

**PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE MODIFICATION OF INTERSECTION OF US 50 (SUNBURST HWY) AT MARYLAND AVE TO INCLUDE COUNTDOWN PEDESTRIAN SIGNAL HEADS AND ACCESSIBLE PEDESTRIAN PUSHBUTTONS AND SIGNS. US 50 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN ALTERNATE PEDESTRIAN PHASE FOR THE EAST AND WEST LEGS AND CONCURRENT PEDESTRIAN PHASES FOR THE NORTH AND SOUTH LEGS OF THE INTERSECTION. THE US 50 EASTBOUND AND WESTBOUND LEFT TURNS OPERATE IN EXCLUSIVE-PERMISSIVE PHASING. THE MARYLAND AVE APPROACHES OPERATE IN SPLIT PHASING.

**CONTROLLER REQUIREMENTS**

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT-PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL REMAIN. A NEW 2-WIRE APS CENTRAL CONTROL UNIT SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY SHA.

**SPECIAL NOTES**

APS WILL FUNCTION AS FOLLOWS:

TO CROSS US 50 (SUNBURST HIGHWAY):

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS SUNBURST AT MARYLAND. CROSSWALK ANGLES RIGHT. WAIT."
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS MARYLAND ROAD:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS MARYLAND AT SUNBURST. WAIT."
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

SPLICE LOOP WIRE TO EXISTING 2/C IN HANDBOX (SPLICE IS INCIDENTAL TO LOOP WIRE INSTALLATION)

**WIRING KEY**

A,B,C,D, E,F,G	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
H,I,J,K, L,M,N	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
EX	USE EXISTING CABLES
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
LW	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
PF	EXISTING OVERHEAD POWER FEED
⊕	EXISTING GROUND ROD
⊕	PROPOSED GROUND ROD

CONTACT PERSONS FOR DISTRICT #1 ARE AS FOLLOWS:

MR. KENNETH CIMINO  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: 410-677-4040

MR. WAYNE WEICHMAN  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
410-677-4010

MR. WM NORRIS EMBERT  
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
410-810-3270

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. AVIJIT MAJI  
DIVISION CHIEF,  
TRAFFIC OPERATIONS  
PHONE: 410-787-7630

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
410-787-7630

MR. ED RODENHIZER  
CHIEF, SIGNAL OPERATIONS  
410-787-7650

MR. EUGENE BAILEY  
CHIEF, SIGN OPERATIONS  
410-787-7676

**EQUIPMENT LIST "A & C"**

A. EQUIPMENT TO BE SUPPLIED BY SHA.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
9570	SHEET ALUMINUM GROUND MOUNTED SIGN 1 - R4-7 24"X30" 1 - OM1-3 FY 18"X18"	SF	8
9571	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN 8 - R10-3(1) 9"X15"	SF	8

