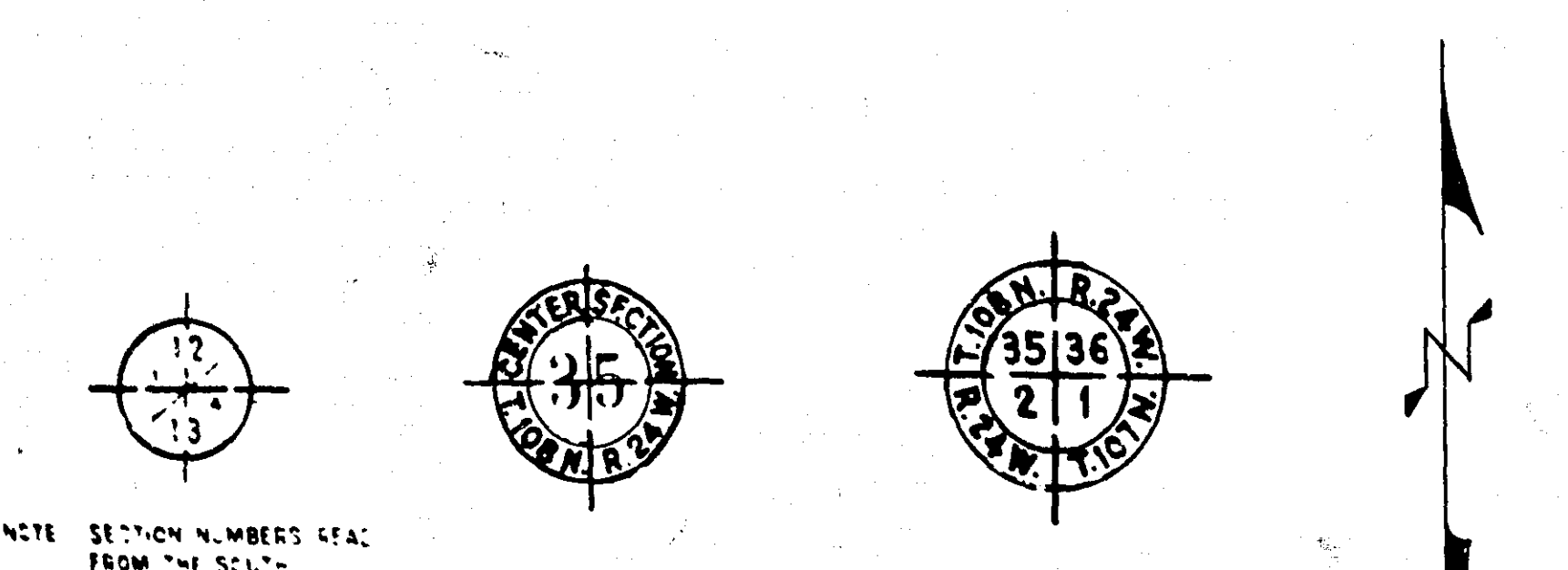


PLANS SYMBOLS

STATE LINE	-----	SPRINGS	-----
COUNTY LINE	-----	MARSH	-----
TOWNSHIP OR RANGE LINE	-----	TIMBER	-----
SECTION LINE	-----	ORCHARD	-----
QUARTER LINE	-----	BRUSH	-----
SIXTEENTH LINE	-----	NURSERY	-----
RIGHT OF WAY LINE	-----	CATCH BASIN	-----
PRESENT RIGHT OF WAY LINE	-----	FIRE HYDRANT	-----
CONTROL OF ACCESS LINE	-----	CATTLE GUARD	-----
PROPERTY LINE (Except Land Lines)	-----	OVERPASS (Highway Over)	-----
VACATED PLATTED PROPERTY	-----	UNDERPASS (Highway Under)	-----
CORPORATE OR CITY LIMITS	-----	BRIDGE	-----
TRUNK HIGHWAY CENTER LINE	-----	BUILDING (One Story Frame)	-----
RETAINING WALL	-----	F FRAME	-----
RAILROAD	-----	C-CONCRETE	-----
RAILROAD RIGHT OF WAY LINE	-----	S STONE	-----
RIVER OR CREEK	-----	T TILE	-----
DRY RUN	-----	B BRICK	-----
DRAINAGE DITCH	-----	ST STUCCO	-----
DRAIN TILE	-----	IRON PIPE OR ROD	-----
CULVERT	-----	MONUMENT (STONE, CONCRETE, OR METAL)	-----
DROP INLET	-----	WOODEN HUB	-----
GUARD RAIL	-----	GRAVEL PIT	-----
BARBED WIRE FENCE	-----	SAND PIT	-----
WOVEN WIRE FENCE	-----	BORROW PIT	-----
CHAIN LINK FENCE	-----	ROCK QUARRY	-----
RAILROAD SNOW FENCE	-----		
STONE WALL OR FENCE	-----		
WEDGE	-----		
RAILROAD CROSSING SIGN	-----		
RAILROAD CROSSING BELL	-----		
ELECTRIC WARNING SIGN	-----		
CROSSING GATE	-----		
MEANDER CORNER	-----		

