F H W A REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD		2	2

PROJECT DESCRIPTION

I GENERAL

THIS PROJECT INVOLVES THE MODIFICATION TO THE EXISTING TRAFFIC CONTROL SIGNAL SIGNING AND PAVEMENT MARKINGS AT THE INTERSECTION OF ALT. U.S. I AND SULPHUR SPRING RD./OLD WASHINGTON BLVD. IN BALTIMORE COUNTY. ALT. U.S. I IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

II INTERSECTION OPERATION

THIS INTERSECTION SHALL OPERATE IN A FULL-TRAFFIC-ACTUATED SIX PHASE OPERATION. SULPHUR SPRING RD. AND OLD WASHINGTON BLVD. OPERATE IN A SPLIT PHASE, EXCLUSIVE/PERMISSIVE LEFT-TURNS SHALL BE ADDED TO S.B. AND N.B. ALT. U.S. I. A RIGHT TURN MOVEMENT FOR S.B. ALT. U.S. I SHALL OPERATE WITH SULPHUR SPRING SPLIT PHASE MOVEMENT.

III SPECIAL NOTE

1. ALL INTERNAL WIRING TO THE CONTROLLER WILL BE PERFORMED BY THE SIGNAL SHOP. CONTACT MR. ED RODENHIZER AT (410) 787-7652, SEVENTY-TWO (72) HOURS IN ADVANCE OF THE INTENDED WORK.

2. PROPER 17' TO 19' CLEARANCES ARE TO BE MAINTAINED FROM THE BOTTOM OF THE SIGNAL HEADS TO THE CROWN OF PAVEMENT.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9000	1	EA.	(CONT/CAB/ADD) "D" PANEL W/HARNESS
9007	2	EA.	(CONT/CAB/ADD) NEMA LOAD SWITCH
9000	1	EA.	(CONT/CAB/ADD) 4 CHANNEL AMPLIFIER SHELF MOUNTED
9051	3	EA.	(SPAN MT) 12" 1-WAY 5 SECTION SIGNAL HEAD (2-YA, GA, RYG) (W/TETHER CLAMP) (1-RYG, YA, GA)
9054	2	EA.	(SPAN MT) 8" & 12" 1-WAY 5 SECTION SIGNAL HEAD (W/TETHER CLAMP) (12" YA, GA, 8" RYG)
9061	2	EA.	(SPAN MT) 8"/12" 1-WAY, 4 SECTION SIGNAL HEAD (8" RYG, 2" GA) (POLYCARBONATE)
9102	2	EA.	SIGN HARDWARE SPAN WIRE BOTTOM TETHER
9103	4	EA.	SIGN HARDWARE SPAN WIRE HANGERS
9089	29	S.F.	FLAT SHEET ALUMINUM SIGN - R10-12 (36"X42") - R3-6 MOD. (30" X 36") (LT-THRU RT)
9090	96	S.F.	FLAT SHEET ALUMINUM SIGN - D3-2 (16" X VAR.) DUAL FACES 1- "ARROW, SULPHUR SPRING RD./ SULPHUR SPRING RD., ARROW" 1- "ARROW, OLD WASHINGTON BLVD./ OLD WASHINGTON BLVD., ARROW"

