

**PROJECT DESCRIPTION**

**I. GENERAL:**

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE INTERSECTION OF MD 424 (DAVIDSONVILLE ROAD) AND THE EASTBOUND US 50 RAMP IN ANNE ARUNDEL COUNTY.

MD 424 (DAVIDSONVILLE ROAD) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**II. INTERSECTION OPERATION:**

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE. MD 424 THROUGH APPROACHES SHALL OPERATE CONCURRENTLY. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING SHALL BE PROVIDED FOR BOTH MD 424 APPROACHES. THE EASTBOUND US 50 RAMP AND THE PARK AND RIDE ENTRANCE APPROACHES OPERATE CONCURRENTLY.

VIDEO DETECTOR CAMERAS AND PROBES SHALL PROVIDE THE TRAFFIC ACTUATION.

A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED LOCAL CONTROLLER AND ALL NECESSARY EQUIPMENT HOUSED IN A SIZE '6' BASE MOUNTED CABINET SHALL BE INSTALLED AT THE INTERSECTION.

**III. SPECIAL NOTES:**

THE CONTRACTOR SHALL CONTACT MR. ROBERT SNYDER, TOD, AT 410-787-7631, AT LEAST THREE (3) DAYS IN ADVANCE OF THE COMPLETION OF THE PROJECT TO ARRANGE FOR THE TELEPHONE DROP. THE CONTRACTOR SHALL PROVIDE THE NEAREST HOUSE ADDRESS.

**PROJECT CONTACTS**

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER  
TRAFFIC - 410-842-1003

MR. JAMES FOLDEN  
ASSISTANT DISTRICT ENGINEER  
CONSTRUCTION - 410-841-1031

MR. ANDRE FUTRELL  
ASSISTANT DISTRICT ENGINEER  
MAINTENANCE - 410-841-1002

MR. JOHN S. MAYS  
DISTRICT UTILITY ENGINEER  
410-841-1039

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY:

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS DIVISION  
410-787-7631

MR. ED RODENHIZER  
TEAM LEADER - SIGNAL OPERATIONS  
410-787-7652

MR. STEPHEN HOLLIE, JR.  
PROJECT MANAGER - TRAFFIC ENGINEERING  
DESIGN DIVISION 410-787-4088

**EQUIPMENT LIST "B"**

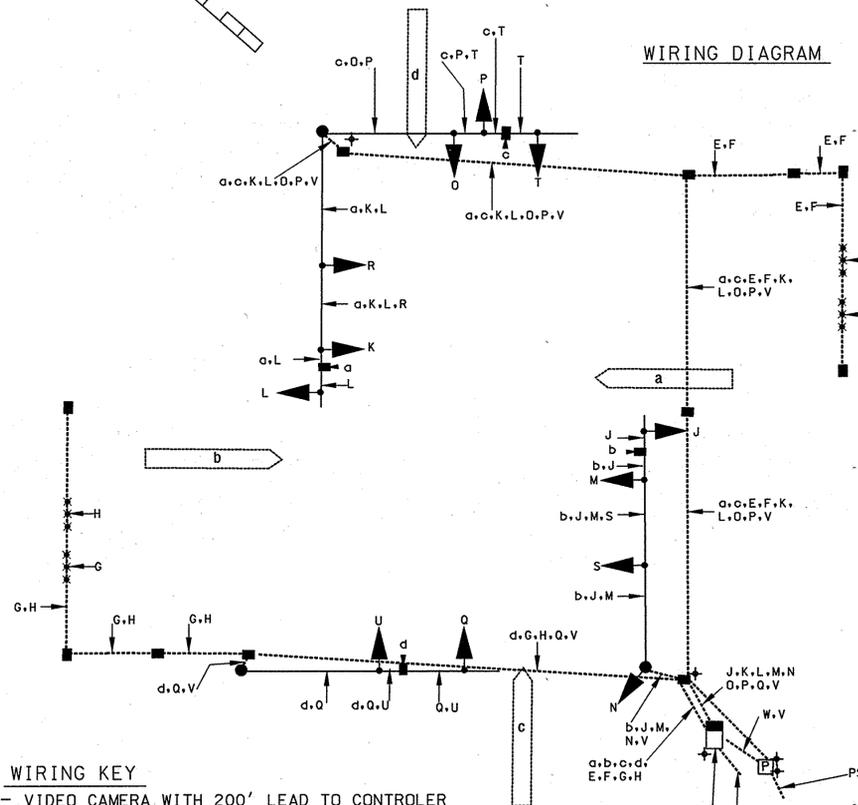
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	4 CY	TEST PIT EXCAVATION
5001	80 LF	5" YELLOW PERMANENT THERMOPLASTIC PAVEMENT MARKING
5002	40 LF	REMOVE EXISTING PAVEMENT MARKING
5005	122 LF	24" WHITE PERMANENT THERMOPLASTIC PAVEMENT MARKING
8001	38 EA	12" LED SIGNAL HEAD SECTION
8004	6 EA	8" LED SIGNAL HEAD SECTION
8017	2 EA	MAST ARM POLE AND 60' MAST ARM
8021	4 EA	NON-INVASIVE DETECTOR, 1000' LEAD-IN CABLE
8022	1 EA	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT PER ASSIGNMENT
8024	1 EA	MAST ARM POLE WITH TWIN 70' X 50' MAST ARMS
8026	4 EA	VIDEO DETECTOR CAMERA AND CABLE
8035	1375 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - TRENCHED
8036	355 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - BORED
8037	50 LF	WOOD SIGN SUPPORT UP TO 4" X 6"
8039	126 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGNS
8041	1280 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8043	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8045	60 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG THHN/THWN
8047	11 EA	ELECTRICAL HANDHOLE
8056	120 LF	ELECTRICAL CABLE 5-CONDUCTOR NO. 14 AWG
8057	2000 LF	ELECTRICAL CABLE 7-CONDUCTOR NO. 14 AWG
8065	1 EA	INSTALL CONTROLLER AND CABINET BASE-MOUNT

