

PROJECT DESCRIPTION

I. General

This project involves the installation of a new traffic control signal at the intersection of Maryland Route 5 and Coventry Way in Prince George's County. Maryland Route 5 is assumed to run in a north - south direction.

II. Intersection Operation

An eight (8) phase, full-traffic-actuated, solid state digital controller with (3) four-channel loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

The intersection will operate in a NEMA, six (6) phase, full-traffic-actuated mode. All left turn movements are exclusive only. The MD 5 movements are not to operate concurrently and the Coventry Way thru movements are to operate concurrently.

EQUIPMENT LIST 'A'

EQUIPMENT SUPPLIED BY S.H.A.

960022	12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD (MAST ARM MOUNTED)	2 EACH
960023	12 INCH ONE WAY 3 SECTION (RA,YA,GA) SIGNAL HEAD (MAST ARM MOUNTED)	2 EACH
960041	12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD (PEDESTAL MOUNTED)	8 EACH
960048	12 INCH ONEWAY 2 SECTION PEDESTRIAN SIGNAL (PEDESTAL MOUNTED)	9 EACH
960068	12 INCH ONE WAY 2 SECTION PEDESTRIAN SIGNAL HEAD (POLE MOUNTED)	1 EACH
971017	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT - SYSTEM READY	1 EACH
973023	SHEET ALUMINUM SIGNS	30 S.F.
900000	12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD (BRIDGE MOUNTED)	2 EACH
900000	12 INCH ONE WAY 3 SECTION (RA,YA,GA) SIGNAL HEAD (BRIDGE MOUNTED)	2 EACH
900000	FOUR CHANNEL LOOP DETECTOR AMPLIFIER (DELAY OUTPUT)	3 EACH

EQUIPMENT LIST 'B'

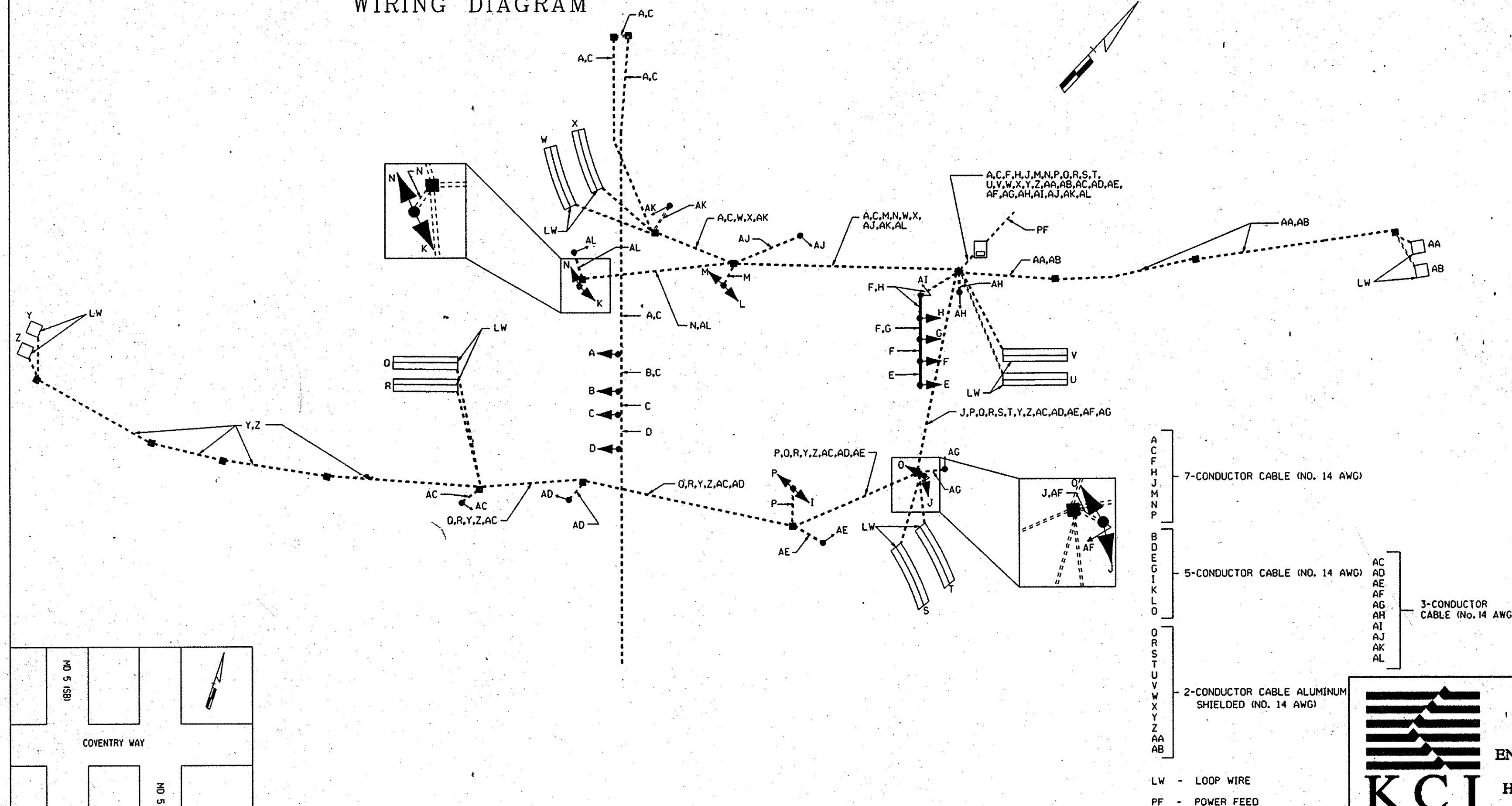
EQUIPMENT FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

