

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 173 (FORT SMALLWOOD RD) AND DUVALL HWY/VALLEY RD IN ANNE ARUNDEL COUNTY. THE MODIFICATION WILL REPLACE THE EXISTING PEDESTRIAN SIGNALS WITH APS/CPS. MD 173 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FIVE (5) PHASE FULLY-ACTUATED MODE. THERE IS AN EXCLUSIVE LEFT TURN FOR NORTHBOUND MD 173. THE MD 173 MOVEMENTS OPERATE CONCURRENTLY AND DUVALL HWY/VALLEY ROAD OPERATES IN SPLIT PHASING WITH AN ALTERNATIVE ACTUATED PEDESTRIAN PHASE WITH AUDIBLE PEDESTRIAN SIGNALS ACROSS THE SOUTHERN LEG OF THE INTERSECTION.

III. SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:
TO CROSS MD 173 (FORT SMALLWOOD RD)

- WHEN A PEDESTRIAN LOCATES AND PASSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS FORT SMALLWOOD AT DUVALL. WAIT."
- WHEN THE WALK PHASE BEGINS, THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACTS

DISTRICT (DISTRICT 5)

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OFFICE OF TRAFFIC AND SAFETY

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MR. MICHAEL STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7696

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9571	70	SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN 2 EA R10-3(1) "PUSH BUTTON TO CROSS 'FORT SMALLWOOD'" (9"x15") 2 EA M1-5(6) (48"x72") 2 EA M1-5(6) (30"x48")

