PROJECT DESCRPITION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT THE INTERSECTION OF MD 202 AND TECHNOLOGY WAY IN PRINCE GEORGE'S COUNTY. MD 202 IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION IS EQUIPPED WITH A SEMI -TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1), FOUR CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER, TELEMETRY MODULE AND ISOLATION BOARD IN A NEMA SIZE "6" BASE MOUNTED CABINET. THE CONTROLLER USES FOUR PHASES OUT OF EIGHT.

PROJECT CONTACTS

THE CONTRCT PERSONS FOR SHA ARE AS FOLLOWS:

MR. CHARLIE WATKINS
DISTRICT ENGINEER
PHONE: (301) 513-7300

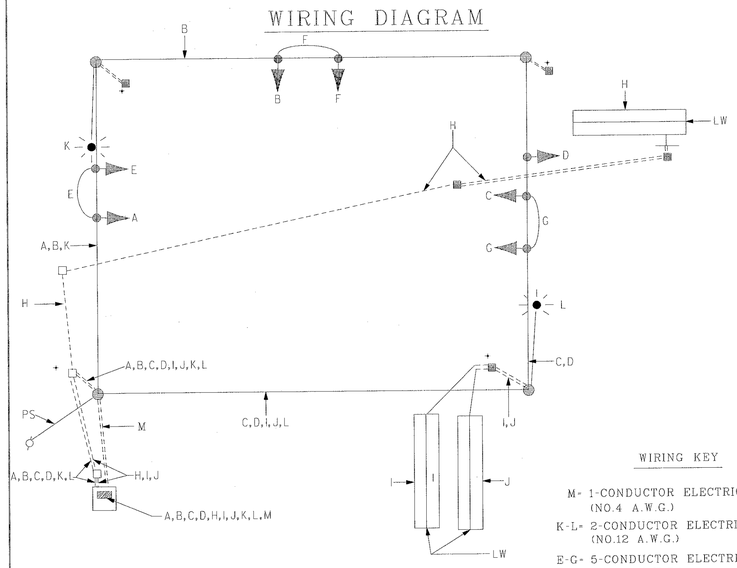
MR. MAJID SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7300

MR. RANDY BROWN
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7300

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (401) 787-7630

MR. AUGIE REBISH
ACTING DISTRICT UTILITIES ENGINEER
PHONE: (301) 513-7300

WIRING DIAGRAM



WIRING KEY

M- 1-CONDUCTOR ELECTRICAL CABLE (NO.4 A.W.G.)

K-L- 2-CONDUCTOR ELECTRICAL CABLE (NO.12 A.W.G.)

E-G- 5-CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)

A-D- 7-CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)

LW-LOOP WIRE (NO.14 A.W.G.)

PS-PROPOSED OVERHEAD ELECTRICAL SERVICE

H-J- 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO.14 A.W.G.)

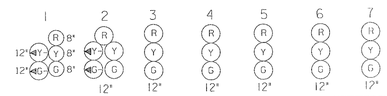
+ - ¾" x 10' GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

ITEM NO.	QUANTITY	DESCRIPTION
	6 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD - SPAN MOUNT.
	1 EACH	12 IN., ONE-WAY, FIVE SECTION (R,Y,YA,G,GA) TRAFFIC SIGNAL HEAD WITH TETHER CLAMP-SPAN WIRE.
	1 EACH	8 IN./12 IN., ONE WAY, FIVE SECTION (8"R,Y,G,12"YA,GA) TRAFFIC SIGNAL HEAD WITH TETHER CLAMP-SPAN MOUNT.
	1 EACH	EIGHT- PHASE, FULL-TRAFFIC- ACTUATED CONTROLLER WITH TELEMENTRY EQUIPMENT HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET NEED 1-4 CHANNEL AMPLIFIER.
	4 EACH	12" X 32' STRAIN POLE (2¼" X 96" ANCHORS INCLUDED)
	73.5 L.F.	SIGNS TO CONSIST OF:
	- 4 EACH	W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) - GROUND MOUNTED
	- 1 EACH	D3-2 SIGN "TECHNOLOGY WAY" (16 IN. X 96 IN.) DUAL FACED-SPAN MOUNTED.
	- 2 EACH	D3-3 SIGN "TECHNOLOGY WAY" NEXT SIGNAL-GROUND MOUNTED.
	- 1 EACH	R10-12 SIGN (36 IN. X 42 IN.)-SPAN MOUNTED
	1 EACH	M3-3/M1-5/M6-1 SIGN ASSOCIATED SHIELD ASSEMBLY SIGN, "NORTH, MARYLAND 202, (LEFT ARROW)", 36 IN. X 75 IN, STRAINED POLE MOUNTED HARDWARE.
	- 1 EACH	M3-3/M1-5/M6-1 SIGN ASSOCIATED SHIELD ASSEMBLY SIGN, "SOUTH, MARYLAND 202, (RIGHT ARROW)", 24 IN. X 51 IN., STRAINED POLE MOUNTED HAREWARE.

