

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC SIGNAL WITH INTERCONNECT AT THE INTERSECTION OF MD 185 (CONNECTICUT AVENUE) AND BEACH DRIVE IN MONTGOMERY COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF APS AND CPS 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 FIVE PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 185 APPROACHES OPERATING CONCURRENTLY AND THE BEACH DRIVE APPROACHES OPERATING CONCURRENTLY. LEADING EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND MD 185. NEW PUSHBUTTON ACTUATION WILL BE INSTALLED ACROSS THE SOUTH LEG OF MD 185 AND THE WEST LEG OF BEACH DRIVE. ALL PEDESTRIAN PUSHBUTTONS WILL BE APS. OVERHEAD INTERCONNECT WILL CONTINUE TO BE PROVIDED ALONG MD 185 TO THE SAUL ROAD INTERSECTION TO THE NORTH AND I-495 OUTER LOOP RAMPS TO THE SOUTH.

NEW AUDIBLE, PUSHBUTTON-ACTUATED, PEDESTRIAN PHASES WILL BE PROVIDED ACROSS THE SOUTH LEG OF MD 185 AND THE WEST LEG OF BEACH DRIVE.

APS MESSAGE FOR CROSSING THE SOUTH LEG OF MD 185:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS CONNECTICUT AT BEACH, WAIT".

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

APS MESSAGE FOR CROSSING THE WEST LEG OF BEACH DRIVE:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS BEACH 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**

THE EXISTING NEMA 'S' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED. A 2-WIRE CENTRAL CONTROL UNIT WILL BE ADDED TO THE CABINET.

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
900000	3	SF	SHEET ALUMINUM GROUND MOUNTED SIGN - 1 EACH DM1-3 (18"x18")
900000	4	SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN - 2 EACH R10-3(1) (9"x15") "BEACH DRIVE" - POLE MOUNTED - 2 EACH R10-3(1) (9"x15") "CONNECTICUT AVENUE" - POLE MOUNTED

**EQUIPMENT LIST "B"**

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
100000	1	EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
201032	10	CY	CLASS 2 EXCAVATION
203030	3	CY	TEST PIT EXCAVATION
585621	300	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	35	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585700	650	LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
600000	370	LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
600000	155	LF	TYPE A CURB ANY HEIGHT OR DEPTH
655105	1250	SF	5 INCH CONCRETE SIDEWALK
655120	70	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
704345	7	SY	PLACING FURNISHED TOPSOIL 4 INCH DEPTH
708220	7	SY	TURFGRASS SOD ESTABLISHMENT
800000	1	EA	2-WIRE APS CENTRAL CONTROL UNIT
800000	4	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	1	EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	3	EA	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD
800000	1	EA	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
800000	125	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED OR SLOTTED
800000	75	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	10	LF	WOOD SIGN SUPPORTS UP TO 4 INCH X 6 INCH
800000	7	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
800000	1	EA	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
802501	250	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
813023	5	SF	RELOCATE EXISTING GROUND MOUNTED SIGNS
861105	600	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	200	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ANYESHA MOOKHERJEE  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7404

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

MR. TOM FOUNTAIN  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7304

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

MR. ED RÖDENHIZER  
SUPERVISOR - SIGNAL SHOP  
PHONE: (410) 787-7650

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

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

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

THE CONTACT PERSON FOR MCDPWT IS AS FOLLOWS:

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

VACANT  
MONTGOMERY COUNTY SIGNAL SHOP  
PHONE: (301) 279-1291

**EQUIPMENT LIST "C"**

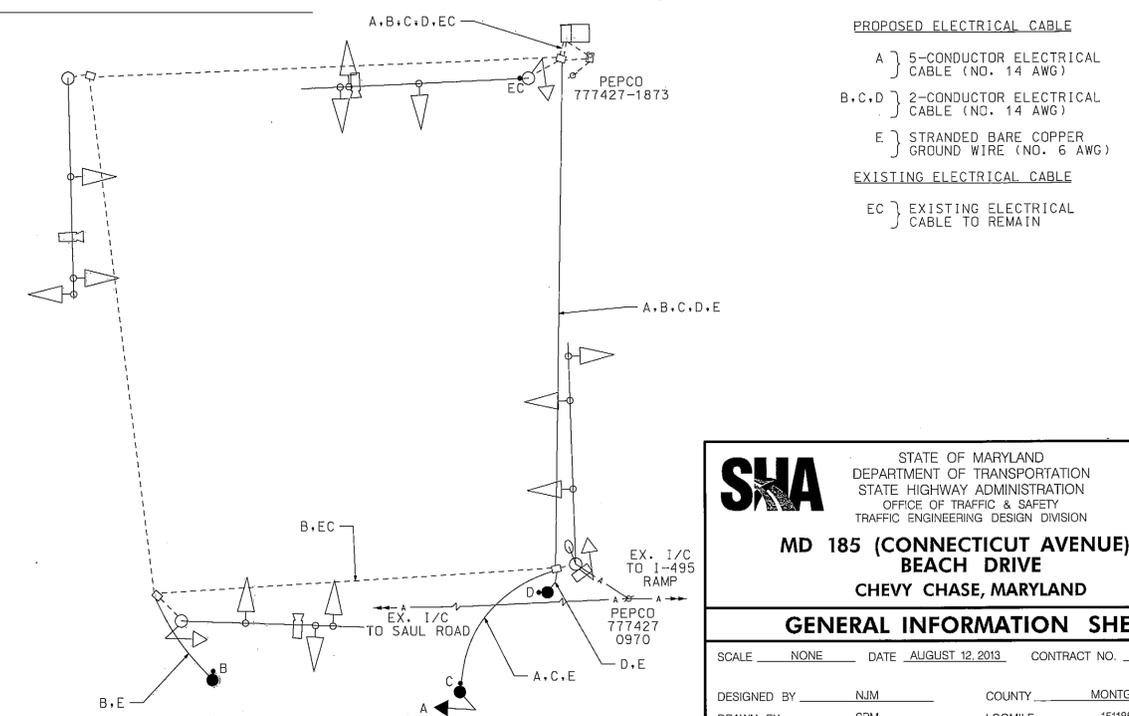
C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

NONE.

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 + 6	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	←G-/G	←G-/G	G	R	R	R	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	W	W	DW	DW
PED CLEARANCE	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 4 + 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT + 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	W	W
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	FL/DW	FL/DW
4 ALT + 8 CHANGE	R	R	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/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

**WIRING DIAGRAM**



- PROPOSED ELECTRICAL CABLE**
- A } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
  - B, C, D } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
  - E } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
- EXISTING ELECTRICAL CABLE**
- EC } EXISTING ELECTRICAL CABLE TO REMAIN

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

**MD 185 (CONNECTICUT AVENUE) AT BEACH DRIVE**  
CHEVY CHASE, MARYLAND

**GENERAL INFORMATION SHEET**

SCALE	NONE	DATE	AUGUST 12, 2013	CONTRACT NO.	XY2385185
DESIGNED BY	NJM	COUNTY	MONTGOMERY		
DRAWN BY	SPM	LOGMILE	15118502.83		
CHECKED BY	BSH	T.I.M.S. NO.	M005		
F.A.P. NO.		T.O.D. NO.			

T.S. NO. 4386B-GI    SG-03 OF SG-03    SHEET NO. 3 OF 3