

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 713 AND MD 176 IN ANNE ARUNDEL COUNTY. THE WORK IS NECESSITATED BY THE CONSTRUCTION OF AN ADDITIONAL LANE ON S.B. MD 713 AND THE CONSTRUCTION OF A FREE RIGHT TURN LANE FROM E.B. MD 176 TO S.B. MD 713. MD 713 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

MD 713 AND MD 176
THE INTERSECTION CURRENTLY OPERATES IN A NEMA EIGHT-PHASE, FULLY-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR N.B. & S.B. MD 713 AND EXCLUSIVE-PERMISSIVE LEFT TURN PHASES FOR E.B. & W.B. MD 176. THIS OPERATION WILL BE CHANGED TO SPLIT PHASING FOR MD 176.

CONTROLLER REQUIREMENTS

MD 713 AND MD 176
THE EXISTING EIGHT-PHASE, FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA "6" BASE MOUNTED CABINET WILL BE USED. A VIDEO DETECTION INTERFACE UNIT WILL BE INSTALLED AT THIS LOCATION

SPECIAL NOTE:

INTERCONNECT CABLE EXISTS BETWEEN THE INTERSECTION OF MD 713 & MD 176 AND THE INTERSECTION OF MD 713 & THE MD 100 EASTBOUND RAMP. THE CONTRACTOR SHALL ATTEMPT TO REUSE THIS CABLE WHERE POSSIBLE. IF NOT POSSIBLE, A NEW 12-PAIR, VOICE GRADE INTERCONNECT CABLE SHALL BE INSTALLED.

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
1 LS	MAINTENANCE OF TRAFFIC
1 CY	TEST PIT EXCAVATION
2850 LF	5 INCH HEAT APPLIED WHITE OR YELLOW THERMOPLASTIC PAVEMENT MARKING
500 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
2 EA	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKING ARROWS
75 LF	10 IN. HEAT APPLIED YELLOW THERMOPLASTIC PAVEMENT MARKINGS
450 LF	10 IN. HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
20 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
10 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LETTERS
8 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROWS
49 EA	12 INCH LED SIGNAL HEAD SECTION
2 EA	ADJUST EXISTING HANDHOLE TO GRADE
1 EA	27 FT. MAST ARM POLE & 60 FT. MAST ARM
7 EA	NON-INVASIVE MICRO-LOOP PROBE (ANY LENGTH)
1 LS	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT
3 EA	VIDEO DETECTION CAMERA AND CABLE
* 2775 LF	12 - PAIR COMMUNICATION CABLE
* 1300 LF	DISCONNECT, PULL BACK AND REROUTE CABLE
1000 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN. - TRENCHED
160 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN. - BORED
75 LF	WOOD SIGN SUPPORTS UP TO 4 IN. X 6 IN.
20 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8 EA	ELECTRICAL HANDHOLE
30 LF	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
350 LF	ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
2 EA	R3-7L SIGN (30" X 30") - GROUND MOUNT
2 EA	R3-7R SIGN (30" X 30") - GROUND MOUNT
7 CY	CONCRETE FOR SIGNAL FOUNDATION
1 EA	3/4 IN. X 10 FT. GROUND ROD
1 EA	RELOCATE EXISTING R4-7 SIGN AND SUPPORTS - GROUND MOUNT
1 EA	RELOCATE EXISTING D3-2 SIGN - MAST ARM MOUNT
1 EA	VIDEO DETECTION INTERFACE EQUIPMENT
1 EA	RELOCATE EXISTING 12 FT. X 9 FT. GUIDE SIGN - GROUND MOUNT
1 EA	RELOCATE EXISTING 7 FT. X 6 FT. GUIDE SIGN - GROUND MOUNT
1 EA	RELOCATE EXISTING W4-3 SIGN AND SUPPORTS - GROUND MOUNT
1 EA	15 FT. STREET LIGHTING ARM WITH 250 WATT HPSV LUMINAIRE
75 LF	ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.)
1 EA	R3-5L SIGN (30" X 36") - MAST ARM MOUNT
1 EA	R3-8 (MOD) SIGN (36" X 36") - MAST ARM MOUNT
40 LF	6 IN. X 8 IN. WOOD SUPPORTS
34 LF	W6X12 STEEL SUPPORTS

