

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 2 (GOVERNOR RITCHIE HWY.) AND GEORGIA AVENUE IN ANNE ARUNDEL COUNTY.

MD 2 (GOVERNOR RITCHIE HWY.) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

A SYSTEM READY BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT WILL BE INSTALLED AT THE INTERSECTION. THE INTERSECTION WILL CONTINUE TO OPERATE IN A FULLY-ACTUATED MODE USING 6 NEMA PHASES. EXISTING EXCLUSIVE LEAD/LAG LEFT TURN MOVEMENTS FOR MD 2. MD 2 MAIN LINE OPERATES CONCURRENTLY. GEORGIA AVENUE APPROACHES RUN CONCURRENTLY. THE EXISTING AUDIO COUNTDOWN PUSHBUTTON PEDESTRIAN MOVEMENT TO CROSS THE SOUTH LEG OF MD 2 WILL BE MAINTAINED.

VIDEO CAMERAS SHALL PROVIDE DETECTION, STREET LIGHTING AND SIGNING SHALL BE UPDATED TO CURRENT STANDARDS.

AUDIBLE PUSHBUTTON FUNCTION AS FOLLOWS:

- When pedestrian locates and presses pushbutton for extended time, the pushbutton unit will be: "Wait to cross Ritchie Hwy at Georgia"
- When WALK phase begins, the message will be a rapid tick, which will last for the duration of the "WALK" phase.

SPECIAL NOTES:

- THE EXISTING UNDERGROUND INTERCONNECT SHALL BE DISCONNECTED FROM THE EXISTING CONTROLLER, AND PULLED BACK IN THREE DIRECTION. EXTREME CARE MUST BE GIVEN TO THIS PROCESS AND CABLE SHALL BE COILED AND STORED IN IDENTIFIED HANDHOLES UNTIL RE-ROUTED TO PROPOSED CONTROLLER CABINET.

PROJECT CONTACTS:

- THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MS. KIMBERLY TRAN, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1003

MR. JAMES FOLDEN, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (410) 841-1031

MR. JOHN MAYS, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013

MR. MIKE HUBER, UTILITY ENGINEER
PHONE: (410) 841-1039

MR. RICHARD DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
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MR. EDWARD ROENHIZER, CHIEF SIGNAL SHOP
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MR. SONNY BAILEY, CHIEF SIGN SHOP
PHONE: (410) 787-7676

THE POWER COMPANY REPRESENTATIVE:
BALTIMORE GAS AND ELECTRIC
7317 PARKWAY DRIVE SOUTH
HANOVER, MARYLAND 21076
(410) 850-4620

- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES.

EQUIPMENT LIST 'A'

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	QUANTITY
900000	LOCAL CONTROLLER AND CABINET SIZE 6 W/ ALL NECESSARY EQUIPMENT HOUSED BASE MOUNTED CABINET	1 EA
900000	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:	132 SF
2 EA	R3-5L "LEFT ONLY" (30"x36") MAST ARM MOUNTED	
2 EA	R3-5R "RIGHT ONLY" (30"x36") MAST ARM MOUNTED	
2 EA	R4-7 "KEEP RIGHT" (24"x30") GROUND MOUNTED	
1 EA	M3-1 "NORTH" (24"x12"), M1-5X "MD 2" (24"x24") GRD. MT. D-3(2) (16"xVAR.) MAST ARM MOUNT (DUAL FACED)	
1 EA	"Gov. Ritchie Hwy"	
2 EA	"Georgia Avenue"	
1 EA	M1-5(3) SIGNS (78" x 24") MAST ARM MOUNTED (DUAL FACED) "NORTH, ADVANCE LEFT ARROW, MD 2, SOUTH, RIGHT ARROW"	
1 EA	M1-5(3) SIGNS (78" x 24") MAST ARM MOUNTED (DUAL FACED) "SOUTH, ADVANCE LEFT ARROW, MD 2, NORTH, RIGHT ARROW"	

