

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 185 (CONNECTICUT AVENUE) AND I-495 (CAPITAL BELTWAY) INNER LOOP RAMPS IN MONTGOMERY COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF A NEW CABINET AND CONTROLLER, APS PUSHBUTTONS, COUNTDOWN PEDESTRIAN SIGNALS, AND LED SIGNAL HEADS, AND THE CONSTRUCTION OF ADA-COMPLIANT CURB RAMPS AND SIDEWALK. MD 185 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL CONTINUE TO OPERATE IN NEMA THREE PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 185 APPROACHES OPERATING CONCURRENTLY AND THE I-495 INNER LOOP EXIT RAMP APPROACH (RAMP 3) OPERATING EXCLUSIVELY. NEW PUSHBUTTON ACTUATION WILL BE INSTALLED ACROSS THE I-495 INNER LOOP EXIT RAMP APPROACH (RAMP 3). ALL PEDESTRIAN PUSHBUTTONS WILL BE APS. UNDERGROUND INTERCONNECT WILL CONTINUE TO BE PROVIDED ALONG MD 185 TO THE BEACH DRIVE INTERSECTION TO THE NORTH.

NEW AUDIBLE, PUSHBUTTON-ACTUATED, PEDESTRIAN PHASES WILL BE PROVIDED ACROSS THE I-495 INNER LOOP EXIT RAMP (RAMP 3).

APS MESSAGE FOR CROSSING THE I-495 (CAPITAL BELTWAY) INNER LOOP EXIT RAMP (RAMP 3):

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS I-495 INNER LOOP RAMP AT CONNECTICUT, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

**CONTROLLER REQUIREMENTS**

A NEW NEMA TYPE 'S' BASE MOUNTED CABINET AND A FULL TRAFFIC ACTUATED EIGHT-PHASE ASC III LOCAL CONTROLLER WITH VIDEO INTERFACE EQUIPMENT, UNINTERRUPTED POWER SUPPLY, AND 2 WIRE CENTRAL CONTROL UNIT WILL BE INSTALLED.

**EQUIPMENT LIST "C"**

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:  
EXISTING SIGNAL CONTROLLERS AND ALL ASSOCIATED EQUIPMENT IN CABINETS.

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9104	1	EA	CONTROLLER CABINET, SIZE "S" W/CTRL. VIDEO INT. 1-8 CAM
9110	1	EA	UPS EQUIPMENT FOR "S" CABINET
9571	2	SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN - 2 EACH R10-3(1) (9"x15") POLE MOUNTED

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. BRIAN YOUNG  
DISTRICT ENGINEER  
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MRS. ANYESHA MOOKHERJEE  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
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MR. TOM FOUNTAIN  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7304

MR. ED RODENHIZER  
SUPERVISOR - SIGNAL SHOP  
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MR. MIKE STOCKER  
SUPPLY OFFICE IV (SIGNAL SHOP WAREHOUSE)  
PHONE: (410) 787-7696

MR. VICTOR CRAFTON  
DISTRICT UTILITY ENGINEER  
PHONE: (301) 513-7350

MS. CORREN JOHNSON  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

VACANT  
ASSISTANT DIVISION CHIEF - TRAFFIC OPERATIONS  
PHONE: (410) 787-7630

MR. EUGENE BAILEY  
CHIEF - SIGN OPERATIONS SECTION  
PHONE: (410) 787-7670

MR. PAUL WILSON  
PEPCO  
PHONE: (301) 548-4332

THE CONTACT PERSON FOR MCDPWT IS AS FOLLOWS:

MR. KAMIL HAMUD  
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION  
PHONE: (240) 777-8761

