PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 7 (PHILADELPHIA ROAD) AND FONTANA LANE/GOLDEN RING PLAZA ENTRANCE IN BALTIMORE COUNTY, MARYLAND. MD 7 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATION WILL REMAIN THE SAME.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH THREE (3) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER WITH SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS) AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING MINUMUM TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.04-07 (CENTER LANE CLOSURE)
STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 321-2781/2785

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 321-2761

MR. MIKE PASQUARIELLO
ASST. DISTRICT UTILITY ENGINEER
PHONE: (410) 321-2841

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9016	3 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	2 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS PHILADELPHIA ROAD"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

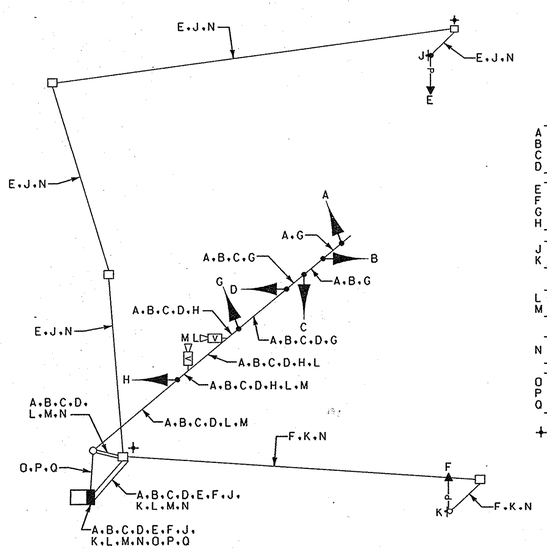
SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	2 C.Y.	TEST PIT EXCAVATION
6003	18 S.F.	4 INCH CONCRETE SIDEWALK
8002	28 EACH	12 INCH RED OR GREEN LED SIGNAL HEAD SECTION
8003	16 EACH	12 INCH YELLOW LED SIGNAL HEAD SECTION
8014	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON
8015	1 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8018	2 EACH	CONTROL CABLE, 100 FT. VIDEO DETECTION CAMERA TO CONTROLLER
8024	2 EACH	16 IN. COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
8028	1 EACH	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
8031	35 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8035	300 L.F.	DISCONNECT, PULL-BACK & REROUTE CABLES
8040	3 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
8043	425 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8050	10 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8056	60 L.F.	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 A.W.G - THHN/THWN
8070	2 EACH	GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
8076	325 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G)
8078	385 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G)
8079	495 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G)
8088	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8006	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8064	2 S.F.	INSTALL OVERHEAD SIGN

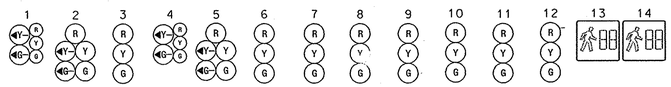
WIRING DIAGRAM



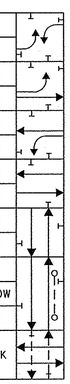
WIRING KEY

A, B, C, D — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E, F, G, H — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J, K — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
L, M — VIDEO CAMERA DETECTION LEAD-IN CABLE
N — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
O, P, Q — 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
+ - 3/4 IN. X 10 FT. GROUND ROD

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 + 5	R G	R G	R	R G	R G	R	R	R	R	R	R	R	DW	DW
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6													
PHASE 1 + 6	G G	G G	G	R	R	R	R	R	R	R	R	R	DW	DW
1 + 6 CHANGE	G Y	G Y	G	R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 + 5	R	R	R	G G	G G	G	R	R	R	R	R	R	DW	DW
2 + 5 CHANGE	R	R	R	G Y	G Y	G	R	R	R	R	R	R	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW
4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	R	G	G	G	G	G	G	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW
4 + 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	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	DARK	DARK



TOD No.: AT782-38
SHA No.: BA563A54/B534

WR&A
Whitman, Requardt and Associates, LLP
801 South Caroline Street
Baltimore, Maryland 21231
(410) 235-3450

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 7 & FONTANA LANE/GOLDEN RING PLAZA

DRAWN BY: S. BLOSS	F.A.P. NO.		TS NO. 3174 D	SHEET NO.	
CHECKED BY: N. LEARY	S.H.A. NO.	AT7825185			
SCALE: NONE	COUNTY:	BALTIMORE	T.I.M.S. NO. H303	2 OF 2	
DATE: 7/13/2006	LOG MILE:	03000702.83			

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