BORDER REV: DATE: June 1, 2004

DRILL HOLES

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PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with street lighting at the intersection of MD 235 (Three Notch Rd) and MD 246 in St. Mary's County. The existing pedestrian signal heads shall be replaced by Countdown pedestrian signal heads with audible pushbuttons. The existing signal heads shall be replaced with the proposed LED signal heads. The contractor shall install an uninteruptable power supply and assiated equipment. MD 235 (Three Notch Rd) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA four-phase, fully-actuated mode, with the MD 235 (Three Notch Rd) approaches running concurrently. The Exclusive left turn phase for the northbound approach of MD 235 (Three Notch Rd) shall remain in operation. The pedestrian phase across MD 246 on recall shall now be a Countdown pedestrian phase with audible pushbuttons. The pre emption phase for both approaches of MD 235 (Three Notch Rd) shall remain in operation. The MD 246 approach shall continue to operate as split side street phase.

2. The existing full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be maintained 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. Contact Mr. Ed Rodenhizer (410) 787-7652.

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 GREAT MILLS ROAD

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Great Mills Road at Three Notch Rd."

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 #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
Phone: (410) 841-1003

Mr. John Mays
Assistant District Engineer - Maintenance
Phone: (410) 841-1002

Mr. Joe Horty
Assistant District Engineer - Utility
Phone: (410) 841-1005

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

Mr. Ed Rodenhizer
Chief, Signal Operations Section
410-787-7652

Mr. Sonny Bailey
Chief, Sign Operations Section
410-787-7670

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	1.5 SF
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS GREAT MILLS ROAD")	2 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	1 C.Y.
6004	4" concrete sidewalk.	50 S.F.
6005	Detectable warning surfaces	40 S.F.
8001	12" LED signal head section	58 EA
8002	2 wire Central Control unit	1 EA
8004	8" LED signal head section	3 EA
8007	Audible/tactile pedestrian pushbutton station & signs.	2 EA
8012	Breakaway pedestal pole (10').	2 EA
8014	LED 16" countdown pedestrian signal heads.	2 EA
8022	Remove and dispose of existing material & equipment per assignment	1 EA
8026	Schedule 80 rigid PVC conduit up tp 4" - trenched.	15 L.F.
8038	No. 6 AWG stranded bare copper ground wire.	80 L.F.
8043	Electrical cable 1 conductor (No. 4 AWG-THHN/THWN)	200 L.F.
8046	Install overhead sign.	1.5 SF
8056	Electrical cable - 2 conductor (No. 14 AWG).	520 L.F.
8058	Electrical cable - 5 conductor (No. 14 AWG).	530 L.F.
Neg	UPS in a NEMA size "5" Cabinet	1 EA

