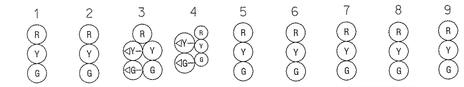
PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF US 1 AND ASSATEAGUE DR./CRESTMOUNT RD. IN HOWARD COUNTY. US 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

CONTROLLER OPERATION

THE EXISTING EIGHT-PHASE, FULLY ACTUATED NEMA CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. THE INTERSECTION OPERATION WILL NOT BE CHANGED.

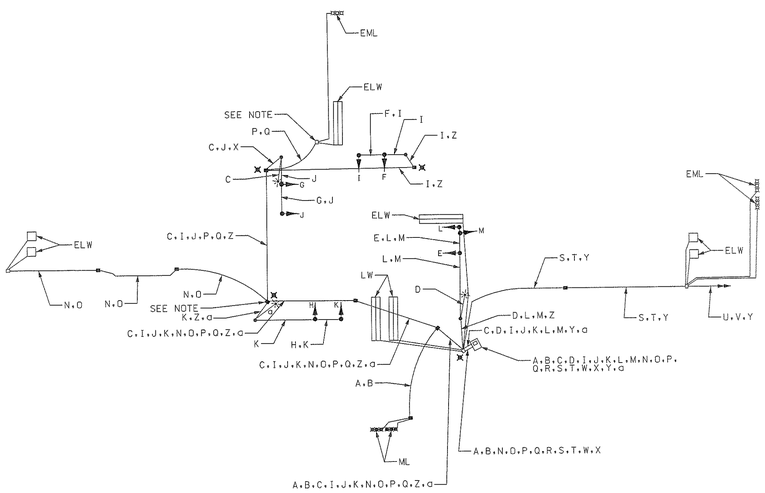
PHASE CHART



	1	2	3	4	5	6	7	8	9
PHASE 2 + 5	R	R	G <IG–	G <IG–	G	R	R	R	R
2 + 5 CHANGE	R	R	G <IY–	G <IY–	G	R	R	R	R
PHASE 2 + 6	G	G	G	G	G	R	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM

NOTE: DISCONNECT EXISTING WIRES (N,O,P,Q) FROM CONTROLLER AND REMOVE TO THIS EXISTING HANDHOLE. RE-INSTALL THROUGH NEW CONDUIT TO THE CONTROLLER.



WIRING KEY

A-B MICRO-LOOP PROBE
C-D 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
E-H 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I-M 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N-V EXISTING CABLE
W-X 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELED)
Y EXISTING INTERCONNECT CABLE
Z STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
a 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)

ELW EXISTING LOOP WIRE (NO. 14 A.W.G.)
EML EXISTING MICRO-LOOP PROBE
ML MICRO-LOOP PROBE
LW LOOP WIRE (NO. 14 A.W.G.)
GROUND ROD

EQUIPMENT LIST "A"

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

ITEM NO.	QUANTITY	DESCRIPTION
---	1 EA	R3-5L SIGN (30" X 36") MAST ARM MOUNT
---	1 EA	R10-12 SIGN (36" X 42") MAST ARM MOUNT
---	1 EA	D3-2 DUAL FACE SIGN "CRESTMOUNT RD." (VAR X 16") MAST ARM MOUNT
---	1 EA	D3-2 DUAL FACE SIGN "ASSATEAGUE DR." (VAR X 16") MAST ARM MOUNT
---	2 EA	M95-1 SIGN (72" X 24") MAST ARM MOUNT
---	1 EA	21 FT. MAST ARM POLE AND 40 FT. MAST ARM
---	1 EA	27 FT. MAST ARM POLE AND 50 FT. MAST ARM
---	1 EA	27 FT. MAST ARM POLE AND 44 FT. MAST ARM
---	1 EA	27 FT. MAST ARM POLE AND 70 FT. MAST ARM

CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:

MR. ROBERT FISHER
DISTRICT ENGINEER
(301) 624-8102

MR. JIM BUCKALEW
ASSISTANT DISTRICT ENGINEER - UTILITIES
(301) 624-8110

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(301) 624-8141

MR. LEON KERNS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 624-8106

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. DAVID SCHWARTZ
SUPPLY OFFICE IV (SIGNAL SHOP WAREHOUSE)
(410) 787-7668

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

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	4 EA	TEST PIT EXCAVATION
5001	25 LF	FURNISH AND INSTALL 5 IN. YELLOW HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING

EQUIPMENT LIST "B" CONTINUED

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
5002	150 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5004	130 LF	FURNISH AND INSTALL 24 IN. HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5005	8 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LETTER
5006	2 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW
8001	16 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8016	2 EA	FURNISH AND INSTALL NON-EVASIVE MICRO-LOOP PROBE WITH 500 FT. LEAD-IN
8021	290 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	60 LF	FURNISH AND INSTALL I IN. ELECTRICAL CONDUIT GALVANIZED STEEL
8023	15 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	110 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT-TRENCHED
8030	90 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT- TRENCHED
8031	100 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT-SLOTTED
8032	230 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT-BORED
8033	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	4 EA	FURNISH AND INSTALL GROUND ROD - 3/4" X 10'
8040	1030 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	30 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHEILDED)
8044	110 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	1350 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8046	670 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
8048	460 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8053	53 SF	INSTALL OVERHEAD SIGN
8055	3 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINIARE WITH PHOTOCELL
8056	3 EA	FURNISH AND INSTALL 15 FT. LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8060	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8074	4 EA	INSTALL STEEL POLE AND SINGLE MAST ARM
8084	28 EA	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8085	3 EA	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
---	900 LF	REMOVE AND RE-INSTALL EXISTING CABLE
---	3 EA	REPLACE HANDHOLE FRAME AND COVER

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		

NOTE: ALL REMOVED SIGNAL EQUIPMENT AND MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
US 1 AT ASSATEAGUE DRIVE/CRESTMOUNT ROAD

DRAWN BY: D.DODA	F.A.P. NO.	TS NO. TS-913E GI	SHEET NO.
CHECKED BY: W.F.FITCH	S.H.A. NO. HO 835DA57 / A57		
SCALE: NONE	COUNTY: HOWARD	T.I.M.S. NO. E618	2 OF 2
DATE:	LOG MILE:		