DRILL HOLES

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BORGER 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 118 (Germantown Rd) and Aircraft Drive / Dept of Energy Driveway in Montgomery County. The existing pedestrian signal heads shall be replaced by Countdown pedestrian signal heads with audible pushbuttons. MD 118 (Germantown Rd) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six-phase, semi-actuated mode, with the MD 118 (Germantown Rd) approaches running concurrently. Exclusive/Permissive left turn phases for both approaches of MD 118 (Germantown Rd). shall remain in operation. The pedestrian phase with pushbutton actuation across the west leg of MD 118 (Germantown Rd) shall now be an Countdown pedestrian phase with audible pushbuttons. The pedestrian phases on recall across Aircraft Drive / D. O. E. Driveway shall now be Countdown pedestrian phases with audible pushbuttons. The Aircraft Drive / D. O. E. Driveway approaches shall continue to run as a side street split phase. The Pre empt emergency phase for the Aircraft Drive approach shall remain in operation.

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.

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) 777-8761 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.

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

Mr. Jeff Wentz
Assistant District Engineer - Traffic
Phone: (301) 513-7318

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. Sonny Bailey
Sign Shop
410-787-7670

Mr. Kamal Hamud
Montgomery County
240-777-8761

Mr. Keith Lord
Montgomery County
240-777-2190

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9570	Sheet aluminum signs to consist of: (ground mount)	16.5 SF
	M6-2(R) "DIAGONAL ARROW (SYMBOLIC)" sign, (21" x 15")	1 EA
	M6-2(L) "DIAGONAL ARROW (SYMBOLIC)" sign, (21" x 15")	1 EA
	W11-2 "PEDESTRIAN CROSSING (SYMBOLIC)" sign, (30" x 30")	2 EA
9571	Sheet aluminum signs to consist of: (pole mount)	4.5 SF
	R10-4(1) mod sign. (Note: Sign to read "PUSH BUTTON TO CROSS GERMANTOWN RD).	2 EA
	R10-4(1) mod sign. (Note: Sign to read "PUSH BUTTON TO D.O.E. DRWY).	2 EA
	R10-4(1) mod sign. (Note: Sign to read "PUSH BUTTON TO AIRCRAFT DR)..	2 EA

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	2 EA
2001	Class 2 Excavation.	7 C.Y.
2002	Test Pit Excavation	3 C.Y.
5001	5" white lead free reflective thermoplastic pavement marking.	65 L.F.
5003	12" white lead free reflective thermoplastic pavement marking.	460 L.F.
5004	24" white lead free reflective thermoplastic pavement marking.	165 L.F.
5005	Removal of existing permanent pavement line markings	600 L.F.
6001	Depress curb & gutter.	25 L.F.

EQUIPMENT LIST (CONT.)

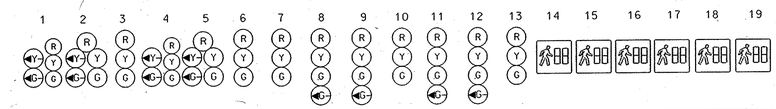
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
6002	Standard type A combination curb and gutter 12" gutter pan 8" depth.	90 L.F.
6003	4" concrete sidewalk.	645 S.F.
8006	2 wire Central Control unit	1 EA
8013	Adjust existing handhole to grade.	2 EA
8014	Audible/tactile pedestrian pushbutton station & signs.	6 EA
8015	Breakaway pedestal pole (10')	3 EA
8024	LED 16" countdown pedestrian signal head.	6 EA
8028	Remove and dispose of existing equipment per assignment.	1 EA
8037	Detectable warning surfaces	64 S.F.
8038	Relocate existing sign.	5 SF
8040	Concrete for signal foundation.	4 C.Y.
8041	Wood sign supports 4"x4".	32 L.F.
8043	No. 6 AWG stranded bare copper ground wire.	35 L.F.
8049	3" schedule 80 rigid polyvinyl chloride conduit - trenched.	45 L.F.
8063	Install ground mounted sign.	16.5 SF
8064	Install overhead mounted sign.	4.5 SF
8076	Electrical cable - 2 conductor (No. 14 AWG).	760 L.F.
8078	Electrical cable - 5 conductor (No. 14 AWG).	770 L.F.