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

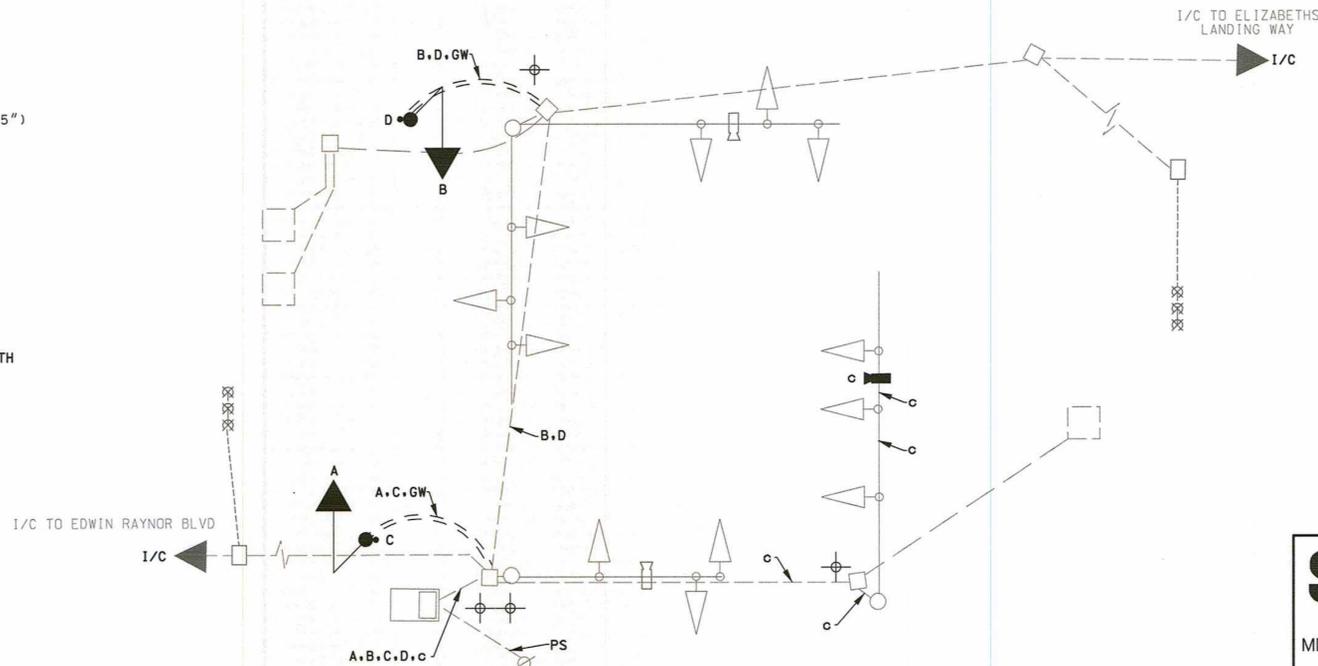
ITEM NO.	QUANTITY	UNIT	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC
2002	1	CY	TEST PIT EXCAVATION
5003	370	LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	340	LF	12 IN WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	40	LF	24 IN WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	70	LF	STANDARD TYPE 'A' COMBINATION CURB AND GUTTER 12 IN. GUTTER PAN 8 IN. DEPTH
6002	310	SF	5 IN. CONCRETE SIDEWALK
6003	20	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8002	1	EA	CENTRAL CONTROL UNIT
8008	2	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	2	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8018	2	EA	LED 16 IN. COUNTDOWN PEDESTRIAN SIGNAL HEAD
8027	1	EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8032	1	EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8043	35	LF	UP TO 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8045	70	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8047	40	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8058	160	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8060	175	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATIONS.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Phase 1 & 6	<R- <Y- <G-	<R- <Y- <G-	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	DW DW	DW DW
1 Change	<Y- <Y- <Y-	<Y- <Y- <Y-	G G G	G G G	R R R	R R R	R R R	R R R	R R R	R R R	R R R	R R R	DW DW	DW DW
Phase 2 & 6	<R- <R- <R-	<R- <R- <R-	G G G	G G G	G G G	R R R	R R R	R R R	R R R	R R R	R R R	R R R	DW DW	DW DW
2 & 6 Change	<R- <R- <R-	<R- <R- <R-	Y Y Y	Y Y Y	Y Y Y	R R R	R R R	R R R	R R R	R R R	R R R	R R R	DW DW	DW DW
Phase 3	<R- <R- <R-	<R- <R- <R-	R R R	R R R	R R R	R R R	R R R	R R R	R R R	R R R	R R R	R R R	DW DW	DW DW
3 Change	<R- <R- <R-	<R- <R- <R-	R R R	R R R	R R R	R R R	R R R	R R R	Y Y Y	Y Y Y	Y Y Y	Y Y Y	DW DW	DW DW
Phase 4	<R- <R- <R-	<R- <R- <R-	R R R	R R R	R R R	<G- <G- <G-	<G- <G- <G-	G G G	R R R	R R R	R R R	R R R	DW DW	DW DW
4 Change	<R- <R- <R-	<R- <R- <R-	R R R	R R R	R R R	Y Y Y	Y Y Y	Y Y Y	R R R	R R R	R R R	R R R	DW DW	DW DW
Phase 4 Alt.	<R- <R- <R-	<R- <R- <R-	R R R	R R R	R R R	<G- <G- <G-	<G- <G- <G-	G G G	R R R	R R R	R R R	R R R	WK WK	WK WK
Ped Clearance.	<R- <R- <R-	<R- <R- <R-	R R R	R R R	R R R	<G- <G- <G-	<G- <G- <G-	G G G	R R R	R R R	R R R	R R R	FL/DW FL/DW	FL/DW FL/DW
4 Alt. Change	<R- <R- <R-	<R- <R- <R-	R R R	R R R	R R R	Y Y Y	Y Y Y	Y Y Y	R R R	R R R	R R R	R R R	DW DW	DW DW
Flashing	<FL/R- <FL/R-	<FL/R- <FL/R-	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK
Operation	<FL/R- <FL/R-	<FL/R- <FL/R-	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



WIRING KEY

- A,B - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C,D - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C - VIDEO DETECTION LEAD-IN CABLE
- I/C - EXISTING INTERCONNECT
- PS - EXISTING POWER CABLE
- GW - 1 CONDUCTOR STRANDED COPPER GROUND WIRE (NO. 6 AWG)
- + - EXISTING GROUND ROD

TEDD APPROVAL
REDLINE REVISION 6/17/2013
[Signature]

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 173 (FORT SMALLWOOD RD) at DUVALL HWY/VALLEY RD

ASHBURN, MD

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE MAY 1, 2013 CONTRACT NO. XY1395185

DESIGNED BY MAW COUNTY ANNE ARUNDEL
DRAWN BY MAW LOGMILE 02017304.17
CHECKED BY KMP/TMM/TML TMS NO. 1658
F.A.P. NO. TOD NO.

TS NO. 214-GI DRAWING SG-02 OF 02 SHEET NO. 04 OF 06

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