* - SEE SPECIAL NOTE UNDER PROJECT DESCRIPTION

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) 841-1003
MR. ANDRE FUTRELL ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 841-1002

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

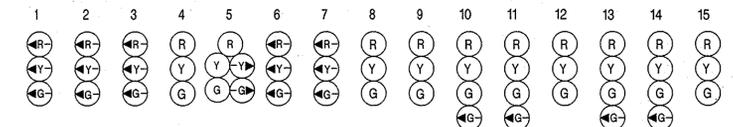
CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7830

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS (410) 787-7831

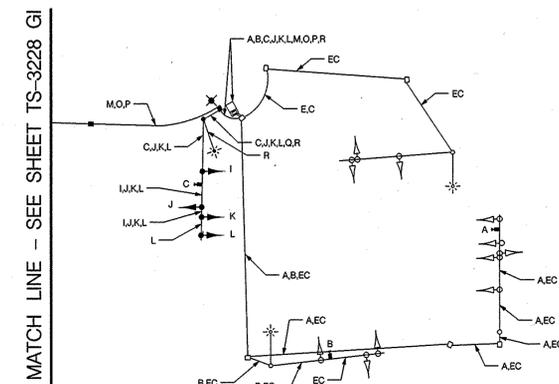
MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652

PHASING CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHASE 1 + 6	←R	←R	←R	R	R	←G	←G	G	G	R	R	R	R	R	R
1 CHANGE	←R	←R	←R	R	R	←Y	←Y	G	G	R	R	R	R	R	R
PHASE 2 + 5	←G	←G	←G	G	G	←R	←R	R	R	R	R	R	R	R	R
5 CHANGE	←Y	←Y	←Y	G	G	←R	←R	R	R	R	R	R	R	R	R
PHASE 2 + 6	←R	←R	←R	G	G	←R	←R	G	G	R	R	R	R	R	R
2 + 6 CHANGE	←R	←R	←R	Y	Y	←R	←R	Y	Y	R	R	R	R	R	R
PHASE 3	←R	←R	←R	R	R	←G	←G	R	R	←G	←G	G	G	G	G
3 CHANGE	←R	←R	←R	R	R	←G	←G	R	R	←G	←G	R	R	R	R
PHASE 4	←R	←R	←R	R	R	←R	←R	R	R	←G	←G	G	R	R	R
4 CHANGE	←R	←R	←R	R	R	←R	←R	R	R	Y	Y	Y	R	R	R
FLASHING OPERATION	FLR	FLR	FLR	FLY	FLY	FLR	FLR	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR

WIRING DIAGRAM



WIRING KEY

- A-C VIDEO DETECTION CABLE
- D-H MICRO-LOOP PROBE LEAD-IN
- I 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J-L 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- M-N 12-PAIR VOICE GRADE INTERCONNECT CABLE
- O-P MICRO-LOOP PROBE LEAD-IN
- Q STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- R 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- EC EXISTING CABLE
- ML MICRO-LOOP PROBE
- EML EXISTING MICRO-LOOP PROBE
- * GROUND ROD

MD 176
(DORSEY ROAD)

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION PLAN
MD 713 AND MD 176

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

SCALE	NONE	DATE	JUNE, 2007	CONTRACT NO.	BW996M82
DESIGNED BY	T. ZAYDEL	COUNTY	ARUNDEL		
DRAWN BY	T. ZAYDEL	LOGMILE	02071303.05		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	1427		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS - 3227B GI	SHEET NO.	7	OF	8