

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE INSTALLATION OF ACCESSIBLE PEDESTRIAN SIGNALS AND LED COUNTDOWN PEDESTRIAN HEADS TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF US 13 (OCEAN HIGHWAY) AND LINDEN AVE/OLD SNOW HILL RD IN WORCESTER COUNTY. A PEDESTRIAN MOVEMENT IS TO BE ADDED TO CROSS US 13 ON THE SOUTH SIDE OF THE INTERSECTION. IT ALSO INCLUDES INSTALLATION OF SIGNS MID-BLOCK TO DIRECT PEDESTRIANS TO CROSS US 13 AT THE SIGNAL. EXISTING SIGNAL HEADS ARE TO BE REPLACED WITH LED SIGNAL HEADS. US 13 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

AN EXISTING CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL REMAIN IN USE AT THIS LOCATION. THE INTERSECTION OPERATES IN A SPLIT PHASE, SEMI-ACTUATED MODE USING 6 NEMA PHASES. THE LEFT TURN PHASING ALONG NORTHBOUND AND SOUTHBOUND US 13 OPERATES AS LEAD/LAG PHASING. THE EASTBOUND LINDEN AVE AND WESTBOUND OLD SNOW HILL RD MOVEMENTS OPERATE AS SPLIT PHASING. VIDEO CAMERAS PROVIDE DETECTION. ACCESSIBLE PEDESTRIAN SIGNALS ARE TO BE PROVIDED TO CROSS US 13 ON THE SOUTH LEG OF THE INTERSECTION. THERE ARE TWO OPTICOM PRE-EMPTION SCENARIOS.

**III. ACCESSIBLE PEDESTRIAN PUSHBUTTON STATION OPERATION:**

WHEN THE PEDESTRIAN LOCATES AND PASSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

1. SOUTH LEGS OF US 13  
 WAIT: "WAIT TO CROSS OCEAN HIGHWAY AT LINDEN AND OLD SNOW HILL. CROSSWALK ANGLES LEFT."  
 WALK: "RAPID TICK"

THE WALK MESSAGE WILL LAST FOR THE DURATION OF THE "WALK PHASE"

**SPECIAL NOTES**

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:  
 THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. GENE COFIELL  
 ASSISTANT DISTRICT ENGINEER - TRAFFIC  
 PHONE: (410) 677-4040

MR. BRUCE W. POOLE  
 DISTRICT UTILITY ENGINEER  
 PHONE: (410) 667-4082

MR. JAMES R. WRIGHT  
 ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
 PHONE: (410) 677-4010

MR. RICHARD L. DAFF, SR.  
 CHIEF, TRAFFIC OPERATIONS DIVISION  
 PHONE: (410) 787-7630

MR. RAVINDRA GANVIR  
 ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
 PHONE: (410) 667-4020

MR. ED RODENHIZER  
 SIGNAL SHOP (410) 787-7652

**EQUIPMENT LIST**

**A. EQUIPMENT TO BE FURNISHED BY SHA.**

ITEM CODE	QTY	UNITS	DESCRIPTION
9570	74	SF	SHEET ALUMINUM SIGNS CONSISTING OF: 4 EA - R10-3 (9"X15") COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS US 13" 8 EA - R9-3a (24"X24") GROUND MOUNT 4 EA - R9-3b(R) (30"X24") GROUND MOUNT 4 EA - R9-3b(L) (30"X24") GROUND MOUNT

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

ITEM CODE	QTY	UNITS	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2002	1	CY	TEST PIT EXCAVATION
6001	18	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	150	SF	5 INCH CONCRETE SIDEWALK
8001	38	EA	12 INCH (R, Y, G) LED SIGNAL HEAD
8003	1	EA	2-WIRE CENTRAL CONTROL UNIT
8010	4	EA	AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8011	4	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8014	4	EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL
8017	1	EA	REMOVE & DISPOSE OF EQUIPMENT
8026	165	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC - BORED
8028	80	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC - TRENCHED
8029	12	SF	DETECTABLE WARNING SURFACE
8033	120	LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8034	245	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	1	EA	FURNISH & INSTALL ELECTRICAL HANDHOLE
8046	72	SF	INSTALL GROUND MOUNTED SIGN
8047	4	SF	INSTALL OVERHEAD SIGN
8056	320	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8058	340	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

