

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 174 AND THELMA AVENUE IN ANNE ARUNDEL COUNTY. MD 174 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION. THE RECONSTRUCTION WILL ALSO INCLUDE THE ADDITION OF AN E.P. LEFT TURN PHASE FOR NORTHBOUND THELMA AVENUE.

INTERSECTION OPERATION

THE INTERSECTION WILL NOW OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR NORTHBOUND THELMA AVENUE AND VIDEO DETECTION CAMERAS FOR THE SIDE STREET APPROACHES.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE AND VIDEO DETECTION INTERFACE EQUIPMENT.

SPECIAL NOTE

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

PHASE CHART

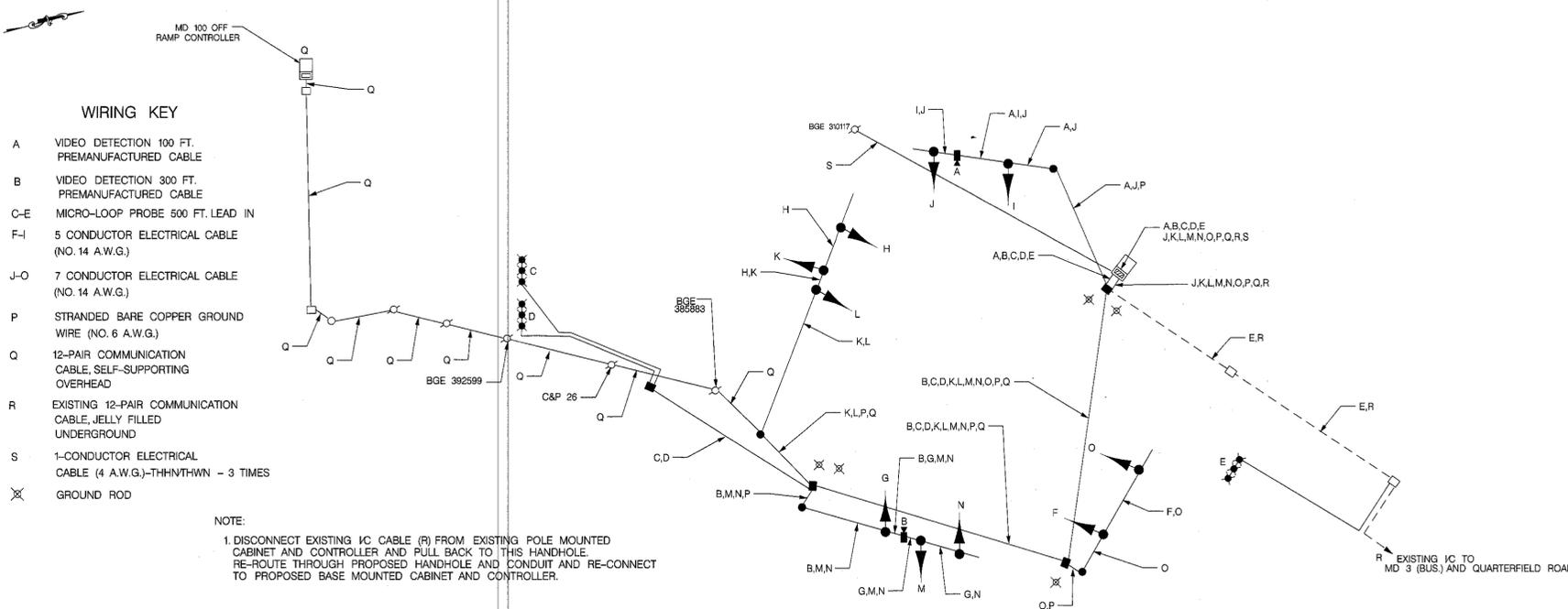
	1	2	3	4	5	6	7	8	9	10
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)
PHASE 2 & 6	G	G	G	G	G	R	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R
PHASE 3 & 8	R	R	R	R	R	<YG-G	<YG-G	G	R	R
3 CHANGE	R	R	R	R	R	<Y-G	<Y-G	G	R	R
PHASE 4 & 8	R	R	R	R	R	G	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	5 CY	TEST PIT EXCAVATION
8001	16 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8007	1 EA	FURNISH AND INSTALL CONTROL CABLE, 100 FT., VIDEO DETECTION CAMERA TO CONTROLLER
8009	1 EA	FURNISH AND INSTALL CONTROL CABLE, 300 FT., VIDEO DETECTION CAMERA TO CONTROLLER
8014	3 EA	FURNISH AND INSTALL 16.5 FT. MAST ARM POLE (15 FT. "T" DIMENSION) WITH 50 FT. MAST ARM
8016	1 EA	FURNISH AND INSTALL 16.5 FT. MAST ARM POLE (15 FT. "T" DIMENSION) WITH 70 FT. MAST ARM
8025	335 LF	DISCONNECT, PULL-BACK & REROUTE CABLES
8031	540 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8033	15 LF	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8038	230 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8040	180 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8041	20 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8045	10 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE, NON-METALLIC CONDUIT - DETECTOR WIRE SLEEVE
8047	1 EA	FURNISH AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
8048	120 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G.-THHN/THWN
8050	3 EA	FURNISH AND INSTALL MICROLOOP PROBE WITH 500 FT. LEAD IN CABLE
8054	4 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8057	51 SF	INSTALL OVERHEAD SIGN
8058	2 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
8069	1120 LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, SELF-SUPPORTING (OVERHEAD)
8075	5 EA	FURNISH AND INSTALL GROUND ROD 4/8 IN. DIAMETER X 10 FT. LENGTH
8076	3 EA	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8077	31 EA	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8080	2 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8085	100 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
8089	510 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8086	1300 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
8096	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

WIRING DIAGRAM



EQUIPMENT LIST "C"

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

- | | |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| MR. LARRY ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 841-1003 | MR. CHARLES GEORGE
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) 787-7630 | MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676 |
| MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631 | MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668 |
| MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652 | |

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY MSHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9012	1 EA	CONTROLLER ASC II WITH TELEMETRY
9044	1 EA	BASE MOUNTED CABINET NEMA SIZE 6 WITH SYSTEM PACKAGE
9086	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT 1-4 CAMERAS
9571	51 SF	ALUMINUM SHEET
		1 EACH R10-12 SIGN (30" X 36") MAST ARM MOUNT
		2 EACH R10-11(B) SIGN (24" X 24") MAST ARM MOUNT
		2 EACH D3-1 DUAL FACE SIGN (VAR. X 16") "THELMA AVE" MAST ARM MOUNT
		2 EACH M95-1 SIGN (72" X 24") MAST ARM MOUNT

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101

SHA MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 174 (QUARTERFIELD ROAD) AND THELMA AVENUE

DRAWN BY: M.HOWELL	F.A.P. NO. N/A	TS NO. 1274B	SHEET NO.
CHECKED BY: NONE	S.H.A. NO. AT6045185	T.I.M.S. NO. G122-G1	2 OF 2
SCALE: NONE	COUNTY: ANNE ARUNDEL	LOG MILE: 02017405.79	
DATE: 9/7/2004			