UTILITIES SYMBOLS

POWER POLE LINE	-----	CONDUIT	-----
TELEPHONE OR TELEGRAPH	-----	TELEPHONE CABLE IN CONDUIT	-----
POLE LINE	-----	ELECTRIC CABLE IN CONDUIT	-----
JOINT TELEPHONE AND POWER	-----	TELEPHONE MANHOLE	-----
ON POWER POLES	-----	ELECTRIC MANHOLE	-----
ANCHOR	-----	BURIED TELEPHONE CABLE	-----
STEEL TOWER	-----	BURIED ELECTRIC CABLE	-----
STREET LIGHT	-----	AERIAL TELEPHONE CABLE	-----
PEDESTAL (TELEPHONE CABLE	-----	SEWER, (SANITARY OR STORM)	-----
TERMINAL)	-----	SEWER MANHOLE	-----
GAS MAIN	-----		
WATER MAIN	-----		



PIT DATA

PIT NO. _____	Located in _____
PIT NO. _____	Located in _____

ABBREVIATIONS

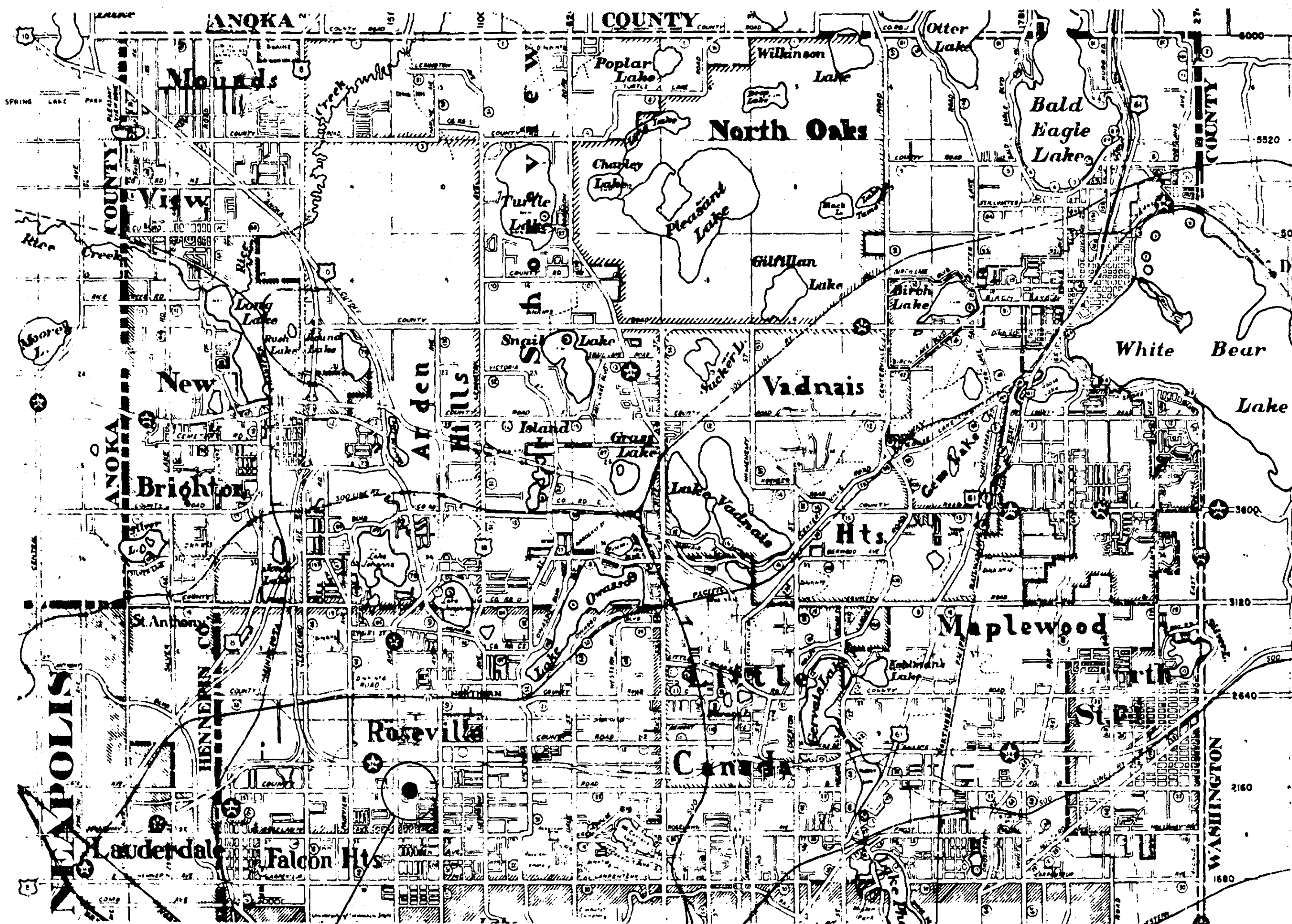
EQUIPMENT & INDICATIONS

RED - RED
YEL - YELLOW
GRN - GREEN
LTA - LEFT TURN ARROW
THA - THRU ARROW
RTA - RIGHT TURN ARROW
TRA - THRU AND RIGHT ARROW
W/LK - WALK
NEU - NEUTRAL
DWK - DON'T WALK
SW - SWITCH
SWD - SWITCHED
LUM - LUMINAIRE
PA1(eg) - PEDESTRIAN INDICATION - "A" PHASE
