Project Description

This project involves the installation of a new Traffic Control Signal and interconnect at the intersection of MD 414 and Hagan Road in Prince Georges County.

Controller Operation

An eight-phase fully actuated, solid state digital NEMA controller with intersection monitor and harness, battery back-up, and four-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

The intersection is to operate in a NEMA three(3) phase, full-traffic-actuated mode. The MD 414 approaches shall operate concurrently.

Phase Chart

	1	2	3	4	5	6	7,8
Phase 2 & 6	G	G	G	G	R	R	DW
2 & 6 Change	Y	Y	Y	Y	R	R	DW
Phase 4	R	R	R	R	G	G	WK
Ped. Clear	R	R	R	R	G	G	FL/DW
4 Change	R	R	R	R	Y	Y	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK

CONTACT PERSONS FOR DISTRICT 3 ARE AS FOLLOWS

MR. CHARLIE WATKINS
DISTRICT ENGINEER
301-513-7300

MR. MAJID SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC
301-513-7358

MR. JOHN WARNICK
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
301-513-7336

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301-513-7304

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ASSISTANT DISTRICT ENGINEER - UTILITIES
301-513-7304

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
410-787-7676

MR. DAVE SCHWARTZ
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

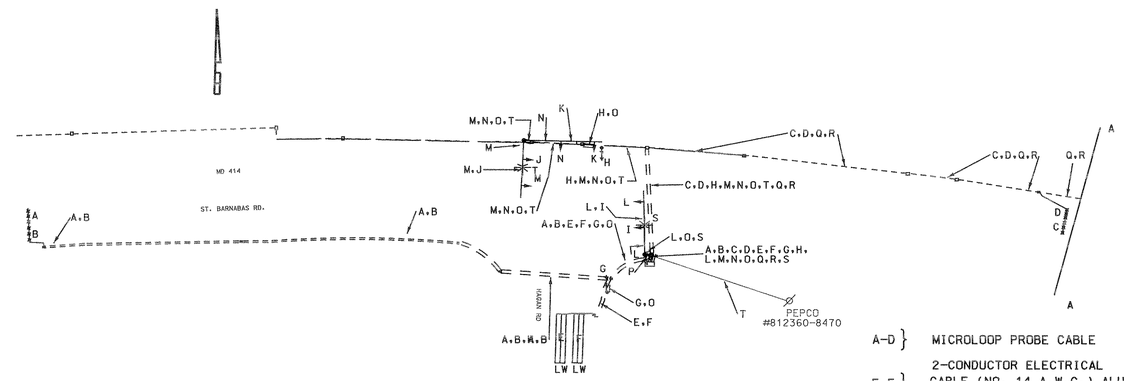
Equipment List

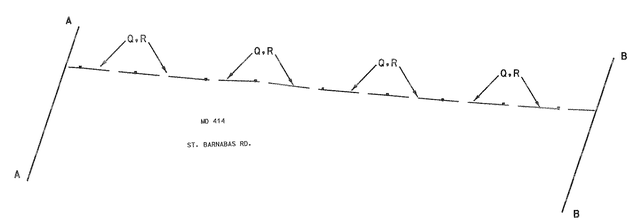
A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

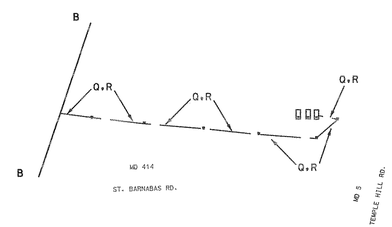
ITEM NO.	QUANTITY		DESCRIPTION		
9086	1	EA	CABINET W/ TELEMETRY (SYSTEM CAB) SIZE 6		
9087	1	EA	CONTROLLER ASC II W/ TELEMETRY		
9089	75	SF	FLAT SHEET ALUM SIGN-YELLOW, ORANGE, & SILVER (SF)		
			W3-3 "SIGNAL AHEAD" SYMBOL 48"X48"	GROUND MNT.	2 EA.
			R3-5L "LEFT TURN ONLY" SYMBOL 30"X36"	MAST ARM MNT.	1 EA.
			R3-6 MOD "RIGHT TURN ONLY" SYMBOL 30"X36"	MAST ARM MNT.	1 EA.
			ASSOCIATED SHEILD ASSEMBLY 36"X75"	POLE MNT.	1 EA.
			ASSOCIATED SHIELD ASSEMBLY 24"X51"	POLE MNT.	1 EA.
9090	18	SF	FLAT SHEET ALUM. SIGN BLUE OR GREEN		
			D-3(2) "St. Barnabas Road" Var X 12"	MAST ARM MNT.	1 EA.
			D-3(2) "Hagan Road" Var X 12" (dual face)	MAST ARM MNT.	2 EA.

