PROJECT DESCRIPTION

GENERAL

This project involves the modification of an existing traffic control signal at the intersectionof MD 414 and Livingston Road in Prince George's County.

INTERSECTION OPERATION

This intersection operates in a fully actuated mode with MD 414 left turn lanes operating in an exclusive / permissive phase. Northbound and Southbound Livingston Road operate in exclusive phases respectively.

This intersection currently operates in a NEMA six (6) phase operation, with emergency vehicle pre-emption phases on Livingston Rd.

PROJECT CONTACTS:

1. The following contact persons for District #3 are as follows:

   Mr. Charlie Watkins, District Engineer
   Phone: (301) 513-7300
   Mr. Majid Shakib, Assistant District Engineer-Traffic
   Phone: (301) 513-7300
   Mr. Dennis McMahan, Assistant District Engineer-Maintenance
   Phone: (301) 513-7300
   Mr. Augie Rebish, Assistant District Engineer-Utility
   Phone: (301) 513-7300
   Mr. Richard L. Daff, Sr., Chief Traffic Operations Division
   Phone: (410) 787-7630

2. Maintenance of traffic will be handled by the Contractor utilizing the following standard plates for traffic control: 104.00 - 104.30, 104.44.01, 104.45.01, 104.48.01.

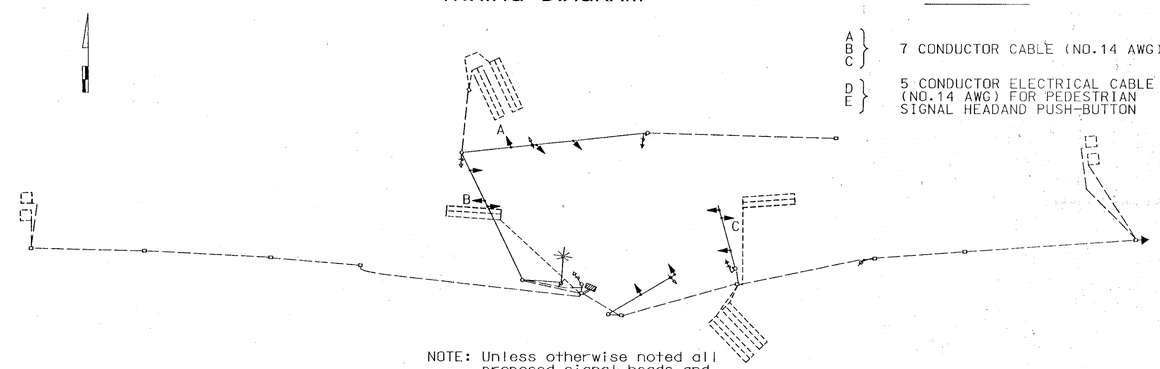
A. Equipment to be supplied by MD-SHA.

Item No.	Description	Units	Quantity
9001	Load Switch	EA	2
9002	Sheet aluminium signs consisting of:	SF	71
	2 ea. Guide shield assembly (30"x51")		
	2 ea. Guide shield assembly (48"x75")		
9096	Pushbutton	EA	2

B. Equipment to be furnished and installed by the Contractor.

Item No.	Description	Unit	Quanity
1001	MAINTENANCE OF TRAFFIC	EA	1
1002	MOBILIZATION (PER ASSIGNMENT)	EA	1
5002	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS	LF	140
8001	ADJUST AND RE-RING EXISTING SPAN WIRE (EACH SPAN)	EA	2
8014	FURNISH AND INSTALL 12 INCH PEDEISTRIAN SIGNAL HEAD SECTION	EA	4
8015	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	42
8020	FURNISH AND INSTALL 8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	6
8027	REBUILD HANDHOLE - NEW FRAME AND COVER	EA	1
8050	INSTALL GROUND MOUNTED SIGN	SF	71
8062	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)	LF	440
8063	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)	LF	550
8066	INSTALL PUSHBUTTON AND SIGN	EA	2
8000	FURNISH AND INSTALL CONDUIT BEND INTO EXISTING FOUNDATION	EA	1

WIRING DIAGRAM



WIRING KEY

A, B, C — 7 CONDUCTOR CABLE (NO.14 AWG)

D, E — 5 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG) FOR PEDESTRIAN SIGNAL HEADAND PUSH-BUTTON

NOTE: Unless otherwise noted all proposed signal heads and pedestrian shall be wired using existing electrical cables.

PHASE SEQUENCE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHASE 1 AND 5	•G/R	•G/R	R	•G/R	•G/R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 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	DW	DW	DW	DW
1 CHANGE	•Y/G	•Y/G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	•G/G	•G/G	G	R	R	R	R	R	DW	DW	DW	DW
5 CHANGE	R	R	R	•Y/G	•Y/G	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	G/•G	G	R	R	R	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 3 ALT	R	R	R	R	R	R	G/•G	G	R	R	R	W	W	DW	DW
PED CLEAR	R	R	R	R	R	R	G/•G	G	R	R	R	FL/DW	FL/DW	DW	DW
3 ALT CHANGE	R	R	R	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R/•G	R	R	G/•G	G/•G	G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R/•Y	R	R	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	R/•G	R	R	G/•G	G/•G	G	DW	DW	W	W
PED CLEAR	R	R	R	R	R	R/•G	R	R	G/•G	G/•G	G	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	R	R	R	R	R	R/•Y	R	R	Y	Y	Y	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	DARK	DARK	DARK	DARK

PRE EMPTION 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PRE EMPTION 1	R	R	R	R	R	R	R	R	G/•G	G/•G	G	DW	DW	DW	DW
PRE EMPTION 1 CHANGE	R	R	R	R	R	R	R	R	G/•G	G/•G	G	DW	DW	DW	DW
NORMAL OPERATION PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW

PRE EMPTION 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PRE EMPTION 2	R	R	R	R	R	R	G/•G	G	R	R	R	DW	DW	DW	DW
PRE EMPTION 2 CHANGE	R	R	R	R	R	R	G/•G	G	R	R	R	DW	DW	DW	DW
NORMAL OPERATION PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET

MD 414 AT LIVINGSTON ROAD

DRAWN BY: M. RAFFLE	F.A.P. NO.		TS NO. TS - 993E	SHEET NO. 2 OF 2
CHECKED BY: D. PETERS	S.H.A. NO.			
SCALE: 1"=20	COUNTY:	Prince George's	T.I.M.S. NO. D976	
DATE: September, 2000	LOG MILE:	6041400.51		