F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	HES-000S(62)	3	8

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATIONOF AN EXCLUSIVE/PERMISSIVE LEFT TURN SIGNAL AND LOOP DETECTOR FOR NORTHBOUND MOVEMENT OF MD 3 BUS. IN ANNE ARUNDEL COUNTY.

MD 3 BUS. RUNS IN A NORTH-SOUTH DIRECTION.

EQUIPMENT LIST 'A'

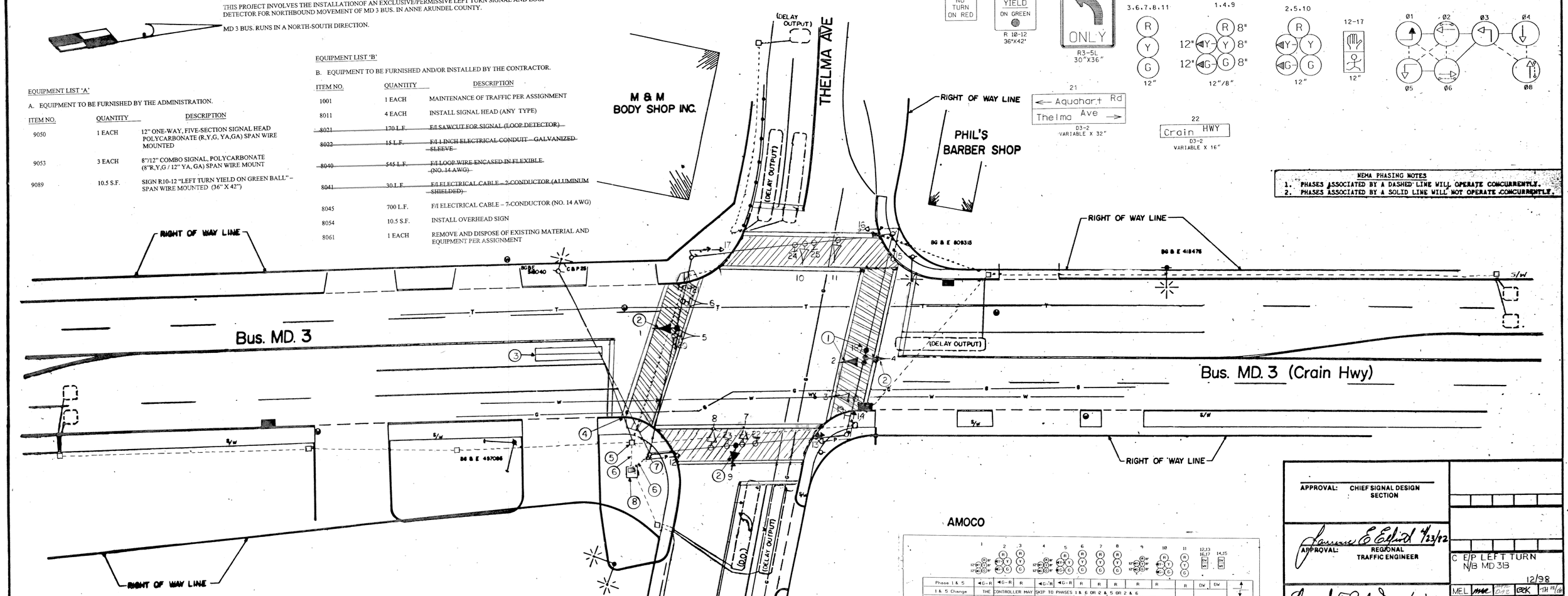
A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION.

ITEM NO.	QUANTITY	DESCRIPTION
9050	1 EACH	12" ONE-WAY, FIVE-SECTION SIGNAL HEAD POLYCARBONATE (R,Y,G, YA,GA) SPAN WIRE MOUNTED
9053	3 EACH	8"/12" COMBO SIGNAL, POLYCARBONATE (8"R,Y,G / 12" YA, GA) SPAN WIRE MOUNT
9089	10.5 S.F.	SIGN R10-12 "LEFT TURN YIELD ON GREEN BALL" – SPAN WIRE MOUNTED (36" X 42")

EQUIPMENT LIST 'B'

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
8011	4 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
~~8021~~	~~170 L.F.~~	~~F/I SAWCUT FOR SIGNAL (LOOP DETECTOR)~~
~~8022~~	~~15 L.F.~~	~~F/I 1 INCH ELECTRICAL CONDUIT – GALVANIZED SLEEVE~~
~~8040~~	~~545 L.F.~~	~~F/I LOOP WIRE ENCASED IN FLEXIBLE (NO. 14 AWG)~~
~~8041~~	~~30 L.F.~~	~~F/I ELECTRICAL CABLE – 2-CONDUCTOR (ALUMINUM SHIELDED)~~
8045	700 L.F.	F/I ELECTRICAL CABLE – 7-CONDUCTOR (NO. 14 AWG)
8054	10.5 S.F.	INSTALL OVERHEAD SIGN
8061	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT



