DRILL HOLES

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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 119 (Great Seneca Hwy) and Muddy Branch Road Montgomery County. Coundown pedestrian signal heads with audible pushbuttons shall be installed at this intersection. MD 119 (Great Seneca Hwy) is assumed to run an north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA eight-phase, semi-actuated mode, with the MD 119 (Great Seneca Hwy) approaches running concurrently. Exclusive left turn phases shall remain in operation for both approaches of MD 119 (Great Seneca Hwy) . The pedestrian phase with pushbutton actuation across both legs of MD 119 (Great Seneca Hwy) shall now be Countdown pedestrian phases with audible pushbutton actuation. The pedestrian phases across Muddy Branch Road on recall shall now be Countdown pedestrian phases with audible pushbuttons. Farside sampling stations shall continue to be provided via video detection on both legs of MD 119 (Great Seneca Hwy) at this intersection. The Exclusive left turn phases for both approaches of Muddy Branch Road shall remain in operation. The Muddy Branch Road approaches shall also continue to run concurrently.

2. The existing full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.

3. Montgomery County signal shop shall instal APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the Montgomery County 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 Montgomery County Forces. Contact Kamal Hamud at (240) 777-8795 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 SENECA HWY

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Great Seneca Highway at Muddy Branch Road."

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

FOR MUDDY BRANCH ROAD

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Muddy Branch Road at Great Seneca Hwy."

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

5. Pushbuttons are to be located so that they can be activated by a person in a wheelchair from a 60" x 60" level landing area. A level landing area is an are with a cross slope of less than or equal to 2%.
6. Location of Accessible Pedestrian signal pushbuttons must meet location requirements of MUTCD Section 4E.09 and Fig. 4 E.2 and the NCHRP publication, "Accesible Pedestrian signals: Guide to Best Practice".
7. Pushbutton is to be located so that a pedestrian in a wheelchair located on the level landing area does not have to reach more than 18 inches.
8. The 10' seperation between pushbuttons is to be measured face of pushbutton to face of pushbutton, not center of pole to center of pole.
9. Pushbutton arrows are to be parallel to the crossing for which they are intended.

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Jeff Wentz
Assistant District Engineer - Traffic
Phone: (301) 513-7358

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Augie Rebish
District Engineer - Utility
Phone: (301) 513-7350

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

Mr. Keith Lord
Montgomery County Signal Shop
(301) 279-1291

Mr. Sonny Bailey
Sign Shop
410-787-7676

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY	
9571	Sheet aluminum signs to consist of: (pole mount)	8	SF
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS GREAT SENECA HWY".) (9"X15")	4	EA
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS MUDDY BRANCH RD".) (9"X15")	4	EA

EQUIPMENT LIST

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY	
1001	Maintenance of traffic per assignment.	2	EA
2002	Test Pit Excavation	6	C.Y.
5002	Removal of existing permanent pavement line markings	540	L.F.
5004	12" heat applied white permanent preformed thermoplastic pavement marking.	465	L.F.
5005	24" heat applied white permanent preformed thermoplastic pavement marking.	65	L.F.
6001	Standard type A combination curb and gutter 12" gutter pan 8" depth.	275	L.F.
6002	4" concrete sidewalk.	1505	S.F.
8001	12" LED signal head section	24	EA.
8002	2 wire Central Control unit	1	EA
8008	Audible/tactile pedestrian pushbutton station & signs.	8	EA
8009	Breakaway Pedestal pole (10')	3	EA
8009	Breakaway Pedestal pole (5')	2	EA
8014	LED 16" countdown pedestrian signal head.	8	EA
8022	Remove and dispose of existing material and equipment per assignment.	1	EA
8035	Schedule 80 rigid PVC conduit up tp 4" - trenched.	85	L.F.
8038	Detectable warning surfaces	110	S.F.
8039	Install overhead or ground mounted sign (including hardware).	8	S.F.
8041	No. 6 AWG stranded bare copper ground wire.	100	L.F.
8054	Electrical cable - 2 conductor (No. 14 AWG).	1215	L.F.
8056	Electrical cable - 5 conductor (No. 14 AWG).	1650	L.F.

