PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD-2 (GOV. RITCHIE HWY) AND THE ENTRANCE TO THE GLEN BURNIE MALL IN ANNE ARUNDEL COUNTY.

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

II. INTERSECTION OPERATION:

A SYSTEM READY BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT WILL BE INSTALLED AT THE INTERSECTION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 6 NEMA PHASES. MAINLINE MD-2 OPERATES CONCURRENTLY. EXCLUSIVE LEFT TURN PHASING IS PROVIDED FOR THE NORTH AND SOUTHBOUND MD-2 APPROACHES. THE ENTRANCES TO THE GLEN BURNIE MALL AND CHESAPEAKE PLAZA OPERATE CONCURRENTLY. THIS INTERSECTION IS PART OF THE MD-2 INTERCONNECT SIGNAL SYSTEM.

VIDEO CAMERAS SHALL PROVIDE PRESENCE DETECTION. STREET LIGHTING AND STREET NAME SIGNS SHALL BE UPDATED TO CURRENT STANDARDS.

PROJECT CONTACTS

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASST. DISTRICT ENGINEER-TRAFFIC
PHONE: 410-841-1003

MR. RICHARD DAFF
CHIEF-TRAFFIC OPERATIONS DIV.
PHONE: 410-787-7630

MR. JAMES FOLDEN
ASST. DISTRICT ENGINEER-CONSTRUCTION
PHONE: 410-841-1031

MR. EDWARD RODENHIZER
CHIEF-SIGNAL OPERATIONS SECT.
PHONE: 410-787-7652

MR. JOHN MAYS
ASST. DISTRICT ENGINEER-MAINTENANCE
PHONE: 410-841-1013

MR. SONNY BAILEY
CHIEF-SIGN SHOP
PHONE: 410-787-7676

MR. MIKE HUBER
UTILITY ENGINEER
PHONE: 410-787-7652

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

2. 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 "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.

WAE Williams Associates Engineers
Williams Associates-Engineers, P.A.
251 Najoles Road, Suite E
Millersville, Maryland 21108
Phone: 410-729-1004
Facsimile: 410-729-1009

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	QUANTITY
900000	LOCAL CONTROLLER AND CABINET; SIZE '6' WITH ALL NECESSARY EQUIPMENT HOUSED; BASE-MOUNTED CABINET.	1 EA.
973023	FLAT SHEET ALUMINIUM SIGNS CONSISTING OF: 6 EA R3-5(L) "LEFT ONLY" (30"X36") MAST ARM MOUNT 1 EA R3-6(R) "RIGHT AND THRU" (30"X36") MAST ARM MOUNT 1 EA R4-7 "KEEP RIGHT" (18"X24") GROUND MOUNT 1 EA R3-5A "AHEAD ONLY" (30" X 36") MAST ARM MOUNT D-3(2) (16"X VAR.) MAST ARM MOUNT (DUAL FACED): 2 EA "Gov. Ritchie Hwy." 1 EA R3-7 MODIFIED (36"X72") MAST ARM MOUNT "RIGHT LANE EXITS AT MD 3 BUS" GUIDE SHIELD ASSEMBLY (24"X51") GROUND MOUNT: 1 EA "NORTH, MD 2, RIGHT ARROW" GUIDE SHIELD ASSEMBLY (24"X51") POLE MOUNT: 1 EA "SOUTH, MD 2, RIGHT ARROW" GUIDE SHIELD ASSEMBLY (36X75) POLE MOUNT: 1 EA "NORTH, MD 2, LEFT ARROW" 1 EA "SOUTH, MD 2, LEFT ARROW"	158 SF.

