

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES INSTALLATION OF NEW TRAFFIC SIGLAS AT THE INTERSECTION OF MD 124 (WOODFIELD ROAD) AT HADLEY FARMS DRIVE/ BARCELONA DRIVE IN MONTGOMERY COUNTY. THIS PROJECT ALSO INVOLVES INSTALLATION OF PEDESTRIAN SIGNALS ON THE NORTHBOUND AND EASTBOUND APPROACH. MD 124 IS ASSUMED TO RUN IN A NORTH SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A SEMI-ACTUATED MODE USING TWO NEMA PHASES.

**PEDESTRIAN OPERATION**

NAVIGATOR AUDIBLE PEDESTRIAN PUSHBUTTON MOVEMENTS TO CROSS THE WEST AND NORTH LEGS OF THE INTERSECTION ARE TO BE PROVIDED. WHEN THE PEDESTRIAN LOCATES AND PASSES THE PUSH BUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: WEST: "WAIT TO CROSS HADLEY FARMS AT WOODFIELD." NORTH: "WAIT TO CROSS WOODFIELD AT HADLEY FARMS/BARCELONA."

**SPECIAL NOTES**

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

**PROJECT CONTACTS:**

MR. JEFFREY WENTZ, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7358  
MR. DUANE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
PHONE: (301) 513-7336  
MR. WAYNE A. MOWDY, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7304  
MR. AUGIE REBISH, UTILITY ENGINEER  
PHONE: (301) 513-7350  
MR. ROBERT SNYDER, SR. CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

MR. KAMAL HAMUD  
MONTGOMERY COUNTY  
240-777-8761

MR. STEVE CUSTER  
PEPCO CUSTOMER DESIGN  
201 W. GUIDE DR.  
ROCKVILLE, MD 20850  
PHONE: (301) 548-4333

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 30, 104.12 - 01, 104.13 - 01, 104.31 - 01, 104.32 - 01, 104.81 - 02

**EQUIPMENT LIST**

**A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.**

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
816110	TRAFFIC SIGNAL CABINET NEMA SIZE 6	EA	1
900000	TRAFFIC SIGNAL CONTROLLER WITH VIDEO DETECTION INTERFACE EQUIPMENT	EA	1
900000	MONTGOMERY COUNTY INTERCONNECT SPLICE CABINET	EA	1
963010	FOUR CHANNEL, LOOP DETECTOR AMPLIFIER, RACK MOUNT	EA	1
973023	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: D-3(1) (96" X 16") MAST ARM MOUNT - 8 EACH R10-3(1) (9"X15") POLE MOUNT SIGN TO READ "PUSH BUTTON TO CROSS" - 4 EACH ASSOCIATED SHIELD ASSEMBLY (30"X51") BAND TO POLE - 2 EACH ASSOCIATED SHIELD ASSEMBLY (48"X75") BAND TO POLE - 2 EACH	SF	145

