

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL WITH STREET LIGHTING AT THE INTERSECTION OF MD 27 AND KATE WAGNER RD./CHAPEL RD. IN CARROLL COUNTY, MD 27 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE MD 27 APPROACHES OPERATING CONCURRENTLY AND THE KATE WAGNER RD./CHAPEL RD. APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE-PERMISSIVE LEFT TURN PHASES WILL BE PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 27

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS RACK MOUNT, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, NIC MODULE, RACK DETECTOR SYSTEM, AND ASSOCIATED HARNESSSES HOUSED IN A POLE MOUNTED CABINET.

SPECIAL NOTE

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

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9002	2 EACH	DETECTOR AMPLIFIER, 4-CHANNEL RACK MOUNT
9004	1 EACH	DETECTOR RACK POWER SUPPLY
9014	7 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G.) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9016	2 EACH	12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9019	2 EACH	8 IN./12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9081	1 EACH	CABINET - INTERSECTION MONITOR, SIZE 6
9089	294 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 4 EACH D3-2 SIGN "KATE WAGNER RD/CHAPEL RD" (VARIABLE X 32 IN.) - MAST ARM MOUNT - 2 EACH R10-12 SIGN (36 IN. X 42 IN.) - MAST ARM MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH-MD 27-RT. ARROW" (24 IN. X 51 IN.)- GROUND MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH-MD 27-RT. ARROW" (24 IN. X 51 IN.)- GROUND MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH-MD 27-LT. ARROW" (36 IN. X 72 IN.)- GROUND MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH-MD 27-LT. ARROW" (36 IN. X 72 IN.)- GROUND MOUNT - 2 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND D3-2 SIGN (VAR. X 32 IN.) -GROUND MOUNT - 2 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) -GROUND MOUNT
9087	1 EACH	CONTROLLER - ASC II WITH TELEMETRY MODULE

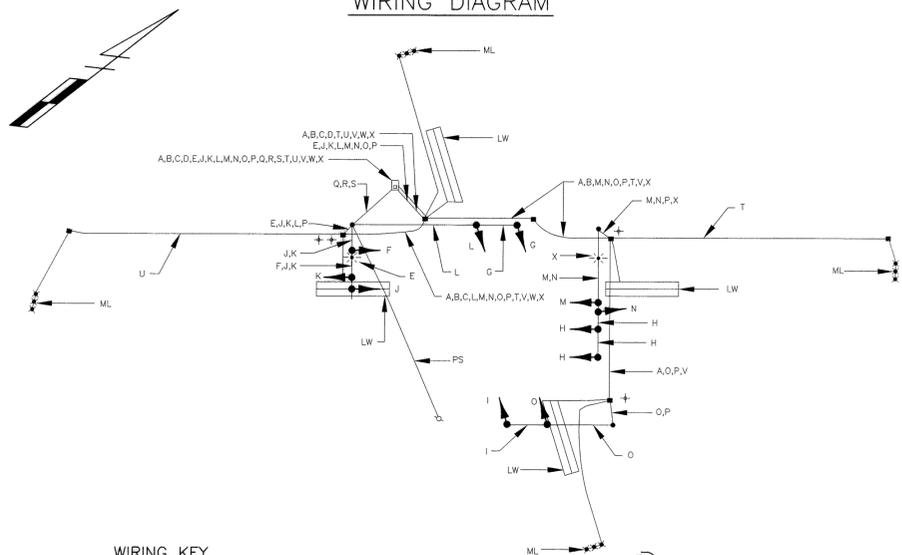
EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	4 C.Y.	TEST PIT EXCAVATION
5010	110 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING TAPE
5013	15 L.F.	REMOVE EXISTING PAVEMENT MARKINGS
6003	40 L.F.	TRAFFIC BARRIER W-BEAM
8001	15 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8011	11 EACH	INSTALL SIGNAL HEAD
8016	2 EACH	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
8017	2 EACH	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 1000 FT. LEAD-IN
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	700 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	60 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	780 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8030	100 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8031	70 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8032	50 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	9 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	4 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8040	1770 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	470 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
8044	100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
8045	1120 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
8046	270 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 A.W.G.)
8049	260 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8050	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 1 CONDUCTOR (NO. 4 A.W.G.) THNN/THWN
8052	152 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS - 4 IN. X 6 IN.
8053	188 S.F.	INSTALL GROUND MOUNTED SIGNS
8054	106 S.F.	INSTALL OVERHEAD SIGNS
8056	2 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8057	2 EACH	FURNISH AND INSTALL LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE -2 EACH - 15 FT. LENGTH
8061	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8069	30 L.F.	FURNISH AND INSTALL 1 IN ELECTRICAL CONDUIT - GALVANIZED RISER FOR PHONE DROP
8070	1 EACH	CONTROL AND DISTRIBUTION EQUIPMENT
8082	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 50 FT MAST ARM (SEE NOTE)
8083	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 60 FT MAST ARM (SEE NOTE)
8086	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND TWIN 50 FT/70 FT MAST ARMS (SEE NOTE)

