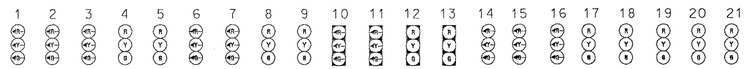
PHASING CHART

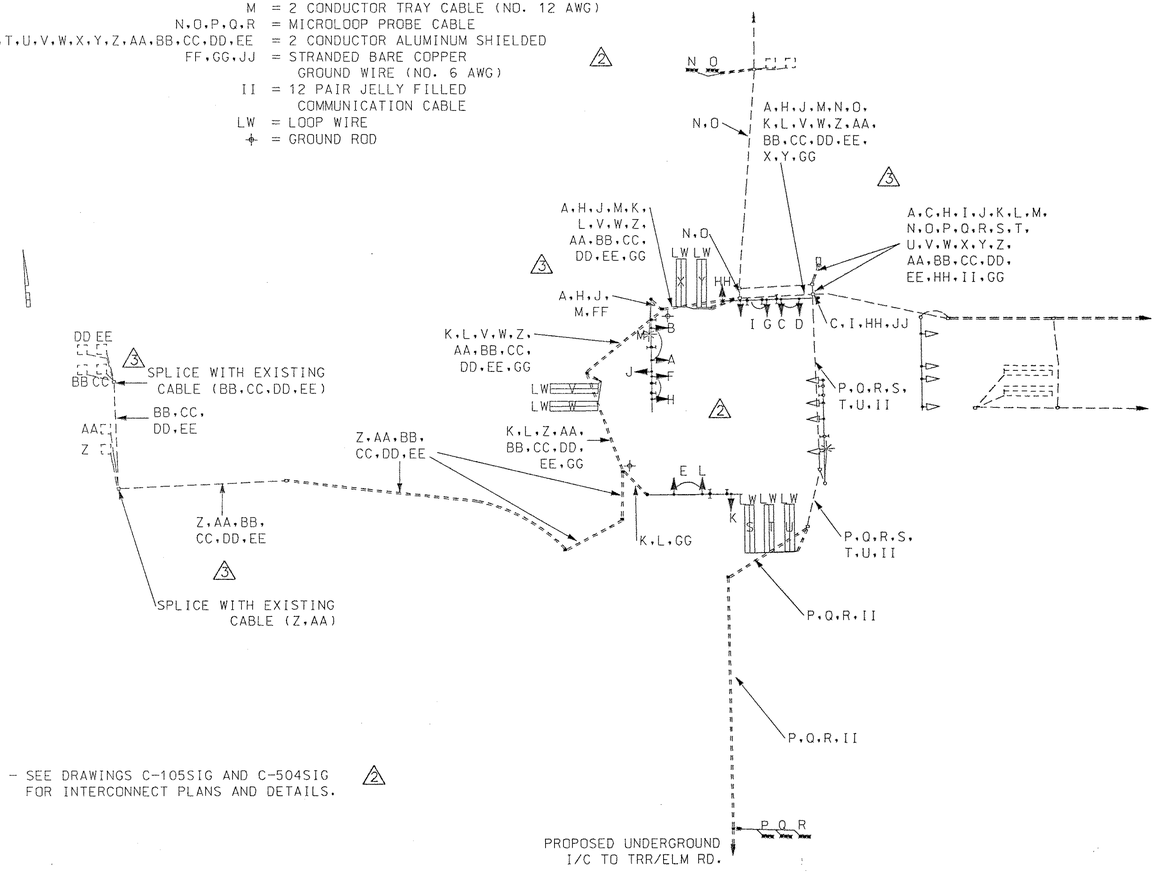


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PHASE 1 & 5	G	G	G	R	R	G	G	R	R	G	G	R	R	R	R	R	R	R	R	R	R
1 & 5 CHANGE	TO PHASE 1 & 6 OR PHASE 2 & 5													R	R	R	R	R	R	R	R
PHASE 1 & 6	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
1 CHANGE	Y	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	R	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R	R	R
5 CHANGE	R	R	R	R	R	Y	Y	G	G	Y	Y	G	G	R	R	R	R	R	R	R	R
PHASE 2 & 6	R	R	R	G	G	R	R	G	G	R	R	G	G	R	R	R	R	R	R	R	R
2 & 6 CHANGE	R	R	R	Y	Y	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R	R	R	R
PHASE 3 & 8	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	R	R	R
3 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	G	G	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

PRE-EMPTION - (LIGHT RAIL)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PREEMPTION PHASE A	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PREEMPTION CHANGE	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PREEMPTION PHASE B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	R	R	R
PREEMPTION CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	G	G	R	R	R
PREEMPTION PHASE C	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G
PREEMPTION CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y

