

**PROJECT DESCRIPTION  
GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF NB US 1 AT WB MD 198 IN PRINCE GEORGE'S COUNTY. US 1 IS CONSIDERED TO RUN IN A NORTH/SOUTH DIRECTION.

PEDESTRIAN CROSSING WITH APS/CPS ARE TO BE INSTALLED ON ALL LEGS OF THE INTERSECTION.

**INTERSECTION OPERATION**

THE EXISTING CONTROLLER/CABINET ARE TO BE UTILIZED. THE INTERSECTION OPERATES IN A FULLY ACTUATED MODE USING 2 NEMA PHASES. THE NB US 1 MOVEMENT OPERATES ALONE AND WILL HAVE AN ADVANCE PEDESTRIAN PHASE INSTALLED TO CROSS THE EAST AND WEST LEGS. THE WB MD 198 MOVEMENT OPERATES ALONE AND WILL HAVE ACUTATED PEDESTRIAN MOVEMENTS INSTALLED TO CROSS THE NORTH AND SOUTH LEGS.

**SPECIAL NOTES**

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

MR. VENU NEMANI, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7404

MR. DUANE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
PHONE: (301) 513-7341

MR. THOMAS FOUNTAIN, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7404

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

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

MR. EDWARD RODENHIZER, MANAGER, SIGNAL OPERATIONS  
PHONE: (410) 787-7652

2. ALL INTERNAL CABINET WIRING SHALL BE PERFORMED BY THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT ED RODENHIZER 72 HOURS PRIOR TO CONSTRUCTION.

3. APS WILL FUNCTION AS FOLLOWS:

FOR NB US 1 (SECOND STREET) - SOUTH LEG

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS SECOND AT TALBOTT, WAIT, CROSSWALK ANGLES LEFT".
- B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

FOR NB US 1 (SECOND STREET) - NORTH LEG

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

FOR WB MD 198 (TALBOTT AVENUE) - WEST LEG

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

FOR WB MD 198 (TALBOTT AVENUE) - EAST LEG

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

4. THE CONTRACTOR SHALL CONTACT MR. EDWARD RODENHIZER AT SHA SIGNAL SHOP (410) 787-7652 TO DELIVER APS EQUIPMENT FOR TESTING.

**EQUIPMENT LIST**

A. EQUIPMENT TO BE FURNISHED BY SHA.  
NONE

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

QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC
LUMP SUM	LS	MOBILIZATION
8	EA	10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE (MD 818.16-01)
1	EA	APS 2-WIRE CENTRAL CONTROL UNIT
8	EA	AUDIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY WITH PUSHBUTTON SIGN
8	EA	16 IN. 1-SECTION, 1-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - POST TOP
1	EA	24 IN. x 24 IN. R3-1 SIGN - GROUND MOUNTED
1	EA	24 IN. x 24 IN. R3-2 SIGN - GROUND MOUNTED
1	EA	18 IN. x 18 IN. OM1-3 SIGN - GROUND MOUNTED
4	CY	TEST PIT EXCAVATION
3	EA	HANDHOLE
1200	LF	2-CONDUCTOR CABLE (NO. 14 AWG)
1200	LF	5-CONDUCTOR CABLE (NO. 14 AWG)
350	LF	BARE COPPER GROUND WIRE (NO. 6 AWG)
150	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
40	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
70	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - BORED
2	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
4	EA	GROUND ROD 3/4 IN. X 10 FT. LENGTH
400	LF	12 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - CROSSWALK
25	LF	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE
36	LF	4 IN. x 4 IN. WOOD SIGN SUPPORT
25	LF	REMOVE EXISTING PAVEMENT MARKING BY GRINDING
2	EA	REMOVE EXISTING REMOVE GROUND MOUNTED SIGN
LUMP SUM	LS	REMOVE EXISTING SIGNAL EQUIPMENT

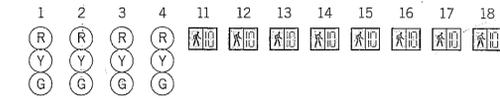
C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.  
(All other Materials removed shall become the property of the Contractor)  
NONE

**GENERAL NOTES**

1. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
3. PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH MD-SHA STANDARDS. ALL OTHER PAVEMENT MARKINGS ARE TO BE CONSIDERED AS EXISTING.
4. GEOMETRICS SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES 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 EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.
6. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 IN. FROM A 60 IN. x 60 IN. LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
7. THE 10 FT. SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
8. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
9. THE LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 & FIG 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
10. ALL UNUSED CABLE SHALL BE REMOVED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.

