PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE UPGRADE OF THE EXISTING INTERSECTION CONTROL BEACON TO A FULLY ACTUATED TRAFFIC SIGNAL WITH HIB'S FOR BOTH DIRECTIONS OF MD 260.
MD 260 IS CONSIDERED TO RUN IN A EAST-WEST DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION IS TO OPERATE IN A NEMA 6 PHASE FULL TRAFFIC ACTUATED MODE.THE LEFT TURNS FOR THE MD 260 APPROACHES WILL OPERATE IN A LEAD/LAG SEQUENCE.

THE MD 260 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY THE THROUGH MOVEMENTS FOR HORACE WARD ROAD AND BOYD'S TURN ROAD APPROACHES WILL OPERATE AS A SIDE STREET SPLIT.

AN EIGHT PHASE, FULL TRAFFIC ACTUATED SOLID STATE DIGITAL CONTROLLER WITH VIDEO DETECTION INTERFACE EQUIPMENT, BATTERY BACK-UP AND FOUR 4-CHANNEL RACK MOUNTED TIME DELAY OUTPUT DETECTOR AMPLIFIERS HOUSED IN A BASE MOUNTED CABINET ARE TO INSTALLED AT THIS LOCATION.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION. (AT9135185)

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9002	6	EA	[UPDATED] (CONT/CAB/ADD) NEMA LOAD SWITCH
9086	1	EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9570 [1]	121 ~~97~~	SF	SHEET ALUMINUM GROUND MOUNTED SIGN
	4	EA	W3-3(48"X48") GROUND MOUNTED
	4	EA	R5-1a (36"x24") GROUND MOUNTED
	1	EA	R5-1 (36"x36") GROUND MOUNTED
	8	EA	R6-1 (36"x12") GROUND MOUNTED
9571	32	SF	SHEET ALUMINUM MAST ARM MOUNTED SIGN
	2	EA	W3-3 (48"X48") MAST ARM MOUNTED

B. EQUIPMENT TO BE FURNISHED AND/OR INTALLED BY THE CONTRACTOR (AT9135185)

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC
2002	2	CY	TEST PIT EXCAVATION
5001 [1]	60 ~~0~~	LF	5 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5002 [1]	40 ~~0~~	LF	5 INCH HEAT APPLIED YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5003 [1]	110 ~~0~~	LF	REMOVE EXISTING PAVEMENT MARKING LINE - ANY SIZE
5006 [1]	165 ~~125~~	LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	1	EA	TYPE I TRAFFIC BARRIER END TREATMENT ANY OPTION
6006	175	LF	TRAFFIC BARRIER W BEAM USING 6 FOOT POST
6007	1	EA	TYPE C TRAFFIC BARRIER END TREATMENT
6008	3	EA	W BEAM BARRIER REFLECTIVE DELINEATORS
8001	42	EA	12 INCH LED SIGNAL HEAD SECTION
8009	1	EA	CONDUIT BEND IN EXISTING FOUNDATION -ANY SIZE
8011	1	EA	EMBEDDED METERED SERVICE PEDESTAL
8018	1	EA	MAST ARM POLE AND 60 FT MAST ARM ANY 'T' DIMENSION
8020	4	EA	NONINVASIVE DETECTOR, UP TO 1000 FOOT LEAD IN CABLE
8021	2	EA	PED POLE (ANY SIZE)
8022	1	EA	REM & DISPOSE MAT AND EQUIP PER ASSIGN
8027	4	EA	VIDEO DETECTION CAMERA AND CABLE
8032	100	LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8034	1820	LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8035	220	LF	WOOD SIGN SUPPORTS UP TO 4 X 6 INCHES
8038	1440	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8043	45	LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8044	13	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8045 [1]	121 ~~97~~	SF	INSTALL GROUND MOUNTED SIGN
8046	32	SF	INSTALL OVERHEAD SIGN
8054	2	EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8058	1900	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8059	500	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8073A	1	EA	12" OPTICALLY PROGRAMMED 3 - SECTION SIGNAL HEAD
8074A	1	EA	12" OPTICALLY PROGRAM ED 4 -SECTION SIGNAL HEAD WITH GREEN ARROW

PROJECT CONTACTS

The contact persons for District #5 are as follows:

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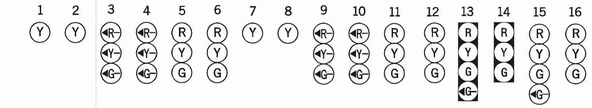
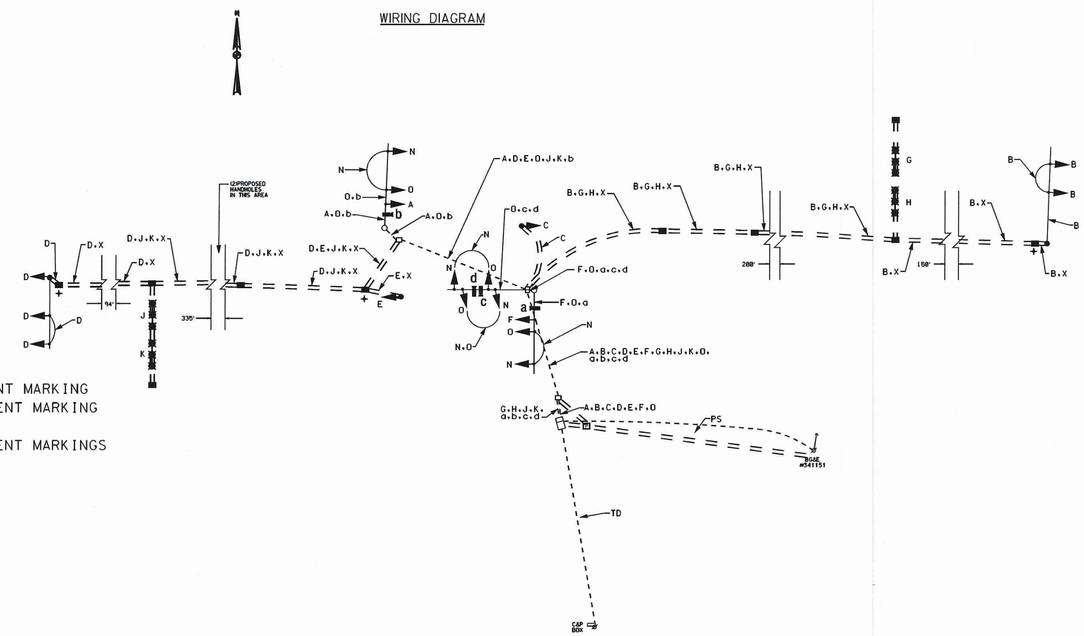
Mr. Ed Rodenhizer
Signal Shop
Phone: (410) 787-7652

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 AND 6 (LEAD)	FL/Y	FL/Y	←G–	←G–	G	G	FL/Y	FL/Y	←R–	←R–	R	R	R	R	R	R
PHASE 1 CHANGE	FL/Y	FL/Y	←Y–	←Y–	G	G	FL/Y	FL/Y	←R–	←R–	R	R	R	R	R	R
PHASE 2 AND 6	FL/Y	FL/Y	←R–	←R–	G	G	FL/Y	FL/Y	←R–	←R–	G	G	R	R	R	R
PHASE 6 CHANGE	FL/Y	FL/Y	←R–	←R–	Y	Y	FL/Y	FL/Y	←R–	←R–	G	G	R	R	R	R
PHASE 2 AND 5 (LAG)	FL/Y	FL/Y	←R–	←R–	R	R	FL/Y	FL/Y	←G–	←G–	G	G	R	R	R	R
2 AND 5 CHANGE	FL/Y	FL/Y	←R–	←R–	R	R	FL/Y	FL/Y	←Y–	←Y–	Y	Y	R	R	R	R
PHASE 3	FL/Y	FL/Y	←R–	←R–	R	R	FL/Y	FL/Y	←R–	←R–	R	R	G ←G–	G	R	R
PHASE 3 CHANGE	FL/Y	FL/Y	←R–	←R–	R	R	FL/Y	FL/Y	←R–	←R–	R	R	Y	Y	R	R
PHASE 4	FL/Y	FL/Y	←R–	←R–	R	R	FL/Y	FL/Y	←R–	←R–	R	R	R	R	G ←G–	G
PHASE 4 CHANGE	FL/Y	FL/Y	←R–	←R–	R	R	FL/Y	FL/Y	←R–	←R–	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

AE, CF — 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

B, D — 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

G, H, J, K — NON-EVASIVE LOOP LEAD-IN

N – EXISTING 5 CONDUCTOR

O – EXISTING 7 CONDUCTOR

X – 1 CONDUCTOR (NO. 6 AWG) STRANDED BARE COPPER GROUND WIRE

ab, cd — VIDEO DETECTION CABLE

PS – POWER SERVICE UNDERGROUND

TD – TELEPHONE DROP

+ GROUND ROD

[1] REDLINE REV 1
DATE 5/8/2008
TEDD APPROVAL

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

MD 260 AT BOYD'S TURN ROAD
HORACE WARD ROAD
CALVERT COUNTY, MARYLAND

GENERAL INFORMATION SHEET

SCALE N.T.S DATE 02-20-08 CONTRACT NO. AT9135185

DESIGNED BY J.B. COUNTY CALVERT
DRAWN BY M.H. LOGMILE 04026006.41
CHECKED BY R.J.M. T.I.M.S. NO. 1530
F.A.P. NO. TOD NO.

TS NO. 4088 | DRAWING NO. 1 OF 1 | SHEET NO. 2 OF 2

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PLOTTED: $DATETIME$
FILE: $FILE$

BY: $USERNAME$