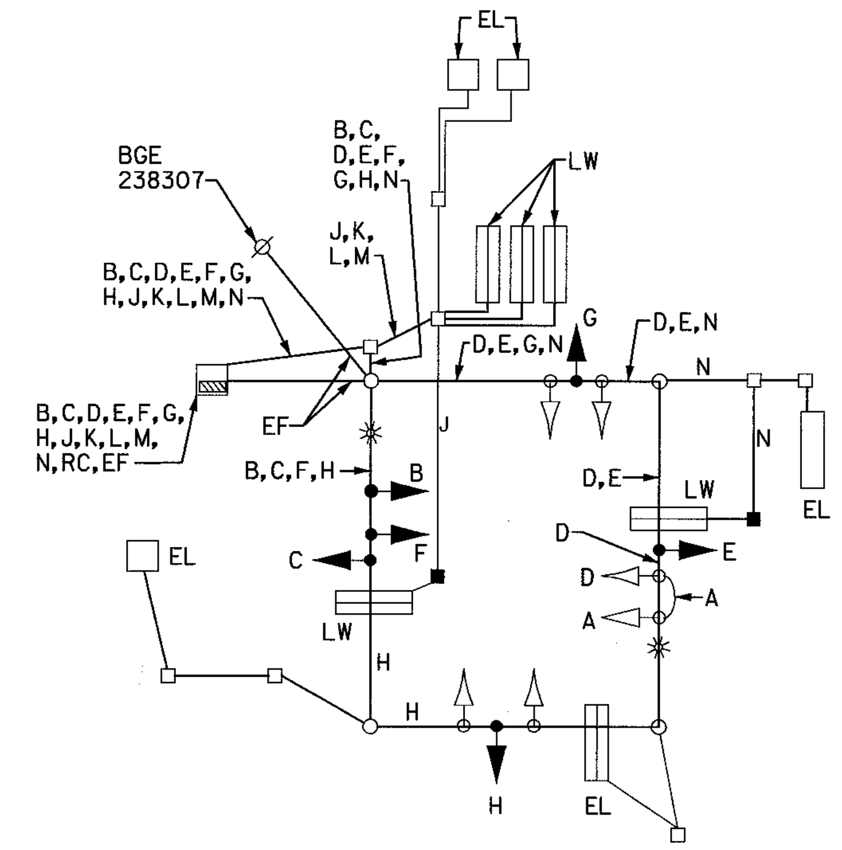
EQUIPMENT LIST

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
1001	1	EA.	MAINTENANCE OF TRAFFIC
2007	7	C.Y.	REMOVE CONCRETE MONOLITHIC MEDIAN <=4 FT.
5005	200	L.F.	F/I 24" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5006	16	EA.	F/I PERMANENT PREFORMED PAVEMENT MARKING LETTER
5007	6	EA.	F/I PERMANENT PREFORMED PAVEMENT MARKING ARROW
5008	160	L.F.	REMOVE EXISTING PAVEMENT MARKING (ANY WIDTH)
5009	18	EA.	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
6009	20	L.F.	F/I CONCRETE MONOLITHIC MEDIAN <=4 FT.
8010	270	L.F.	F/I 1/4" DIA. SPAN WIRE
8011	6	EA.	INSTALL SIGNAL HEAD (ANY TYPE)
8022	478	L.F.	F/I SAWCUT FOR SIGNAL (LOOP DETECTOR)
8023	30	L.F.	F/I 1" ELECTRICAL CONDUIT GALVANIZED SLEEVE
8024	7	L.F.	F/I 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT SLEEVE
8027	135	L.F.	F/I 2" ELECTRICAL CONDUIT (SCHEDULE 80 PUSHED)
8035	2	EA.	F/I ELECTRICAL HANDHOLE
8043	1336	L.F.	F/I LOOPWIRE (NO. 14 AWG-THWN)
8044	414	L.F.	F/I ELECTRICAL CABLE 2 CONDUCTOR (ALUMINUM SHIELDED)
8047	31	L.F.	F/I ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
8048	1410	L.F.	F/I ELECTRICAL CABLE 7- CONDUCTOR (NO. 14 AWG)
8057	125	L.F.	INSTALL OVERHEAD SIGNS
8064	1	EA.	REMOVE AND DISPOSE OF EXISTING MATERIALS AND EQUIPMENT PER ASSIGNMENTS
NEC	1	EA.	CUT UNUSED PIPE AND CLEAN OUT THE INSIDE OF THE EXISTING HANDHOLE