NOTE: ANCHOR BOLT SIZES AS SPECIFIED IN CONTRACT DOCUMENTS

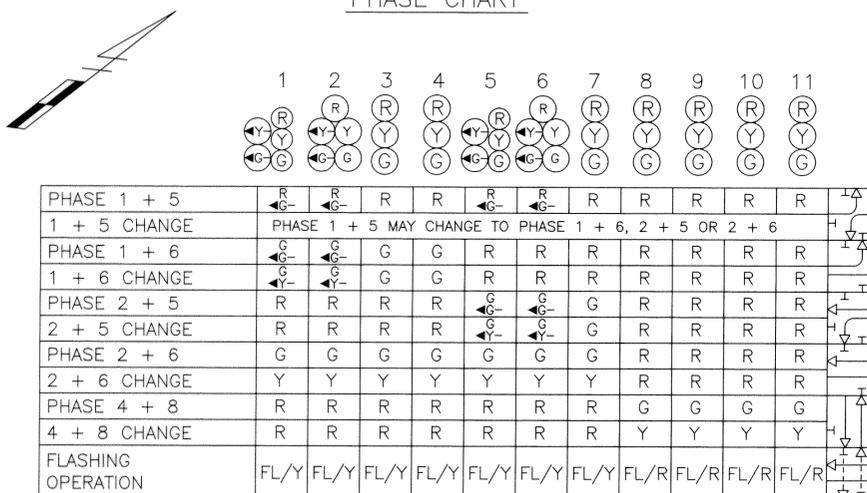
WIRING DIAGRAM



WIRING KEY

- (A, B, C, D, E, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z) 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) NO. 14 A.W.G.
- (G) 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- (W) 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
- (P) STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- (LW) LOOP WIRE (NO. 14 A.W.G.)
- (PS) PROPOSED OVERHEAD ELECTRIC SERVICE BY BG&E
- (S) 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- (V, W) MICRO-LOOP PROBE LEAD-IN (NO. 14 A.W.G.)
- (X) 3/4 IN. X 10 FT. GROUND ROD

PHASE CHART



TRAFFIC CONCEPTS, INC.

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REVISIONS	APPROVALS	REVISIONS
	ASSISTANT DIVISION CHIEF	
	ASST. DISTRICT ENGINEER, TRAFFIC	
	CHIEF, TRAFFIC ENG. DESIGN DIV.	
	DIR., OFFICE OF TRAFFIC & SAFETY	



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET MD 27 AND KATE WAGNER RD. / CHAPEL RD.

DATE: 11-24-97	DRAWN BY: T. ZAYDEL	F.A.P. NO.	PLAN SHEET NO.:
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO. A120153/B53/H53	SHEET NO. 2 OF 2
APPROVED BY:	CHECKED BY: K. SCHMID	COUNTY: CARROLL	TS-3747GI