PBB2(eg) - PUSH BUTTON - "B" PHASE
C3(eg) - SIGNAL HEAD - "C" PHASE
DA4(eg) - DETECTOR - "A" PHASE
H.H. - HANDHOLE
GR.R. - GROUND ROD
SERV. - SERVICE

DNL - DOWNLIGHT
P.E.C. - PHOTOELECTRIC CELL
ST LHT. - STREET LIGHT
CH - CHECK
S.O.P. - SOURCE OF POWER
E.G.G. - EQUIPMENT GROUND
SPR - SPARE CONDUCTOR

COLOR CODING OF CONDUCTORS

R-RED
O-ORANGE
BL-BLUE
WH-WHITE
R/BLK - RED WITH BLACK TRACER
O/BLK - ORANGE WITH BLACK TRACER
BL/BLK - BLUE WITH BLACK TRACER
WH/BLK - WHITE WITH BLACK TRACER
BLK - BLACK
BLK/WH - BLACK WITH WHITE TRACER
G/BLK - GREEN WITH BLACK TRACER
G - GREEN



CITY OF ST. PAUL

S.A.P. NO. 62-625-05

1970 ADT 11075
1990 ADT 30000
PROJ. H.C.A.D.T. LESS THAN 10 PER CENT
DESIGN SPEED 50 MPH

THE "MINNESOTA HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1972 SHALL GOVERN.

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

PLAN OF TRAFFIC CONTROL SYSTEM FOR THE INTERSECTION OF

COUNTY ROAD "B" & STATE FARM INS. BLVD.

