DRILL HOLES

BORDER REV: DATE: June 1, 2004

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PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal at the intersection of MD 193 (University Blvd) and Inwood Avenue in Montgomery County. Audible LED Countdown pedestrian signal heads with pushbuttons shall be installed across all legs of this intersection. MD 193 (University Blvd) is assumed to run in an east-west direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA four-phase, semi-actuated mode, with the MD 193 (University Blvd) approaches continuing to run concurrently. A new countdown audible pedestrian phase with pushbutton actuation shall be provided across all legs of this intersection. The inwood Avenue approaches shall also run concurrently.

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

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 Dr. Wilhelm DerMinassian 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.

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

Mr. Lee Starkloff
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. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7670

Dr. Wilhelm DerMinassian
Montgomery County
(240) 777-8795

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9042	Controller ASC II with telemetry and 4-channel detector amplifier	1 EA
9044	Controller cabinet, size "6"	1 EA
9571	Sheet aluminum signs to consist of: (pole mount)	6 SF
	Pushbutton and R10-4(1) sign (Note: Sign to read "PUSH BUTTON TO CROSS INWOOD AVE)	4 EA
	Pushbutton and R10-4(1) sign (Note: Sign to read "PUSH BUTTON TO CROSS UNIVERSITY BLVD").	4 EA

EQUIPMENT LIST

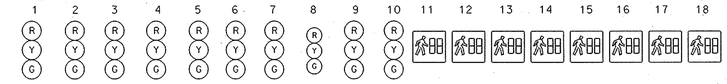
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	2 EA
2001	Class 2 Excavation.	2.5 C.Y.
2002	Test Pit Excavation	7 C.Y.
5003	12" white lead free reflective thermoplastic pavement marking.	1380 L.F.
5004	24" white lead free reflective thermoplastic pavement marking.	50 L.F.
5005	Removal of existing permanent pavement line markings (grind)	1370 L.F.
6003	4" concrete sidewalk.	180 S.F.
8006	2 wire Central Control unit	1 EA
8014	Audible/tactile pedestrian pushbutton station & signs.	8 EA
8015	Breakaway pedestal pole (10').	7 EA
8024	LED 16" countdown pedestrian signal head.	8 EA
8028	Remove and dispose of existing equipment per assignment.	1 EA
8037	Detectable warning surfaces	48 S.F.
8040	Concrete for signal foundation.	7 C.Y.
8043	No. 6 AWG stranded bare copper ground wire.	560 L.F.
8048	4" schedule 80 rigid polyvinyl chloride conduit - bored.	375 L.F.
8049	3" schedule 80 rigid polyvinyl chloride conduit - trenched.	85 L.F.
8050	4" schedule 80 rigid polyvinyl chloride conduit - trenched.	25 L.F.
8062	Furnish and install electrical handhole.	4 EA
8064	Install overhead sign.	6 S.F.
8070	Ground rod $^3/_4$" dia. x 10' length.	4 EA
8076	Electrical cable - 2 conductor (No. 14 AWG).	1070 L.F.
8078	Electrical cable - 5 conductor (No. 14 AWG).	1110 L.F.
8088	Install controller and cabinet - base mount.	1 EA

C. EQUIPMENT TO BE REMOVED

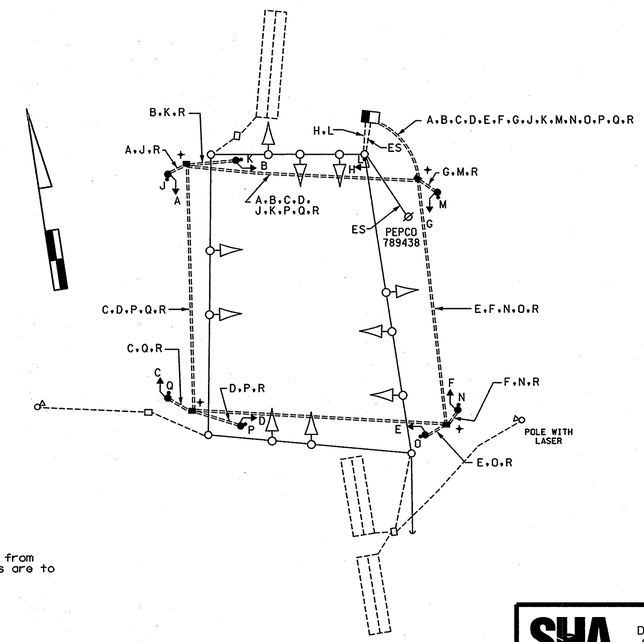
SHA Forces shall remove the controller and all auxilliary equipment from the controller cabinet. The cabinet and all other removed materials are to become property of the contractor.

PHASE CHART



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

WIRING DIAGRAM



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, P, Q — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

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

ES- EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO

+ - GROUND ROD

TOD No: AT782-06
SHA: MO574A51/B51

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 193 AND INWOOD AVENUE

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

490161.dgn

SCALE NONE	DATE 8-31-05	CONTRACT NO. AT7825185	
DESIGNED BY J.W.A.		COUNTY MONTGOMERY	
DRAWN BY R.C.		LOGMILE 15019302.42	
CHECKED BY		TIMS NO. H029	
F.A.P. NO.		TOD NO.	
TS NO.4444A-GI	DRAWING NO. OF	SHEET NO. 2 OF 2	

PLOTTED: #DATETIME#
FILE: #FILE#

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