PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF ARUNDEL MILLS BLVD. AND DORCHESTER BLVD./MILESTONE PKWY. IN ANNE ARUNDEL COUNTY. ARUNDEL MILLS BLVD. IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR NORTHBOUND AND SOUTHBOUND ARUNDEL MILLS BLVD AND SIDE STREET SPLIT PHASING. CONCURRENT PEDESTRIAN PHASES WILL BE PROVIDED ON THE EAST AND WEST LEGS OF THE INTERSECTION AND AN ALTERNATE PEDESTRIAN PHASE WILL BE PROVIDED FOR THE SOUTH LEG OF THE INTERSECTION.

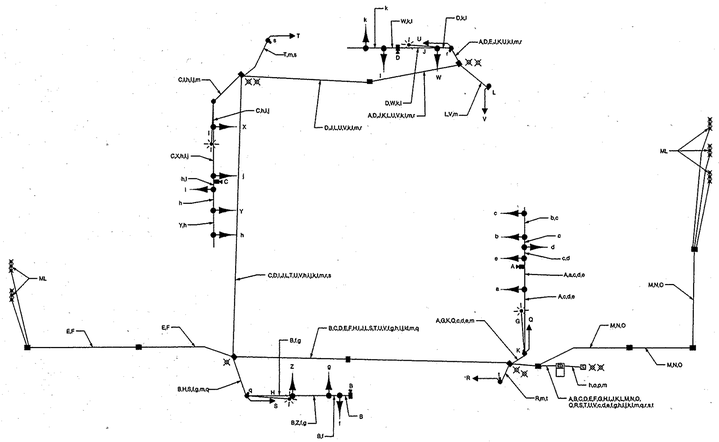
CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS 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.

WIRING DIAGRAM



WIRING KEY

A–D	VIDEO DETECTION CABLE.
E–F	MICRO-LOOP PROBE LEAD-IN
G–J	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
K–L	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
M–O	MICRO-LOOP PROBE LEAD-IN
P	(NOT USED)
Q–V	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
W–b	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
c–l	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
m	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
h,o,p	1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
q–t	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
	GROUND ROD
ML	MICRO-LOOP PROBE

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473
EMAIL TRAFFIC.CONCEPTS@COMCAST.NET

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:

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

MR. CHARLES GEORGE
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 841-1002

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER – UTILITIES
(410) 841-1005

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

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

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

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.

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
8 CY	TEST PIT EXCAVATION
560 LF	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
205 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
2 EA	FURNISH AND INSTALL 250 FT. VIDEO DETECTION CABLE
2 EA	FURNISH AND INSTALL 500 FT. VIDEO DETECTION CABLE
12 EA	FURNISH AND INSTALL 12 IN. COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
46 EA	FURNISH AND INSTALL 12 IN. L.E.D. VEHICULAR SIGNAL HEAD SECTION
4 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM
4 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINAIRE
6 EA	FURNISH AND INSTALL 8 IN. L.E.D. VEHICULAR SIGNAL HEAD SECTION
2 EA	FURNISH AND INSTALL 50 FT.MAST ARM AND POLE
2 EA	FURNISH AND INSTALL 70 FT.MAST ARM AND POLE
5 EA	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 1000 FT. LEAD-IN
3 EA	FURNISH AND INSTALL PEDESTAL POLE ANY SIZE
4 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
1 EA	FURNISH AND INSTALL VIDEO INTERFACE EQUIPMENT
640 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – TRENCHED
25 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – TRENCHED
21 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
70 LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS (4 IN. X 4 IN.)
600 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
450 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – SLOTTED
30 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT, FLEXIBLE, NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
1 EA	FURNISH AND INSTALL METERED SERVICE PEDESTAL
75 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 A.W.G.)
10 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
13 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
500 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 A.W.G.)
1300 LF	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR (NO. 14 A.W.G.)
150 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
2550 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
870 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.) – TRAY CABLE
180 LF	FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR
20 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – TRENCHED
1 EA	FURNISH AND INSTALL BASE MOUNTED CABINET AND CONTROLLER
2 EA	FURNISH AND INSTALL 4-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
4 EA	FURNISH AND INSTALL D3-2 DUAL FACE SIGN (VAR. X 16") – MAST ARM MOUNT
7 EA	FURNISH AND INSTALL R3-5(L) SIGN (30" X 36") – MAST ARM MOUNT
1 EA	FURNISH AND INSTALL R3-5(R) SIGN (30" X 36") – MAST ARM MOUNT
1 EA	FURNISH AND INSTALL R3-6(L) SIGN (30" X 36") – MAST ARM MOUNT
1 EA	FURNISH AND INSTALL METERED SERVICE PEDESTAL
6 EA	FURNISH AND INSTALL AUDIBLE-TACTILE PEDESTRIAN PUSHBUTTON AND SIGN
1 EA	FURNISH AND APS CENTRAL CONTROL UNIT

PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
PHASE 1 & 5	G	G	G	R	R	G	G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, 2 & 5, OR 2 & 6																					
PHASE 1 & 6	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 6 CHANGE	Y	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	R	R	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
2 & 5 CHANGE	R	R	R	R	R	Y	Y	Y	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	R	R	R	G	G	R	R	R	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW
2 & 6 CHANGE	R	R	R	G	G	R	R	R	G	G	R	R	R	R	R	R	FL-DW	FL-DW	FL-DW	FL-DW	DW	DW
2 & 6 CHANGE	R	R	R	Y	Y	R	R	R	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	DW	DW	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	R	R	G G	G G	G	R	R	R	DW	DW	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3 ALT	R	R	R	R	R	R	R	R	R	R	G G	G G	G	R	R	R	DW	DW	DW	DW	WK	WK
PED CLEAR	R	R	R	R	R	R	R	R	R	R	G G	G G	G	R	R	R	DW	DW	DW	DW	FL-DW	FL-DW
3 ALT CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLR	FLR	FLR	FLY	FLY	FLR	FLR	FLR	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN
ARUNDEL MILLS BLVD. AND DORCHESTER BLVD./MILESTONE PKWY

SCALE	NONE	DATE	12-21-06
CONTRACT NO.	BW996M82		
DESIGNED BY	T. ZAYDEL	COUNTY	ANNE ARUNDEL
DRAWN BY	T. ZAYDEL	LOGMILE	02CARU00.65
CHECKED BY	K. SCHMID	T.I.M.S. NO.	I258
F.A.P. NO.	N/A	TOD NO.	BW996M82
DRAWING NO.	TS4529-GI	SHEET NO.	2 OF 2