EQUIPMENT LIST 'B'

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

CATEGORY CODE NO.	DESCRIPTION	QUANTITY
100000	MAINTENANCE OF TRAFFIC	1 EA
203030	TEST PIT EXCAVATION	3 CY
655105	5 INCH CONCRETE SIDEWALK	34 SF
800000	ADJUST HANDHOLE, NEW FRAME AND COVER	3 EA
800000	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LUMINAIRE & LAMP	2 EA
800000	MAST ARM POLE WITH TWIN 50'x70' MAST ARMS ANY "T" DIM.	1 EA
800000	MAST ARM POLE WITH 60' MAST ARM ANY "T" DIMENSION	1 EA
800000	NON-INVASIVE PROBE SET WITH ANY LENGTH LEAD-IN CABLE	4 EA
800000	REMOVE AND DISPOSE OF EXISTING EQUIPMENT	1 EA
800000	VIDEO CAMERA & CABLE ANY LENGTH TO CONTROLLER	5 EA
800000	DISCONNECT, PULL BACK & RE-ROUTE EXISTING CABLES	1950 LF
800000	SCHEDULE 80 PVC CONDUIT UP TO 4" - BORED	670 LF
800000	SCHEDULE 80 PVC CONDUIT UP TO 4" - TRENCHED	450 LF
800000	WOOD SIGN POST UP TO 4" x 6"	46 LF
800000	INSTALL OVERHEAD AND UNDERGROUND SIGNS	132 SF
800000	INSTALL BEND INTO EXISTING BASE	3 EA
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	745 LF
807202	100 AMP METERED SERVICE PEDESTAL	1 EA
810022	CABLE 1-CONDUCTOR, NO. 8 AWG-THHN/THWN	30 LF
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	9 EA
860284	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	42 EA
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	1320 LF
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	1920 LF
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	2460 LF
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	530 LF
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	1 EA

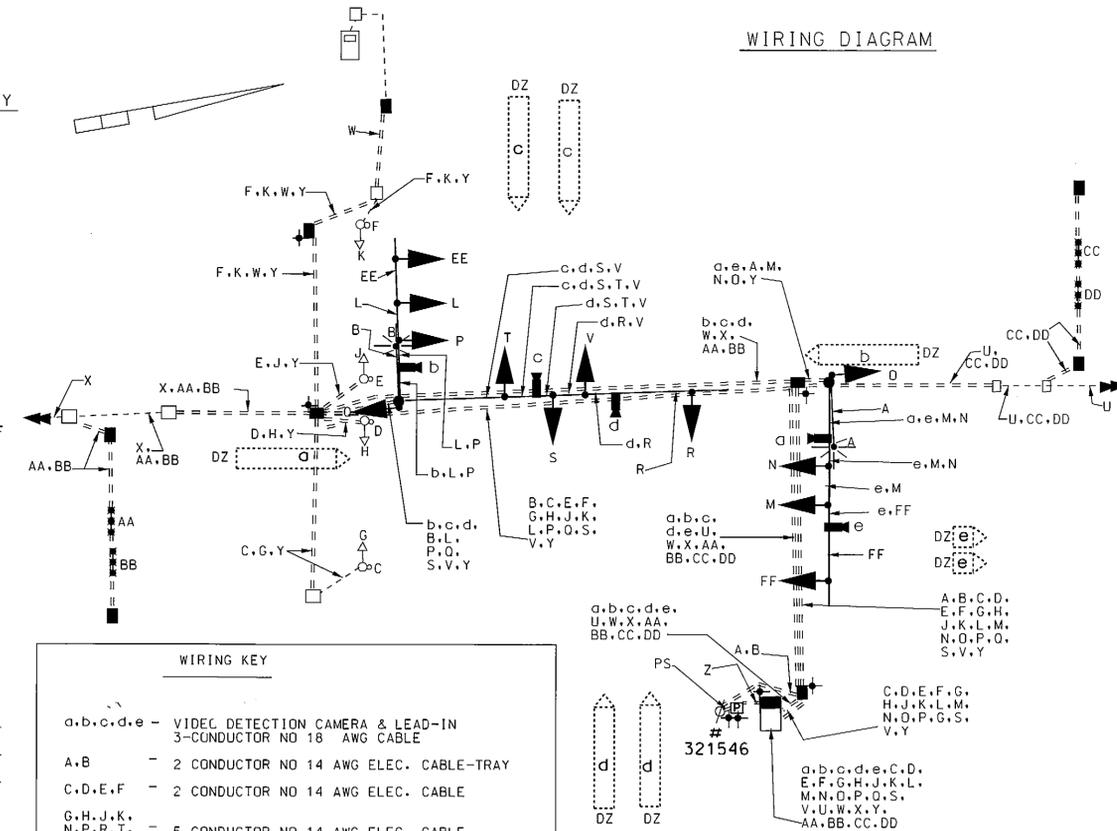
EQUIPMENT LIST 'C'

