PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF A TRAFFIC SIGNAL WITH INTERCONNECT AT THE INTERSECTION OF MD 528 AND CHANNEL ~~BUOY~~ ROAD IN WORCHESTER COUNTY.
BUOY [1]

INTERSECTION OPERATION

THE EXISTING CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL REMAIN AT THIS LOCATION. THE INTERSECTION OPERATES IN A FULLY ACTUATED MODE USING 5 NEMA PHASES AND SHALL NOT BE CHANGED. VIDEO DETECTION SHALL BE INSTALLED FOR ACTUATION OF MD 528 LEFT TURN MOVEMENTS AND CHANNEL BUOY ROAD SIDE STREET PRESENCE DETECTION.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630
GENE COFIELL, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 677-4040
RAVINDRA GANVIR, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (410) 677-4020
JAMES R.WRIGHT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 677-4010
BRUCE W. POOLE, UTILITY ENGINEER
PHONE: (410) 677-4082

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR FOLLOWING MSHA STANDARD PLATES FOR TRAFFIC CONTROL.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

	ITEM NO.	DESCRIPTION	UNITS	QUANTITY	
	9086	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS	EA	1	
[1]	~~9575~~ 9571	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGNS CONSISTING OF:	SF	~~52~~	37
	[1]	~~R10 12 (30"X36") MAST ARM MOUNT~~	~~EA~~	~~1~~	0
	[1]	~~R10 12(1) (30"x36") MAST ARM MOUNT~~	~~EA~~	~~1~~	0
		R3-17(MOD) (30"x36") MAST ARM MOUNT	EA	2	
		D-3(2) (16" X VAR.) MAST ARM MOUNT	EA	2	

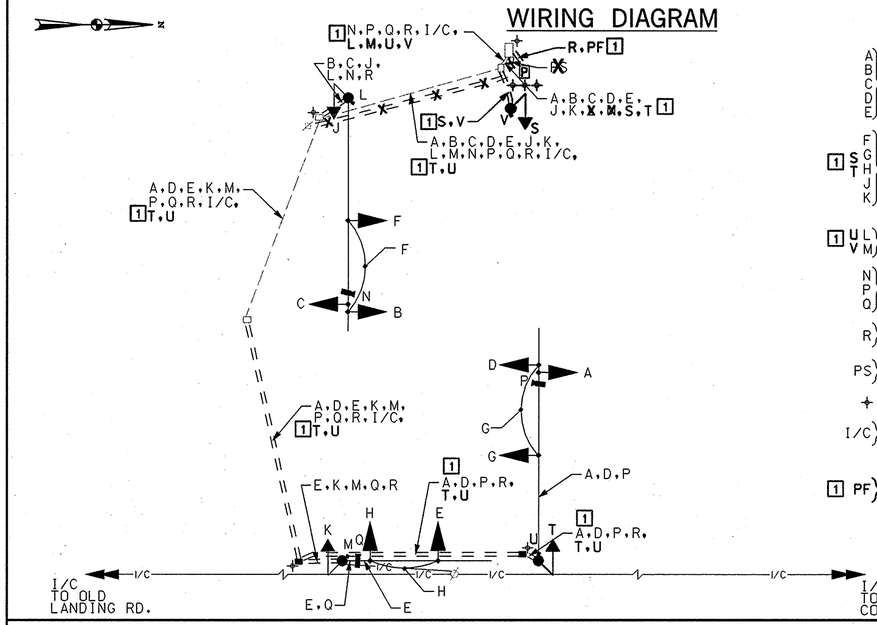
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