A,B,C,D,E,F,G = 5 CONDUCTOR (NO. 14 AWG)
H,I,J,K,L,HH = 7 CONDUCTOR (NO. 14 AWG)
M = 2 CONDUCTOR TRAY CABLE (NO. 12 AWG)
N,O,P,Q,R = MICROLOOP PROBE CABLE
S,T,U,V,W,X,Y,Z,AA,BB,CC,DD,EE = 2 CONDUCTOR ALUMINUM SHIELDED
FF,GG,JJ = STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
II = 12 PAIR JELLY FILLED COMMUNICATION CABLE
LW = LOOP WIRE
⏚ = GROUND ROD



- SEE DRAWINGS C-105SIG AND C-504SIG FOR INTERCONNECT PLANS AND DETAILS.

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 170 AND ELM ROAD IN ANNE ARUNDEL COUNTY. THE MODIFICATION IS NECESSARY DUE TO THE REALIGNMENT OF ELM ROAD. MD 170 WILL CONTINUE TO FUNCTION AS IS. NORTHBOUND ELM ROAD WILL NOW HAVE A DUAL LEFT TURN.

EQUIPMENT LIST "A"

EQUIPMENT TO BE FURNISHED BY SHA

CATEGORY CODE	DESCRIPTION	UNIT	QUANTITY

EQUIPMENT LIST "B"

EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE	DESCRIPTION	UNIT	QUANTITY
800000	FURNISH AND INSTALL 27' STEEL POLE WITH 60' MAST ARM	EA	2
800000	FURNISH AND INSTALL 27' STEEL POLE WITH 70' MAST ARM	EA	1
800000	CUT, CLEAN, GALVANIZE AND CAP SIGNAL STRUCTURE	EA	3
800000	FURNISH AND INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	410
800000	FURNISH AND INSTALL 3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	40
800000	REMOVE AND DISPOSE OF EXISTING SIGNAL AND EQUIPMENT	LS	1
800000	FURNISH AND INSTALL 12" VEHICULAR TRAFFIC SIGNAL HEAD	EA	27
	SECTION, BLACK FACE		
800000	MICROLOOP PROBE SET WITH 1000' LEAD-IN	EA	5
801004	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION	CY	15
801605	FURNISH AND INSTALL SHEET ALUMINUM SIGN	SF	93
802501	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	300
805011	FURNISH AND INSTALL 1" ELECTRICAL CONDUIT GALVANIZED SLEEVE	LF	170
805115	FURNISH AND INSTALL 3" SCHEDULE 80, RIGID PVC CONDUIT - BORED	LF	120
805118	FURNISH AND INSTALL 4" SCHEDULE 80, RIGID PVC CONDUIT - BORED	LF	205
805160	FURNISH AND INSTALL 1" LIQUID TIGHT, FLEXIBLE NON-METALLIC	LF	25
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	7
813002	FURNISH AND INSTALL MAST ARM MOUNTED SIGN HARDWARE	EA	10
818004	REMOVE AND SALVAGE MAST ARM POLE AND ARM	LS	1
831010	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINARE	EA	1
837001	FURNISH AND INSTALL GROUND ROD - 3/4" DIAMETER BY 10' LENGTH	EA	2
860105	FURNISH AND INSTALL 12" VEHICULAR TRAFFIC SIGNAL HEAD	EA	12
	OPTICALLY PROGRAMMED		
861104	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR	LF	6135
	(ALUMINUM SHIELDED)		
861116	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR TRAY CABLE	LF	200
	(NO. 12 AWG) (FOR STREET LIGHTING LUMINAIRE)		
861107	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	350
861108	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1595
862101	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING	LF	6806
	(NO. 14 AWG)		
862102	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)	LF	2001
866104	FURNISH AND INSTALL 20' LIGHTING ARM ON SIGNAL STRUCTURE	EA	1

ADD 2 11/21/00 MISCELLANEOUS CHANGES
ADD 3 12/6/00 MISCELLANEOUS CHANGES

C-501SIG

REVISIONS
2 RECONSTRUCTED SIGNAL DUE TO GEOMETRIC IMPROVEMENTS. 11/2/00
BCR DMC
R 9-24-97 ASBUILT
RRZ
M BW 801-802-512 RECONSTRUCTED SIGNAL DUE TO GEOMETRIC IMPROVEMENTS. 8/95
DMP GCI

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
SIGNAL GENERAL INFORMATION
MD 170 AND ELM ROAD

DRAWN BY:		F.A.P. NO.		TS NO. 45 O	SHEET NO.
CHECKED BY:		S.H.A. NO.			
SCALE:	NONE	COUNTY:	ANNE ARUNDEL	T.I.M.S. NO. E 167	97 OF 287
DATE:	JUNE 13, 1995	LOG MILE:	02017008.14		