PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 26 (LIBERTY ROAD) AND JOHNSVILLE ROAD IN CARROLL COUNTY, MARYLAND. APS (ACCESSIBLE PEDESTRIAN SIGNALS/CPS (COUNTDOWN PEDESTRIAN SIGNALS AND THE SIDEWALK RAMPS ALONG THE WEST LEG TO BE INSTALLED. MD 26 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 26 APPROACHES OPERATING CONCURRENTLY AND THE JOHNSVILLE ROAD APPROACHES OPERATING CONCURRENTLY.

THE EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING ON THE WESTBOUND MD 26 APPROACH IS BEING CHANGED TO FLASHING RED ARROW OPERATION. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL REMAIN ON EASTBOUND MD 26.

THE CONCURRENT OPERATIONS ON THE NORTHBOUND AND SOUTHBOUND JOHNSVILLE ROAD APPROACHES WILL REMAIN UNCHANGED.

THE PEDESTRIAN PHASE ACROSS THE WEST LEG WILL REMAIN UNCHANGED.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 26 (LIBERTY ROAD) AND JOHNSVILLE ROAD - WEST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS LIBERTY AT JOHNSVILLE, 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.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 624-8140

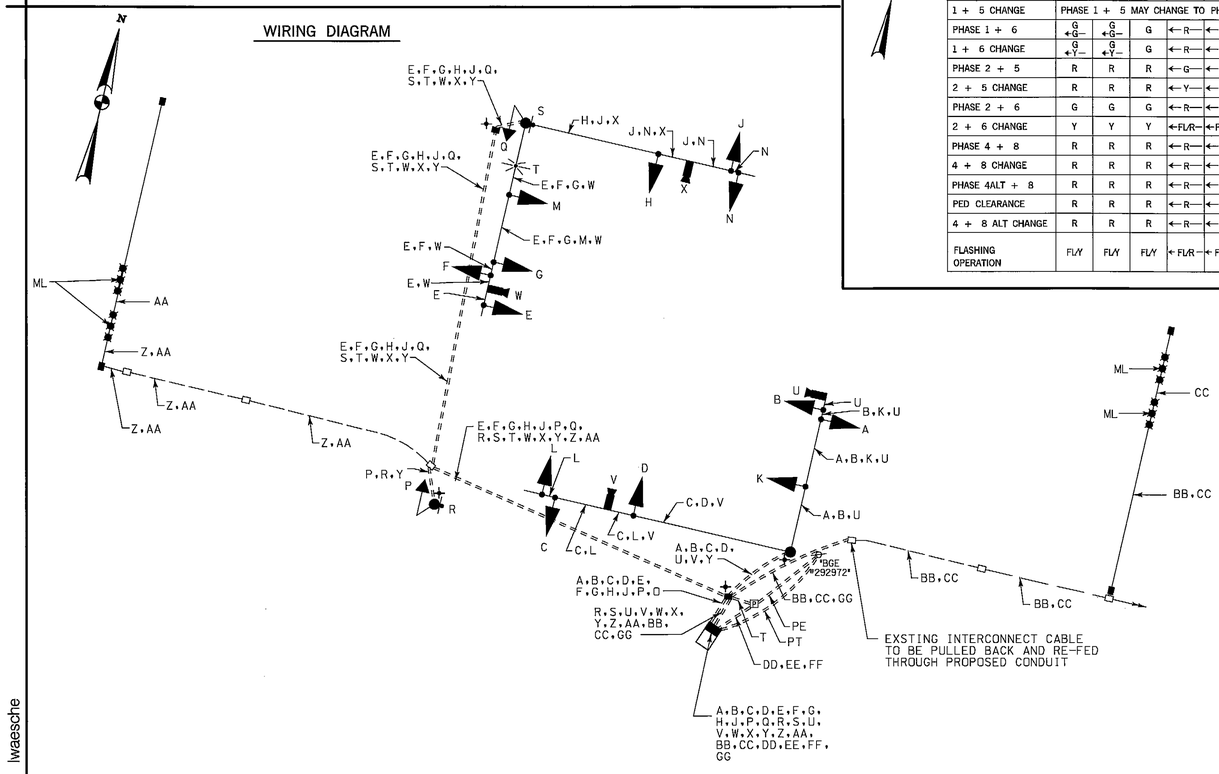
MR. RAYMOND F. JOHNSON
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 624-8105

MS. ANDREA ABEND
DISTRICT UTILITY ENGINEER
PHONE: (301) 624-8115

MR. ROBERT SYNDER
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7631

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

WIRING DIAGRAM



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EACH	4 CHANNEL DETECTOR AMPLIFER
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR, TELEMETRY VIDEO INTERFACE EQUIPMENT 1-8 CAMERAS AND HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9571	93 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 1 EACH R10-12(2) SIGN (48 IN. x 36 IN.) - MAST ARM MOUNT
		- 2 EACH R3-5(L) (30 IN. x 36 IN.) - MAST ARM MOUNT
		- 4 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
		- 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS LIBERTY ROAD"
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, MD 26, RIGHT ARROW" (24 IN. x 48 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, MD 26, LEFT ARROW" (36 IN. x 72 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, MD 26, RIGHT ARROW" (24 IN. x 48 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, MD 26, LEFT ARROW" (36 IN. x 72 IN.) - POLE MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