CSAH 25

INDEX

SHEET NO.	DESCRIPTION
1	TITLE
2	DETAILS
3	INTERSECTION LAYOUT
4	FIELD WIRING DIAGRAM

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 4/4/73 Reg. No. 6334

DESIGNED BY Wm V. Chmura DATE 4/4/73
DIRECTOR OF SAFETY
RECOMMENDED FOR APPROVAL Wm V. Chmura DATE 4/4/73
COUNTY ENGINEER
APPROVED Wm V. Chmura DATE _____
CHAIRMAN OF THE RAMSEY COUNTY BOARD
APPROVED _____ DATE _____
APPROVED _____ DATE _____
MINNESOTA STATE HIGHWAY DEPARTMENT
RECOMMENDED FOR APPROVAL Wm V. Chmura DATE 5-3-73
DISTRICT STATE AID ENGINEER
RECOMMENDED FOR APPROVAL Wm V. Chmura DATE 4-4-73
DISTRICT STATE AID ENGINEER
APPROVAL Wm V. Chmura DATE 5/3/73
STATE AID ENGINEER

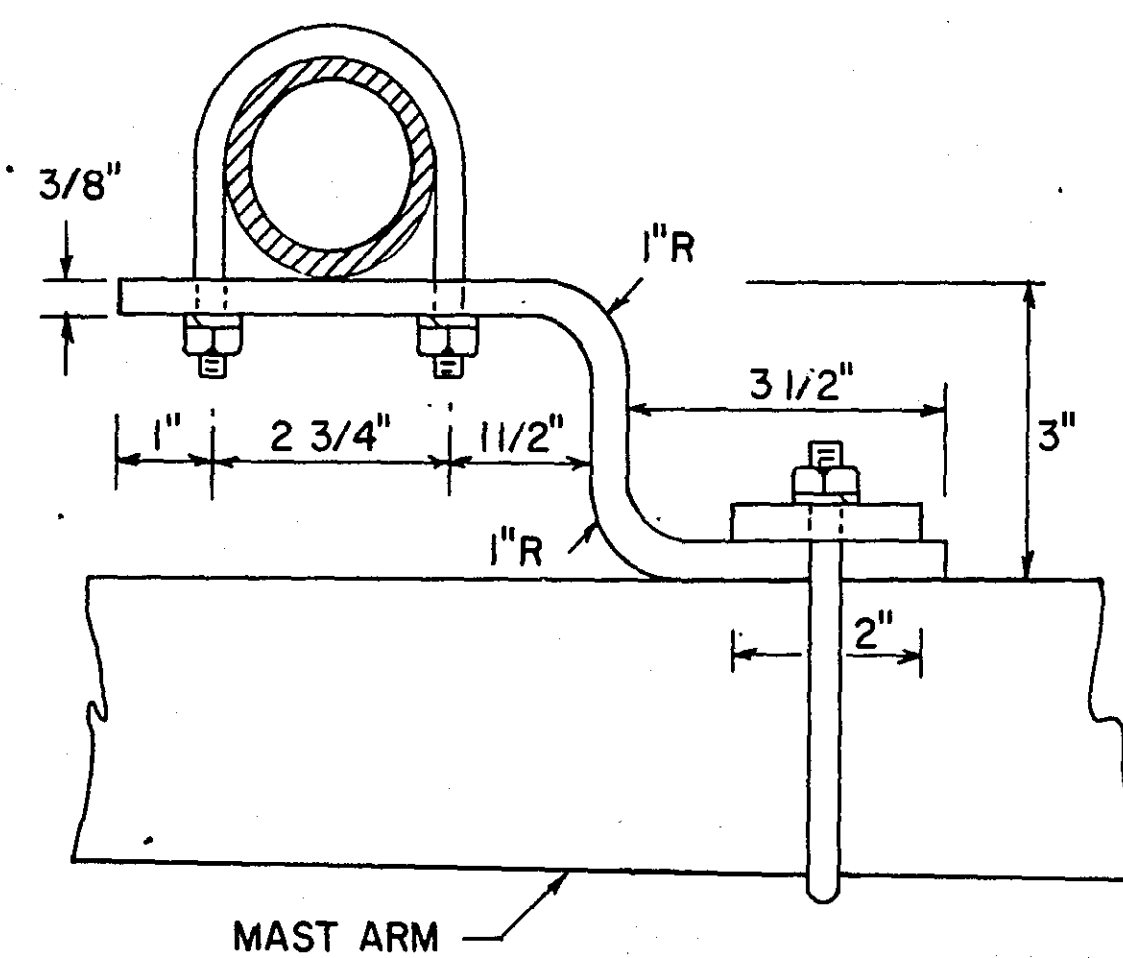
RECOMMENDED FOR APPROVAL Wm V. Chmura DATE 7/72
DIRECTOR OF SAFETY
RECOMMENDED FOR APPROVAL Wm V. Chmura DATE 4/4/73
MAINTENANCE ENGINEER
RECOMMENDED FOR APPROVAL _____ DATE _____
CONSTRUCTION ENGINEER
RECOMMENDED FOR APPROVAL _____ DATE _____
RECOMMENDED FOR APPROVAL Wm V. Chmura DATE 72
COUNTY ENGINEER
APPROVED _____ DATE _____

