

**PROJECT DESCRIPTION**

**GENERAL**  
 THIS PROJECT INVOLVES THE INSTALLATION OF APS (ACCESSIBLE PEDESTRIAN SIGNALS)/CPS (COUNTDOWN PEDESTRIAN SIGNALS) AND INSTALLATION OF ADA COMPLIANT CURB RAMPS AT THE INTERSECTION OF MD 24 (VIETNAM VETERANS MEMORIAL HIGHWAY) AND MARKETPLACE DRIVE IN HARFORD COUNTY, MARYLAND. MD 24 IS ASSUMED TO RUN IN A NORTH/SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION OPERATION WILL REMAIN THE SAME.

**TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS**

MD 24 (VIETNAM VETERANS MEMORIAL HIGHWAY) AND MARKETPLACE DRIVE - NORTH LEG

**STREETS AT 90 DEGREES**

WAIT: "WAIT TO CROSS VETERANS MEMORIAL AT MARKETPLACE. WAIT." \*

WALK: RAPID TICK

\* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'  
 \*\* MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

**CONTROLLER REQUIREMENTS**

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED.

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ERIN KUHN  
 ASSISTANT DISTRICT ENGINEER - TRAFFIC  
 PHONE: (410) 229-2381

MR. ROBERT SNYDER  
 ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION  
 PHONE: (410) 787-7631

MR. ANDRE FUTRELL  
 ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
 PHONE: (410) 229-2361

MR. MIKE PASQUARIELLO  
 DISTRICT UTILITY ENGINEER  
 PHONE: (410) 229-2341

**PHASE CHART**



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
PHASE 1 + 5	←G	←G	R	R	←G	←G	R	R	R	R	R	R	R	R	R	DW	DW
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6																
PHASE 1 + 6	←R	←R	R	R	←G	←G	G	G	R	R	R	R	R	R	R	DW	DW
1 + 6 CHANGE	←R	←R	R	R	←Y	←Y	G	G	R	R	R	R	R	R	R	DW	DW
PHASE 2 + 5	←G	←G	G	G	←R	←R	R	R	R	R	R	R	R	R	R	DW	DW
2 + 5 CHANGE	←Y	←Y	G	G	←R	←R	R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 + 6	←R	←R	G	G	←R	←R	G	G	R	R	R	R	R	R	R	DW	DW
2 + 6 CHANGE	←R	←R	Y	Y	←R	←R	Y	Y	R	R	R	R	R	R	R	DW	DW
PHASE 3	←R	←R	R	R	←R	←R	R	R	←G	←G	G	G	R	R	R	DW	DW
3 CHANGE	←R	←R	R	R	←R	←R	R	R	Y	Y	Y	R	R	R	R	DW	DW
PHASE 4	←R	←R	R	R	←R	←R	R	R	R	R	R	←G	←G	G	DW	DW	
4 CHANGE	←R	←R	R	R	←R	←R	R	R	R	R	R	Y	Y	Y	DW	DW	
PHASE 4 ALT	←R	←R	R	R	←R	←R	R	R	R	R	R	←G	←G	G	WK	WK	
PED CLEARANCE	←R	←R	R	R	←R	←R	R	R	R	R	R	←G	←G	G	FLDW	FLDW	
4 ALT CHANGE	←R	←R	R	R	←R	←R	R	R	R	R	R	Y	Y	Y	DW	DW	
PRE-EMPTION	←R	←R	R	R	←G	←G	G	G	R	R	R	R	R	R	DW	DW	
PRE-EMPTION CLEAR.	←R	←R	R	R	←Y	←Y	Y	Y	R	R	R	R	R	R	DW	DW	
FLASHING OPERATION	←FLR	←FLR	FLY	FLY	←FLR	←FLR	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9571	2 SF	SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS VETERANS MEMORIAL HWY"