C. 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.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 2 AND 5	← R	← R	R	R	← G	← G	G	G	R	R	R	R	DW	DW	DW	DW
5 CHANGE	← R	← R	R	R	← Y	← Y	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	← R	← R	G	G	← R	← R	G	G	R	R	R	R	DW	DW	DW	DW
2 CHANGE	← R	← R	G	G	← R	← R	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 1 AND 6	← G	← G	G	G	← R	← R	R	R	R	R	R	R	DW	DW	DW	DW
1 AND 6 CHANGE	← Y	← Y	G	G	← R	← R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	← R	← R	R	R	← R	← R	R	R	G	G	G	G	DW	DW	DW	DW
4 AND 8 CHANGE	← R	← R	R	R	← R	← R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT & 8	← R	← R	R	R	← R	← R	R	R	G	G	G	G	WALK	WALK	WALK	WALK
PED CLEARANCE & COUNTDOWN	← R	← R	R	R	← R	← R	R	R	G	G	G	G	FLDW	FLDW	FLDW	FLDW
4 ALT & 8 CHANGE	← R	← R	R	R	← R	← R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

- a,b,c,d,e - VIDEO DETECTION CAMERA & LEAD-IN 3-CONDUCTOR NO 18 AWG CABLE
- A,B - 2 CONDUCTOR NO 14 AWG ELEC. CABLE-TRAY
- C,D,E,F - 2 CONDUCTOR NO 14 AWG ELEC. CABLE
- G,H,J,K,L,M,N,P,R,T,EE,FF - 5 CONDUCTOR NO 14 AWG ELEC. CABLE
- L,M,D,O,S,V - 7 CONDUCTOR NO 14 AWG ELEC. CABLE
- U,W,X - EXISTING INTERCONNECT CABLE TO BE PULLED-BACK, RE-ROUTE TO NEW CONTROLLER (PER DIRECTION)
- Y - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- Z - 1 CONDUCTOR NO 8 AWG-THHN/THWN ELEC. CABLE
- AA,BB,CC,DD - NON-INVASIVE PROBES ANY LENGTH CABLE TO CONTROLLER
- PS - PROPOSED SERVICE FEED
- DZ - DETECTION ZONE
- + - GROUND ROD (3/4" DIA. x 10' LENGTH)

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

**MD 2 AT GEORGIA AVENUE
GLEN BURNIE, MARYLAND**

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE JUNE 5, 2009 CONTRACT NO. AA261S168

DESIGNED BY EMM COUNTY ANNE ARUNDEL
DRAWN BY EMM LOGMILE 02000236.66
CHECKED BY TMH JAB 7/1/09 TMS NO. J661
F.A.P. NO. TOD NO.

TS NO. 663H GI DRAWING 2 OF 2 SHEET NO. 17 OF 31

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HUNT VALLEY, MD 21031

REVISION 'H' CEI JOB # 26265.16

BY: \$USER\$

PLOTTED: SDATETIMES
FILE: SPILES