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 124 (Quince Orchard Rd) and Longdraft Rd / Kentlands Blvd in Montgomery County. Countdown pedestrian heads with audible pushbuttons shall be installed across all aproaches of the intersection. MD 124 (Quince Orchard Rd) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA seven-phase, semi-actuated mode, with the MD 124 (Quince Orchard Rd) approaches running concurrently. Exclusive/Permissive left turn phases shall be maintained for both approaches of MD 124 (Quince Orchard Rd) The pedestrian phases with pushbutton actuation across both legs of MD 124 (Quince Orchard Rd) shall shall now be countdown phases with audible pushbuttons. The pedestrian phases across Longdraft Rd / Kentlands Blvd on recall shall now be countdown phases with audible pushbuttons. The Exclusive/Permissive left turn phase for the northbound approach of Kentlands Blvd shall be maintained. The Longdraft Rd / Kentlands Blvd approaches shall 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. Montomgery County signal shop shall install 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) 777-8761 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. Keith Lord
Signal Shop (Mont Co.)
301-674-8965 (cell)

Mr. Sonny Bailey
Sign Shop
410-787-7670

EQUIPMENT

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

ITEM NO.	DESCRIPTION	QUANTITY
9571	Sheet aluminum signs to consist of: (pole mount)	6 SF
	R10-4(1)MOD sign. (Note: Sign to read "PUSH BUTTON TO CROSS QUINCE ORCHARD RD).	4 EA
	R10-4(1)MOD sign. (Note: Sign to read "PUSH BUTTON TO CROSS KENTLANDS BLVD)	2 EA
	R10-4(1)MOD sign. (Note: Sign to read "PUSH BUTTON TO CROSS LONGDRAFT RD)	2 EA
9572	Sheet aluminum signs to consist of: (span wire mount)	37 SF
	D3-2 "Kentlands BLVD 1000 >" sign, (variable x 16")	1 EA
	D3-2 "Kentlands BLVD <1000 " sign, (variable x 16")	1 EA
	D3-2 "Longdraft RD 100 >" sign, (variable x 16")	1 EA
	D3-2 "Longdraft RD <100 " sign, (variable x 16")	1 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.	5 C.Y.
2002	Test Pit Excavation	7 C.Y.
5003	12" white lead free reflective thermoplastic pavement marking.	900 L.F.

EQUIPMENT

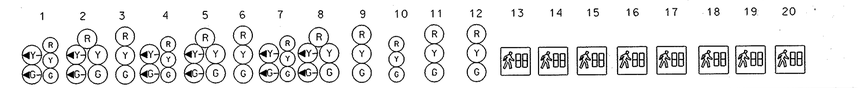
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
5004	24" white lead free reflective thermoplastic pavement marking.	230 L.F.
5005	Removal of existing permanent pavement line markings	1850 L.F.
6001	Depress curb & gutter.	60 L.F.
6002	Standard type A combination curb and gutter 12" gutter pan 8" depth.	185 L.F.
6003	4" concrete sidewalk.	1940 S.F.
8006	2 wire Central Control unit	1 EA
8012	Adjust and re-ring existing span wire (each span).	4 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	80 S.F.
8038	Relocate existing sign.	27 SF
8040	Concrete for signal foundation.	5 C.Y.
8043	No. 6 AWG stranded bare copper ground wire.	120 L.F.
8049	3" schedule 80 rigid polyvinyl chloride conduit - trenched.	125 L.F.
8054	1" liquid tight flexible non-metallic conduit for detector sleeve.	35 L.F.
8062	Furnish and install electrical handhole.	1 EA
8064	Install overhead mounted sign.	43 SF
8071	Relocate existing signal head.	4 EA
8076	Electrical cable - 2 conductor (No. 14 AWG).	1575 L.F.
8078	Electrical cable - 5 conductor (No. 14 AWG).	1930 L.F.
8079	Electrical cable - 7 conductor (No. 14 AWG).	145 L.F.
8080	Loop wire encased in flexible tubing (No. 14 AWG).	2915 L.F.
8081	Saw cut for signal (loop detector).	750 L.F.

