PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 194 (WOODSBORO PIKE) AND GLADE BOULEVARD IN FREDERICK COUNTY, MARYLAND. MD 194 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 194 APPROACHES OPERATING CONCURRENTLY AND THE GLADE BOULEVARD APPROACH OPERATING ALONE. EASTBOUND APPROACH (COMMERCIAL ENTRANCE) IS CLOSED TO TRAFFIC.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED FOR THE SOUTHBOUND MD 194 APPROACH.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE SOUTH LEG OF MD 194.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

WEST LEG - MD 194 (WOODSBORO PIKE) AND GLADE BOULEVARD

WAIT: "WAIT TO CROSS WOODSBORO AT GLADE. CROSSWALK ANGLES RIGHT. WAIT."**

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPIDICULAR 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

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS) AND INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

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-104.02-09 (FLAGGING OPERATION)

STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 624-8140/8141

MS. SUSAN PALMER
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 624-8105/8106

MS. ANDREA ABEND
DISTRICT UTILITY ENGINEER
PHONE: (301) 624-8115/8116

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

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

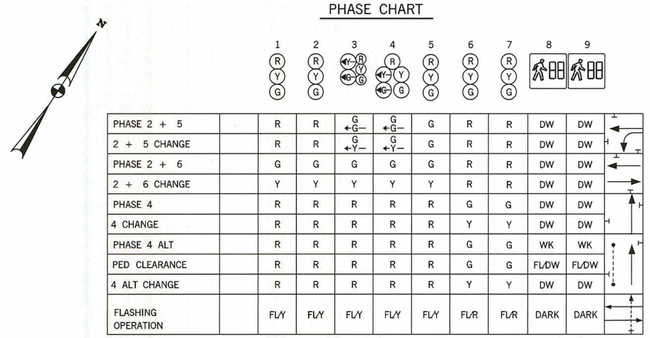
ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED ASC III CONTROLLER
9000	1 EACH	NEMA SIZE "S" BASE MOUNTED CABINET WITH INTERSECTION MONITOR WITH VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS AND ONE (1) FOUR-CHANNEL LOOP DETECTOR APMPLIFIER
9016	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9571	68 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 2 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
		- 1 EACH M1-5(4) SIGN (78 IN. x 36 IN.) - MAST ARM MOUNT
		- 1 EACH R3-5(L) SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT
		- 2 EACH R3-5(R) SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT
		- 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS WOODSBORO PIKE"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

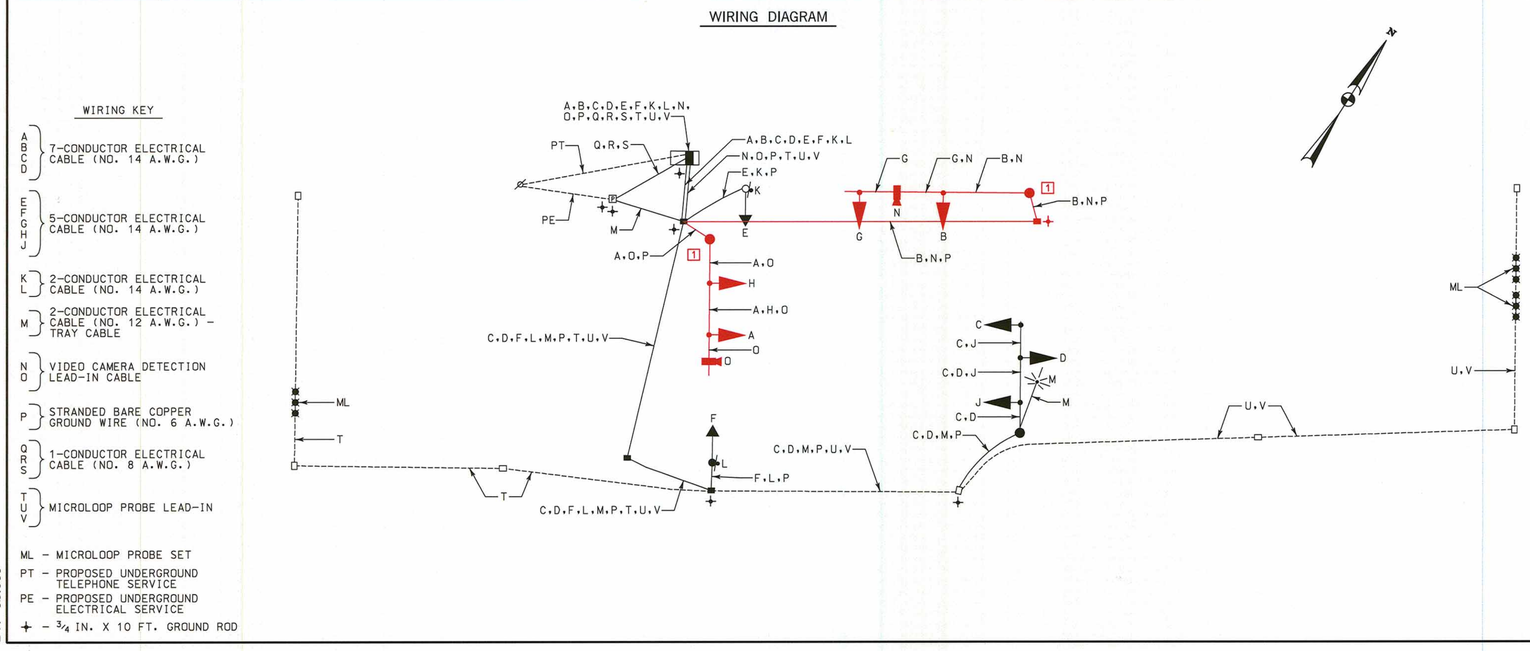
SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART



		1	2	3	4	5	6	7	8	9
PHASE 2 + 5		R	R	G ←G–	G ←G–	G	R	R	DW	DW
2 + 5 CHANGE		R	R	G ←Y–	G ←Y–	G	R	R	DW	DW
PHASE 2 + 6		G	G	G	G	G	R	R	DW	DW
2 + 6 CHANGE		Y	Y	Y	Y	Y	R	R	DW	DW
PHASE 4		R	R	R	R	R	G	G	DW	DW
4 CHANGE		R	R	R	R	R	Y	Y	DW	DW
PHASE 4 ALT		R	R	R	R	R	G	G	WK	WK
PED CLEARANCE		R	R	R	R	R	G	G	FL/DW	FL/DW
4 ALT CHANGE		R	R	R	R	R	Y	Y	DW	DW
FLASHING OPERATION		FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	CLASS 2 EXCAVATION
2002	1 3 ~~2~~ C.Y.	TEST PIT EXCAVATION
5003	200 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5004	130 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	90 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	340 S.F.	5 INCH CONCRETE SIDEWALK
6003	34 S.F.	DETECTABLE WARNING SURFACES FOR CURB RAMPS
8001	22 EACH	12 INCH LED SIGNAL HEAD SECTION
8002	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8004	3 EACH	8 INCH LED SIGNAL HEAD SECTION
8005	1 EACH	ADJUST HANDHOLE TO GRADE WITH NEW FRAME AND COVER
8007	1 EACH	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8008	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	1 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8015	2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
1 8017	1 EACH	MAST ARM POLE & 38' MAST ARM ANY 'T' DIMENSION
1 8018	1 EACH	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8022	3 EACH	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8023	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8026	1 1 ~~2~~ EACH	TWIN MAST ARM POLE & 50 FT/70 FT MAST ARMS ANY 'T' DIMENSION
8028	2 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8034	300 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
8036	1 150 ~~70~~ L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8038	1 240 ~~225~~ L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8040	68 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	1 435 ~~330~~ L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	130 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG - THHN/THWN
8046	1 3 ~~2~~ EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8051	3 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8053	215 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8055	285 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8056	1 915 ~~825~~ L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8062	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

8-6-12
1 REDLINE REVISION NO. 1
REVISED QUANTITIES
8/06/2012

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

MD 194 (Woodsboro Pike) and Glade Blvd.
Walkersville, Maryland

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

GENERAL INFORMATION SHEET

SCALE NONE | DATE 8/03/2012 | CONTRACT NO. XX6505185

DESIGNED BY S. Bloss | COUNTY Frederick
DRAWN BY S. Bloss | LOGMILE 10019402.83
CHECKED BY N. Leary | TIMS NO. L270
F.A.P. NO. | TOD NO.

TS NO. 2064G | DRAWING TSP-3 OF 3 | SHEET NO. 3 OF 3

PLOTTED: August 03, 2012
FILE: N:\31669-195\CADD\Redline1_2012.07\psG-N003_L270-R1.dgn

BY: sbloss