

PROJECT DESCRIPTION

I. GENERAL

This project involves the replacement of existing detection at the intersection of US 113 and MD 346 in Worcester County. Video detection will be placed into operation. US 113 is assumed to run in a north-south direction.

II. INTERSECTION OPERATION

- The intersection will operate in a NEMA 8-Phase, fully actuated mode with the US 113 and MD 346 approaches operating concurrently. Exclusive left turn phasing exists for NB and SB US 113 and exclusive/permissive left turn phasing exists for EB and WB MD 346. Emergency pre-emption exists on SB US 113 and EB MD 346. The intersection will operate as indicated above, unless an emergency vehicle pre-empts the traffic signal.
- An existing NEMA full-traffic-actuated, eight (8) phase controller housed in a NEMA size 6 base mounted cabinet shall be utilized at this location.

NOTES

- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility 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 will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- The Contractor shall maintain the continuous operation of all interconnect, vehicular, pedestrian detectors, and lighting devices. If any device is damaged by the contractor, it shall be repaired within 72 hours by the contractor at no cost to the Administration after notification by the Engineer.
- All existing traffic signal equipment removed shall become the property of the Contractor upon completion of the signal.
- The Contractor shall be responsible for identifying and labeling each existing cable utilizing the conduit between the signal cabinet and the nearest handhole and removing from all conduits, handholes, and the cabinet any unused cables prior to the installation of new cables. The contractor shall be responsible for terminating all signal cable to the appropriate terminals and properly labeling each cable.

CONTACTS

DISTRICT (ONE)

MR. DONNIE L. DREWIER
DISTRICT ENGINEER
410-677-4006

MS. KENNETH CIMINO
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-677-4040

MR. BRUCE W. POOLE
UTILITY ENGINEER
410-677-4082

MR. GREG HOLSEY
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
410-677-4020

MR. WAYNE WEICHMAN
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
410-677-4010

OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
410-787-7670

MR. MIKE STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

EQUIPMENT LIST

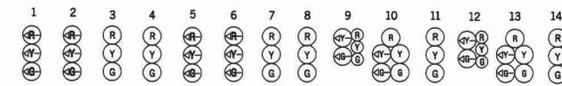
A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM CODE	DESCRIPTION	UNITS	QUANTITY
9086	VIDEO INTERFACE EQUIPMENT FOR 1-4 CAMERAS	EA	1

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

ITEM CODE	DESCRIPTION	UNITS	QUANTITY
1003	MAINTENANCE OF TRAFFIC (PER ASSIGNMENT)	EA	1
8005	ADJUST HANDHOLE TO GRADE INCLUDING COLLAR	EA	4
8007	ANY SIZE LIGHTING ARM ON SIGNAL STRUCTURE (FOR VIDEO DETECTION)	EA	2
8023	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'	EA	4
8024	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)	EA	1
8028	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH	EA	4
8034	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED	LF	70
8035	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED	LF	60
8036	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	20
8041	WEATHERHEAD, UP TO 3 INCH	EA	1
8044	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	4

PHASE CHART



PHASE 1 AND 5	←G- ←G- R R ←G- ←G- R R R R R R R R	
1 AND 5 CHANGE	CONTROLLER MAY SKIP TO PHASES 1 AND 6 OR 2 AND 5 OR 2 AND 6	
PHASE 1 AND 6	←R- ←R- R R ←G- ←G- G G R R R R R R R R	
1 CHANGE	←R- ←R- R R ←Y- ←Y- G G R R R R R R R R	
PHASE 2 AND 5	←G- ←G- G G ←R- ←R- R R R R R R R R R R	
5 CHANGE	←Y- ←Y- G G ←R- ←R- R R R R R R R R R R	
PHASE 2 AND 6	←R- ←R- G G ←R- ←R- G G R R R R R R R R	
2 AND 6 CHANGE	←R- ←R- Y Y ←R- ←R- Y Y R R R R R R R R	
PHASE 3 AND 7	←R- ←R- R R ←R- ←R- R R ←G- ←G- R ←G- ←G- R	
3 AND 7 CHANGE	CONTROLLER MAY SKIP TO PHASES 3 AND 8 OR 4 AND 7 OR 4 AND 8	
PHASE 3 AND 8	←R- ←R- R R ←R- ←R- R R R R R R R R ←G- ←G- G G	
3 CHANGE	←R- ←R- R R ←R- ←R- R R R R R R R R ←Y- ←Y- G G	
PHASE 4 AND 7	←R- ←R- R R ←R- ←R- R R ←G- ←G- G G R R R R	
7 CHANGE	←R- ←R- R R ←R- ←R- R R ←Y- ←Y- G G R R R R	
PHASE 4 AND 8	←R- ←R- R R ←R- ←R- R R G G G G G G G G	
4 AND 8 CHANGE	←R- ←R- R R ←R- ←R- R R Y Y Y Y Y Y Y Y	
FLASHING OPERATION	←FLR- ←FLR- FLY FLY ←FLR- ←FLR- FLY FLY FLR FLR FLR FLR FLR FLR	

