PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE ADDITION OF ADVANCE HAZARD IDENTIFICATION BEACONS TO THE EXISTING INTERSECTION TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 108 AND CENTENNIAL LANE/BEAVERBROOK ROAD IN HOWARD COUNTY. MD 108 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 108 APPROACHES OPERATING CONCURRENTLY AND THE CENTENNIAL LANE/BEAVERBROOK ROAD APPROACHES OPERATING SPLIT.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING EXISTS FOR EASTBOUND MD 108 APPROACH AND EXCLUSIVE LEFT-TURN PHASING EXISTS FOR WESTBOUND MD 108 APPROACH.
AN ALTERNATE PEDESTRIAN PHASE EXISTS ACROSS THE EAST LEG OF MD 108.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE DETECTOR RACK SHALL BE RETRO-FILLED WITH THREE(3) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER IN THE EXISTING BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.35-01 (LANE SHIFT)

STANDARD NO. MD-104.32-01 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. ROBERT FISHER
DISTRICT ENGINEER
PHONE: (301) 624-8140

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 624-8141

MR. LEON KERNS
ACTING ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 624-8140

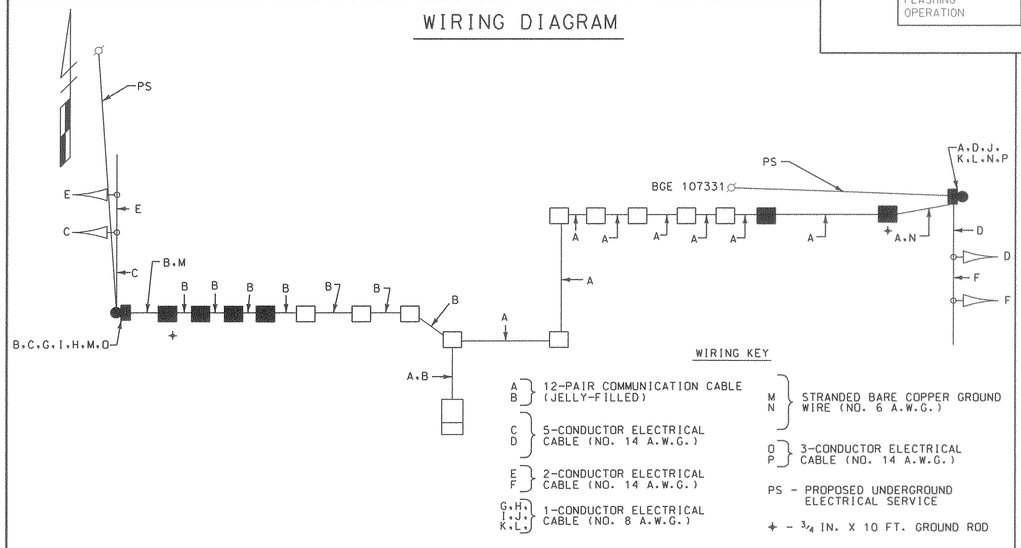
MR. JIM BUCKALEW
DISTRICT UTILITIES ENGINEER
PHONE: (310) 729-8436

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "C"

ALL REMOVED SIGNAL MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR

WIRING DIAGRAM

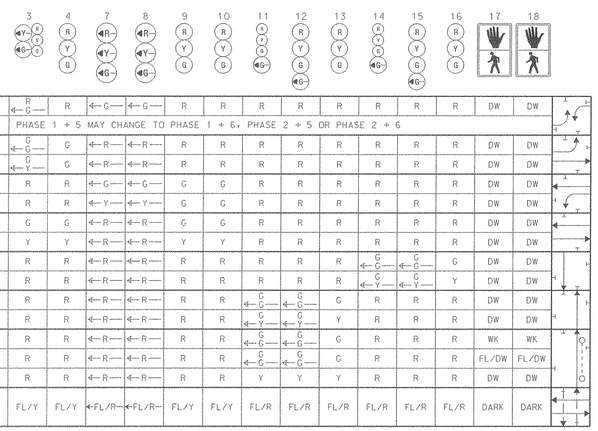


EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EACH	DETECTOR RACK RETROFIT
9002	3 EACH	FOUR CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIER
9010	2 EACH	SPECIAL RELAY PACKAGE
9076	2 EACH	NEMA SIZE "3" POLE MOUNTED CABINET
9089	136 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 2 EACH W3-3(2) SIGN (120 IN. X 60 IN.) - MAST ARM MOUNT
		- 2 EACH W3-3 SIGN (48 IN. X 48 IN.) - POLE MOUNT
		- 1 EACH W13-1 SIGN (18 IN. X 18 IN.)- POLE MOUNT