	ITEM NO.	DESCRIPTION	UNITS	QUANTITY	
	1001	MAINTENANCE OF TRAFFIC	EA	3	
	2001	CLASS II EXCAVATION	CY	36	
	2002	TEST PIT EXCAVATION	CY	2	
[1]	~~5005~~	~~12 INCH HEAT APPL. WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKINGS~~	~~LF~~	~~250~~	0
[1]	6002	STANDARD TYPE A COMBINATION CURB & GUTTER 12 IN. GUTTER PAN 8 IN. DEPTH	LF	~~30~~	250
[1]	6004	4 IN. CONCRETE SIDEWALK	SF	~~490~~	400
[1]	8001	CONCRETE FOUNDATION	CY	~~14~~	18
	8008	CONTROL CABLE, 200 FOOT, VIDEO DETECTION	EA	1	
	8009	CONTROL CABLE, 300 FOOT, VIDEO DETECTION	EA	1	
	8010	CONTROL CABLE, 400 FOOT, VIDEO DETECTION	EA	1	
[1]	8015	MAST ARM POLE (15' T) & 60 FT MAST ARM	EA	~~2~~	1
	8021	REM & DISPOSE MAT & EQUIP PER ASSIGN	EA	1	
	8022	REMOVE CONCRETE FOUNDATION 12 INCHES	EA	4	
[1]	8029	DETECTABLE WARNING SURFACES	SF	~~16~~	32
[1]	8033	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	~~290~~	300
	8041	3 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	100	
[1]	8044	4 INCH SCHED. 80 PVC CONDUIT-SLOTTED	LF	~~130~~	70
	8054	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	2	
[1]	8057	INSTALL OVERHEAD SIGN	SF	~~52~~	37
	8058	VIDEO DETECTION CAMERA	EA	3	
	8069	12-PAIR COMMUNICATION CABLE, SELF SUPPORTING (OVERHEAD)	LF	2900	
[1]	8076	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	~~4~~	8
[1]	8077	LED 8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	6	
[1]	8078	LED 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	26	
	8081	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	1	
	8084	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	~~200~~	600
	8086	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	~~370~~	700
	8087	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1235	
[1]	~~8091~~	~~PUSHBUTTON AND SIGN~~	~~EA~~	~~2~~	~~4~~
	8099A	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD 16 INCH	EA	~~2~~	4
	NEG.	MAST ARM POLE (15' T) & 38 FT MAST ARM	EA	1	
	NEG.	SAWCUT	LF	30	
[1]	**8016**	**MAST ARM POLE (15' T) & 70 FT. MAST ARM**	**EA**	**1**	
[1]	**8020**	**PED POLE (ANY SIZE)**	**EA**	**1**	
[1]	**8037**	**3 INCH WEATHER HEAD**	**EA**	**1**	
[1]	**8040**	**2 INCH SCHED. 80 RIGID PVC CONDUIT-TRENCHED**	**LF**	**30**	
[1]	**8046**	**METERED SERVICE PEDESTAL**	**EA**	**1**	
[1]	**8048**	**ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 AWG THHN/THWN)**	**LF**	**40**	
[1]	**NEG.**	**REMOVE & DISPOSE OF 12 INCH DIA. TREE & STUMP BACKFILL WITH TOPSOIL & MULCH**	**EA**	**1**	
[1]	**8104-A**	**F&I APS PUSHBUTTON AND ASSEMBLEY**	**EA**	**4**	
[1]	**8105-A**	**F&I APS CENTRAL CONTROL UNIT**	**EA**	**1**	

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

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	NONE		

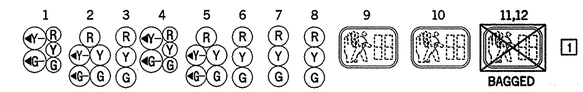
WIRING DIAGRAM



KEY

A, B, C, D, E	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
[1] S, T, F, G, H, J, K	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
[1] U, V, L, M	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
N, P, Q	VIDEO DETECTION CABLE
R	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
PS	POWER SERVICE UNDERGROUND
+	GROUND ROD
I/C	12 PAIR SELF SUPPORTING INTERCONNECT CABLE (OVERHEAD)
[1] PF	**POWER FEED 2 WIRE, 1 CONDUCTOR (NO. 4 AWG) THHN/THWN**

PHASE CHART



[1]

	1	2	3	4	5	6	7	8	9	10	11,12
PHASE 1 AND 5	~~←G/R~~	~~←G/R~~	R	~~←G/R~~	~~←G/R~~	R	R	R	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	G	R	R	DW	DW	
1 AND 6 CHANGE	~~←Y/G~~	~~←Y/G~~	G	R	R	G	R	R	DW	DW	
PHASE 2 AND 5	R	R	R	~~←G/G~~	~~←G/G~~	R	R	R	DW	DW	
2 AND 5 CHANGE	R	R	R	~~←G/G~~	~~←G/G~~	R	R	R	DW	DW	
PHASE 2 AND 6	G	G	G	G	G	G	R	R	DW	DW	
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	DW	DW	
PHASE 4	R	R	R	R	R	R	G	G	DW	DW	
4 CHANGE	R	R	R	R	R	R	Y	Y	DW	DW	
PHASE 4 ALT	R	R	R	R	R	R	G	G	W/K	W/K	
PED CLEARANCE	R	R	R	R	R	R	G	G	FL/DW	FL/DW	
4 ALT CHANGE	R	R	R	R	R	R	Y	Y	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	

[1] **REDLINE DATE: JAN. 12, 2006**

SABRA, WANG & ASSOCIATES, INC.
1504 JOH AVENUE
SUITE 160
BALTIMORE, MD 21227
(410) 737-6564
WWW.SABRA-WANG.COM

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

MD 528 AND CHANNEL BUOY ROAD

GENERAL INFORMATION PLAN

SCALE 1"=20' DATE 11/01/04 CONTRACT NO. AT3555185

DESIGNED BY C.FLEMING COUNTY WORCHESTER
DRAWN BY C.FLEMING LOGMILE 23052802.34
CHECKED BY J.WEAVER T.I.M.S. NO. G224
F.A.P. NO. TOD NO.

DRAWING NO. TS - 1430F SHEET NO. 2 OF 2

PLOTTED: THURSDAY, JANUARY 12, 2006 AT 12:02 PM
FILE: R:\2002\12 2001-12C\TASK 79\DGN\PSG-N002_G224.DGN

BY: JHARTMAN