MR. ROBERT RICKETTS  
MONTGOMERY COUNTY - SIGNAL SHOP  
PHONE: (301) 279-1291

**EQUIPMENT LIST "B"**

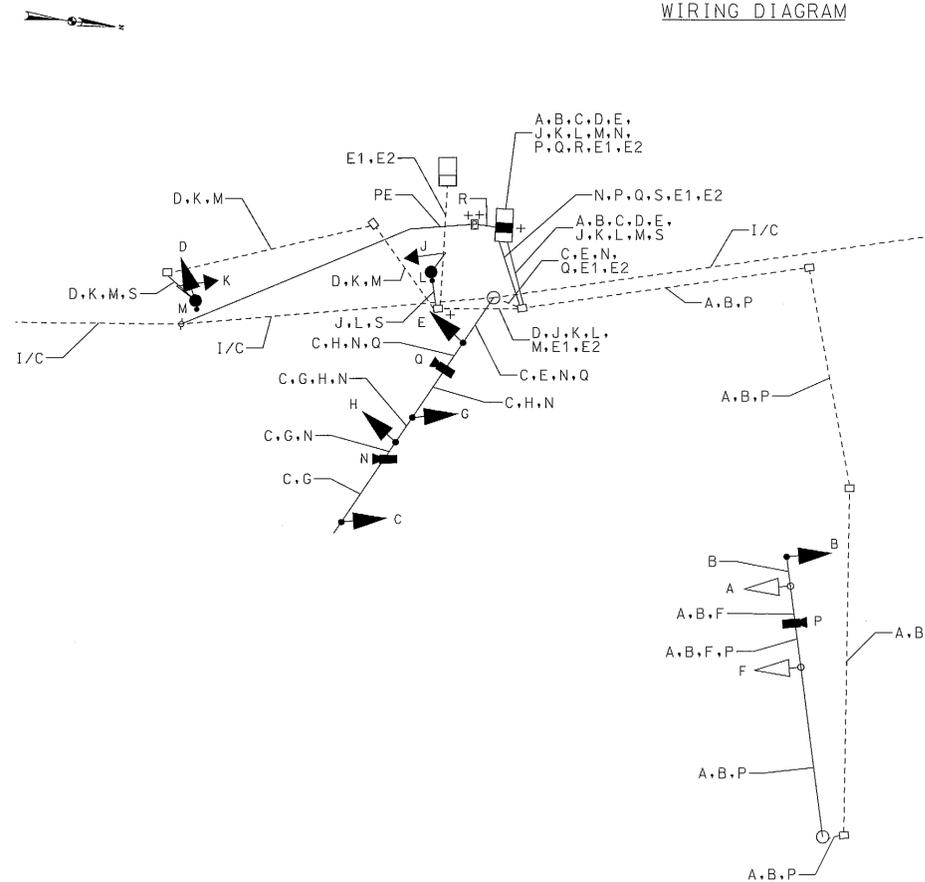
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
203030	2	CY	TEST PIT EXCAVATION
585412	450	LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585424	200	LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
800000	3	EA	VIDEO DETECTION CAMERA AND CABLE
800000	2	EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
800000	1	EA	2-WIRE CENTRAL CONTROL UNIT
800000	2	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	150	LF	DISCONNECT AND REROUTE EXISTING CABLE
800000	1	LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
801004	2	CY	CONCRETE FOR SIGNAL FOUNDATION
801106	64	LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801605	44	SF	SHEET ALUMINUM SIGNS
801711	34	SF	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
802501	50	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805105	100	LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	100	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	50	LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	25	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	50	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
807500	1	EA	EMBEDDED METERED SERVICE PEDESTAL
810022	25	LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
811002	3	EA	REMOVE ELECTRICAL HANDHOLE
813006	15	SF	RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURES
813014	2	SF	INSTALL GROUND MOUNTED SIGN
818004	1	EA	10 FOOT BREAKAWAY PEDESTAL POLE
818006	1	EA	20 FOOT BREAKAWAY PEDESTAL POLE
837001	4	EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	18	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	150	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	350	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1050	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
871202	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	
PHASE 2 + 6	G	G	G	G	G	R	R	R	W	W	
PED CLEARANCE	G	G	G	G	G	R	R	R	FL/DW	FL/DW	
2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	DW	DW	
PHASE 4	R	R	R	R	R	G	G	G	DW	DW	
4 CHANGE	R	R	R	R	R	Y	Y	Y	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	

**WIRING DIAGRAM**



**WIRING KEY**

- A,B,C } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- D,E } (NO. 14 AWG)
- F,G,H, } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- J,K } (NO. 14 AWG)
- L,M } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- N,P,Q } VIDEO DETECTION LEAD-IN CABLE
- R } 3-1CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG)
- S } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
- I/C } INTERCONNECT CABLE TO REMAIN
- E1,E2 } PULLED BACK AND REROUTED INTERCONNECT CABLE

**LEGEND**

PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE  
+ - 3/4 IN. X 10 FT. GROUND ROD

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

**MD 185 (CONNECTICUT AVENUE) AT I-495 (CAPITAL BELTWAY) INNER LOOP RAMPS**  
CHEVY CHASE, MARYLAND

**GENERAL INFORMATION SHEET**

SCALE	NONE	DATE	JUNE 26, 2013	CONTRACT NO.	MO1315677
DESIGNED BY	NUM	COUNTY	MONTGOMERY COUNTY		
DRAWN BY	NUM	LOGMILE	15018502.55		
CHECKED BY	BSH	T.I.M.S. NO.	LS17		
F.A.P. NO.		T.O.D. NO.			
T.S. NO.	10690A-GI	SG-04 OF	SG-04	SHEET NO.	4 OF 4

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