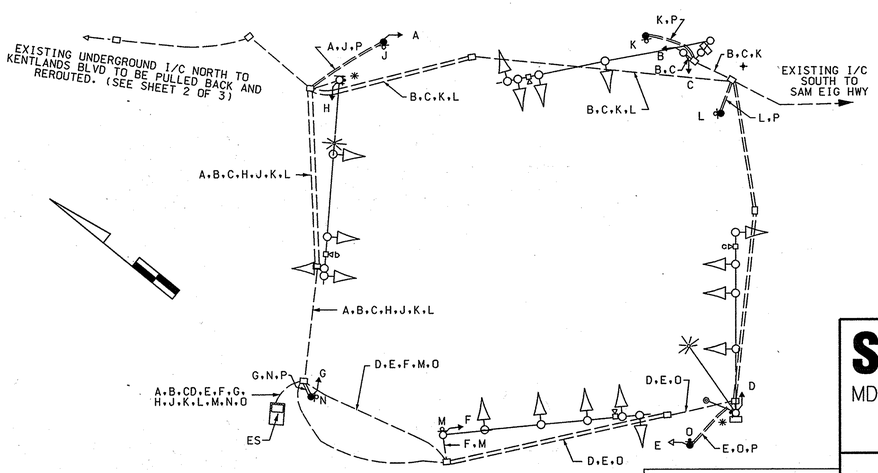
C. EQUIPMENT TO BE REMOVED

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	15	16	17	18	19	20	21	22	23	24	25
	◄R- ◄Y- ◄G-	◄R- ◄Y- ◄G-	R Y G	R Y G	◄R- ◄Y- ◄G-	◄R- ◄Y- ◄G-	R Y G	R Y G	◄R- ◄Y- ◄G-	◄R- ◄Y- ◄G-	R Y G	R Y G	◄R- ◄Y- ◄G-	◄R- ◄Y- ◄G-	◄R- ◄Y- ◄G-	R Y G	R Y G	◄DW	◄DW	◄DW	◄DW	◄DW	◄DW	◄DW	◄DW
PHASE 1 & 5	◄G-	◄G-	R	R	◄G-	◄G-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																									
PHASE 1 & 6	◄G-	◄G-	G	G	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 & 6 CHANGE	◄Y-	◄Y-	G	G	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 & 5	◄R-	◄R-	R	R	◄G-	◄G-	G	G	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	DW	DW	WK	DW	DW	DW	DW
2 & 5 CHANGE	◄R-	◄R-	R	R	◄Y-	◄Y-	G	G	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 & 6	◄R-	◄R-	G	G	◄R-	◄R-	G	G	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEAR / COUNTDOWN	◄R-	◄R-	G	G	◄R-	◄R-	G	G	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 & 6 CHANGE	◄R-	◄R-	Y	Y	◄R-	◄R-	Y	Y	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 7	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G-	◄G-	R	R	◄G-	◄G-	◄G-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 3 & 8, 4 & 7 OR 4 & 8																									
PHASE 3 & 8	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
3 & 8 CHANGE	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄Y-	◄Y-	◄Y-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 7	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G-	◄G-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 & 7 CHANGE	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄Y-	◄Y-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	Y	Y	◄R-	◄R-	◄R-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 8 ALT	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	DW	DW	DW	DW	WK	DW	DW	WK
3 & 8 CHANGE ALT	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄Y-	◄Y-	◄Y-	G	G	DW	DW	DW	DW	WK	DW	DW	WK
PHASE 4 & 7 ALT	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G-	◄G-	C	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	WK	WK	DW
4 & 7 CHANGE ALT	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄Y-	◄Y-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	WK	WK	DW
PHASE 4 & 8 ALT	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEAR / COUNTDOWN	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄R-	◄R-	Y	Y	◄R-	◄R-	◄R-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/◄R	FL/◄R	FL/Y	FL/Y	FL/◄R	FL/◄R	FL/Y	FL/Y	FL/◄R	FL/◄R	FL/R	FL/R	FL/◄R	FL/◄R	FL/◄R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING KEY



WIRING KEY

A B C D E F G H — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

J K L M N O — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

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

✱ - USE EXISTING CABLE FOR PUSHBUTTON

ES- EXISTING SERVICE TO BE MAINTAINED BY PEPCO

+ - GROUND ROD

TOD No: AT910-20
SHA No: MO579A60/B60
MD 119 @ Muddy Branch Road

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

5332GI.DGN T-102

PLOTTED: WEDNESDAY, SEPTEMBER 12, 2007 AT 3:45:09 PM
FILE: 5332GI.DGN

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 119 (GREAT SENECA HWY) AT MUDDY BRANCH ROAD

GENERAL INFORMATION SHEET

SCALE NONE DATE 9/7/07 CONTRACT NO. AT9105185

DESIGNED BY JWA
DRAWN BY RC
CHECKED BY JWA 9/13/07
F.A.P. NO.

COUNTY MONTGOMERY
LOGMILE 15011900.80
TIMS NO. 1237
TOD NO.

TS NO. 4207BGI | DRAWING NO. 2 OF 2 | SHEET NO. OF