**EQUIPMENT LIST "C"**

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

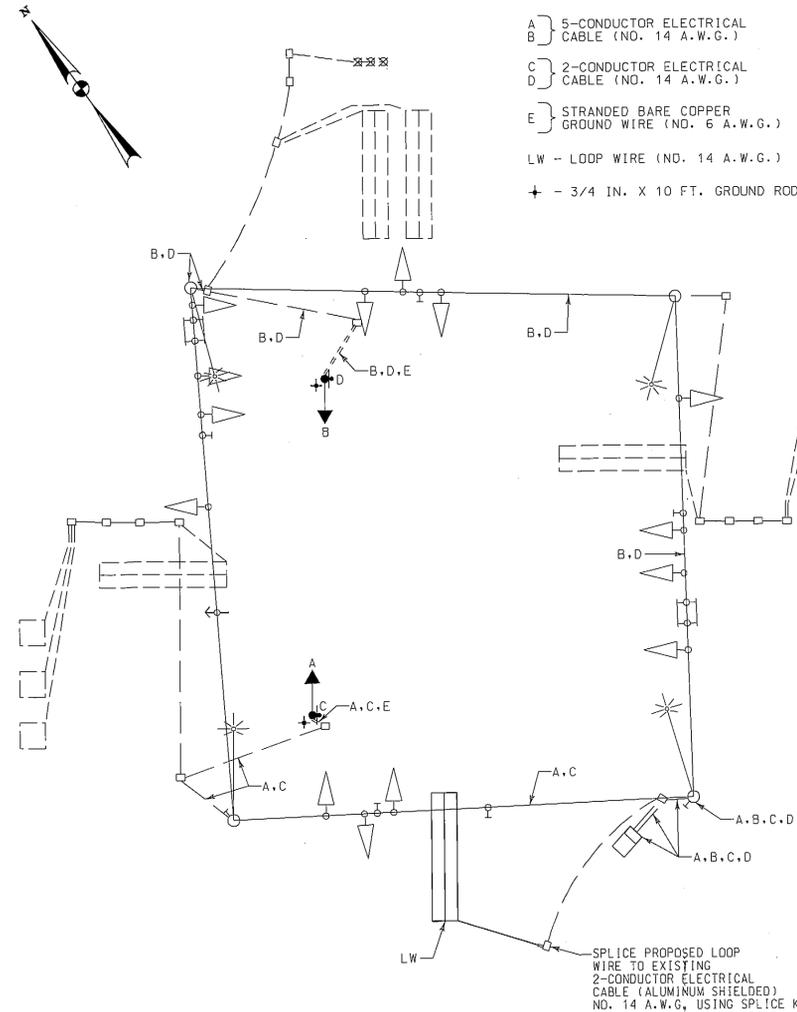
ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

**MAINTENANCE OF TRAFFIC**

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.04-01 (SHOULDER WORK)
- STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
- STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
- STANDARD NO. MD-104.04-09 (2 RIGHT/LEFT LANES CLOSURE)

**WIRING DIAGRAM**



**EQUIPMENT LIST "B"**

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

ITEM NO.	QUANTITY	DESCRIPTION
2001	2 CY	CLASS 2 EXCAVATION
2002	2 CY	TEST PIT EXCAVATION
5003	560 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	850 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	12 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	600 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	2175 SF	5 INCH CONCRETE SIDEWALK
6003	150 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS (TYPE 3 BRICK PAVERS)
8002	1 EACH	2-WIRE CENTRAL CONTROL UNIT
8005	2 EACH	ADJUST HANDHOLE TO GRADE WITH NEW FRAME AND COVER
8008	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	2 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8016	2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8030	5 LF	1 INCH DETECTOR SLEEVE GALVANIZED OR FLEXIBLE LIQUID TIGHT CONDUIT
8040	25 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8041	65 LF	WOOD SIGN SUPPORTS UP TO 4"x6"
8042	20 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	30 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8055	775 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	775 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8059	416 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8060	135 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)

TOD NO: XY125-14  
 SHA NO: HA400B56  
 US 1 Bus. @ MD 924, MD 24 @  
 Marketplace Dr./MD 924 @ Ring Factory  
 Rd/Bel Air/Laurel Bush Rd/Holly Wreath

**SHA** STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 OFFICE OF TRAFFIC & SAFETY  
 TRAFFIC ENGINEERING DESIGN DIVISION  
 MD 24 (Vietnam Veterans Memorial Hwy) and Marketplace Drive  
 Bel Air, MD

**GENERAL INFORMATION SHEET**

SCALE N.T.S.	DATE 10/02/2012	CONTRACT NO. XY1255185
DESIGNED BY JDC	COUNTY HARFORD	
DRAWN BY SMD	LOGMILE 120248.85	
CHECKED BY NML	TIMS NO. L646	
F.A.P. NO.	TOD NO.	
TS NO. 35516	DRAWING TSP-6	OF 15 SHEET NO. 6 OF 15

**WR&A**  
 WHITMAN, REQUARDT & ASSOCIATES, LLP  
 801 South Caroline Street, Baltimore, Maryland 21231

PLOTTED: October 02, 2012  
 FILE: N:\31669-238\CADD\p95-P003\_M02\_Marketplace.dgn