PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 713 (RIDGE ROAD) AND ARUNDEL MILLS BLVD. IN ANNE ARUNDEL COUNTY.
MD 713 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA SIX-PHASE, FULLY-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR S.B. MD 713/ARUNDEL MILLS BLVD., SIDE STREET SPLIT PHASING, AN ALTERNATE PEDESTRIAN PHASE ACROSS THE SOUTH LEG OF THE INTERSECTION AND A CONCURRENT PEDESTRIAN PHASE ACROSS THE WEST LEG OF THE INTERSECTION. THIS PHASING WILL NOT CHANGE.

PROJECT CONSTRUCTION

THE PROJECT WILL INVOLE THE WIDENING OF SOUTHBOUND MD 713 TO ALLOW A TRIPLE LEFT TURN MOVEMENT. SIGNALIZATION WORK WILL CONSIST OF CONTROLLER, CONDUIT, DETECTOR, HANDHOLE AND WIRING REPLACEMENT.

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
4 CY	TEST PIT EXCAVATION
10 LF	12 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKING
60 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKING
1 EA	CONTROLLER AND CABINET - BASE MOUNT
1 EA	2-WIRE CENTRAL CONTROL UNIT
2 EA	VIDEO INTERFACE EQUIPMENT
4 EA	L.E.D. 16 IN. COUNTDOWN PEDESTRIAN
4 EA	AUDIBLE /TACTILE PEDESTRIAN PUSHBUTTON AND SIGN
5 CY	CONCRETE FOUNDATION FOR SIGNAL
* 11 EA	ELECTRICAL HANDHOLE
30 LF	2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
10 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
60 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - SLOTTED
* 265 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- BORED
* 720 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
250 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- SLOTTED
* 260 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- BORED
1 EA	CONDUIT BEND IN EXISTING FOUNDATION
* LS	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT
7 EA	VIDEO DETECTION CAMERA AND CABLE
1 EA	METERED SERVICE PEDESTAL EMBEDDED
50 LF	ELECTRICAL CABLE 1 - CONDUCTOR (NO. 4 A.W.G.) - THHN /THWN
* 2200 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 14 A.W.G.) ALUMINUM SHIEDED
560 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 12 A.W.G.) TRAY CABLE
1230 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)
2900 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 A.W.G.)
1300 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 14 A.W.G.)
* 3300 LF	12-PAIR COMMUNICATION CABLE
900 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
* 800 LF	DISCONNECT, PULL BACK AND REROUTE CABLE
6 EA	3/4 IN. X 10 FT. GROUND ROD
* 10 EA	NON-INVASIVE MICRO-LOOP PROBE WITH LEAD-IN CABLE
1 EA	R3-5L (30" X 36") SIGN - MAST ARM MOUNT
* 3 EA	R3-7L (30" X 30") SIGN - GROUND MOUNT
2 EA	RELOCATE SIGN ON EXISTING MAST ARM
* 25 EA	1 IN. LIQUID-TIGHT, NON-METALLIC CONDUIT - DETECTOR SLEEVE
* 1100 LF	LOOP WIRE (NO.14 A.W.G.) ENCASED W/1/4 IN. FLEX. TUBING
* 300 LF	SAWCUT
3 EA	10 FT. BREAKAWAY PEDESTAL POLE
3 EA	CUT, CLEAN, GALVANIZE AND CAP PEDESTAL POLE
* 10 EA	WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING - ARROW
* 2 EA	WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING "ONLY"
* 250 LF	REMOVE EXISTING PAVEMENT MARKING LINE
* 2670 LF	5 IN. HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
* 4 EA	RELOCATE EXISTING GROUND MOUNTED SIGN AND SUPPORTS
* 45 LF	WOOD SIGN SUPPORTS 4 IN. X 4 IN.
3 EA	RELOCATE EXISTING SIGNAL HEAD

* - QUANTITIES INCLUDE SIGNALIZATION EQUIPMENT, SIGNING AND PAVEMENT MARKINGS SHOWN ON SHEETS IC-1 AND IC-2

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.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