S.A.P. NO. 62-625-05

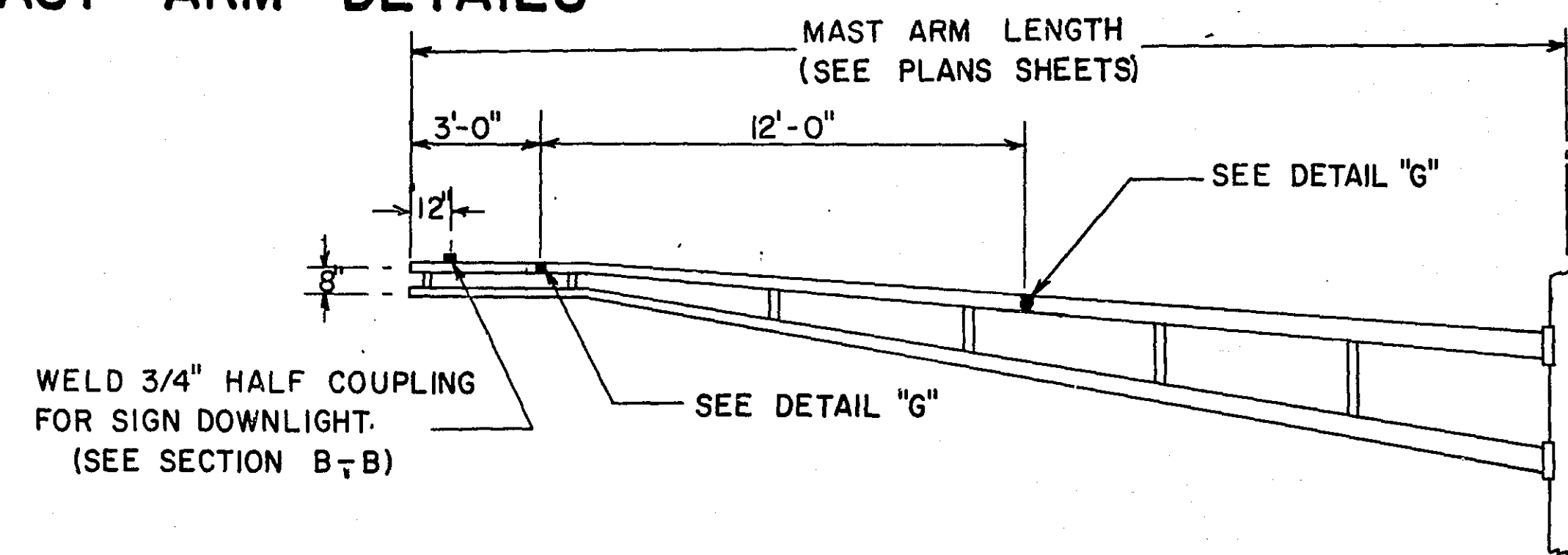
Sheet No. 1 of 4 Sheets

17-124

MAST ARM DETAILS



SECTION A-A



2" DIA. X 6" SLIPFITTER (FILLET WELDED TO THE UPPER MAST ARM BRACE)