C. EQUIPMENT REMOVED BY THE CONTRACTOR

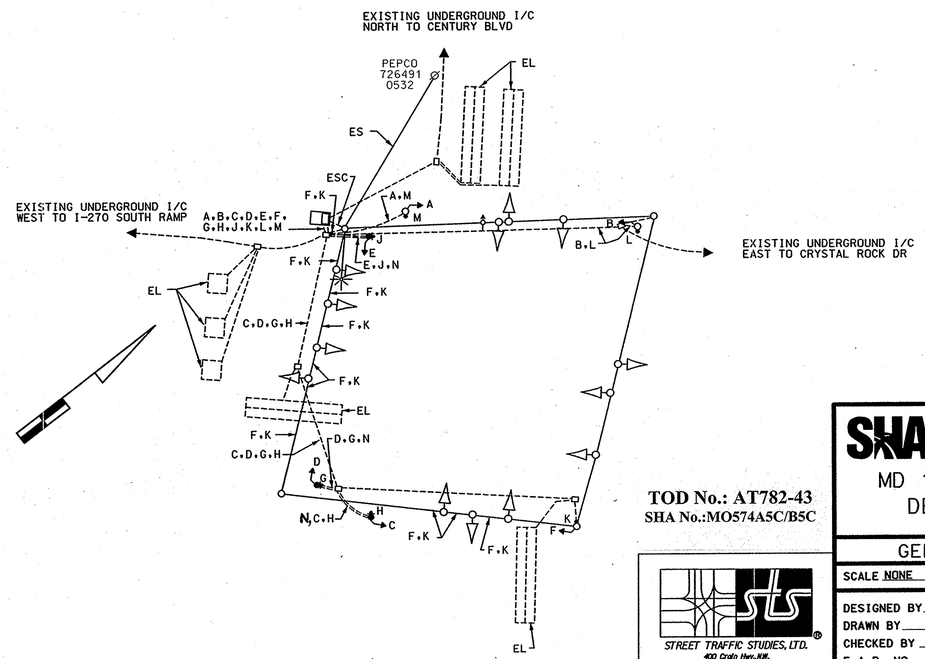
All removed signal materials are to become property of the contractor.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PHASE 1 & 5	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	R	R	R	R	R	R	R	DW	DW	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	R	R	R	DW	WK	WK	DW	DW	DW
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW
PHASE 2 & 5	R	R	R	◄G-/G	◄G-/G	G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW
2 & 5 CHANGE	R	R	R	◄Y-/G	◄Y-/G	G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW
PED CLEAR / COUNTDOWN	G	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	R	R	R	R	G/◄G-	G/◄G-	G	DW	DW	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	G/◄G-	G/◄G-	G	R	R	R	DW	DW	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3 ALT	R	R	R	R	R	R	R	R	R	R	G/◄G-	G/◄G-	G	DW	DW	DW	DW	WK	WK
PED CLEARANCE /COUNTDOWN	R	R	R	R	R	R	R	R	R	R	G/◄G-	G/◄G-	G	DW	DW	DW	DW	FL/DW	FL/DW
3 ALT CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PRE EMPT 1	R	R	R	R	R	R	R	R	R	R	G/◄G-	G/◄G-	G	DW	DW	DW	DW	DW	DW
PRE EMPT 1 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

WIRING KEY



WIRING KEY

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

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

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

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

ES - EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO

ESC - EXISTING SERVICE CABLE

+ - GROUND ROD

TOD No.: AT782-43
SHA No.:MO574A5C/B5C

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy. N.W.
Glen Burnie, MD 21061
Ph (410) 590-5500
Fax (410) 590-6637
5047gi.dgn D6-77

PLOTTED: $DATETIME$
FILE: $FILE$

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

SHA

MD 118 AT AIRCRAFT DRIVE/ DEPARTMENT OF ENERGY

GENERAL INFORMATION SHEET

SCALE NONE DATE 8/8/06 CONTRACT NO. AT825185

DESIGNED BY J .W. ALLEN COUNTY MONTGOMERY
DRAWN BY R.C. LOGMILE 15011805.87
CHECKED BY TIMS NO. H431
F.A.P. NO. TOD NO.

TS NO. 2005E | DRAWING NO. 2 OF 2 | SHEET NO. OF

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