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

**MM CENTURY**  
 ENGINEERING  
 CONSULTING ENGINEERS - PLANNERS  
 10710 GILROY ROAD  
 HUNT VALLEY, MD 21031

**T3 design**  
 T3 DESIGN, P.C.  
 3927 OLD LEE HWY  
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**PHASE CHART**

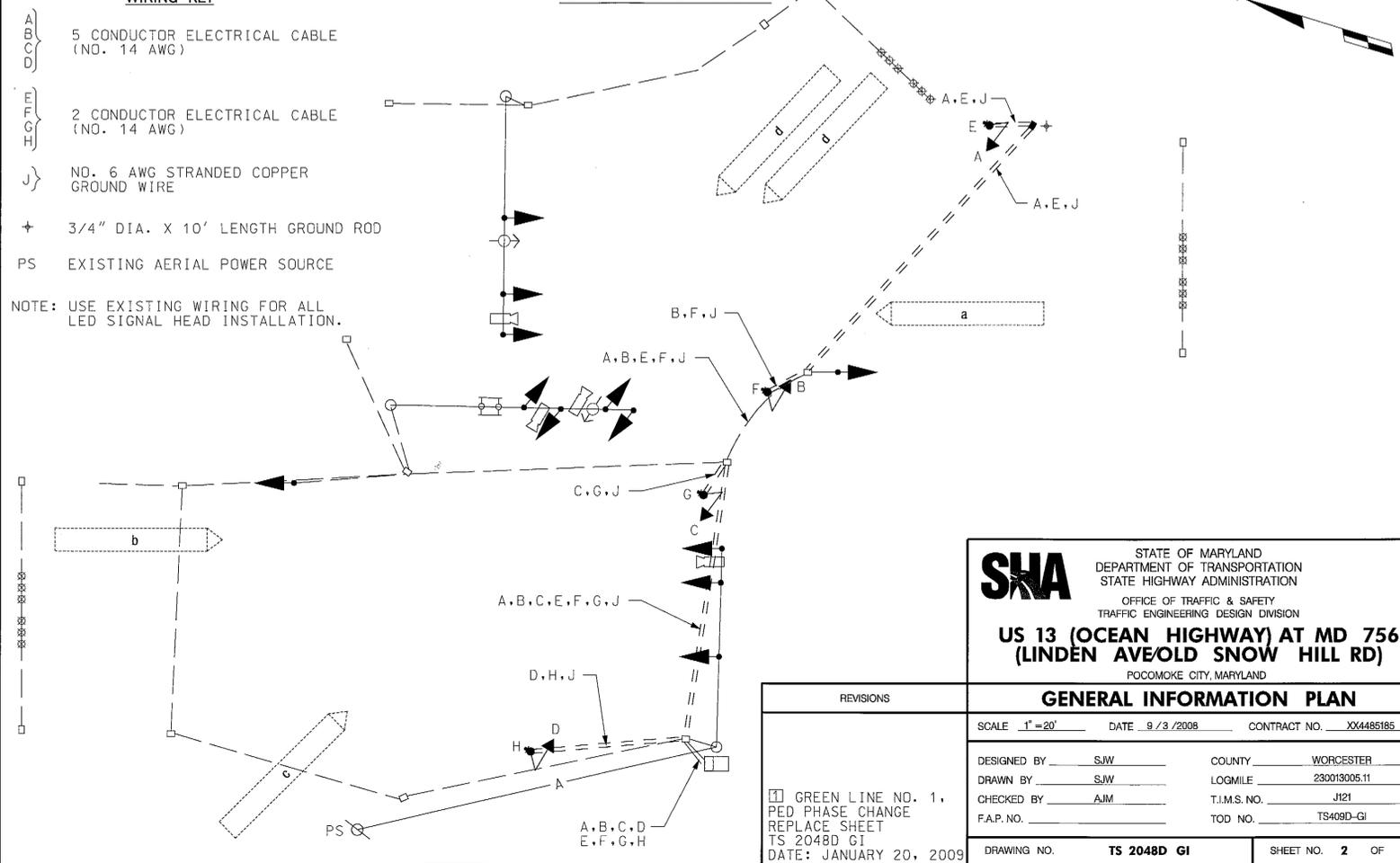
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 AND 6	R	R	R	R	←G- ←G-	G	G	R	R	R	R	DW	DW	DW	DW	
1 AND 6 CHANGE	R	R	R	R	←Y- ←Y-	Y	Y	R	R	R	R	DW	DW	DW	DW	
PHASE 2 AND 6	R	R	G	G	R	R	G	G	R	R	R	DW	DW	DW	DW	
2 AND 6 CHANGE	R	R	Y	Y	R	R	Y	Y	R	R	R	DW	DW	DW	DW	
PHASE 2 AND 5	←G-	←G-	G	G	R	R	R	R	R	R	R	DW	DW	DW	DW	
2 AND 5 CHANGE	←Y-	←Y-	Y	Y	R	R	R	R	R	R	R	DW	DW	DW	DW	
PHASE 3	R	R	R	R	R	R	R	R	R	R	←G-	G	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	DW	DW	DW	DW	
PHASE 3 ALT	R	R	R	R	R	R	R	G	R	R	←G-	G	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	R	G	R	R	←G-	G	DW	DW	FLDW	FLDW
3 ALT CHANGE	R	R	R	R	R	R	R	Y	R	R	Y	DW	DW	DW	DW	
PHASE 4	R	R	R	R	R	R	R	R	R	←G-	G	R	R	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	Y	Y	R	R	DW	DW	DW	DW	
PHASE 4 ALT	R	R	R	R	R	R	R	←G-	G	R	R	WK	WK	WK	WK	
PED CLEARANCE	R	R	R	R	R	R	R	←G-	G	R	R	FLDW	FLDW	FLDW	FLDW	
4 ALT CHANGE	R	R	R	R	R	R	R	Y	Y	R	R	DW	DW	DW	DW	
PREMPTION 1	←G-	←G-	G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PREMPTION 2	R	R	R	R	R	R	R	R	←G-	G	R	R	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

