

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL WITH INTERCONNECT AT THE INTERSECTION OF MD384 (COLESVILLE RD) AND LOWER LEVEL ENTRANCE IN MONTGOMERY COUNTY. THE INTERCONNECT IN MOT PHASE I SHALL BE CUT AND PULLED TO PROPOSED CABINET. MD384 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

- THE INTERSECTION IS TO OPERATE IN A NEMA FOUR-PHASE MODE, WITH THE COLESVILLE RD APPROACHES RUNNING CONCURRENTLY. AN EXCLUSIVE PERMISSIVE LEFT TURN PHASE SHALL BE PROVIDED FOR THE WESTBOUND APPROACH OF COLESVILLE RD WITH A RIGHT TURN OVERLAP ONTO NB COLESVILLE RD FROM THE LOWER LEVEL ENTRANCE. COUNTDOWN PEDESTRIAN PHASES WITH AUDIBLE PUSHBUTTON ACTIVATION SHALL OPERATE ACROSS COLESVILLE RD AND THE LOWER LEVEL BUS ENTRANCE.
- A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH APS CENTRAL CONTROL UNIT, L.A.U. AND L.A.U. PANEL HOUSED IN A NEMA SIZE "6" TS-2 BASE-MOUNTED CABINET SHALL BE INSTALLED AT THIS INTERSECTION.

III. SPECIAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES, EXCLUDING INTERCONNECT, TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.
- DISCONNECTING AND SPLICING OF INTERCONNECT CABLE SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. 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.
- 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.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
	NONE	

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
203030	TEST PIT EXCAVATION	3 CY
585448	12" WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (CROSSWALK)	345 LF
585452	24" WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (STOP LINE)	130 LF
600000	REMOVE & RESET BRICK PAVERS	15 SF
800000	16 INCH PEDESTRIAN COUNTDOWN SIGNAL HEAD - PEDESTAL MOUNTED	3 EA
800000	16 INCH PEDESTRIAN COUNTDOWN SIGNAL HEAD - POLE MOUNTED	1 EA
800000	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - 2ND CONDUIT	295 LF
800000	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER W/ L.A.U., L.A.U. PANEL AND ALL NECESSARY EQUIPMENT	1 EA
800000	F&I APS PUSHBUTTON AND ASSY.	4 EA
800000	FURNISH & DELIVER 2-WIRE APS CENTRAL CONTROL UNIT	1 EA
801004	CONCRETE FOR SIGNAL FOUNDATION	11 CY
801104	WOOD SIGN SUPPORTS 4 INCH X 4 INCH	15 LF
801605	M95-1 MOD "COLESVILLE RD - MD 384" SIGN (72" x 40") MAST ARM MOUNTED.	1 EA
801605	PEDESTRIAN EDUCATION R10-4(1) MOD SIGN. (NOTE: SIGN TO READ "PUSH BUTTON TO CROSS COLESVILLE ROAD")	2 EA
801605	PEDESTRIAN EDUCATION R10-4(1) MOD SIGN. (NOTE: SIGN TO READ "PUSH BUTTON TO CROSS BUS ENTRANCE")	2 EA
801605	R4-7 "KEEP RIGHT" SIGN (24" x 30") GROUND MOUNTED.	1 EA
801605	R4-7 "KEEP RIGHT" SIGN (24" x 30") SIGNAL POLE MOUNTED.	1 EA
801605	R3-1(MOD) "NO RIGHT EXCEPT BUSES" SIGN (24" x 36") MAST ARM MOUNTED.	1 EA
801605	R3-5(L) "LEFT ONLY" SIGN (30" x 36") MAST ARM MOUNTED.	1 EA
801605	R10-11b "NO TURN ON RED" SIGN (24" x 24") MAST ARM MOUNTED.	1 EA
801607	INSTALL SHEET ALUMINUM SIGN	10 EA
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	375 LF
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	15 LF
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	70 LF
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	335 LF
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	140 LF

EQUIPMENT LIST (CONT'D)

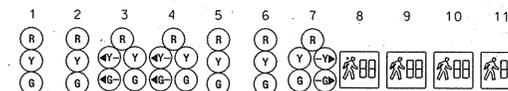
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
806000	250 W HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	2 EA
807202	METERED SERVICE PEDESTAL	1 EA
810010	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THWN COPPER	30 LF
811001	F&I ELECTRICAL HANDHOLE	3 EA
816001	VIDEO DETECTION CAMERA	2 EA
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	1 EA
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	1 EA
816015	VIDEO INTERFACE EQUIPMENT - 1-4 CAMERAS	1 EA
818004	10 FOOT BREAKAWAY PEDESTAL POLE	3 EA
818036	27 FOOT STEEL POLE WITH SINGLE 50' MAST ARM	1 EA
818051	27 FOOT STEEL POLE WITH TWIN 50'-70' MAST ARMS	1 EA
832000	FURNISH AND INSTALL ELECTRICAL CABLE - 3 WIRE, 1 CONDUCTOR (NO. 250 KCMIL)	185 LF
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	7 EA
860284	FURNISH AND INSTALL 12 INCH VEHICULAR LED TRAFFIC SIGNAL HEAD (R, Y, G)	4 EA
860284	FURNISH AND INSTALL 12 INCH VEHICULAR LED TRAFFIC SIGNAL HEAD (R, Y, G, YA, GA) (LEFT)	2 EA
860284	FURNISH AND INSTALL 12 INCH VEHICULAR LED TRAFFIC SIGNAL HEAD (R, Y, G, YA, GA) (RIGHT)	1 EA
860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	1 EA
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	380 LF
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	475 LF
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	910 LF
861116	ELECTRICAL CABLE - 2 CONDUCTOR TRAY (NO. 12 AWG)	440 LF
866104	20 FT LIGHTING ARM ON SIGNAL STRUCTURE	2 EA
871212	NEMA SIZE "6" TS-2 BASE MOUNTED CABINET	1 EA