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

ITEM NO.	QUANTITY		DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC
2001	2	CY	TEST PIT EXCAVATION
5003	275	LF	FURNISH AND INSTALL 12 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5004	96	LF	FURNISH AND INSTALL 24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	120	LF	REMOVE EXISTING PAVEMENT MARKING - ANY WIDTH
5008	20	EA	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
8001	10	CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8003	2	EA	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE (ANY SIZE)
8006	1	EA	OUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8016	4	EA	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FOOT LEAD-IN
8020	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	250	LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	8	LF	LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR LOOP DETECTOR LEAD-IN
8024	350	LF	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	10	LF	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8029	70	LF	FURNSH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8031	15	LF	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8032	80	LF	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	7	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	10	EA	FURNISH AND INSTALL GROUND ROD 3/4 INCH DIAMETER X 10 FOOT LENGTH
8039	6600	LF	FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE, JELLYFILLED
8040	792	LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8041	200	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8043	250	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
8044	85	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8045	600	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)
8046	350	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TYPE T/C
8048	420	LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8049	100	LF	FURNISH AND INSTALL ELECTRICAL CABLE 1 CONDUCTOR NO. 4 AWG - THHN/THWN
8051	44	LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8052	60	SF	INSTALL GROUND MOUNTED SIGN
8053	33	SF	INSTALL OVERHEAD SIGN
8055	2	EA	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8056	2	EA	FURNISH AND INSTALL 15 FOOT LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8060	1	EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8066	1	EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240 V, 1 PHASE 3 WIRE SYSTEM)
8076	1	EA	FURNISH AND INSTALL MAST ARM POLE AND 38 FOOT MAST ARM
8080	1	EA	FURNISH AND INSTALL MAST ARM POLE AND TWIN 50 FOOT/50 FOOT MAST ARMS
8084	18	EA	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8087	4	EA	FURNISH AND INSTALL 12 INCH PEDESTRIAN SIGNAL HEAD SECTION







A-D	MICROLOOP PROBE CABLE
E,F	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
G,H	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I-K	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
L-N	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
O	BARE COPPER WIRE (NO. 6 A.W.G.)
P	3 WIRE (NO. 4 A.W.G.) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
Q	DISCONNECT AND REROUTE EXISTING INTERCONNECT COMMUNICATION CABLE
R	INSTALL 12 PAIR COMMUNICATION CABLE, JELLYFILLED
S,T	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TYPE TC
LW	LOOP WIRE (NO. 14 A.W.G.)

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
32 WEST ROAD
TOWSON, MARYLAND 21204

APPROVALS	REVISIONS
ASST. TRAFFIC ENGINEERING DESIGN DIVISION	
ASST. DISTRICT ENGINEER, TRAFFIC	
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	
DIRECTOR, OFFICE OF TRAFFIC & SAFETY	

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION
MD 414 AT HAGAN ROAD

DRAWN BY:	JA	F.A.P. NO.	AC-STPG-000S(683)E	TS NO. 4039	SHEET NO.
CHECKED BY:	TMH	S.H.A. NO.	XX1005385		
SCALE:	Not to Scale	COUNTY:	PRINCE GEORGES	T.I.P.S. NO. D724	02 OF 02
DATE:	9/00	LOG MILE:	1604(402.95		

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