PROJECT DESCRIPTION

GENERAL

This project involves the addition of the south leg of the traffic signal at the intersection MD 80 (Fingerboard Road) at MD 355 (Worthington Blvd) in Frederick County, Maryland. MD 80 is considered to run in an east/west direction.

INTERSECTION OPERATION

The intersection is to operate in a NEMA eight (8) phase, full-traffic-actuated mode. There will be an exclusive/permissive left turn phase for the east and westbound movement of MD 80. The MD 80 through movements will operate concurrently with an actuated audible pedestrian movement across the north and south leg of the intersection. There will be an exclusive left turn phase for the north and southbound movement of MD 355. The MD 355 through movements will operate concurrently with an actuated audible pedestrian movement across the east and west leg of the intersection.

Existing Cabinet/Controller to be utilized.
Connect video camera detection for the northbound approach.

PROJECT CONTACTS:

1. The following contact persons for this project are as follows:
   John Concannon, Assistant District Engineer - Traffic
   Phone: (301)-624-8141

   Eric Eckhardt, Assistant District Engineer - Construction
   Phone: (301)-624-8200

   Raymond Johnson, Assistant District Engineer - Maintenance
   Phone: (301)-624-8105

   Andrea Abend, Utility Engineer
   Phone: (301) 624-8115

   Edward Rodenhizer, Signal Operations
   Phone: (410)-787-7652

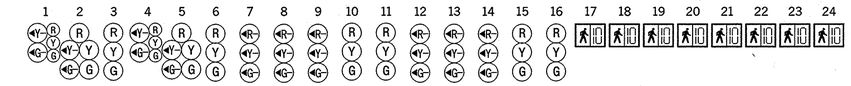
EQUIPMENT LIST

A. Equipment to be supplied by the administration.
   None.

B. Equipment to be furnished and/or installed by the contractor.

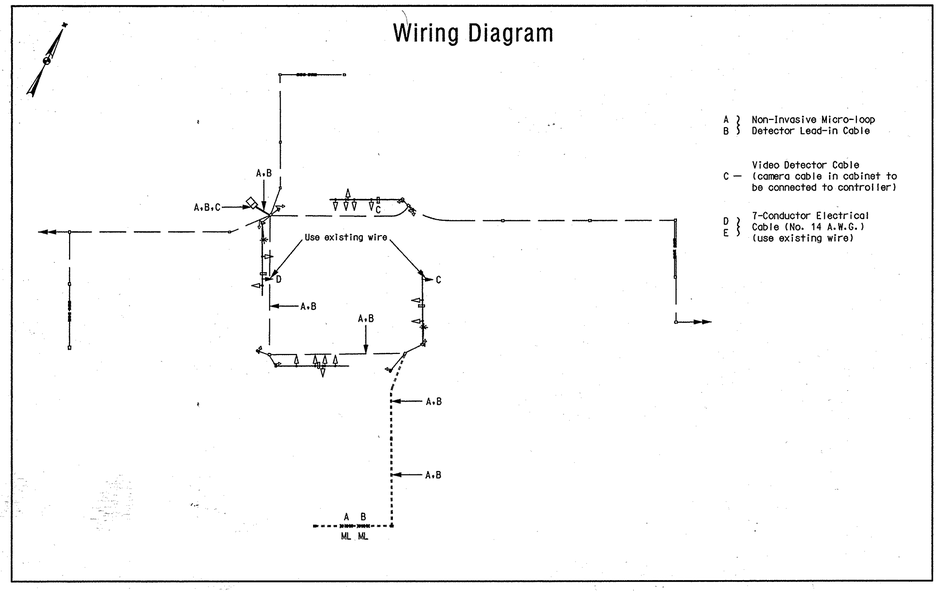
Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
1	EA	814	12 in., one-way, five section L.E.D. (R,Y,YA,G,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in./8 in., one-way, five section L.E.D. (12 in. YA, GA/ 8 in. R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	---	Non-invasive probe (set of 3) with 1000 ft. lead-in cable.
3	EA	811	Handhole.
315	LF	805	3 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
60	LF	805	3 in. polyvinyl chloride (Schedule 80) electrical conduit - bored.
60	LF	549	24 in. wide HAPPTPM - white for stop line.
Lump Sum	LS	---	Remove and dispose of existing signal equipment.

Phase Chart



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PHASE 1 AND 5	←G/R	←G/R	R	←G/R	←G/R	R	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																								
PHASE 1 AND 6	←G/G	←G/G	G	R	R	R	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 6 CHANGE	←Y/G	←Y/G	G	R	R	R	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	←G/G	←G/G	G	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
5 CHANGE	R	R	R	←Y/G	←Y/G	G	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	←R–	←R–	←R–	R	R	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 AND 7	R	R	R	R	R	R	←G–	←G–	←G–	R	R	←G–	←G–	←G–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 AND 7 CHANGE TO 3 AND 8, 4 AND 7, OR 4 AND 8																								
PHASE 3 AND 8	R	R	R	R	R	R	←G–	←G–	←G–	G	G	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 AND 8 CHANGE	R	R	R	R	R	R	←Y–	←Y–	←Y–	G	G	←R–	←R–	←R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 7	R	R	R	R	R	R	←R–	←R–	←R–	R	R	←G–	←G–	←G–	G	G	DW	DW	DW	DW	DW	DW	DW	DW
7 CHANGE	R	R	R	R	R	R	←R–	←R–	←R–	R	R	←Y–	←Y–	←Y–	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	←R–	←R–	←R–	G	G	←R–	←R–	←R–	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	←R–	←R–	←R–	Y	Y	←R–	←R–	←R–	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE ALT 4 AND ALT 8	R	R	R	R	R	R	←R–	←R–	←R–	G	G	←R–	←R–	←R–	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	R	←R–	←R–	←R–	G	G	←R–	←R–	←R–	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
ALT 4 AND ALT8 CHANGE	R	R	R	R	R	R	←R–	←R–	←R–	Y	Y	←R–	←R–	←R–	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

Wiring Diagram



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 80 (Fingerboard Road) @
MD 355 (Worthington Blvd)

GENERAL INFORMATION PLAN

SCALE N/A DATE September 20, 2007 CONTRACT NO. BW996M82

DESIGNED BY F. Brownley
DRAWN BY F. Brownley
CHECKED BY
F.A.P. NO.

COUNTY Frederick
LOGMILE 10000805.73
TIMS NO. I-541
TOD NO.

TS NO. 4459A-GI | DRAWING – OF | SHEET NO. 2 OF 2

PLOTTED: Thursday, September 20, 2007 AT 03:34 PM
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BY: FBrownley