PHASE CHART

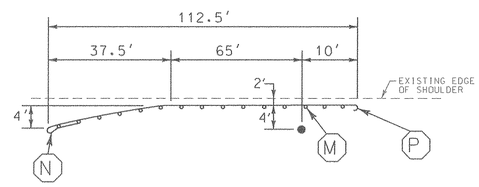


	3	4	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 + 5	R ←G—	R	←G—	←G—	R	R	R	R	R	R	R	R	DW	DW
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6													
PHASE 1 + 6	G ←G—	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW
1 + 6 CHANGE	G ←Y—	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 + 5	R	R	←G—	←G—	G	G	R	R	R	R	R	R	DW	DW
2 + 5 CHANGE	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 + 6	G	G	←R—	←R—	G	G	R	R	R	R	R	R	DW	DW
2 + 6 CHANGE	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 3	R	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	R	G ←Y—	G ←Y—	Y	DW	DW
PHASE 4	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	DW	DW
4 CHANGE	R	R	←R—	←R—	R	R	G ←Y—	G ←Y—	Y	R	R	R	DW	DW
PHASE 4 ALT.	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	WK	WK
PED. CLEARANCE	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	FL/DW	FL/DW
4 ALT. CHANGE	R	R	←R—	←R—	R	R	Y	Y	Y	R	R	R	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	←FL/R—	←FL/R—	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

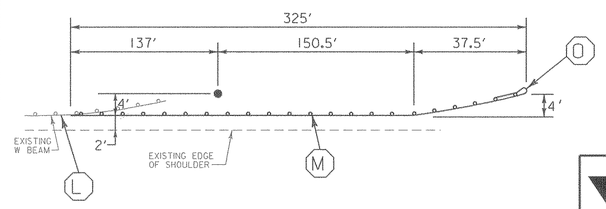
W BEAM INSTALLATION DETAILS

NOT TO SCALE

DETAIL 'A'



DETAIL 'B'



EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	5 C.Y.	TEST PIT EXCAVATION
6003	370 L.F.	TRAFFIC BARRIER W BEAM
6004	1 EACH	TRAFFIC BARRIER W BEAM TRAIL END ANCHORAGE
6005	2 EACH	SPECIAL TRAFFIC BARRIER W BEAM END TREATMENT
6006	60 EACH	TRAFFIC BARRIER W BEAM POST NORMAL 6 FOOT LENGTH
8001	10 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	2 EACH	CUT, CLEAN GALVANIZE AND CAP TRAFFIC SIGNAL SRUCTURE
8007	2 EACH	3/4 INCH TO 3 INCH BLIND COUPLING FOR TRAFFIC SIGNAL STRUCTURES, WELDED AND GALVANIZED
8019	2 EACH	INSTALL CONTROLLER AND CABINET - POLE MOUNT
8024	1200 L.F.	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	100 L.F.	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8029	170 L.F.	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8030	40 L.F.	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8033	6 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	2 EACH	FURNISH AND INSTALL GROUND ROD -3/4INCH DIAMETER X 10 FOOT LENGTH
8039	2300 L.F.	FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
8042	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO 14 AWG)
8043	70 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO 14 AWG)
8044	100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8047	90 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR NO 8 AWG- THHN/THWN
8048	100 L.F.	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8053	136 S.F.	INSTALL OVERHEAD SIGN
8060	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8066	2 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240 V, 1 PHASE 3 WIRE SYSTEM)
8069	2 EACH	FURNISH AND INSTALL PHOTOCELL
8070	2 EACH	PAINT STRUCTURE (ON GROUND)
8084	4 EACH	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
NEG.	2 EACH	FURNISH AND INSTALL SPECIAL MAST ARM POLE AND 60 FT. MAST ARM

(L) — REMOVE EXISTING TRAFFIC BARRIER W BEAM END TREATMENT.

(M) — INSTALL TRAFFIC BARRIER W BEAM AS PER STANDARDS MD 605.21, MD 605.22 AND MD 605.23 WITH POST SPACING DECREASED TO 3 FT. SPACING.

(N) — INSTALL TYPE B TRAFFIC BARRIER W BEAM END TREATMENT AS PER STANDARD MD 605.02.

(O) — INSTALL TYPE A TRAFFIC BARRIER W BEAM END TREATMENT AS PER STANDARD MD 605.01.

(P) — INSTALL TYPE I TRAFFIC BARRIER W BEAM END TREATMENT AS PER STANDARD MD 605.10.

WR&A
Whitman, Requardt and Associates, LLP
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Baltimore, Maryland 21218
(410) 235-3450

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 108 & Centennial La./Beaverbrook Rd.

DRAWN BY: S.BLOSS	F.A.P. NO.		TS NO. TS-3645A	SHEET NO.
CHECKED BY: N.LEARY	S.H.A. NO.	H0830A59/B59		
SCALE: NONE	COUNTY:	CARROLL	T.I.M.S. NO. D 513	2 OF 2
DATE: 6/13/01	LOG MILE:			

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