120500	MAINTENANCE OF TRAFFIC	LUMP SUM	805160	FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE	380 L.F.	861104	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (ALUM. SHIELDED)	5000 L.F.
120610	ARROW PANEL	5 U.D.	807205	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (8-15)	1 EACH	861106	FURNISH AND INSTALL ELECTRICAL CABLE 3 CONDUCTOR (NO. 14 AWG)	1850 L.F.
130850	MOBILIZATION	LUMP SUM	811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	21 EACH	861107	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)	1500 L.F.
230030	TEST PIT EXCAVATION	2 C.Y.	813015	INSTALL OVERHEAD SIGN	30 S.F.	861108	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)	2500 L.F.
585445	24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE	155 L.F.	818041	FURNISH AND INSTALL STEELPOLE WITH A SINGLE 60 FOOT MAST ARM	1 EACH	861117	FURNISH AND INSTALL ELECTRICAL CABLE 3-WIRE (NO. 4 A.W.G.)	125 L.F.
801004	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION	20.45 C.Y.	822500	AS-BUILT FOR TRAFFIC SIGNAL	1 EACH	862101	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEX. TUBING (NO. 14 A.W.G.)	3000 L.F.
802501	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE	120 L.F.	837001	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIA. X 10 FEET LENGTH	8 EACH	862102	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)	1400 L.F.
805105	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	225 L.F.	860022	INSTALL 12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD (MAST ARM MOUNTED)	2 EACH	860048	INSTALL 12 INCH ONE WAY 2 SECTION PEDESTRIAN SIGNAL HEAD (PEDESTAL MOUNT)	9 EACH
805118	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	200 L.F.	860023	INSTALL 12 INCH ONE WAY 3 SECTION (RA,YA,GA) SIGNAL HEAD (MAST ARM MOUNTED)	2 EACH	860068	INSTALL 12 INCH ONE WAY 2 SECTION PEDESTRIAN SIGNAL HEAD (POLE MOUNT)	1 EACH
805125	FURNISH AND INSTALL 2 INCH SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED	1000 L.F.	860041	INSTALL 12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD (PEDESTAL MOUNTED)	8 EACH	871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	1 EACH
805140	FURNISH AND INSTALL 4 INCH SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED	500 L.F.				800000	FURNISH AND INSTALL 14 FOOT BREAKAWAY PEDESTAL POLE	12 EACH

F. H. WA. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MD.			

800000	FURNISH AND INSTALL 4 INCH SCHEDULE 40 RIGID PVC CONDUIT - IN BRIDGE PARAPET	300 L.F.
800000	12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD (BRIDGE MOUNTED)	2 EACH
800000	12 INCH ONE WAY 3 SECTION (RA,YA,GA) SIGNAL HEAD (BRIDGE MOUNTED)	2 EACH

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
PHASE 1 & 6	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	W	W	W	W	DW	DW	DW	DW	W	W	→
PED CLEAR	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	FL/DW	FL/DW	W	W	DW	DW	DW	DW	W	W	→
1 CHANGE	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	W	W	DW	DW	DW	DW	W	W	→
PHASE 2 & 5	R	R	R	R	G	G	G	G	R	R	R	R	R	R	R	R	DW	DW	W	W	DW	DW	DW	DW	W	W	→
PED CLEAR	R	R	R	R	G	G	G	G	R	R	R	R	R	R	R	R	DW	DW	W	W	DW	DW	DW	DW	W	W	→
5 CHANGE	R	R	R	R	Y	Y	G	G	R	R	R	R	R	R	R	R	DW	DW	W	W	DW	DW	DW	DW	W	W	→
PHASE 2 & 6	R	R	G	G	R	R	G	G	R	R	R	R	R	R	R	R	W	W	W	W	DW	DW	DW	DW	W	W	→
PED CLEAR	R	R	G	G	R	R	G	G	R	R	R	R	R	R	R	R	W	W	FL/DW	FL/DW	DW	DW	DW	DW	W	W	→
2 & 6 CHANGE	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R	R	R	R	W	W	DW	DW	DW	DW	DW	DW	W	W	→
PHASE 4	R	R	R	R	R	R	R	G	G	G	G	G	R	R	R	R	W	W	DW	DW	DW	DW	DW	DW	W	W	→
PED CLEAR	R	R	R	R	R	R	R	G	G	G	G	G	R	R	R	R	W	W	DW	DW	DW	DW	DW	DW	W	W	→
4 CHANGE	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	R	R	R	R	W	W	DW	DW	DW	DW	DW	DW	W	W	→
PHASE 8	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	W	W	W	W	DW	DW	DW	DW	W	W	→
PED CLEAR	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	W	W	W	W	DW	DW	DW	DW	W	W	→
8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	W	W	W	W	DW	DW	DW	DW	W	W	→
FLASHING OPERATION	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	→

TS-2 OF TS-16

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

DRAWN BY: TCC
DES. BY: TCC/GWC
CHK. BY: *Bruce Thompson* 12-20-94
DATE: NOVEMBER, 1996
SCALE: N.A.

MD ROUTE 5 / COVENTRY WAY
SIGNAL PLAN FOR
MD 5 @ COVENTRY WAY
COUNTY: PRINCE GEORGE'S
TS/STD. NO. 1761 E
SHEET NO. 324 OF 395

M:\0194007\SP02MD5.DGN



KCI
TECHNOLOGIES INC.
ENGINEERS AND PLANNERS
10 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
21030-1888
(410) 316-7800

REVISIONS	APPROVALS
11/96 RECONSTRUCTION OF SIGNAL FOR INTERCHANGE	PROJECT MANAGER, SIGNAL DESIGN SECTION ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION DIRECTOR, OFFICE OF TRAFFIC & SAFETY
ADDENDUM NO. 1 3-10-97	