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

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

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

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

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

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

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

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

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

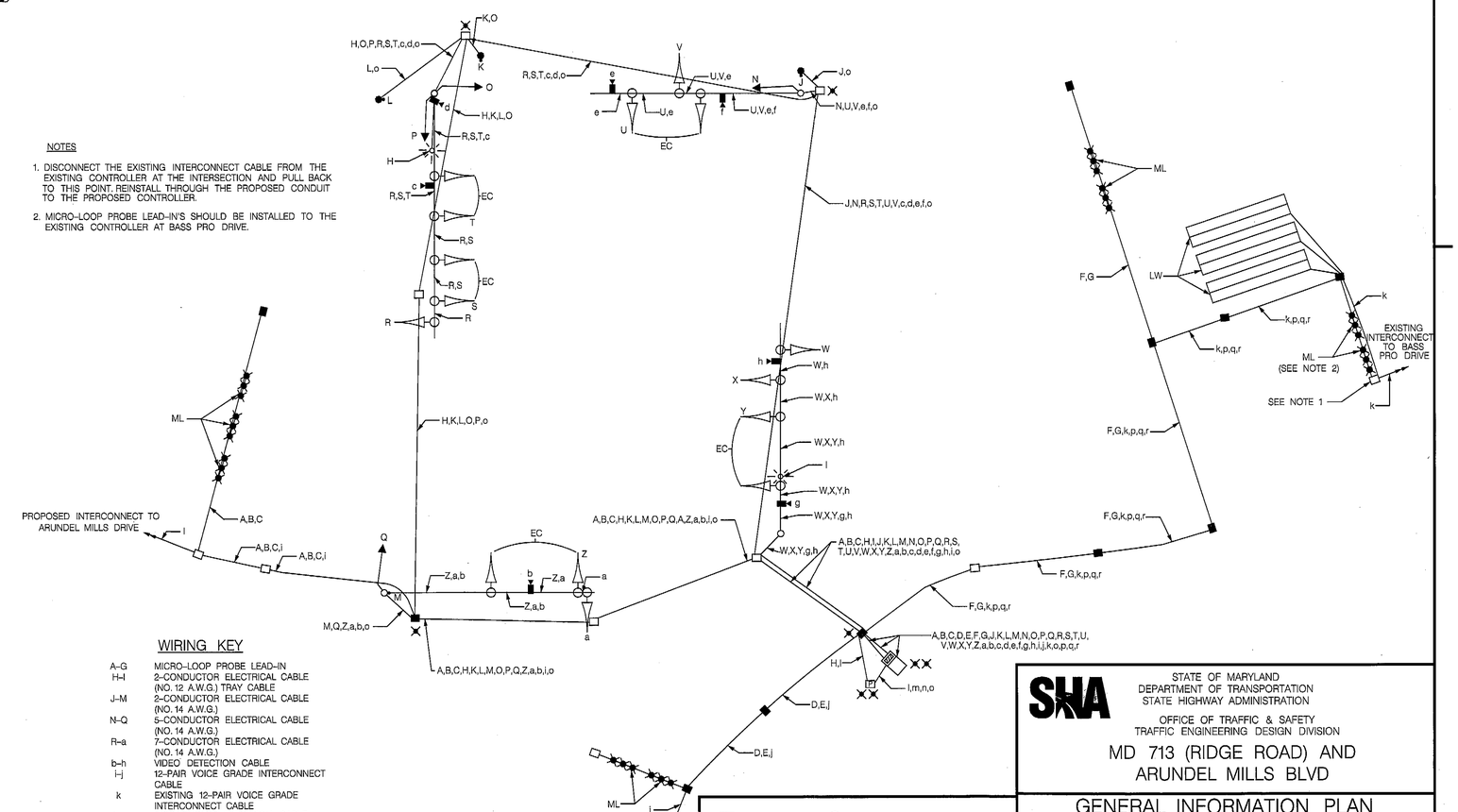
PHASE CHART

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

WIRING DIAGRAM

NOTES

1. DISCONNECT THE EXISTING INTERCONNECT CABLE FROM THE EXISTING CONTROLLER AT THE INTERSECTION AND PULL BACK TO THIS POINT. REINSTALL THROUGH THE PROPOSED CONDUIT TO THE PROPOSED CONTROLLER.
2. MICRO-LOOP PROBE LEAD-IN'S SHOULD BE INSTALLED TO THE EXISTING CONTROLLER AT BASS PRO DRIVE.



WIRING KEY

A-G	MICRO-LOOP PROBE LEAD-IN
H-I	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
J-M	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N-Q	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
R-a	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
b-h	VIDEO DETECTION CABLE
i-j	12-PAIR VOICE GRADE INTERCONNECT CABLE
k	EXISTING 12-PAIR VOICE GRADE INTERCONNECT CABLE
l-n	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
o	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
p-r	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
ML	MICRO-LOOP PROBE
EC	EXISTING CABLE
X	GROUND ROD
P	METER SERVICE PEDESTAL
LW	LOOP WIRE (NO. 14 A.W.G.)

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

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 713 (RIDGE ROAD) AND ARUNDEL MILLS BLVD

GENERAL INFORMATION PLAN

SCALE	NONE	DATE	10-8-10
CONTRACT NO.	BW996M82		
DESIGNED BY	T.ZAYDEL	COUNTY	ANNE ARUNDEL
DRAWN BY	J.K. SCHMID	LOGMILE	
CHECKED BY	K. SCHMID	T.I.M.S. NO.	K-300
F.A.P. NO.	N/A	TOD NO.	
DRAWING NO.	TS- 4006B GI	SHEET NO.	2 OF 2

FILE PATH: M:\1900\1952\Signal\md713@arundel.dgn
DATE: Friday, October 29, 2010 AT 09:33 AM

DRILL HOLES
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