

**PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF ARUNDEL MILLS BLVD. AND NORTHBOUND MD 295 RAMPS IN ANNE ARUNDEL COUNTY. ARUNDEL MILLS BLVD. IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA TWO-PHASE, FULLY-ACTUATED MODE WITH WESTBOUND ARUNDEL MILLS BLVD. AND THE NORTHBOUND MD 295 RAMP OPERATING CONCURRENTLY. EASTBOUND ARUNDEL MILLS BLVD. WILL OPERATE ALONE. THIS INTERSECTION WILL BE INTERCONNECTED TO THE EXISTING TRAFFIC SIGNAL AT ARUNDEL MILLS BLVD. AND MILESTONE BLVD./DORCHESTER BLVD.

**CONTROLLER REQUIREMENTS**

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE S-TYPE CONTROLLER WITH BATTERY BACKUP, SYSTEM PACKAGE AND TWO VIDEO DETECTION INTERFACE UNITS HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

AND ONE, 4-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER [1]

**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.

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

MRS. KIM TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
(410) 841-1019

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

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

**CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY**

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

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

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

MR. MIKE STOCKER  
SUPPLY OFFICE  
SIGNAL SHOP WAREHOUSE  
(410) 787-7668

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

**PHASE CHART**

	1	2	3	4	5	6	7	8	9
	R	R	R	R	R	R	R	R	R
	Y	Y	Y	Y	Y	Y	Y	Y	Y
	G	G	G	G	G	G	G	G	G
PHASE 1	R	R	R	G	G	G	G	G	G
1 CHANGE	R	R	R	Y	Y	Y	Y	Y	Y
PHASE 2	G	G	G	R	R	R	R	R	R
2 CHANGE	Y	Y	Y	R	R	R	R	R	R
FLASHING OPERATION	FLR								

**EQUIPMENT LIST "A"**

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

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

**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
5 CY	TEST PIT EXCAVATION
90 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
1 EA	CONTROLLER (S-TYPE WITH BATTERY BACKUP) AND CABINET WITH SYSTEM PACKAGE - BASE MOUNT
2 EA	VIDEO INTERFACE EQUIPMENT
27 EA	12 IN. LED SIGNAL HEAD SECTION
10 CY	CONCRETE FOUNDATION FOR SIGNAL
1 EA	CUT, CLEAN, GALVANIZE AND CAP MAST ARM
1 EA	20 FT. BREAKAWAY PEDESTAL POLE
1 EA	27 FT. MAST ARM POLE & 60 FT. MAST ARM
1 EA	27 FT. TWIN MAST ARM POLE & TWIN 50FT/70 FT MAST ARMS
2 EA	15 FT. LIGHTING ARM WITH 250 WATT HPSV LUMINAIRE
1 EA	ELECTRICAL HANDHOLE
20 LF	2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
40 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
185 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
6 EA	VIDEO DETECTION CAMERA AND CABLE
180 LF	WOOD SIGN SUPPORTS 4 IN. X 6 IN.
1 EA	METERED SERVICE PEDESTAL EMBEDDED
1015 LF	12-PAIR COMMUNICATION CABLE
100 LF	ELECTRICAL CABLE 1 - CONDUCTOR (NO. 4 A.W.G.) - THHN /THWN
80 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)
1865 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 A.W.G.)
675 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 12 A.W.G.)
550 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
6 EA	3/4 IN. X 10 FT. GROUND ROD
1 EA	SHIELD ASSEMBLY (48" X 72") - POLE MOUNT
1 EA	SHIELD ASSEMBLY (30" X 51") - POLE MOUNT
2 EA	R3-5(R) (30" X 36") SIGN - MAST ARM MOUNT
5 EA	W3-3 (48" X 48") WITH "NEW" PANEL (30" X 30") - GROUND MOUNT
4 EA	R3-5(S) (30" X 36") SIGN - MAST ARM MOUNT
2 EA	R3-3 (24" X 24") SIGN - MAST ARM MOUNT
1 EA	R10-11B (24" X 24") SIGN - MAST ARM MOUNT
105 LF	<b>SAW-CUT FOR LOOP DETECTOR</b>
205 LF	<b>LOOP WIRE (NO. 14 A.W.G.) ENCASED IN 1/4" FLEXIBLE TUBING</b>
10 LF	<b>1 IN. LIQUID-TIGHT, NON-METALLIC, FLEXIBLE CONDUIT - DETECTOR SLEEVE</b>
1800 LF	<b>ELECTRICAL CABLE 2 - CONDUCTOR (NO. 14 A.W.G.) - ALUMINUM SHIELDED</b>
1 EA	<b>FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER</b>