**The Traffic Group, Inc.**  
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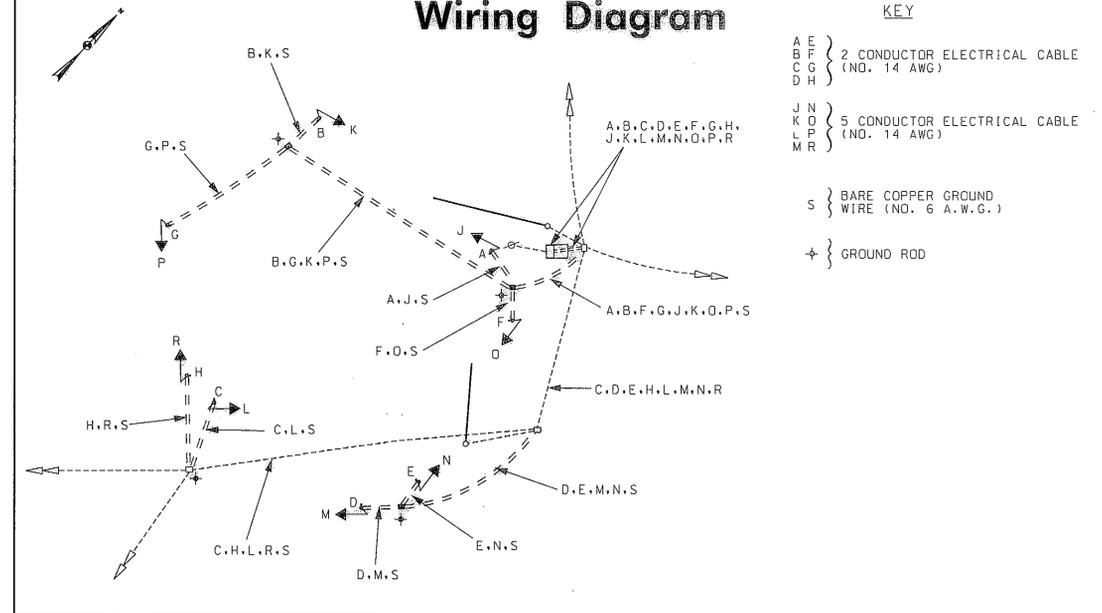
**Phase Chart**



	1	2	3	4	11	12	13	14	15	16	17	18
ADVANCED PED PHASE 2	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PHASE 2	G	G	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	G	G	R	R	FLDW	FLDW	FLDW	FLDW	DW	DW	DW	DW
2 CHANGE	Y	Y	R	R	DW							
PHASE 4	R	R	G	G	DW							
4 CHANGE	R	R	Y	Y	DW							
PHASE ALT 4	R	R	G	G	DW	DW	DW	WK	WK	WK	WK	WK
PED CLEARANCE	R	R	G	G	DW	DW	DW	FLDW	FLDW	FLDW	FLDW	FLDW
ALT 4 CHANGE	R	R	Y	Y	DW							
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	DARK							

PRE-EMPTION	G	G	R	R	DW							
PRE-EMPTION CHANGE	G	G	R	R	DW							

**Wiring Diagram**



THESE PLANS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 1 YEAR FROM THE DATE OF APPROVAL. SHOULD CONSTRUCTION NOT BEGIN WITHIN THIS TIME FRAME THESE PLANS SHALL BE NULL AND VOID WITHOUT A REVIEW FROM THE TRAFFIC ENGINEERING DESIGN DIVISION.

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE NO. 32216  
EXPIRATION DATE 2/13/18



MD-AMD Tracking No.: 12APPG018

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

Northbound US 1 at Westbound MD 198 (Talbott Ave)  
LAUREL, MD

**GENERAL INFORMATION PLAN**

SCALE	N/A	DATE	November 30, 2012	CONTRACT NO.	BW99GM82
DESIGNED BY	J. Dimdorfer/TTG	COUNTY	PRINCE GEORGE'S		
DRAWN BY	J. Dimdorfer/TTG	LOGMILE	16000113.69		
CHECKED BY	J. Dimdorfer/TTG	TMS NO.	L718		
F.A.P. NO.	N/A	TOD NO.			

TS NO. 1635E-G1	DRAWING	SG - 01 OF 01	SHEET NO. 2 OF 2
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