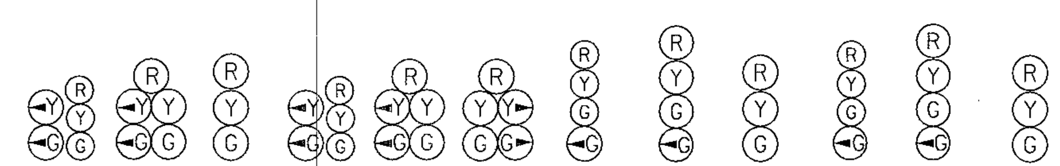
WIRING KEY

- A - 5 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B,C,D,E,F,G,H - 7 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J,K,L,M,N - 2 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- RC - REMAINING CABLE
- EL - EXISTING LOOP
- EF - EXISTING FEED
- LW - LOOP WIRE ENCASED IN 1/4" FLEXIBLE TUBING



SIGNAL WIRING DIAGRAM

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12
PHASES 1+5	←G R	←G R	R	←G R	←G R	R	R	R	R	R	R	R
1+5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1+6 OR 2+5 OR 2+6											
PHASES 1+6	←G G	←G G	G	R	R	R	R	R	R	R	R	R
1+6 CHANGE	←Y G	←Y G	G	R	R	R	R	R	R	R	R	R
PHASES 2+5	R	R	R	←G G	←G G	G	R	R	R	R	R	R
2+5 CHANGE	R	R	R	←Y G	←Y G	G	R	R	R	R	R	R
PHASES 2+6	G	G	G	G	G	G	R	R	R	R	R	R
2+6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
PHASE 3	R	R	R	R	R	R G→	R	R	R	←G G	←G G	G
3 CHANGE	R	R	R	R	R	R Y→	R	R	R	Y	Y	Y
PHASE 4	R	R	R	R	R	R	←G G	←G G	G	R	R	R
4 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R
FLASHING OPERATION	F/Y	F/Y	F/Y	F/Y	F/Y	F/Y	F/R	F/R	F/R	F/R	F/R	F/R

UTILITY LEGEND

- —T—T— TELEPHONE CABLES
- —G—G— GAS MAIN
- —W—W— WATER MAIN
- —S—S— SEWER MAIN
- —E—E— ELECTRIC CABLES
- —A—A— AERIAL CABLES
- —BC—BC— BURIED CABLE
- —SD—SD— STORM DRAIN

GEOMETRIC LEGEND

- - - - - - EXISTING GEOMETRICS
- ——— PROPOSED GEOMETRICS

d:/86/96-001/03/ginlestes.dgn May. 28, 1997 10:44:21

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
813 MAIDEN CHOICE LANE, SUITE 300
BALTIMORE, MARYLAND 21228
(410) 247-8833 FAX 247-9397

APPROVALS

- ASST. DIVISION CHIEF, TEDD
- ASST. DISTRICT ENGINEER, TRAFFIC
- CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
- DIRECTOR, OFFICE OF TRAFFIC & SAFETY

REVISIONS

- D. REPHASE U.S. 1 FOR E/P LEFT TURNS, ADD SPLIT PHASE NEARSIDES. RT W/03 — 4\97 — S.H.A. NO. BCS-94-114 — MF / EMM
- C. INSTALL 15' LIGHT ARM AND 250 WATT LAMPS — 3\96 — DJD
- B. REPHASE FOR SPLIT PHASE 3+4 ADD SIGNAL HEADS — 1\86 — S.H.A. NO. 855-25005 — JJD SR DAZ E+R TH
- A. AS BUILT B-368X-000-485 — 12-4-85 — JJD

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNALIZATION PLAN
U.S. 1 ALT. @ SULPHUR SPRING RD.

DRAWN BY: G. PETERSON	F.A.P. NO.	PLAN SHEET NO.: 478D-GI	SHEET NO. 2 OF 2
CHECK BY: E.M. MILESKY	S.H.A. NO. BCS-94-114		
SCALE: NONE	COUNTY BALTIMORE		