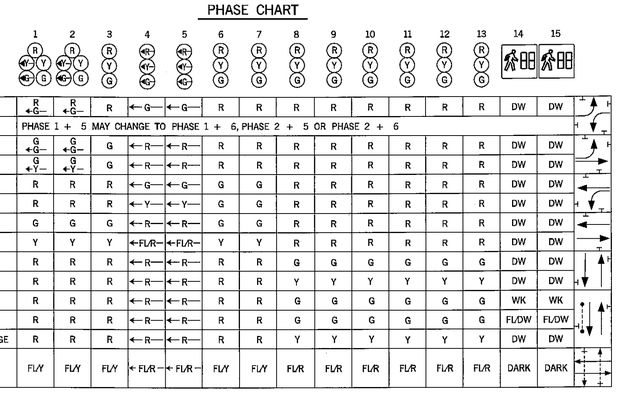
EXISTING CONTROLLER AND AUXILARY EQUIPMENT FROM THE CABINET WILL BE REMOVED AND BECOME PROPERTY OF SHA. ANY ADDITIONAL SIGNAL MATERIALS REMOVED SHALL BECOME PROPERTY OF THE CONTRACTOR

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-104.03-01 (SHOULDER CLOSURE)
STANDARD NO. MD-104.03-03 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.03-05 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.03-09 (INTERSECTION, FAR-LEFT LANE CLOSURE)
STANDARD NO. MD-104.04-15 (INTERSECTION FAR-RIGHT LANE CLOSURE)

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHASE 1 + 5	R ←G—	R ←G—	R	←G—	←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—	G	←R—	←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	R	DW	DW
PHASE 2 + 5	R	R	R	←G—	←G—	G	G	R	R	R	R	R	R	DW	DW
2 + 5 CHANGE	R	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 + 6	G	G	G	←R—	←R—	G	G	R	R	R	R	R	R	DW	DW
2 + 6 CHANGE	Y	Y	Y	←FL/R—	←FL/R—	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 4 + 8	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	Y	Y	Y	Y	Y	Y	DW	DW
PHASE 4ALT + 8	R	R	R	←R—	←R—	R	R	G	G	G	G	G	G	WK	WK
PED CLEARANCE	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	Y	Y	Y	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	←FL/R—	←FL/R—	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

WIRING KEY

A, B, C, D, E, F, G, H, J — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K, L, M, N, P, Q — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
R, S — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
T — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
U, V, W, X — VIDEO CAMERA DETECTION LEAD-IN CABLE
Y — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
Z, AA, BB, CC — MICROLOOP PROBE LEAD-IN
DD, EE, FF — 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)
GG — EXISTING INTERCONNECT CABLE
PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
ML - MICROLOOP PROBE SET
⏚ - 3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EACH	MAINTENANCE OF TRAFFIC
2002	3 C.Y.	TEST PIT EXCAVATION
5003	220 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	300 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	30 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	155 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	490 S.F.	5 INCH CONCRETE SIDEWALK
6003	15 S.F.	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	43 EACH	12 INCH LED SIGNAL HEAD SECTION
8002	1 EACH	2-WIRE CENTRAL CONTROL UNIT
8007	1 EACH	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8008	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8012	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
8013	1 EACH	INSTALL BREAKAWAY PEDESTAL POLE - ANY SIZE
8015	2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8022	4 EACH	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8023	1 EACH	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8025	1 EACH	TWIN MAST ARM POLE & 50'/60' MAST ARMS ANY "T" DIMENSION
8026	1 EACH	TWIN MAST ARM POLE & 50'/70' MAST ARMS ANY "T" DIMENSION
8028	4 EACH	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8033	65 L.F.	DISCONNECT, PULL-BACK & REROUTE CABLES
8034	240 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) T/C
8036	305 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8038	210 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8040	93 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	260 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	60 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG - THHN/THWN
8046	6 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8051	1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8053	335 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8055	450 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8056	1930 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8062	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)

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

MD 26 (Liberty Road) & Johnsville Road
Eldersburg, MD

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 04262011 CONTRACT NO. XX6505185

DESIGNED BY L.WAESCHE
DRAWN BY L.WAESCHE
CHECKED BY N.LEARY
F.A.P. NO.
COUNTY Carroll
LOGMILE 06002609.48
TIMS NO. K643
TOD NO.

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

TS NO. 2036 | DRAWING TSP-3 OF 3 | SHEET NO. 3 OF 3

PLOTTED: 04-27-2011
FILE: N:\31669-119\CADD\pSG-N303_Johnsville.dgn

BY: lwaesche