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 212 (Riggs Road) and MD 501 (Chillum Road) in Prince George's County. The existing signal heads shall be replaced with LED Traffic Signal heads, existing left turn, side street detection with video detection cameras and existing pedestrian signal heads with APS and CPS.
MD 212 (Riggs Road) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA six-phase, fully-actuated mode, with the MD 212 (Riggs Road) approaches running concurrently. An Exclusive/Permissive left turn phase shall be provided for both approachs of MD 212 (Riggs Road).
Countdown pedestrian signal heads with audible pushbutton actuation shall be installed across the north leg MD 212 (Riggs Road) and east leg of MD 501 (Chillum Road). The MD 501 (Chillum Road) approaches shall operate as a side street split 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 utilized 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.

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) 787-7650 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 MD 212 (RIGGS ROAD)

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Riggs at Chillum."

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

FOR MD 501 (Chillum Road)

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Chillum at Riggs"

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 #3 (Montgomery County) are as follows:

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: (301) 513-7318

Mr. Vernon Stinnett Jr.
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
Chief, Signal Operations
410-787-7652

Mr. Sonny Bailey
Chief, Sign Shop
410-787-7676

The power company representative is:

Mr. Steve Custer
PEPCO Customer Design
201 W Gude Dr.
Rockville, MD 20850
Phone: 301 548-4333

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT NO.	DESCRIPTION	QUANTITY
973023	SHEET ALUMINIUM SIGNS	4 SF
	Pedestrian education R10-3(1) mod sign. (Note: Sign to read "PUSHBUTTON TO CROSS CHILLUM ROAD").	2 EA
	Pedestrian education R10-3(1) mod sign. (Note: Sign to read "PUSHBUTTON TO CROSS RIGGS ROAD").	2 EA

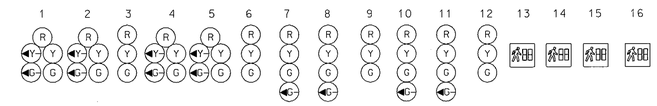
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT NO.	DESCRIPTION	QUANTITY
203030	TEST PIT EXCAVATION	3 CY
800000A	16" COUNTDOWN PEDESTRIAN SIGNAL HEAD	4 EA
800000A	2 WIRE CONTROL UNIT	1 EA
800000A	AUDIBLE TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS	4 EA
801004	CONCRETE FOR SIGNAL FOUNDATION	4 CY
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	275 LF
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	230 LF
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED	750 LF
805160	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE	100 LF
810550	MICROLOOP PROBE 500 FOOT LEAD IN CABLE	6 EA
816001	VIDEO DETECTION CAMERA	4 EA
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	4 EA
816015	VIDEO INTERFACE EQUIPMENT	1 EA
813014	INSTALL GROUND MOUNTED SIGN	4 SF
818004	10 FOOT BREAKAWAY PEDESTAL POLE	4 EA
837001	GROUND ROD -3/4INCH DIAMETER X 10 FOOT LENGTH	4 EA
860270	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	12 EA
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	34 EA
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	750 LF
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	750 LF
862102	SAW CUT FOR SIGNAL LOOP DETECTOR	125 LF
800000	REMOVE AND DISPOSE EXISTING EQUIPMENT	1 EA

C. EQUIPMENT TO BE REMOVED

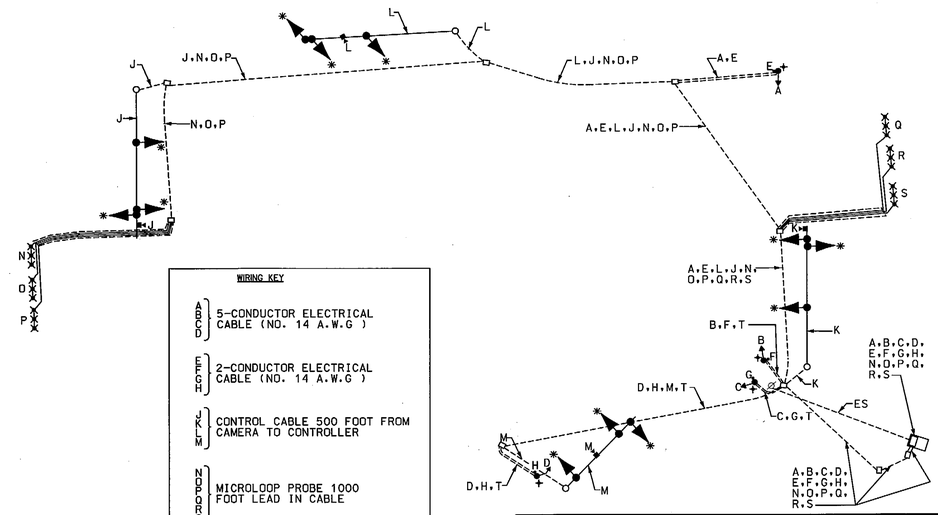
All removed signal materials are to become property of the contractor.

PHASE CHART



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

WIRING DIAGRAM



WIRING KEY

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

E, F, G, H — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

J, K, L, M — CONTROL CABLE 500 FOOT FROM CAMERA TO CONTROLLER

N, O, P, Q, R, S — MICROLOOP PROBE 1000 FOOT LEAD IN CABLE

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

✱ - USE EXISTING WIRING

ES - EXISTING POWER SERVICE

+ - GROUND ROD

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 212 (RIGGS ROAD) AND MD 501 (CHILLUM ROAD)

CHILLUM, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 2/19/09 CONTRACT NO. PG7095177

DESIGNED BY James Allen Jr. COUNTY PRINCE GEORGES
DRAWN BY James Allen Jr. LOGMILE 16021200.17
CHECKED BY TIMS NO.
F.A.P. NO. TOD NO.

TS NO. 1063D | DRAWING NO. 2 OF 2 | SHEET NO. OF

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy. NW.
Glen Burnie, MD 21061
Ph (410) 590-5500
Fax (410) 590-5637

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PLOTTED: $DATETIME$
FILE: $FILE$

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