

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 2 (SOLOMONS ISLAND RD.) AND MITCHELLS CHANCE RD. IN ANNE ARUNDEL COUNTY. MD 2 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

CONTROLLER OPERATION

AN EIGHT-PHASE, FULLY ACTUATED NEMA CONTROLLER WITH THREE, 4-CHANNEL TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIERS, AND A COORDINATION MODULE HOUSED IN A BASE MOUNTED CABINET WILL BE INSTALLED AT THE INTERSECTION. THE CONTROLLER WILL OPERATE AS A SIX PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH EXCLUSIVE-PERMISSIVE LEFT TURN PHASES FOR NORTHBOUND AND SOUTHBOUND MD 2 AND A RIGHT TURN OVERLAP PHASE FOR MITCHELLS CHANCE ROAD.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHASE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.



PHASE CHART

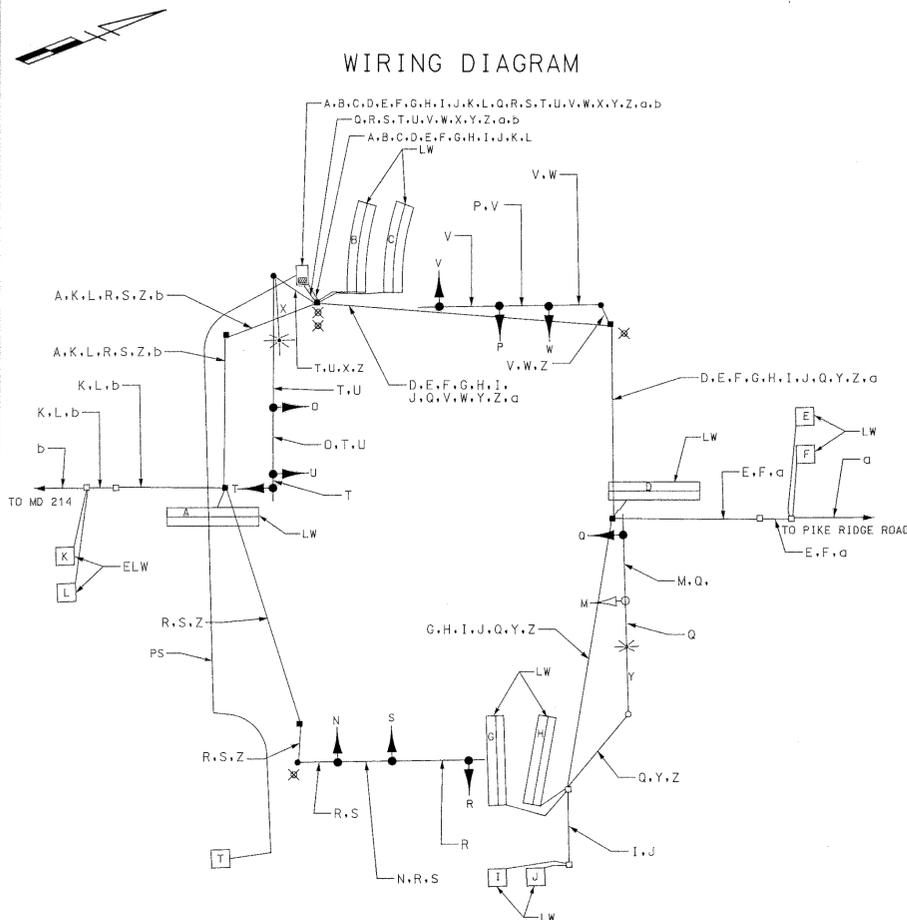
	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 + 5	R	R	R	R	R	R	R	R	R	R	R	R
1 + 5 CHANGE	PHASE 3+7 MAY CHANGE TO PHASE 3+8, 4+7, OR 4+8											
PHASE 2 + 5	R	R	R	G	G	G	R	R	R	R	R	R
2 + 5 CHANGE	R	R	R	G	G	G	R	R	R	R	R	R
PHASE 1 + 6	G	G	G	R	R	R	R	R	R	R	R	R
1 + 6 CHANGE	G	G	G	R	R	R	R	R	R	R	R	R
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST "B"

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

QUANTITY	DESCRIPTION
4 EA	TEST PIT EXCAVATION
120 LF	FURNISH AND INSTALL 24 IN. HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
17 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
830 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
70 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
70 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT- TRENCHED
500 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT- BORED
5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
4 EA	FURNISH AND INSTALL GROUND ROD - 3/4" X 10'
3180 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING (NO. 14 A.W.G.)
3140 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHEILD)
110 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
2160 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
490 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
600 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
30 LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS - (4" X 6")
44 SF	INSTALL GROUND MOUNTED SIGN
41 SF	INSTALL OVERHEAD SIGN
1 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINIARE WITH PHOTOCELL
1 EA	FURNISH AND INSTALL 15 FT. LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
1 EA	DELIVERY OF REMOVED CONTROLLER CABINET AND GALVANIZED SIGNAL STRUCTURE
1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
29 EA	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
9 EA	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
2 EA	FURNISH AND INSTALL 27 FT. MAST ARM POLE AND 60 FT. MAST ARM
1 EA	FURNISH AND INSTALL 27 FT. MAST ARM POLE AND 70 FT. MAST ARM
1 EA	RELOCATE EXISTING SIGN

WIRING DIAGRAM



WIRING KEY

- A-L 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- M-P 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- Q-W 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- X-Y 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- Z STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- a-b 12-PAIR VOICE GRADE CABLE
- ELW EXISTING LOOP WIRE
- LW LOOP WIRE (NO. 14 A.W.G.)
- ⊗ GROUND ROD
- PS PROPOSED ELECTRIC SERVICE

EQUIPMENT LIST "A"

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

ITEM NO.	QUANTITY	DESCRIPTION
---	1 EA	R3-5 SIGN (30" X 36") MAST ARM MOUNT
---	2 EA	R4-7 SIGN (24" X 30") GROUND MOUNT
---	1 EA	SHIELD ASSEMBLY "NORTH/MD 2/RT ARROW" (24" X 51") POLE MOUNT
---	1 EA	SHIELD ASSEMBLY "SOUTH/MD 2/LT ARROW" (30" X 75") POLE MOUNT
---	1 EA	SHIELD ASSEMBLY "SOUTH/MD 2/RT ARROW" (24" X 51") POLE MOUNT
---	1 EA	SHIELD ASSEMBLY "NORTH/MD 2/LT ARROW" (30" X 75") POLE MOUNT
---	1 EA	EIGHT-PHASE, FULL TRAFFIC ACTUATED CONTROLLER IN A BASE MOUNTED CABINET
---	3 EA	4-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

- | | |
|--|---|
| MR. PAUL ARMSTRONG
DISTRICT ENGINEER
(410) 841-1001 | MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - UTILITIES
(410) 841-1002 |
| MR. LARRY ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 841-1003 | MR. CHARLES GEORGE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 841-1002 |

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 "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANDOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

QUANTITY	DESCRIPTION
1 EA	BASE MOUNTED CABINET AND CONTROLLER
1 EA	STEEL POLE AND TWIN MAST ARMS

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
MD 2 (SOLOMONS ISLAND RD.) AND MITCHELLS CHANCE ROAD

DRAWN BY: T. ZAYDEL	F.A.P. NO. 3225A	TS. NO.	SHEET NO.
CHECKED BY: KEN SCHMID	S.H.A. NO. ANNE ARUNDEL	T.I.M.S. NO.	OF
SCALE: NONE	COUNTY: ANNE ARUNDEL		
DATE: 4-30-01	LOG MILE:		