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11	12
Phase 1 + 5	R	G	R	R	R	R	R	R	R	R	R	R
1 + 5 Change	THE CONTROLLER MAY SKIP TO PHASES 1 + 6 OR 2 + 5 OR 2 + 6											
Phase 1 + 6	G	G	G	R	R	R	R	R	R	R	R	R
1 Change	G	G	G	R	R	R	R	R	R	R	R	R
Phase 2 + 5	R	R	R	G	G	G	R	R	R	R	R	R
5 Change	R	R	R	G	G	G	R	R	R	R	R	R
Phase 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R
2 + 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
Phase 4 + 8	R	R	R	R	R	R	G	G	G	G	G	G
4 + 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

**WIRING DIAGRAM**



**WIRING KEY**

- b - VIDEO CAMERA WITH 200' LEAD TO CONTROLLER
- d - VIDEO CAMERA WITH 300' LEAD TO CONTROLLER
- a,c - VIDEO CAMERA WITH 400' LEAD TO CONTROLLER
- J,K,L,M,N,O,P,Q - ELECTRICAL CABLE 7-CONDUCTOR (NO.14 AWG)
- R,S,T,U - ELECTRICAL CABLE 5-CONDUCTOR (NO.14 AWG)
- V - NO.6 AWG BARE COPPER GROUND WIRE STRANDED
- E,F - NON-INVASIVE MICRO LOOP PROBE WITH 1000' LEAD-IN CABLES
- G,H - ELECTRICAL CABLE 1-CONDUCTOR (NO.4 AWG THHN/THWN) 3 WIRES
- W - ELECTRICAL CABLE 1-CONDUCTOR (NO.4 AWG THHN/THWN) 3 WIRES
- PS - PROPOSED SERVICE FEED BY BG&E
- + - GROUND ROD (3/4" DIA. X 10' LENGTH)
- PPD - PROPOSED TELEPHONE DROP
- Ⓜ - METERED SERVICE PEDESTAL

**EQUIPMENT LIST "C"**

ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EA	FOUR CHANNEL DETECTOR AMPLIFIER
9044	1 EA	CONTROLLER CABINET, SIZE 6
9086	1 EA	VIDEO DETECTION INTERFACE: 1-4 CAMERAS
9570	45 SF	SHEET ALUMINIUM GROUND MOUNTED SIGNS
	1 EA	M95-25 "NEW" (24" x 24"), W3-3" SIGNAL AHEAD SYMBOL" (48" x 48")
	1 EA	ASSOCIATED SHIELD ASSEMBLY SIGN (48"x87") COMPRISED OF: M3-4" WEST (30"x15") M1-4" US 50 (48"x48") M6-1" LEFT ARROW (30" x 24")
9571	81 SF	SHEET ALUMINIUM SIGNS MAST ARM/POLE MOUNTED
	1 EA	R3-5R "RIGHT ARROW, ONLY" (30" x 36")
	2 EA	D-3(2) "Davidsonville Rd" (VAR" x 16") (DUAL FACE)
		ASSOCIATED SHIELD ASSEMBLY SIGN:
	1 EA	"SOUTH, MD 424, RIGHT ARROW" (30" x 51")
	1 EA	"SOUTH, MD 424, LEFT ARROW" (48" x 75")

TOD NO: AT915-19  
SHA No.: AA487A53/C53  
MD 424 @ US 50 EB and WB ramps

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 424 (DAVIDSONVILLE ROAD)  
AT EB US 50 RAMP  
DAVIDSONVILLE, MARYLAND

**GENERAL INFORMATION SHEET**

SCALE NONE DATE 1-31-07 CONTRACT NO. AT9155185

DESIGNED BY H.O. COUNTY ANNE ARUNDEL  
DRAWN BY H.O. LOGMILE 02042403.16  
CHECKED BY T.M.H. TMS NO. G932  
FAP NO. TOD NO.

TS NO. 4538 DRAWING 2 OF 2 SHEET NO. 2 OF 4

**TH CENTURY**  
ENGINEERING  
CONSULTING ENGINEERS - PLANNERS  
10710 GILROY ROAD  
HUNT VALLEY, MD 21031  
Phone: (410) 823-8070 Fax: (410) 823-2184

BY: shollie1