NEMA PHASING NOTES

1. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

CONSTRUCTION DETAILS

1. REMOVE EXISTING SIGNAL HEAD (ONE-WAY, THREE-SECTION) AND REPLACE WITH NEW ONE-WAY, FIVE-SECTION SIGNAL HEAD AND R10-12 SIGN.
2. INSTALL NEW NEARSIDE SIGNAL HEAD (ONE-WAY, FIVE-SECTION, 12"/8").
3. INSTALL NEW 6' X 30' LOOP DETECTOR (3-6-3 TURNS).
4. INSTALL 1" GALVANIZED CONDUIT – SLEEVE.

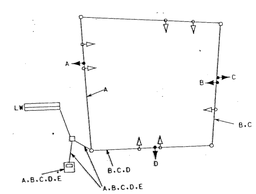
} TO BE INSTALLED AT A LATER DATE BY CONTRACTOR.

5. USE EXISTING HANDHOLE.
6. USE EXISTING CONDUIT.
7. USE EXISTING EQUIPMENT TO RUN ELECTRICAL WIRING BACK TO CABINET.
8. EXISTING CABINET TO BE UTILIZED (MODIFY EXISTING CONTROLLER FOR NEW EXCLUSIVE/PERMISSIVE PHASE).

AMOCO

	1	2	3	4	5	6	7	8	9	10	11	12,13 16,17	14,15 18,19	
Phase 1 & 5	G-R	G-R	R	G-R	G-R	R	R	R	R	R	R	DW	DW	
1 & 5 Change	THE CONTROLLER MAY SKIP TO PHASES 1 & 6 OR 2 & 5 OR 2 & 6													
Phase 1 & 6	G-G	G-G	G	R	R	R	R	R	R	R	G	DW	DW	
1 Change	Y-G	Y-G	G	R	R	R	R	R	R	R	G	DW	DW	
Phase 2 & 5	R	R	R	G-G	G-G	G	R	R	R	R	R	DW	DW	
5 Change	R	R	R	Y-G	Y-G	G	R	R	R	R	R	DW	DW	
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	WK	DW	
Ped. Clear	G	G	G	G	G	G	R	R	R	R	R	FL/DW	DW	
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	Y	DW	DW	
Phase 3 & 8	R	R	R	R	R	R	R	R	G-G	G-G	G	DW	DW	
3 Change	R	R	R	R	R	R	R	R	Y-G	Y-G	G	DW	DW	
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	G	DW	DW	
4 & 8 Change	R	R	R	R	R	R	G	G	G	G	G	DW	DW	
4 & 8 Alt.	R	R	R	R	R	R	G	G	G	G	G	DW	WK	
Ped. Clear	R	R	R	R	R	R	G	G	G	G	G	DW	FL/DW	
4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	Dark	Dark	

WIRING DIAGRAM



A.B.C.D 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
E 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (ALUMINUM SHIELDED)
LW LOOP WIRE ENCASED IN ¼" FLEXIBLE TUBING

LEGEND OF UNDERGROUND UTILITIES

G G	GAS MAIN
W W	WATER MAIN
S S	SEWER MAIN
E E	ELECTRIC CABLES
T T	TELEPHONE CABLES
A A	AERIAL CABLES

APPROVAL: CHIEF SIGNAL DESIGN SECTION

APPROVAL: REGIONAL TRAFFIC ENGINEER — 4/23/82

APPROVAL: CHIEF-BUREAU OF TRAFFIC ENGINEERING — 4/23/82

APPROVAL: ASS'T. CHIEF ENGINEER TRAFFIC — 4/26/82

C E/P LEFT TURN N/B MD 3B 12/98

B 06-89 E/P LEFT TURN W/B AQUAHART RD. S.H.A.

A 06-89 AS BUILT

REVISIONS

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

TRAFFIC DIVISION – BUREAU OF TRAFFIC ENGINEERING

Bus. MD. 3 (Crain Hwy.) & AQUAHART RD.–THELMA AVE

SCALE 1" = 20' DATE 10-28-75 CONTRACT NO. AW 603-505-576

DRAWN BY: D.D. H. KILIAN COUNTY: ANNE ARUNDEL

DESIGNED BY: SIGNAL NO.:

CHECKED BY:

DRAWING NO. TS-744C

02B00301,99