UPPER MAST ARM BRACE

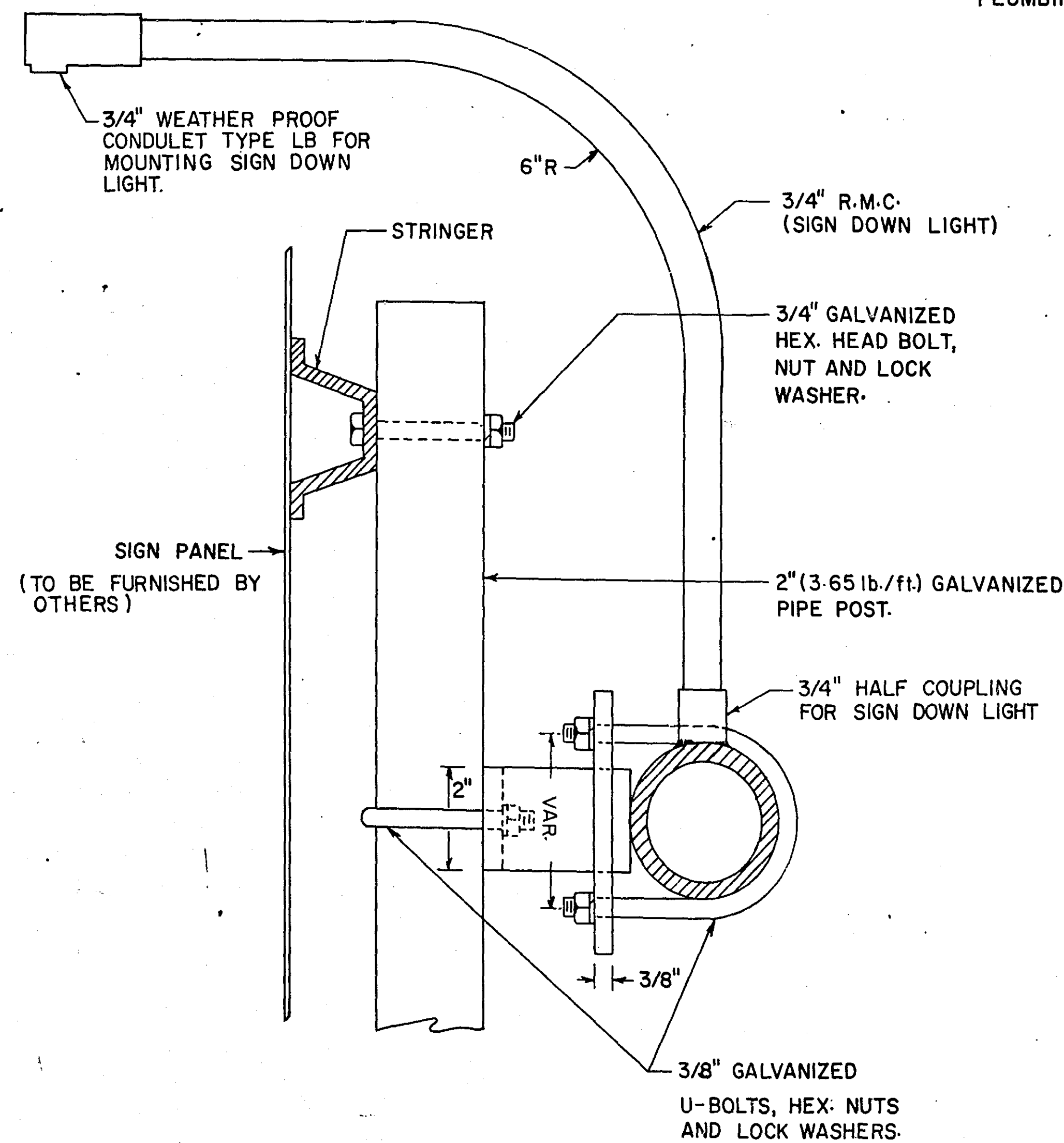
FLANGE WELDED TO SLIPFITTER

ONE-WAY TRAFFIC SIGNAL PLUMBING AND MOUNTING DEVICE

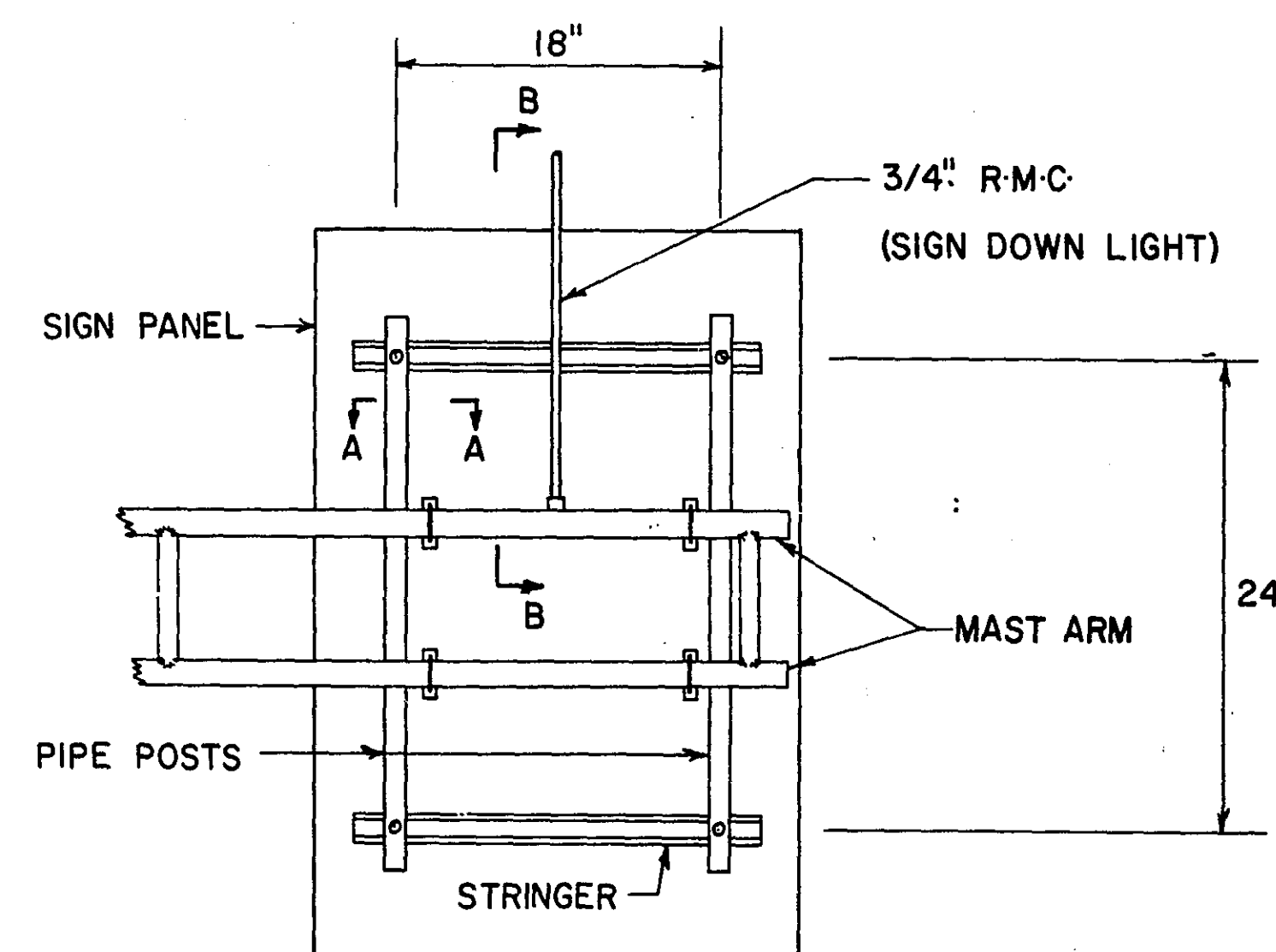
DETAIL "G"

TYPICAL MAST ARM DETAIL FOR THE FOLLOWING MAST ARMS LISTED BELOW

INTERSECTION	MAST ARM N°
CO. RD. "B" & STATE FARM	(2 & 4)



SECTION B-B



TYPICAL MOUNTING

NOTES:

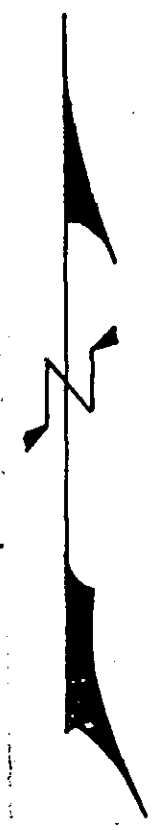
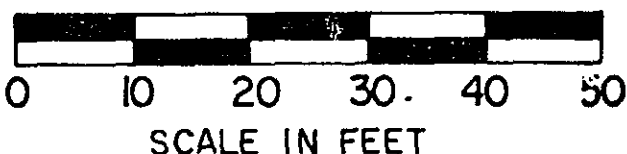
1. PIPE MATERIAL SHALL CONFORM TO A.S.T.M. DESIGNATION A53, SCHEDULE 40.
2. STRUCTURAL STEEL SHALL CONFORM TO M.H.D. 3306.
3. GALVANIZING SHALL CONFORM TO M.H.D. 3392 AND M.H.D. 3394