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**PHASING CHART**

NO PHASING CHANGES

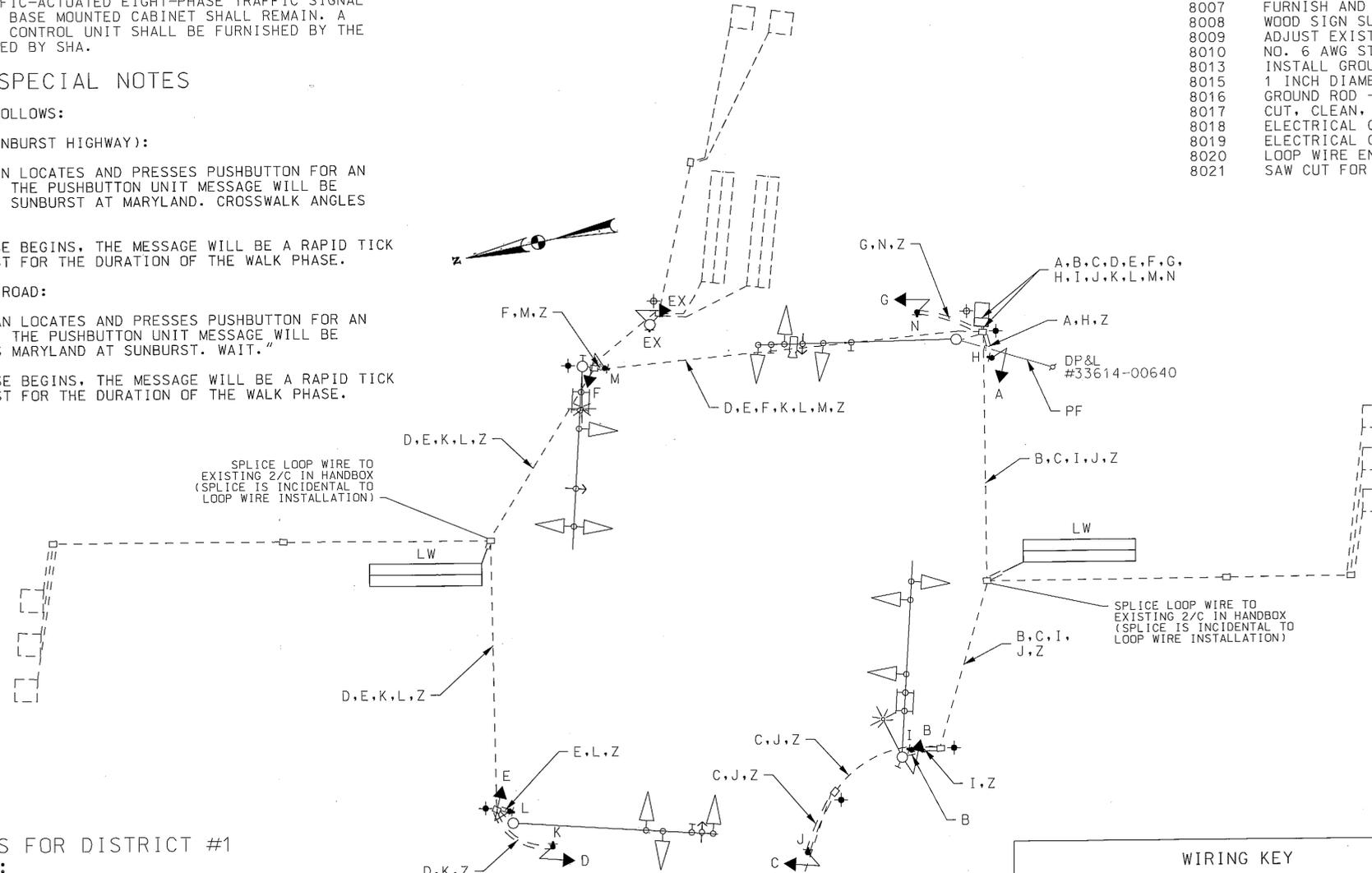
**EQUIPMENT LIST "B"**

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

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1002	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH	LF	950
5005	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS	LF	750
8001	FURNISH AND INSTALL AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS	EA	8
8002	FURNISH AND INSTALL BREAKWAY PEDESTAL POLE - ANY SIZE	EA	7
8003	FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS	EA	8
8004	REMOVE AND DISPOSE PER ASSIGNMENT	EA	1
8005	DISCONNECT, PULL BACK AND REROUTE	LF	15
8007	FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	95
8008	WOOD SIGN SUPPORTS 4 INCH X 4 INCH	LF	27
8009	ADJUST EXISTING HANDHOLE	EA	7
8010	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	490
8013	INSTALL GROUND MOUNTED SIGN	SF	16
8015	1 INCH DIAMETER RIGID STEEL CONDUIT, SCHEDULE 40	LF	20
8016	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	5
8017	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	1
8018	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	1170
8019	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	1210
8020	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)	LF	870
8021	SAW CUT FOR SIGNAL (LOOP DETECTOR)	LF	230

**GENERAL NOTES**

- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
- ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- UNDERGROUND 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.
- ALL PEDESTAL FOUNDATION TOPS SHALL BE INSTALLED FLUSH WITH SIDEWALK GRADE.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF THE LATEST MD-MUTC CHAPTER 4 "PEDESTRIAN CONTROL FEATURES," SEC. 4E.08 AND THE LATEST NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS GUIDE TO BEST PRACTICE." NOTE: SHOULD FIELD CONDITIONS RESULT WHERE EQUIPMENT PLACEMENTS CANNOT BE MET AND MAY REQUIRE AN ALTERNATE FIELD LOCATION OF SUCH PEDESTRIAN EQUIPMENT DEVICES, THE CONTRACTOR SHALL STOP ALL WORK AND NOTIFY THE SHA ENGINEER FOR REVIEW. AN ALTERNATE DESIGN WAIVER MAY BE NECESSARY AND OBTAINED FOR THE APPROVAL BY THE DIRECTOR, OFFICE OF TRAFFIC & SAFETY.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON. NOT CENTER OF POLE TO CENTER OF POLE.
- PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- EXISTING HANDHOLES SHALL HAVE NEW FRAME AND COVERS AS NOTED ON THE PLAN. POUR COLLARS AROUND ALL HANDHOLES INVOLVED.



**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
**US 50 (SUNBURST HIGHWAY) AT  
MARYLAND AVENUE  
CAMBRIDGE, MARYLAND**

REVISIONS		GENERAL INFORMATION SHEET	
SCALE	NONE	DATE	FEBRUARY 2013
DESIGNED BY	WFW	COUNTY	DORCHESTER
DRAWN BY	WFW	LOGMILE	09005000.84
CHECKED BY	BJG	TIMS NO.	L603
FAP NO.		TOD NO.	
TS NO. 343K-G1	DRAWING	SP-2	OF 6
		SHEET NO.	OF

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