Assistant District Engineer - Traffic
Phone: (410) 321-2781

Mr. Steve Marciszewski
Assistant District Engineer - Maintenance
Phone: (410) 321-2761

Mr. Mike Pasquaiello
Assistant District Engineer - Utility
Phone: (410) 321-2841

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

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7676

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9570	Sheet aluminum signs to consist of: (ground mount)	4 SF
	Pedestrian pushbutton and R10-4(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS ORVILLE ROAD".)	2 EA
	Pedestrian pushbutton and R10-4(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS EASTERN BLVD".)	2 EA
9571	Sheet aluminum signs to consist of: (pole mount)	2.5 SF
	M5-1 Advance Turn Arrow" sign, (21" x 15")	1 EA

EQUIPMENT LIST (CONT.)

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	1 EA
2002	Test Pit Excavation	2 C.Y.
5003	12" white lead free reflective thermoplastic pavement marking.	240 L.F.
5005	Removal of existing permanent pavement line markings	240 L.F.
6001	Depress curb & gutter.	35 L.F.
6002	Standard type A combination curb and gutter 12" gutter pan 8" depth.	130 L.F.
6003	4" concrete sidewalk.	630 S.F.
8002	12" red or green LED signal head section.	20 EA
8003	12" yellow LED signal head section.	12 EA
8006	2 wire Central Control unit	1 EA
8014	Audible/tactile pedestrian pushbutton station & signs.	4 EA
8011	8" LED (R,Y,G) signal head section.	6 EA
8015	Breakaway pedestal pole (10').	1 EA
8015	Breakaway pedestal pole (5').	1 EA
8024	LED 16" countdown pedestrian signal head.	4 EA
8028	Remove and dispose of existing equipment per assignment.	1 EA
8037	Detectable warning surfaces (Brick Pattern)	50 S.F.
8040	Concrete for signal foundation.	1.4 C.Y.
8043	No. 6 AWG stranded bare copper ground wire.	40 L.F.
8047	3" schedule 80 rigid polyvinyl chloride conduit - bored.	25 L.F.
8049	3" schedule 80 rigid polyvinyl chloride conduit - trenched.	10 L.F.
8063	Install ground mounted sign.	4 SF
8064	Install overhead mounted sign.	2.5 SF
8076	Electrical cable - 2 conductor (No. 14 AWG).	305 L.F.
8078	Electrical cable - 5 conductor (No. 14 AWG).	900 L.F.