PHASE CHART



	1	2	3	4	5	6	7	
PHASE 1 + 6	←G-G	←G-G	G	R	R	R	R	←
1 CHANGE	←Y-G	←Y-G	G	R	R	R	R	↙
PHASE 2 + 6	G	G	G	G	G	R	R	→
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	←
PHRASE 4	R	R	R	R	R	G	G	↑
4 CHANGE	R	R	R	R	R	Y	Y	↑
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	←→

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
1003	1 EACH	MOBILIZATION FOR ASSIGNMENTS OUT OF CONTRACT AREA
2001	1 C.Y.	TEST PIT EXCAVATION
5002	100 L.F.	F & I 6" WHITE THERMOPLASTIC PAVEMENT MARKING TAPE (LANE-LINE)
5004	155 L.F.	F & I 24" WHITE THERMOPLASTIC PAVEMENT MARKING TAPE (STOPLINE)
8001	200 C.Y.	F & I CONCRETE FOR SIGNAL FOUNDATION
8008	1 EACH	F & I 3" WEATHERHEAD
8009	495 L.F.	F & I STEEL SPAN WIRE -⅜" DIAMETER
8010	320 L.F.	F & I STEEL SPAN WIRE -¼"
8011	8 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	390 L.F.	F & I SAWCUT FOR SIGNAL (LOOP DETECTOR)
8023	20 L.F.	F & I 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUCT FOR DETECTOR SLEEVE
8024	105 L.F.	F & I 2" SCHEDULE 80 RIGID PVC CONDUIT TRENCHED
8028	60 L.F.	F & I 3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8030	20 L.F.	F & I 4" SCHEDULE 80 RIGID PVC CONDUIT TRENCHED
8033	3 EACH	F & I ELECTRICAL HANDHOLE
8034	4 EACH	F & I GROUND ROD -¾" x 10'
8040	1130 L.F.	F & I LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8041	255 L.F.	F & I ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	420 L.F.	F & I ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8045	455 L.F.	F & I ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8046	115 L.F.	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG)
8049	55 L.F.	F & I NO.6 AWG STRANDED BASE COPPER GROUND WIRE
8050	30 L.F.	F & I ELECTRICAL CABLE - 1 CONDUCTOR NO.4 AWG - THHN/THWN
8052	120 L.F.	F & I WOOD SIGN SUPPORTS - 4" x 6"
8053	63 S.F.	INSTALL GROUND MOUNTED SIGN
8054	10.5 S.F.	INSTALL OVERHEAD SIGN
8056	2 EACH	F & I 250 WATT HPS LUMINAIRE W/ PHOTOCELL
8057	2 EACH	F & I 20' LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8070	1 EACH	F & I CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE 3 WIRE SYSTEM)
8078	4 EACH	INSTALL STRAIN POLE (ANY POLE)

REVISIONS	APPROVALS
	ASST. TRAFFIC ENGINEERING DESIGN DIVISION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHEF. TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD. 202 @ TECHNOLOGY WAY

DRAWN BY:	F. WARD	F.A.P. NO.	AC-STPG-0005(590)E	TS NO.	SHEET NO.
CHECKED BY:	D. DODA	S.H.A. NO.	AW2278,AS11,B35H,J45H	3839	
SCALE:	1"=20'	COUNTY:	PRINCE GEORGE'S	T.I.M.S. NO.	
DATE:	10/98	LOG MILE:	16020208.38	C-921	2 OF 2