EQUIPMENT LIST "B"

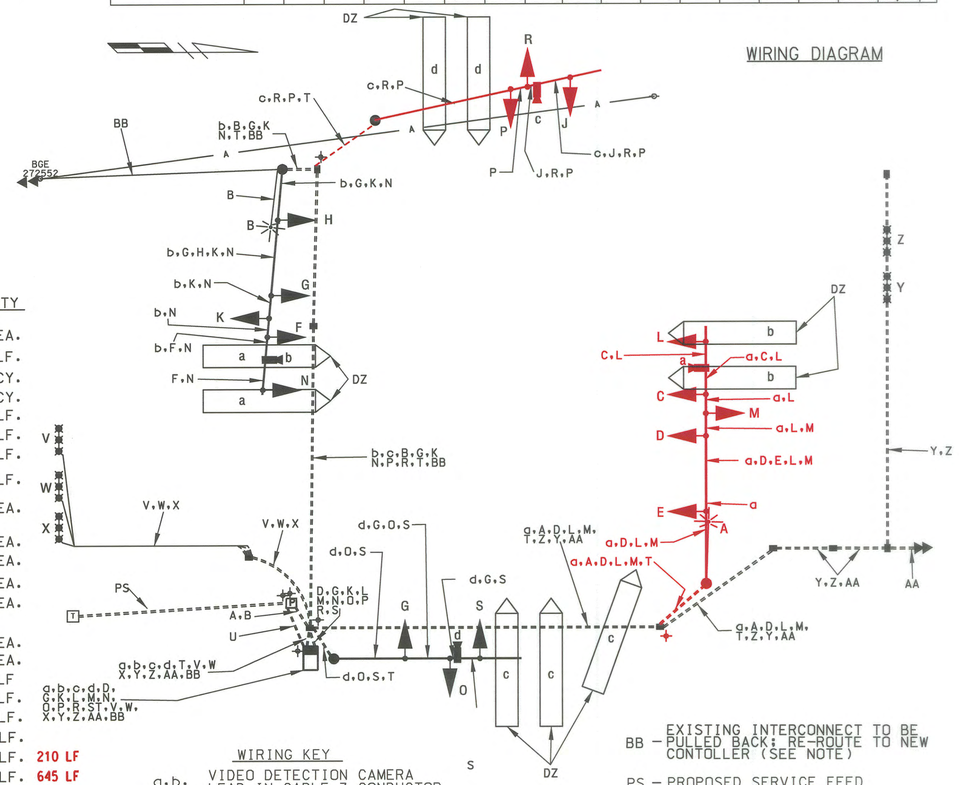
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	DESCRIPTION	QUANTITY
100000	MAINTENANCE OF TRAFFIC	1 EA.
120784	TEMP ORANGE FENCE	100 LF.
201032	CLASS 2 EXCAVATION	6 CY.
203030	TEST PIT EXCAVATION	5 CY.
500000	REMOVE PAVEMENT MARKING LINES	55 LF.
585617	5" WHITE HEAT APPL. PERMANENT THERMO. PVMNT. MRKG.	100 LF.
585625	24" WHITE HEAT APPL. PERMANENT THERMO. PVMNT. MRKG.	55 LF.
648140	4' MONOLITHIC MEDIAN (A-1)	10 LF.
800000	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT LUMINAIRE AND LAMP	2 EA.
800000	MAST ARM POLE & 60 FT MAST ARM ANY "T" DIMENSION	3 EA.
800000	MAST ARM POLE & 70 FT MAST ARM ANY "T" DIMENSION	1 EA.
800000	MICRO-LOOP PROBE SET ANY LENGTH LEAD IN	3 EA.
800000	NON-INVASIVE MICRO-LOOP TRIPLE PROBE SET ANY LENGTH LEAD IN	3 EA.
800000	REMOVE & DISPOSE OF EXISTING EQUIPMENT	1 EA.
800000	VIDEO CAMERA & CABLE ANY LENGTH TO CONTROLLER	4 EA.
800000	1 INCH DETECTOR SLEEVE GALVANIZED OR FLEXIBLE	20 LF
800000	12-PAIR COMM. CABLE, JELLY FILLED (UNDERGROUND)	900 LF.
800000	DISCONNECT, PULL BACK AND RE-ROUTE EXISTING CABLE	200 LF.
800000	SCHEDULE 80 PVC CONDUIT UP TO 4" - BORED	580 LF.
800000	SCHEDULE 80 PVC CONDUIT UP TO 4" - SLOTTED	~~310~~ LF. 210 LF
800000	SCHEDULE 80 PVC CONDUIT UP TO 4" - TRENCHED	~~615~~ LF. 645 LF
800000	WOOD SIGN POST UP TO 4X6	32LF.
800000	INSTALL OVERHEAD OR GROUND MOUNTED SIGN	158 SF.
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	~~450~~ LF. 360 LF
807202	METERED SERVICE PEDESTAL	1 EA.
810022	CABLE 1-CONDUCTOR, NO. 8 AWG-THHN/THWN	40 LF.
811001	INSTALL ELECTRICAL HAND-HOLE	12 EA.
860284	12" LED SIGNAL SECTION	48 EA.
860292	CUT/CLEAN/GALVN/CAP	3 EA.
861107	ELECTRICAL CABLE-5 CONDUCTOR (NO.14 AWG)	~~530~~ LF. 500 LF
861108	ELECTRICAL CABLE-7 CONDUCTOR (NO.14 AWG)	~~1900~~ LF. 1690 LF
861116	ELECTRICAL CABLE-2 CONDUCTOR (NO.12 AWG TRAY CABLE)	~~350~~ LF. 320 LF
862102	SAWCUT FOR DETECTOR	350 LF.
871202	INSTALL CONTROLLER & CABINET. BASE MOUNT	1 EA.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 + 5	G	G	G	R	R	G	G	G	R	R	R	R	R	R	R	R
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	R
1 + 6 CHANGE	Y	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	R
PHASE 2 + 5	R	R	R	R	R	G	G	G	G	G	R	R	R	R	R	R
2 + 5 CHANGE	R	R	R	R	R	Y	Y	Y	G	G	R	R	R	R	R	R
PHASE 2 + 6	R	R	R	G	G	R	R	R	G	G	R	R	R	R	R	R
2 + 6 CHANGE	R	R	R	Y	Y	R	R	R	Y	Y	R	R	R	R	R	R
PHASE 4 + 8	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G
4 + 8 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