The following contact persons for District #3 are as follows:

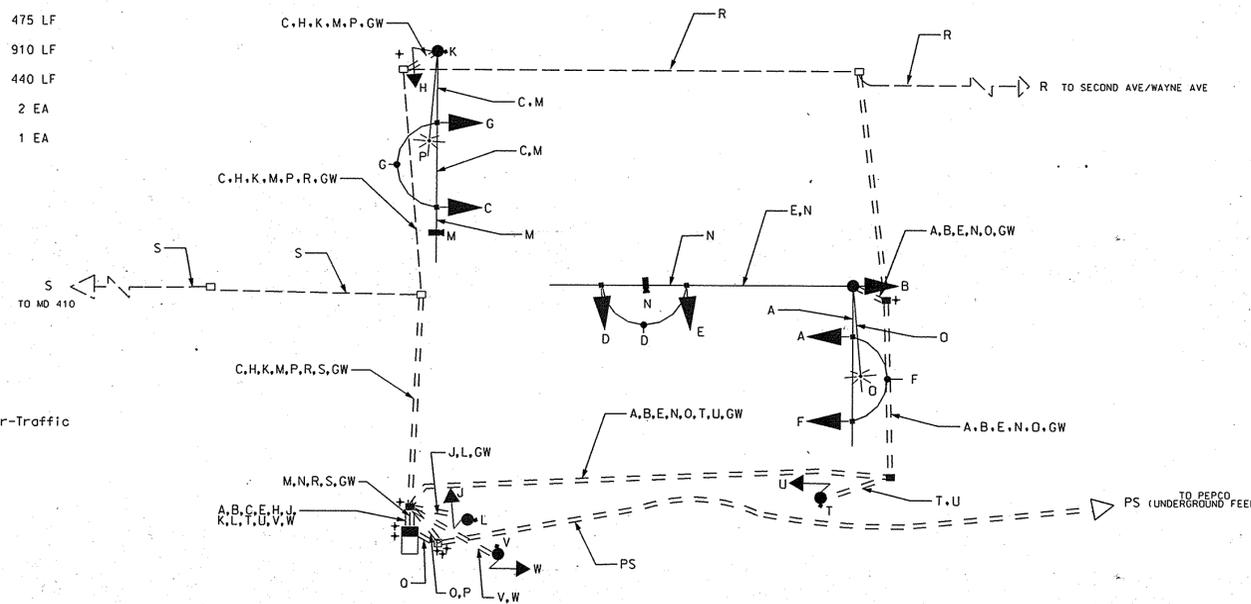
Kamal Hamud Engineer III (Montgomery County) Phone #(240) 777-8761	Mr. Jeff Wentz Assistant District Engineer-Traffic Phone #(301) 513-7358
Mr. Wayne Mowdy Asst. District Engineer-Maintenance Phone #(301) 513-7304	Mr. Augustine Rebish District Engineer-Utility Phone #(301) 513-7350
Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone #(410) 787-7630	Mr. Ed Rodenhizer Signal Shop Supervisor Phone #(410) 787-7652
Mr. Steve Custer PEPCO Customer Design 201 W. Guide Dr. Rockville, MD 20850 Phone #(301) 548-4333	

PHASE CHART



PHASE	1	2	3	4	5	6	7	8	9	10	11
PHASE 2 & 5	R	R	G/G	G/G	G	R	R/G	DW	DW	DW	DW
5 CHANGE	R	R	G/G	G/G	G	R	R/Y	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	R	R	WK	WK	DW	DW
PED CLEAR COUNTDOWN	G	G	G	G	G	R	R	FL/DW	FL/DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	G	G/G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	Y	Y/Y	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	G	G/G	DW	DW	WK	WK
PED CLEAR COUNTDOWN	R	R	R	R	R	G	G/G	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	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/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

- A,B,C,E - 7 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
- D,F,G,H,J,U,W - 5 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
- K,L,T,V - 2 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
- M,N - VIDEO DETECTION CABLE
- O,P - 2 CONDUCTOR TRAY CABLE (NO.12 A.W.G.)
- Q - 3-1 CONDUCTOR ELECTRICAL CABLE (NO.4 A.W.G.)
- R,S - EXISTING INTERCONNECT CABLE, CUT AND PULLED TO CABINET (12-PAIR JELLY FILLED)
- PS - PROPOSED UNDERGROUND TO BE INSTALLED BY PEPCO
- GW - STRANDED BARE COPPER GROUND WIRE (NO.6 A.W.G.)
- + - GROUND ROD

SHA No.: BW847M83
MD 384 @ Lower Entrance-Silver Spring Transit Center



SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
**MD 384 (COLESVILLE ROAD)
AND LOWER LEVEL ENTRANCE**
SILVER SPRING, MARYLAND

GENERAL INFORMATION SHEET

SCALE	NONE	DATE	082506	CONTRACT NO.	BW996M82
DESIGNED BY	KMP	COUNTY	MONTGOMERY		
DRAWN BY	JMN,MF	LOGMILE	15038400.33		
CHECKED BY	KMP	T. J. M. S. NO.	H589		
F. A. P. NO.		TOD NO.			

TS NO. 4488-GI 2 DRAWING NO. 4 OF 4 SHEET NO. 4 OF 12

BY: PERMISOHN

ULTIMATE