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

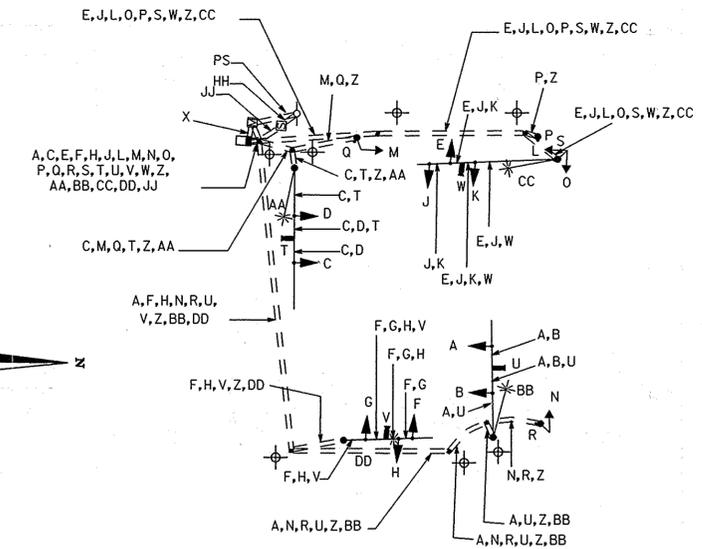
CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
120500	MAINTENANCE OF TRAFFIC	LS	1
203030	TEST PIT EXCAVATION	CY	5
585452	24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKINGS	LF	165
800000	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON STATION AND SIGN (5"X7" WITH BRAILLED DENOTING CROSSING STREET)	EA	4
800000	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT	EA	8
800000	METERED SERVICE PEDESTAL	EA	1
800000	ELECTRICAL CABLE - 1 CONDUCTOR (250 KCMIL)	LF	210
800000	6 - PAIR COMMUNICATION CABLE	LF	20
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	21
801607	INSTALL SHEET ALUMINUM SIGN	SF	75
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	550
805155	4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	550
805125	2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	30
805135	3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	170
805140	4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	200
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	7
813015	INSTALL OVERHEAD SIGN	SF	64
816001	VIDEO DETECTION CAMERA	EA	4
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	3
818004	10 FOOT BREAKAWAY PEDESTAL POLE CUT IN 5'	EA	1
816005	VIDEO DETECTION CABLE, 250 FT	EA	3
816010	VIDEO DETECTION CABLE, 500 FT	EA	1
818041	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM	EA	3

818052	STEEL POLE WITH A SINGLE 38 FOOT MAST ARM	EA	1
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	4
832017	ELECTRICAL CABLE - 1 CONDUCTOR, NO.4AWG, TYPE USE, 600V	LF	30
833062	4 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80 RISER	LF	20
837001	GROUND ROD - 3/4" INCH DIAMETER X 10-FOOT LENGTH	EA	5
860284	12" VEHICULAR LED TRAFFIC SIGNAL HEAD SECTION	EA	30
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	630
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	765
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TRAY CABLE	LF	750
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1420
866101	10 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	2
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	2

**KCI TECHNOLOGIES**  
ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS  
10 NORTH PARK DRIVE  
HUNT VALLEY, MD 21030  
PHONE: (410) 316-7800  
FAX: (410) 316-7817  
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**WIRING DIAGRAM**

- KEY**
- A,C,E,F,H,J } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
  - B,D,G,K,L,M,N,O } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
  - AA,BB,CC,DD } 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
  - P,Q,R,S } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 ALUMINUM SHIELED)
  - T,U,V,W } VIDEO DETECTION CONTROL CABLE
  - Z } 1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
  - X } POWER SERVICE UNDERGROUND 3 WIRE 1 CINDUCTOR (NO.4 AWG)
  - ⊕ } GROUND ROD
  - PS } 3-1 CONDUCTOR ELECTRICAL CABLES (250 KCMIL)
  - HH } 2 - 12 PAIR SELF SUPPORTING INTERCONNECT CABLES
  - JJ } 6 - PAIR COMMUNICATIONS CABLE



**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 2 AND 6	g	g	g	g	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	g	g	g	g	R	R	R	R	R	R	EW	EW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	g	g	g	g	g	g	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	g	g	g	g	g	g	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	g	g	g	g	g	g	DW	DW	EW	EW
4 AND 8 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 124 (WOODFIELD RD) AND HADLEY FARMS DRIVE /BARCELONA DRIVE  
FINAL PLAN

**GENERAL INFORMATION SHEET**

SCALE 1" = 20'	DATE N/A	CONTRACT NO. M06325171
DESIGNED BY AH	COUNTY MONTGOMERY	
DRAWN BY AF	LOGMILE 15012408.51	
CHECKED BY JFL	TIMS NO. H079	
FAP NO. AC-STP-1103@E	TOD NO.	
TS NO. 4646	DRAWING SP-26 OF 39	SHEET NO. 284 OF 377