- a,b,c,d – VIDEO DETECTION CAMERA LEAD-IN CABLE 3 CONDUCTOR NO.18 AWG
- A,B – 2-CONDUCTOR NO. 12 AWG TRAY CABLE
- C,D,E,F,G,H,J – 5-CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- K,L,M,N,O,P,R,S – 7-CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- T – NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- U – 1-CONDUCTOR NO. 8 AWG THHN/THWN ELECTRICAL CABLE
- V,W,X,Y,Z – NON-INVASIVE MICRO LOOP PROBE LEAD
- – AA NEW INTERCONNECT CABLE TO BE INSTALLED (SEE NOTE)
- BB – EXISTING INTERCONNECT TO BE PULLED BACK; RE-ROUTE TO NEW CONTOLLER (SEE NOTE)
- PS – PROPOSED SERVICE FEED
- DZ – DETECTION ZONE
- ✦ – GROUND ROD (3/4" DIA. X 10 FT. LENGTH)

2 REDLINE 2 TEDD APPROVAL 8/24/2010 — 8/26/10
RELOCATE 2 MAST ARM POLES

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

MD 2 (GOVERNOR RITCHIE HWY.) AT
ENTRANCE TO GLEN BURNIE MALL/CHESAPEAKE SQUARE

GENERAL INFORMATION PLAN

SCALE NONE	DATE 04/16/2009	CONTRACT NO. AA 2615168	
DESIGNED BY WAE		COUNTY ANNE ARUNDEL	
DRAWN BY WAE		LOGMILE 02000238.82	
CHECKED BY		TIMS NO. J661	
FAP NO.		TOD NO.	
TS NO. 709F-GI	DRAWING 2 OF 2	SHEET NO. 7 OF 30	

PLOTTED: $DATETIME$
FILE: $FILE$

BY: $USERNAME$