

**PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT SOUTHBOUND MD 3 AND THE NORTHBOUND MD 3 'J' TURN IN ANNE ARUNDEL COUNTY. MD 3 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA 2 PHASE, FULLY ACTUATED MODE.

**CONTROLLER REQUIREMENTS**

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE, ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

**SPECIAL NOTE**

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

**EQUIPMENT LIST "A"**

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

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

**CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:**

MRS. KIM TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
(410) 841-1003

MR. JOHN MAYS  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
(410) 841-1002

MR. MIKE HUBER  
UTILITY ENGINEER  
(410) 841-1005

**CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY**

MR. RICHARD DAFF, SR.  
CHIEF - TRAFFIC OPERATIONS  
(410) 787-7630

MR. EUGENE BAILEY  
CHIEF - SIGN OPERATIONS  
(410) 787-7676

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

MS. DARLENE EIDE  
SUPPLY OFFICE  
SIGNAL SHOP WAREHOUSE  
(410) 787-7668

MR. ED RODENHIZER  
CHIEF - SIGNAL OPERATIONS SECTION  
(410) 787-7652

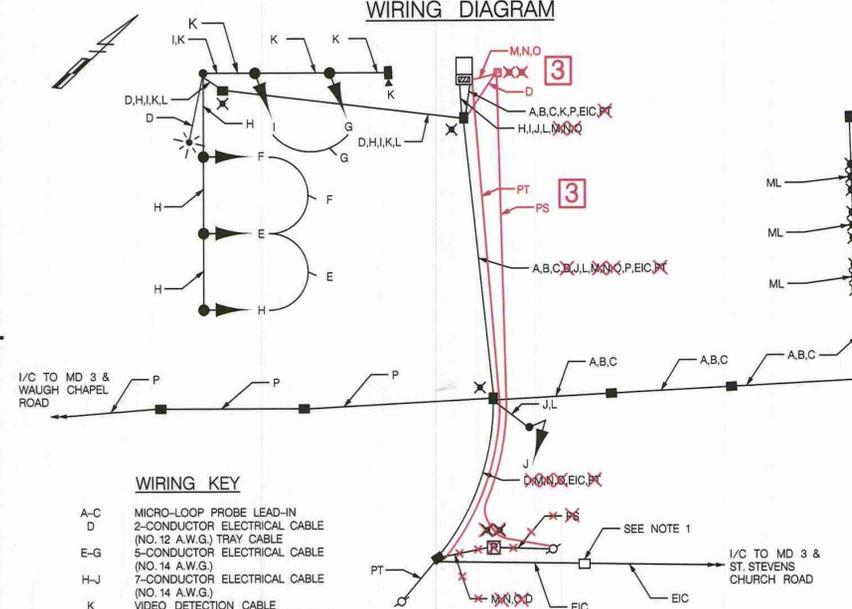
**EQUIPMENT LIST "B"**

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
3 CY	TEST PIT EXCAVATION
1 EA	CONTROLLER AND CABINET - BASE MOUNT
1 EA	METERED SERVICE PEDESTAL
18 EA	12 INCH LED SIGNAL HEAD SECTION
8 CY	CONCRETE FOUNDATION FOR SIGNAL
10 EA	ELECTRICAL HANDHOLE
3 280-90-LF	2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
130 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
60 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED- SLOTTED 3
200 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
1120 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
1 EA	VIDEO DETECTION CAMERA AND CABLE
LS	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT
75 LF	WOOD SIGN SUPPORTS 4 IN. X 6 IN.
3 75-90-LF	ELECTRICAL CABLE 1 - CONDUCTOR (NO. 4 A.W.G.)
170-90-LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 12 A.W.G.)
80 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)
550 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 A.W.G.)
3 210-90-LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
475 LF	12-PAIR COMMUNICATION CABLE
420 LF	DISCONNECT, PULL BACK AND REROUTE CABLE
3 EA	NON-INVASIVE MICRO-LOOP PROBE AND LEAD-IN CABLE
1 EA	15 FT. LIGHTING ARM WITH 250 WATT HPSV LUMINAIRE
1 EA	27 FT. MAST ARM POLE WITH TWIN 50 FT./70 FT. MAST ARMS
1 EA	14 FT. BREAKAWAY PEDESTAL POLE
1 EA	R3-2 SIGN (30" x 30") - MAST ARM MOUNT
2 EA	R3-SL SIGN (30" x 36") - MAST ARM MOUNT
1 EA	R3-1 SIGN (30" x 30") - MAST ARM MOUNT
2 EA	W3-3 SIGN (48" x 48") & W' NEW PANEL (30" x 30") - GROUND MOUNT
1 EA	SHIELD ASSEMBLY (36" x 75") - POLE MOUNT
1 EA	VIDEO INTERFACE EQUIPMENT
1 EA	4-CHANNEL, TIME-DELAY-OUTPUT DETECTOR AMPLIFIER
5 EA	3/4 IN. X 10 FT. COPPER GROUND ROD
70 LF	24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
3 160 LF	2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED

**RED LINE REVISION NO. 3**  
March 24, 2011  
Install separate conduit for electric service and telephone service  
TEDD Approval: *[Signature]*

**WIRING DIAGRAM**



**WIRING KEY**

- A-C MICRO-LOOP PROBE LEAD-IN
- D 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
- E-G 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- H-J 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K VIDEO DETECTION CABLE
- L STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- M-O 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- P 12-PAIR VOICE GRADE INTERCONNECT CABLE
- EIC EXISTING INTERCONNECT CABLE
- ML MICRO-LOOP PROBE
- PS PROPOSED ELECTRIC SERVICE
- PT PROPOSED TELEPHONE SERVICE
- X GROUND ROD
- ▢ METERED SERVICE PEDESTAL

**NOTE:**

1. DISCONNECT EXISTING INTERCONNECT CABLE FROM THE EXISTING CONTROLLER AT MD 3 & WAUGH CHAPEL RD. AND PULL BACK TO THIS RE-INSTALL THROUGH NEW CONDUIT TO THE NEW BASE MOUNTED CABINET & CONTROLLER AT THIS INTERSECTION.

**EQUIPMENT LIST "C"**

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**PHASE CHART**

	1	2	3	4	5	6	7	8
PHASE 2	G	G	G	R	R	R		
2 CHANGE	Y	Y	Y	R	R	R		
PHASE 4	R	R	R	G	G	G		
4 CHANGE	R	R	R	G	G	G		
FLASHING OPERATION	FLR	FLR	FLY	FLR	FLR	FLR		



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
SOUTHBOUND MD 3 AT  
NORTHBOUND MD 3 "J-TURN"

**GENERAL INFORMATION PLAN**

SCALE	NONE	DATE	8-1-09	CONTRACT NO.	BW996M82
DESIGNED BY	T.ZAYDEL	COUNTY	ANNE ARUNDEL		
DRAWN BY	T.ZAYDEL	LOGMILE	02000304.16		
CHECKED BY	K.SCHMID	T.I.M.S. NO.	J - 663		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS- 4725GI	SHEET NO.	2	OF	2

**TRAFFIC CONCEPTS, INC.**

325 Gambrills Road  
Suite B  
Gambrills, MD 21054  
(410) 923-7101  
FAX: (410) 923-6473  
EMAIL: TRAFFIC@TRAFFIC-CONCEPTS.COM

FILE PATH: M:\1700\1774\10-4-10-REDLINE\1-6-11.dgn  
DATE: Friday, March 25, 2011 AT 12:02 PM