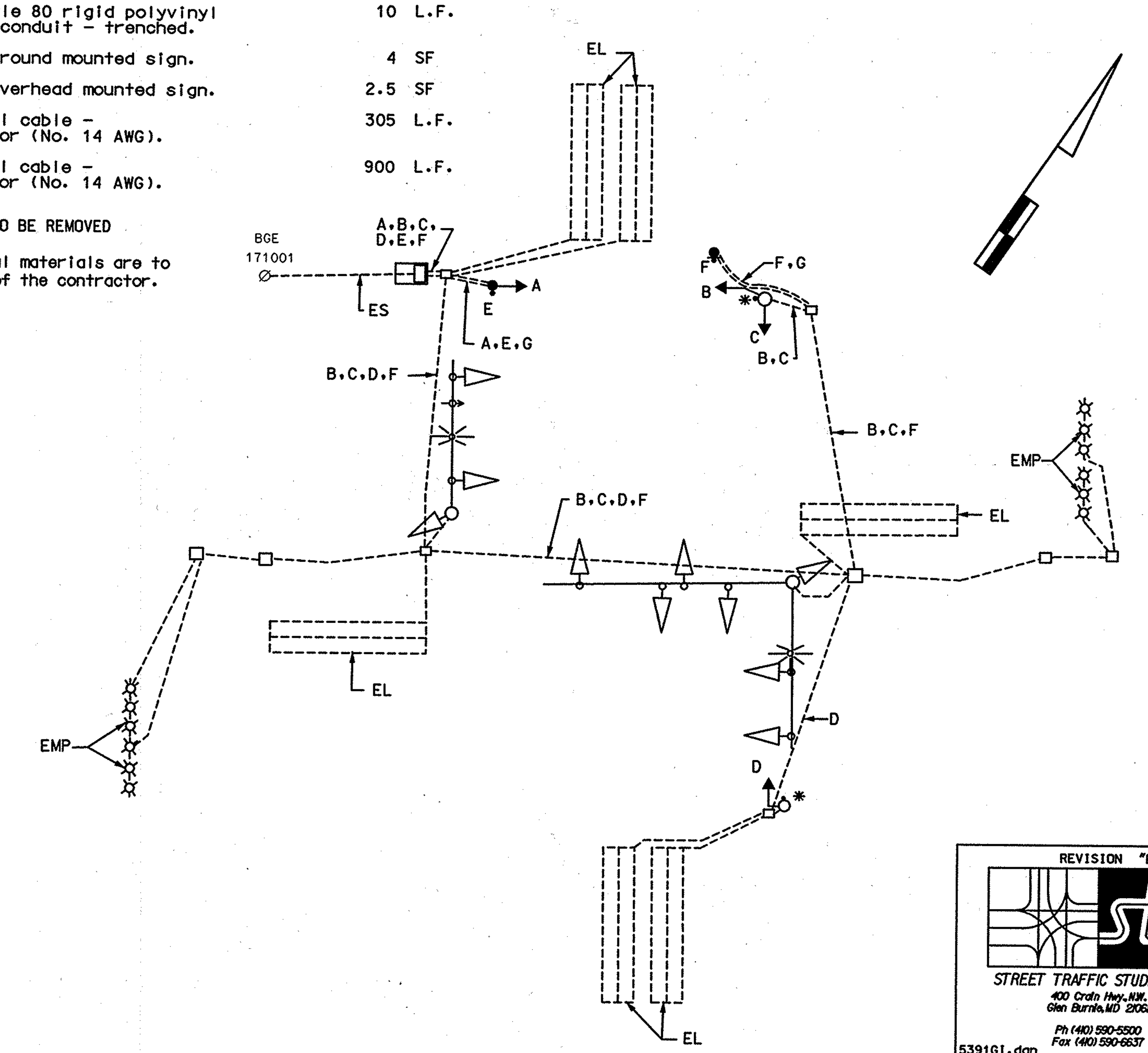
C. EQUIPMENT TO BE REMOVED

All removed signal materials are to become property of the contractor.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
PHASE 1 & 5	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	R	R	R	R	DW	DW	DW	DW	
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6															
PHASE 1 & 6	◄G-/G	◄G-/G	G	R	R	R	R	R	R	R	DW	DW	DW	DW	
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	R	DW	DW	DW	DW	
PHASE 2 & 5	R	R	R	◄G-/G	◄G-/G	G	R	R	R	R	WK	WK	DW	DW	
2 & 5 CHANGE	R	R	R	◄Y-/G	◄Y-/G	G	R	R	R	R	WK	WK	DW	DW	
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	WK	WK	DW	DW	
PED CLEAR / COUNTDOWN	G	G	G	G	G	G	R	R	R	R	FL/DW	FL/DW	DW	DW	
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW	
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	
PHASE 4 & 8 ALT	R	R	R	R	R	R	G	G	G	G	DW	DW	WK	WK	
PED CLEAR / COUNTDOWN	R	R	R	R	R	R	G	G	G	G	DW	DW	FL/DW	FL/DW	
4 & 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	
PRE EMPT 1	R	R	R	G	G	G	R	R	R	R	DW	DW	DW	DW	
PRE EMPT 1 CHANGE	R	R	R	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	

WIRING DIAGRAM



WIRING KEY

A B C D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

E F } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

G - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

* - USE EXISTING CABLE

EMP - MICROLOOP LEAD-IN CABLE

EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING

ES - EXISTING UNDERGROUND SERVICE TO BE MAINTAINED BY BGE

TOD NO: AT782-78
SHA NO:BA563A59/B59
MD150@ORVILLE RD/WEC ENT

REVISION "B"

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.,N.W.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-6637

5391GI.dgn T-107

PLOTTED: $DATETIME$
FILE: $FILE$

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 150 (EASTERN BOULEVARD) AND ORVILLE ROAD

ESSEX, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 10/10/07 CONTRACT NO. AT7825185

DESIGNED BY JWA
DRAWN BY RC
CHECKED BY [signature]
F.A.P. NO.

COUNTY BALTIMORE
LOGMILE 30150005.04
TIMS NO. I449
TOD NO.

TS NO. 4150BGI | DRAWING NO. 2 OF 2 | SHEET NO. OF

...\5000's\5391\5391GI.dgn 10/15/2007 9:53:55 AM