

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL, INTERCONNECT, AND STREET LIGHTING AT THE INTERSECTION OF US 40 AND THE IKEA CONNECTOR ROAD IN CECIL COUNTY. US 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

CONTROLLER OPERATION

THE CONTROLLER WILL OPERATE AS A THREE PHASE FULL-TRAFFIC-ACTUATED CONTROLLER AND ONE 4-CHANNEL TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER HOUSED IN A BASE MOUNTED CABINET WILL BE INSTALLED AT THE INTERSECTION.

SPECIAL NOTES

1. THE CONTRACTOR SHALL DELIVER THE CABINET AND CONTROLLER TO THE SHA SIGNAL SHOP AT LEAST THREE WEEKS PRIOR TO INSTALLATION FOR WIRING AND TESTING.

PHASE CHART

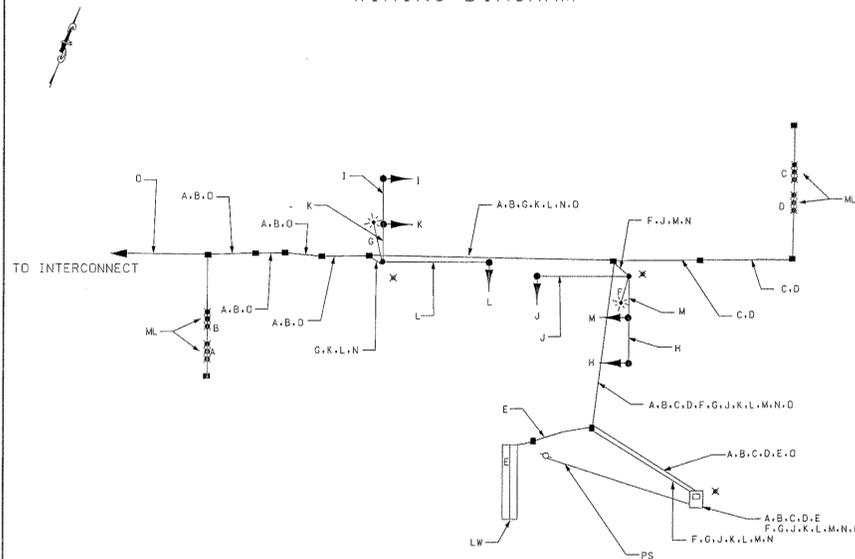
	1	2	3	4	5	6	
	⊙	⊙	⊙	⊙	⊙	⊙	
	⊙	⊙	⊙	⊙	⊙	⊙	
PHASE 2 + 6	G	G	G	G	R	R	←
2 + 6 CHANGE	Y	Y	Y	Y	R	R	←
PHASE 4	R	R	R	R	G	G	←
4 CHANGE	R	R	R	R	Y	Y	←
FLASHING OPERATION	FLY	FLY	FLY	FLY	FL/R	FL/R	←

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR
ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	LS	MAINTENANCE OF TRAFFIC
2002	3 EA	TEST PIT EXCAVATION
5005	90 LF	FURNISH AND INSTALL 24 IN. THERMOPLASTIC PAVEMENT MARKING
8006	2 EA	CUT, CLEAN AND GALVANIZE TRAFFIC SIGNAL STRUCTURE
8011	18 EA	FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
8013	2 EA	FURNISH AND INSTALL 15 FT. BRACKET ARM FOR SIGNAL STRUCTURE
8014	2 EA	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCCELL
8020	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT FOR SIGNAL
8033	2 EA	FURNISH AND INSTALL TWIN MAST ARM POLE AND 50 FT./50 FT. MAST ARMS
8043	4 EA	FURNISH AND INSTALL NON-EVASIVE PROBE 1000 FT. LEAD-IN
8051	490 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8052	400 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8053	560 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8057	12 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8060	350 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8064	120 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8068	10 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE
8070	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G.-THHN/THWN
8072	13 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8076	1520 LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, JELLY-FILLED (UNDERGROUND)
8080	3 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER BY 10 FT. LENGTH
8081	90 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (ALUMINUM SHIELDED)
8084	80 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
8085	1020 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
8086	500 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.)
8087	420 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8088	235 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL LOOP DETECTOR
8093	1 EA	FURNISH AND INSTALL CONTROLLER AND NEMA SIZE 6 CABINET BASE MOUNT
---	2 EA	FURNISH AND INSTALL D3-2 SIGN "-----" ARROW (VAR. X 16") MAST ARM MOUNT
---	1 EA	FURNISH AND INSTALL M95-1 SIGN (72" X 24") MAST ARM MOUNT
---	1 EA	FURNISH AND INSTALL 4-CHANNEL AMPLIFIER

WIRING DIAGRAM



- A-D MICRO-LOOP PROBE
- E 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- F-G 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- H-I 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J-M 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- N STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- O INTERCONNECT CABLE
- LW LOOP WIRE (NO. 14 A.W.G.)
- PS PROPOSED ELECTRIC SERVICE
- ML MICRO-LOOP PROBE
- X GROUND ROD

EQUIPMENT LIST "A"

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
		NONE

CONTACT PERSONS FOR DISTRICT 2 ARE AS FOLLOWS:

- MR. BARRY CLOTHIER
ASSISTANT DISTRICT ENGINEER - UTILITIES
(410) 810-3060
- MR. ROBERT KIEL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 810-3240
- MR. TERRY WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 810-3250

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, 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

SHALL BECOME THE PROPERTY OF THE CONTRACTOR

TRAFFIC CONCEPTS, INC.

325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101

APPROVALS		MARYLAND DOT - STATE HIGHWAY ADMINISTRATION	
TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION		Office of Traffic & Safety	
ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION		TRAFFIC ENGINEERING DESIGN DIVISION	
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION		GENERAL INFORMATION	
DIRECTOR, TRAFFIC & SAFETY		US 40 AND IKEA CONNECTOR ROAD	
DRAWN BY: M. HOWELL	F.A.P. NO. 4173	TS NO. 4173	SHEET NO. 3 OF 3
CHECKED BY: T. ZAYDEL	S.H.A. NO.	T.I.M.S. NO. F-147	
SCALE: NONE	COUNTY: CECIL	LOG MILE: _____	
DATE: 4-12-02			