PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF ST PATRICKS DRIVE AND WESTERN PARKWAY IN CHARLES COUNTY, MARYLAND. ST. PATRICKS DRIVE IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE ST. PATRICKS DRIVE APPROACHES OPERATING CONCURRENTLY AND THE WESTERN PARKWAY APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE LEFT-TURN PHASING WILL BE PROVIDED FOR EASTBOUND AND WESTBOUND ST. PATRICKS DRIVE APPROACHES.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE DETECTOR RACK SHALL BE RETRO-FITTED WITH FIVE (5) FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS

MAINTENANCE OF TRAFFIC

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

STANDARD NO. MD-104.04-01 (SHOULDER WORK)
STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.04-05 (RIGHT 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:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013

MR. JOHN S. MAYS
DISTRICT UTILITY ENGINEER
PHONE: (410) 841-1039

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

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

QUANTITY	DESCRIPTION
1 EACH	RETRO-FIT DETECTOR RACK
5 EACH	FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST "B"

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

QUANTITY	DESCRIPTION
400 L.F.	5 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
550 L.F.	5 INCH HEAT APPLIED YELLOW PAINT LINE
2 EACH	PERMANENT PREFORMED PATTERNED REFLECTIVE PAVEMENT MARKING ARROWS
110 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
14 S.F.	INSTALL OVERHEAD SIGN
27 EACH	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
285 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
670 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
570 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
460 L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
145 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
15 S.F.	SHEET ALUMINUM SIGNS

WIRING DIAGRAM

WIRING KEY

A, B, C — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

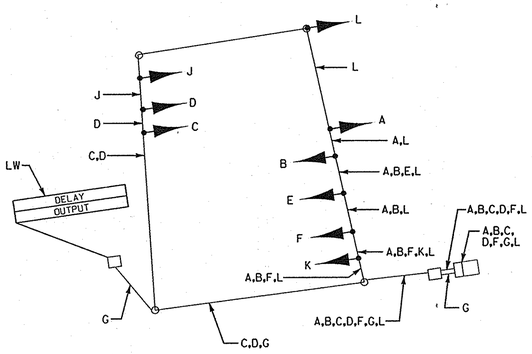
D, E, F, J, K, L — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

G — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) (ALUMINUM SHIELDED)

H — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

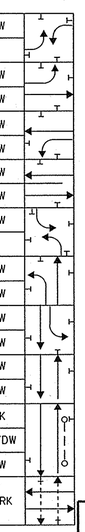
LW - LOOP WIRE (NO. 14 A.W.G.)

+ - 3/4 IN. X 10 FT. GROUND ROD



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PHASE 1+ 5	←G—	←G—	R	R	←G—	R	←G—	R	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	←R—	R	←R—	R	R	R	R	R	R	R	R	DW	DW
1+ 6 CHANGE	←Y—	←Y—	G	G	←R—	R	←R—	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 + 5	←R—	←R—	R	R	←G—	G	←G—	G	G	R	R	R	R	R	R	DW	DW
2 + 5 CHANGE	←R—	←R—	R	R	←Y—	G	←Y—	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 + 6	←R—	←R—	G	G	←R—	G	←R—	G	G	R	R	R	R	R	R	DW	DW
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	Y	←R—	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 3 + 7	←R—	←R—	R	R	←R—	R	←R—	R	R	R ←G—	R ←G—	R	R ←G—	R ←G—	R	DW	DW
3 + 7 CHANGE	PHASE 3 + 7 MAY CHANGE TO PHASE 3 + 8, PHASE 4 + 7 OR PHASE 4 + 8																
PHASE 3 + 8	←R—	←R—	R	R	←R—	R	←R—	R	R	G ←G—	G ←G—	G	R	R	R	DW	DW
3 + 8 CHANGE	←R—	←R—	R	R	←R—	R	←R—	R	R	G ←Y—	G ←Y—	G	R	R	R	DW	DW
PHASE 4 + 7	←R—	←R—	R	R	←R—	R	←R—	R	R	R	R	R	G ←G—	G ←G—	G	DW	DW
4 + 7 CHANGE	←R—	←R—	R	R	←R—	R	←R—	R	R	R	R	R	G ←Y—	G ←Y—	G	DW	DW
PHASE 4 + 8	←R—	←R—	R	R	←R—	R	←R—	R	R	G	G	G	G	G	G	DW	DW
4 + 8 CHANGE	←R—	←R—	R	R	←R—	R	←R—	R	R	Y	Y	Y	Y	Y	Y	DW	DW
PHASE 4 + 8 ALT	←R—	←R—	R	R	←R—	R	←R—	R	R	G	G	G	G	G	G	WK	WK
PED CLEARANCE	←R—	←R—	R	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	←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/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK



SHA No: BW456M84
St. Patrick's Drive @ Western Pkwy

TSP-3

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Baltimore, Maryland 21231
(410) 235-3450

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
ST. PATRICKS DRIVE AND WESTERN PARKWAY

DRAWN BY: S. BLOSS	F.A.P. NO.		TS NO.	SHEET NO.
CHECKED BY: N. LEARY	S.H.A. NO.			
SCALE: NONE	COUNTY: CHARLES		T.I.M.S. NO. 1703	3 OF 3
DATE: 1/4/2008	LOG MILE:			

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