PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF APS (ACCESIBLE PEDESTRIAN SIGNALS)/CPS (COUNTDOWN PEDESTRIAN SIGNALS) AND INSTALLATION OF ADA COMPLIANT CURB RAMPS AT THE INTERSECTION OF MD 924 (EMMORTON ROAD) AND PATTERSON MILL ROAD/BARRINGTON PLACE IN HARFORD COUNTY, MARYLAND. MD 924 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 924 APPROACHES OPERATING CONCURRENTLY AND THE PATTERSON MILL ROAD/BARRINGTON PLACE APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING EXISTS FOR NORTHBOUND AND SOUTHBOUND MD 924 APPROACHES.

AN ALTERNATE PEDESTRIAN PHASE WILL BE PROVIDED ACROSS WEST LEG OF BARRINGTON PLACE AND PEDESTRIAN INDICATIONS WILL BE PROVIDED ACROSS THE NORTH LEG OF MD 924.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 924 (EMMORTON ROAD) AND PATTERSON MILL ROAD - NORTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS EMMORTON AT PATTERSON MILL, WAIT." **

WALK: RAPID TICK

MD 924 (EMMORTON ROAD) AND BARRINGTON PLACE - NORTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS EMMORTON AT BARRINGTON, WAIT." **

WALK: RAPID TICK

BARRINGTON PLACE AND MD 924 (EMMORTON ROAD) - WEST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS BARRINGTON AT EMMORTON, WAIT." **

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE CONTROLLER WILL BE RETROFITTED TO OPERATE APS EQUIPMENT.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9571	4 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSH BUTTON TO CROSS EMMORTON RD"
		- 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSH BUTTON TO CROSS BARRINGTON PL"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

NONE

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.03-03 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.03-05 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.03-13 (LEFT TURN BAY CLOSURE)

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	CLASS 2 EXCAVATION
2002	3 C.Y.	TEST PIT EXCAVATION
5003	540 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	470 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	130 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	260 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	910 S.F.	5 INCH CONCRETE SIDEWALK
6003	105 S.F.	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8002	1 EACH	2-WIRE CENTRAL CONTROL UNIT
8005	1 EACH	ADJUST HANDHOLE TO GRADE WITH NEW FRAME AND COVER
8008	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	3 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8016	4 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8024	1 EACH	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8040	70 L.F.	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8041	17 L.F.	WOOD SIGN SUPPORTS UP TO 4" X 6"
8042	26 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	105 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8055	665 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	685 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 229-2381

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 229-2361

MR. MIKE PASQUARIELLO
ASSISTANT DISTRICT ENGINEER - UTILITY
PHONE: (410) 229-2341

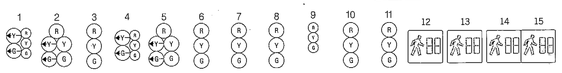
MS. CORREN JOHNSON
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MR. ED RODENHIZER
MANAGER, ODTS SIGNAL OPERATIONS
PHONE: (410) 787-7650

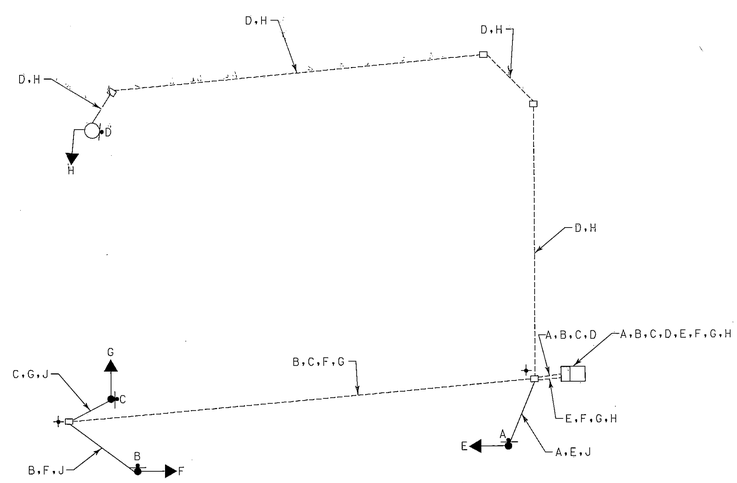
PHASE CHART

TOD NO: XY137-01
SHA NO: HA300B51
MD 924 @ Patterson Mill Rd/Barrington Place



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHASE 1 AND 5	R ←G-	R ←G-	R	R ←G-	R ←G-	R	R	R	R	R	R	DW	DW	DW	DW
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	DW	DW	DW	DW
1 +6 CHANGE	G ←Y-	G ←Y-	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	G ←G-	G ←G-	G	R	R	R	R	R	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	G ←Y-	G ←Y-	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	R	G	G	G	G	G	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	DW	DW	FL/DW	FL/DW
4 + 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
FIREHOUSE PRE-EMPTION	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW
PRE-EMPTION CLEARANCE	R	R	R	R	R	R	Y	Y	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

WIRING DIAGRAM



WIRING KEY

A, B, C, D — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

E, F, G, H — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

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

⏚ - 3/4 IN. X 10 FT. GROUND ROD

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 924 (EMMORTON ROAD) AND
PATTERSON MILL ROAD / BARRINGTON PLACE
BEL AIR, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE MAY 2013 CONTRACT NO. XY1375185

DESIGNED BY G.PECK
DRAWN BY G.PECK
CHECKED BY N. LEARY
F.A.P. NO.

COUNTY HARFORD
LOGMILE 12.0924 to 3.27
TIMS NO. L861
TOD NO.

WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231

TS NO. 4346B | DRAWING TSP-3 OF 3 | SHEET NO. 3 OF 3

PLOTTED: May 14, 2013
FILE: N:\31659-271\CADD\pSG-N003_PattersonMill.dgn

BY: jrasmussen