C. EQUIPMENT TO BE REMOVED

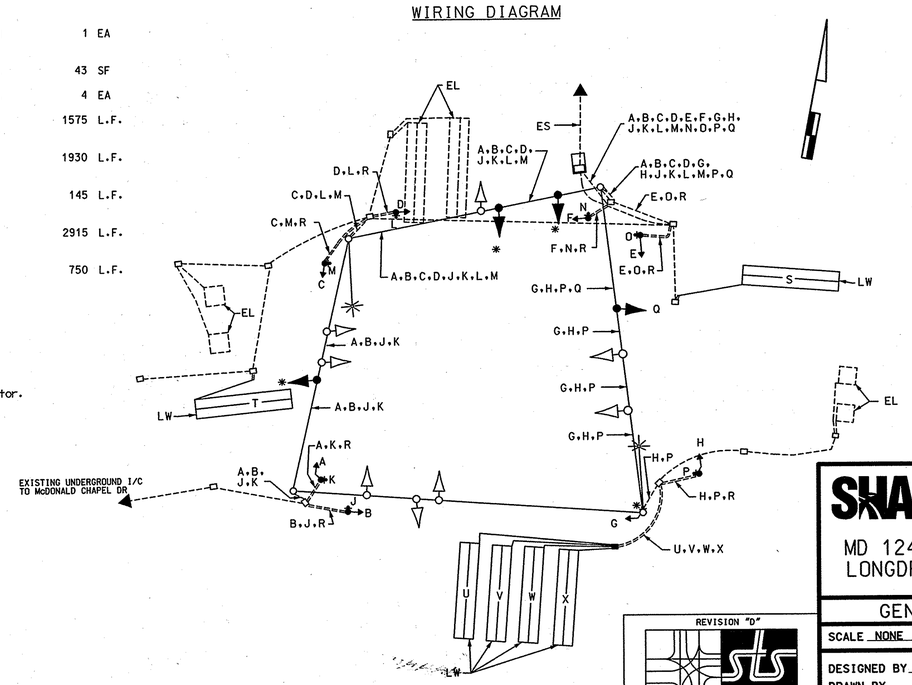
All removed signal materials are to become property of the contractor.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 & 5	◄G-/R	◄G-/R	R	◄G-/R	◄G-/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	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	◄G-/G	◄G-/G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
2 & 5 CHANGE	R	R	R	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	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	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 8	R	R	R	R	R	R	◄G-/G	◄G-/G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 & 8 CHANGE	R	R	R	R	R	R	◄Y-/G	◄Y-/G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 8 ALT	R	R	R	R	R	R	◄G-/G	◄G-/G	G	R	R	R	DW	DW	DW	DW	DW	WK	WK	DW
3 & 8 CHANGE ALT	R	R	R	R	R	R	◄Y-/G	◄Y-/G	G	R	R	R	DW	DW	DW	DW	DW	WK	WK	DW
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8 ALT	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	R	R	R	R	R	R	Y	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/Y	FL/R	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 — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

Q - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

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

S T U V W X — SPLIE TO EXISTING 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G) ALUMINIUM SHIELDED

* - USE EXISTING CABLE

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

LW - LOOP WIRE (NO. 14 A.W.G.)

ES - EXISTING UNDERGROUND SERVICE TO BE MAINTAINED BY PEPCO

TOD No.: AT782-57
SHA No.: MO574A5G/C5G
MD 124 @ Longdraft Rd/Kentlands Blvd

REVISION "D"

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

4983GI.dgn D6-65

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FILE: $FILE$

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 124 (QUINCE ORCHARD RD) AND LONGDRAFT RD / KENTLANDS BLVD

GENERAL INFORMATION SHEET

SCALE NONE DATE 10/10/06 CONTRACT NO. AT7825185

DESIGNED BY J ALLEN
DRAWN BY R. C.
CHECKED BY KAR
F.A.P. NO.

COUNTY MONTGOMERY
LOGMILE 15012400.81
TIMS NO. H278
TOD NO.

TS NO.3065D-GI | DRAWING NO. 2 OF 2 | SHEET NO. OF

PLOTTED: 10-10-2006 TIME: 13:20
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