MD 28 RUNS IN A EAST-WEST DIRECTION.

A. EQUIPMENT TO BE FURNISHED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
	1 EACH	EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A SIZE "6" BASE MOUNTED CABINET W/ ONE (1) FOUR CHANNEL LOOP DETECTOR AMPLIFIER
	119.3 S.F.	1 EACH ASSOCIATED SHIELD ASSEMBLY SIGN. "WEST. MARYLAND 28. (RIGHT ARROW)". 30" x 51". POLE MOUNTED HARDWARE
		1 EACH ASSOCIATED SHIELD ASSEMBLY SIGN. "EAST. MARYLAND 28. (LEFT ARROW)". 48" x 75". POLE MOUNTED HARDWARE
		2 EACH W3-3 "NEW" SIGN. 48" x 48". POLE MOUNTED HARDWARE
		1 EACH W3-3 "NEW" SIGN. 36" x 36". POLE MOUNTED HARDWARE
		2 EACH D3-2 DUAL FACED SIGN. "(LEFT ARROW) Avery RD". "Avery RD (RIGHT ARROW)". 16" x Var.. SPAN MOUNTED HARDWARE

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

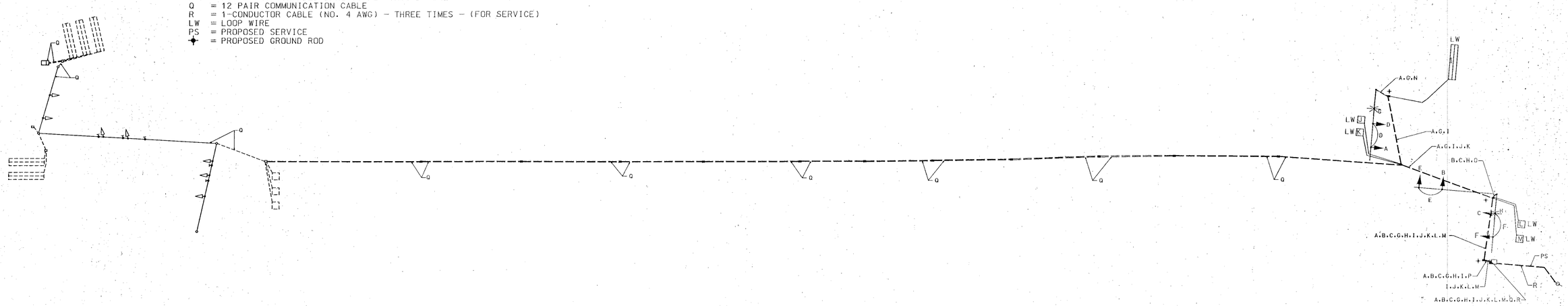
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	TEST PIT EXCAVATION
5003	100 L.F.	F & I 12" WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5004	100 L.F.	F & I 24" WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	16 S.F.	F & I 4" CONCRETE SIDEWALK
8001	32 C.Y.	F & I CONCRETE FOR SIGNAL FOUNDATION
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	435 L.F.	F & I SAWCUT FOR SIGNAL (LOOP DETECTOR)
8022	100 L.F.	F & I 1" ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8024	1,950 L.F.	F & I 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	280 L.F.	F & I 3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8028	240 L.F.	F & I 3" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8030	50 L.F.	F & I 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8033	15 EACH	F & I ELECTRICAL HANDHOLE
8034	3 EACH	F & I GROUND ROD - ¾" DIA. x 10'
8039	2,370 L.F.	F & I 12-PAIR COMMUNICATION CABLE. JELLY FILLED (UNDERGROUND)
8040	1,550 L.F.	F & I LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8041	815 L.F.	F & I ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	70 L.F.	F & I ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8045	700 L.F.	F & I ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8046	470 L.F.	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TYPE IN. TC IN.
8048	50 L.F.	F & I NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8049	320 L.F.	F & I ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG - THHN/THWN
8051	120 L.F.	F & I WOOD SIGN SUPPORTS - 4" x 6"
8052	76.6 S.F.	INSTALL GROUND MOUNTED SIGN
8053	42.7 S.F.	INSTALL OVERHEAD SIGN
8055	2 EACH	F & I 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8056	2 EACH	F & I 15' LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8060	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8063	30 L.F.	F & I 3" ELECTRICAL CONDUIT SCHEDULE 80 PVC RISER
8066	1 EACH	F & I CONTROL AND DISTRIBUTION EQUIPMENT (12/ 240 V. 1 PHASE 3 WIRE SYST)
8078	1 EACH	F & I 27' MAST ARM POLE AND 60' MAST ARM
8082	1 EACH	F & I 27' MAST ARM POLE AND TWIN 50'/ 70' MAST ARMS
8084	18 EACH	F & I 12" VECHICULAR BLACK FACED TRAFFIC SIGNAL HEAD SECTION

PHASE CHART

	1	2	3	4	5	6	
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	
PHASE 2 & 6	G	G	G	G	R	R	←
2 & 6 CHANGE	Y	Y	Y	Y	R	R	→
PHASE 4	R	R	R	R	G	G	↓
4 CHANGE	R	R	R	R	Y	Y	↓
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	↕ ↔

WIRING DIAGRAM

A-C = 7-CONDUCTOR CABLE (NO. 14 AWG)
D-F = 5-CONDUCTOR CABLE (NO. 14 AWG)
G-H = 2-CONDUCTOR CABLE (NO. 12 AWG)
I-M = 2-CONDUCTOR (ALUMINUM SHIELDED) CABLE
N-P = NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
Q = 12 PAIR COMMUNICATION CABLE
R = 1-CONDUCTOR CABLE (NO. 4 AWG) - THREE TIMES - (FOR SERVICE)
LW = LOOP WIRE
PS = PROPOSED SERVICE
✦ = PROPOSED GROUND ROD



REVISIONS	APPROVALS
	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
	ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

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

MD 28: E. GUDE ROAD TO AVERY ROAD
ROCKVILLE, MARYLAND

DRAWN BY: W. Malcolm	F.A.P. NO.	T.S. NO.	SHEET NO.
CHECKED BY: W. Malcolm	S.H.A. NO. M0857A51/B51	TS-4036 & 4037	
SCALE: NOT TO SCALE	COUNTY MONTGOMERY	T.I.M.S. NO.	
DATE: 08/ 2000	LOG MILE 15002824.31	0996	3 OF 3

© U:\TELCON\TRC\MD28VERT.dgn Oct. 01, 2000 14:08:37