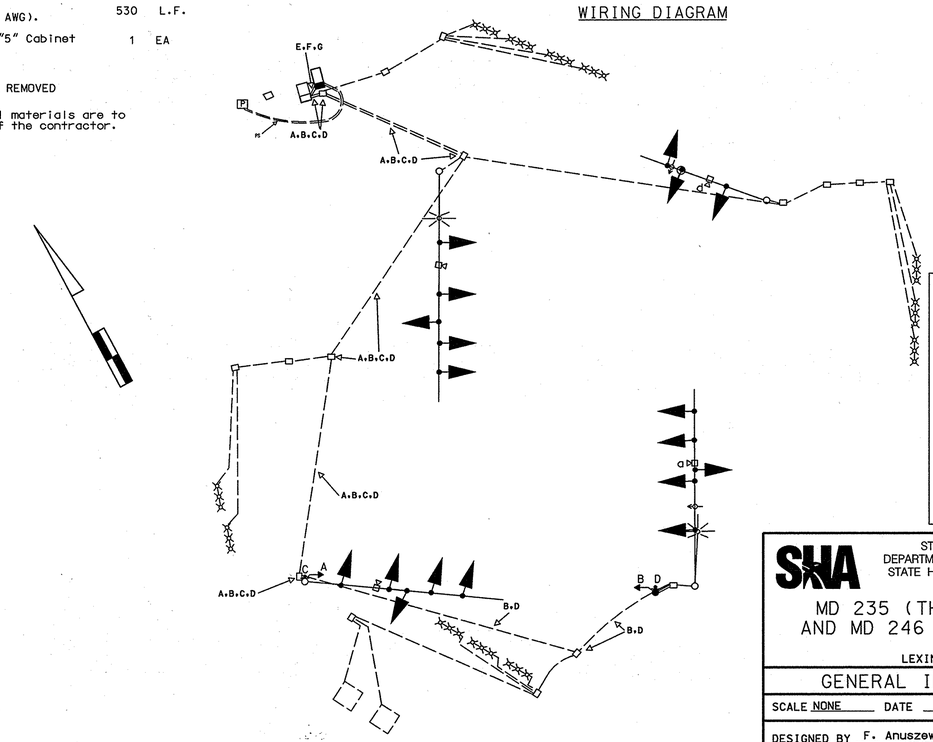
C. EQUIPMENT TO BE REMOVED

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	15	16	17	18	19	20
PHASE 1 & 5	◄G-	◄G-	◄G-	R	R	◄G-	◄G-	◄G-	R	R	R	R	R-/G►	◄G-	◄G-	◄G-	R	R	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																				
PHASE 1 & 6	◄R-	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	R	R	R-/G►	R	R	R	R	R	DW	DW
1 & 6 CHANGE	◄R-	◄R-	◄R-	R	R	◄Y-	◄Y-	◄Y-	G	G	R	R	R-/Y►	R	R	R	R	R	DW	DW
PHASE 2 & 5	◄G-	◄G-	◄G-	G	G	◄R-	◄R-	◄R-	R	R	R	R	R	R	R	R	R	R	DW	DW
2 & 5 CHANGE	◄Y-	◄Y-	◄Y-	G	G	◄R-	◄R-	◄R-	R	R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 & 6	◄R-	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	R	R	R	R	R	R	R	R	WK	WK
PED CLEAR / COUNTDOWN	◄R-	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	R	R	R	R	R	R	R	R	FL/DW	FL/DW
2 & 6 CHANGE	◄R-	◄R-	◄R-	Y	Y	◄R-	◄R-	◄R-	Y	Y	R	R	R	R	R	R	R	R	DW	DW
PHASE 3	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	G ◄G-	G ◄G-	G	R	R	R	R	R	DW	DW
3 CHANGE	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	Y	Y	Y	R	R	R	R	R	DW	DW
PHASE 4	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	R	R	R	◄G-	◄G-	◄G-	G	G	DW	DW
4 CHANGE	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	R	R	R	◄Y-	◄Y-	◄Y-	G	G	DW	DW
PRE EMPT 1	◄R-	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	R	R	R	R	R	R	R	R	R	R	DW	DW
PRE EMPT 1 CHANGE	◄R-	◄R-	◄R-	Y	Y	◄R-	◄R-	◄R-	R	R	R	R	R	R	R	R	R	R	DW	DW
PRE EMPT 2	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	G	G	G	R	R	R	R	R	DW	DW
PRE EMPT 2 CHANGE	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	Y	Y	Y	R	R	R	R	R	DW	DW
FLASHING OPERATION	FL/◄R-	FL/◄R-	FL/◄R-	FL/Y	FL/Y	FL/◄R-	FL/◄R-	FL/◄R-	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/◄R-	FL/◄R-	FL/◄R-	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



WIRING KEY

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

C, D } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

E, F, G } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G)

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

EP - EXISTING PROBE

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

PS - PROPOSED UNDERGROUND SERVICE TO BE MAINTAINED BY SMECO

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 235 (THREE NOTCH ROAD)
AND MD 246 (GREAT MILLS ROAD)

LEXINGTON PARK, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 6/05/07 CONTRACT NO. AT9135185

DESIGNED BY F. Anuszewski COUNTY ST. MARY'S
DRAWN BY F. Anuszewski LOGMILE 18023511.00
CHECKED BY TIMS NO. 1971
F.A.P. NO. TOD NO.

TS NO.	DRAWING NO. 2 OF 2	SHEET NO. OF

PLOTTED: FRIDAY, FEBRUARY 15, 2008 AT 12:57:38 PM
FILE: 5042J_MD246GI.DGN