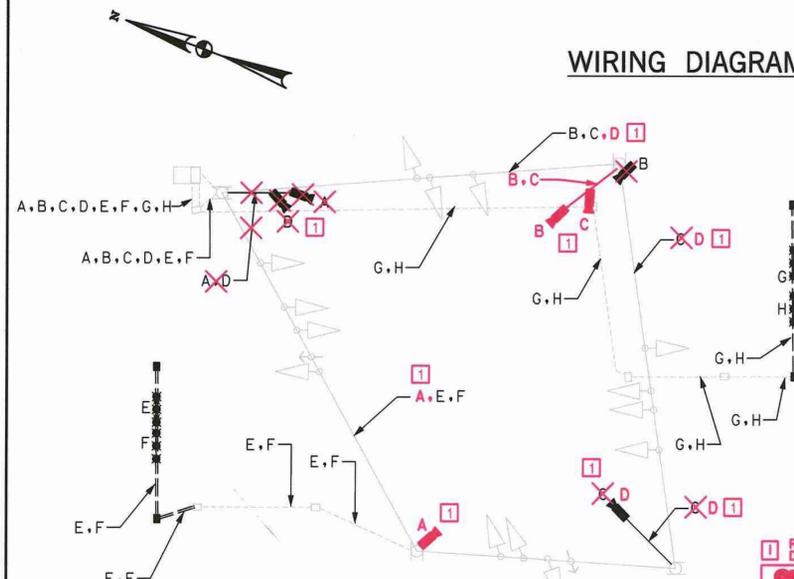
FIRE HOUSE PRE-EMPTION - PHASE 2 AND 5

FIREHOUSE PRE-EMPTION PHASE 2 AND 5	←G- ←G- G G ←R- ←R- R R R R R R R R R R	
PRE-EMPTION CLEARANCE	←Y- ←Y- Y Y ←R- ←R- R R R R R R R R R R	

FIRE HOUSE PRE-EMPTION - PHASE 4 AND 7

FIREHOUSE PRE-EMPTION PHASE 4 AND 7	←R- ←R- R R ←R- ←R- R R ←G- ←G- G G R R R R	
PRE-EMPTION CLEARANCE	←R- ←R- R R ←R- ←R- R R ←Y- ←Y- Y Y R R R R	

WIRING DIAGRAM



KEY

A, B } VIDEO DETECTION CABLE
C, D }

E, F } NON-INVASIVE MICROLOOP PROBE CABLE
G, H } LEAD-IN

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US ROUTE 113 AT MD ROUTE 346
BERLIN, MARYLAND

GENERAL INFORMATION SHEET

SCALE: N.T.S. ADVERTISED DATE: 9/20/10 CONTRACT NO.: XX3535168

DESIGNED BY: K.HODGES COUNTY: WORCESTER
DRAWN BY: K.HODGES LOGMILE:
CHECKED BY: A.GRIFFIN TIMS NO.: J796
F.A.P. NO.: TOD NO.:

TS NO. 1738F DRAWING - OF SHEET NO. 2 OF 2

SABRA, WANG & ASSOCIATES, INC.
1504 JOH AVENUE
SUITE 100
BALTIMORE, MD 21227
(410) 737-8584

BY: khodges