**WIRING KEY**

- A B C D 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- E F G H 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- J NO. 6 AWG STRANDED COPPER GROUND WIRE
- + 3/4" DIA. X 10' LENGTH GROUND ROD
- PS EXISTING AERIAL POWER SOURCE

NOTE: USE EXISTING WIRING FOR ALL LED SIGNAL HEAD INSTALLATION.

**WIRING DIAGRAM**



**SHA** STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 OFFICE OF TRAFFIC & SAFETY  
 TRAFFIC ENGINEERING DESIGN DIVISION  
**US 13 (OCEAN HIGHWAY) AT MD 756**  
 (LINDEN AVE/OLD SNOW HILL RD)  
 POCOMOKE CITY, MARYLAND

REVISIONS	GENERAL INFORMATION PLAN		
	SCALE 1"=20'	DATE 9/3/2008	CONTRACT NO. XX4485185
	DESIGNED BY SJW	COUNTY WORCESTER	
	DRAWN BY SJW	LOGMILE 230013005.11	
	CHECKED BY AJM	T.J.M.S. NO. J121	
	F.A.P. NO.	TOD NO. TS409D-GI	
	DRAWING NO. TS 2048D GI	SHEET NO. 2 OF 2	

GREEN LINE NO. 1, PED PHASE CHANGE REPLACE SHEET TS 2048D GI DATE: JANUARY 20, 2009  
 PLOTTED: Tuesday, January 20, 2009 AT 10:37 AM  
 FILE: J:\DATA\121\15519\05-P001\_Ts2048D.gn