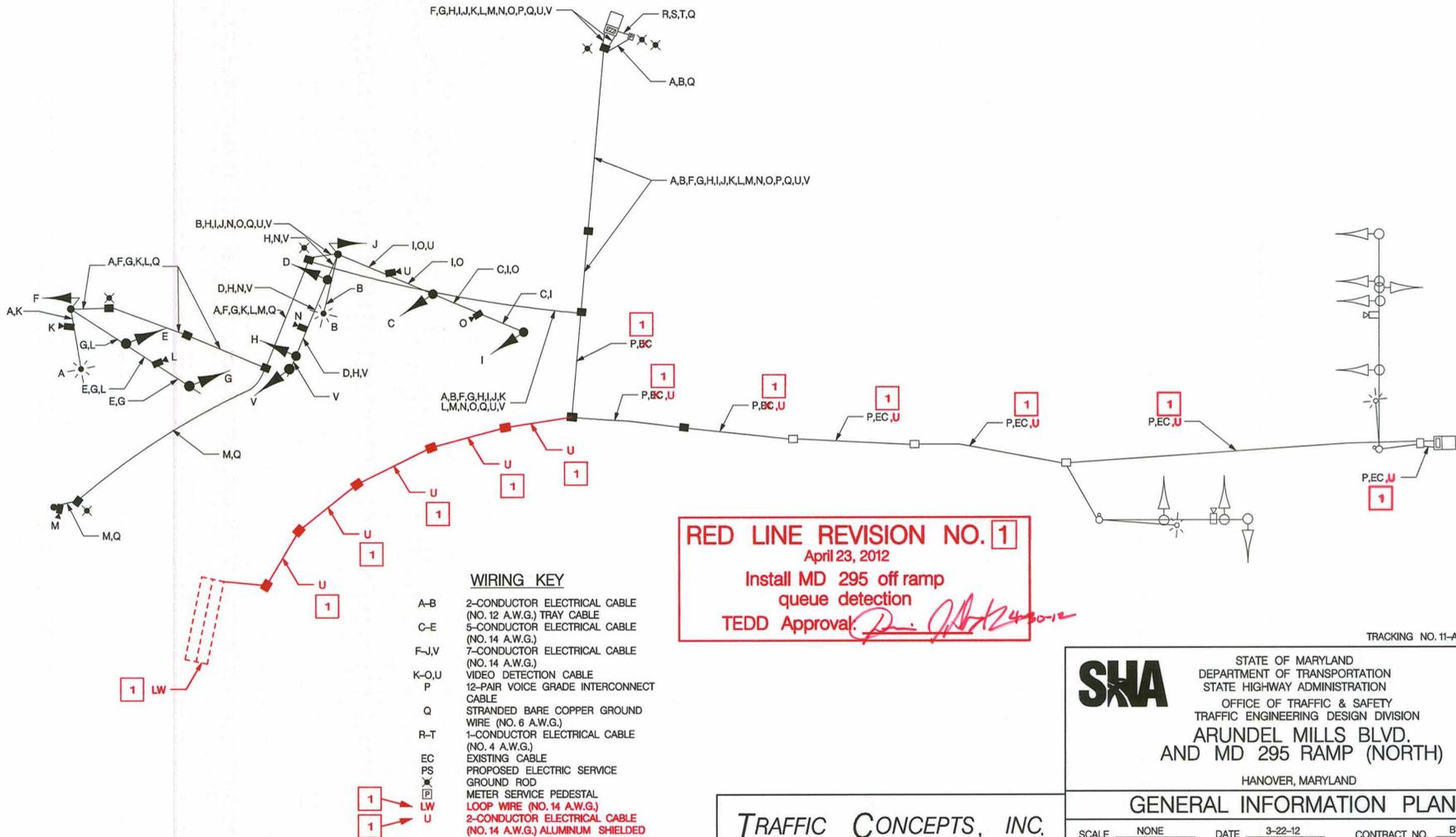
**EQUIPMENT LIST "C"**

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.

**WIRING DIAGRAM**



**TRAFFIC CONCEPTS, INC.**

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Gambrills, MD 21054  
(410) 923-7101  
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EMAIL: TRAFFIC@TRAFFIC-CONCEPTS.COM

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
ARUNDEL MILLS BLVD.  
AND MD 295 RAMP (NORTH)  
HANOVER, MARYLAND

**GENERAL INFORMATION PLAN**

SCALE	NONE	DATE	3-22-12	CONTRACT NO.	BW996M82
DESIGNED BY	T.ZAYDEL	COUNTY	ANNE ARUNDEL		
DRAWN BY	T.ZAYDEL	LOGMILE	02F1301.49		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	K-972		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS - 4840 GI 2	SHEET NO.	3	OF	3