STATEMENT OF ESTIMATED QUANTITIES

PROJECT NO.	ITEM NO.	ITEM	UNIT	QUANT.
62-625-05	2565.501	FULL TRAFFIC ACTUATED TRAFFIC CONTROL SYSTEM	SIGNAL SYSTEM	1

STANDARD PLATES

PLATE NO.	TITLE
8110B	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
8111A	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8115B	PEDESTRIAN PUSH BUTTON INSTALLATION
8117D	PRECAST CONCRETE HANDHOLE (OR PULLBOX)
8118B	SERVICE EQUIPMENT AND POLE
8119B	GROUND MOUNTED CABINET FOUNDATION
8123A	POLE AND MAST ARM
8124B	SIGNAL HEAD MOUNTS
8130B	SAW CUT LOOP DETECTORS

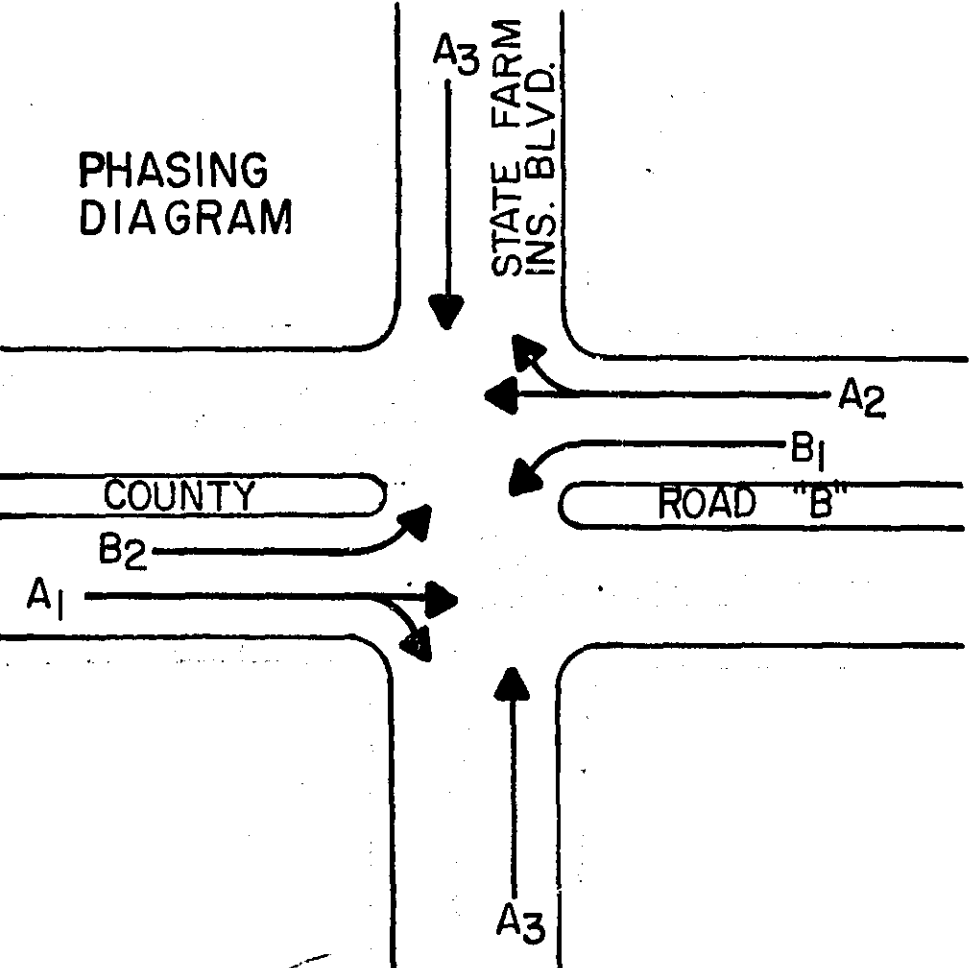


NOTES:

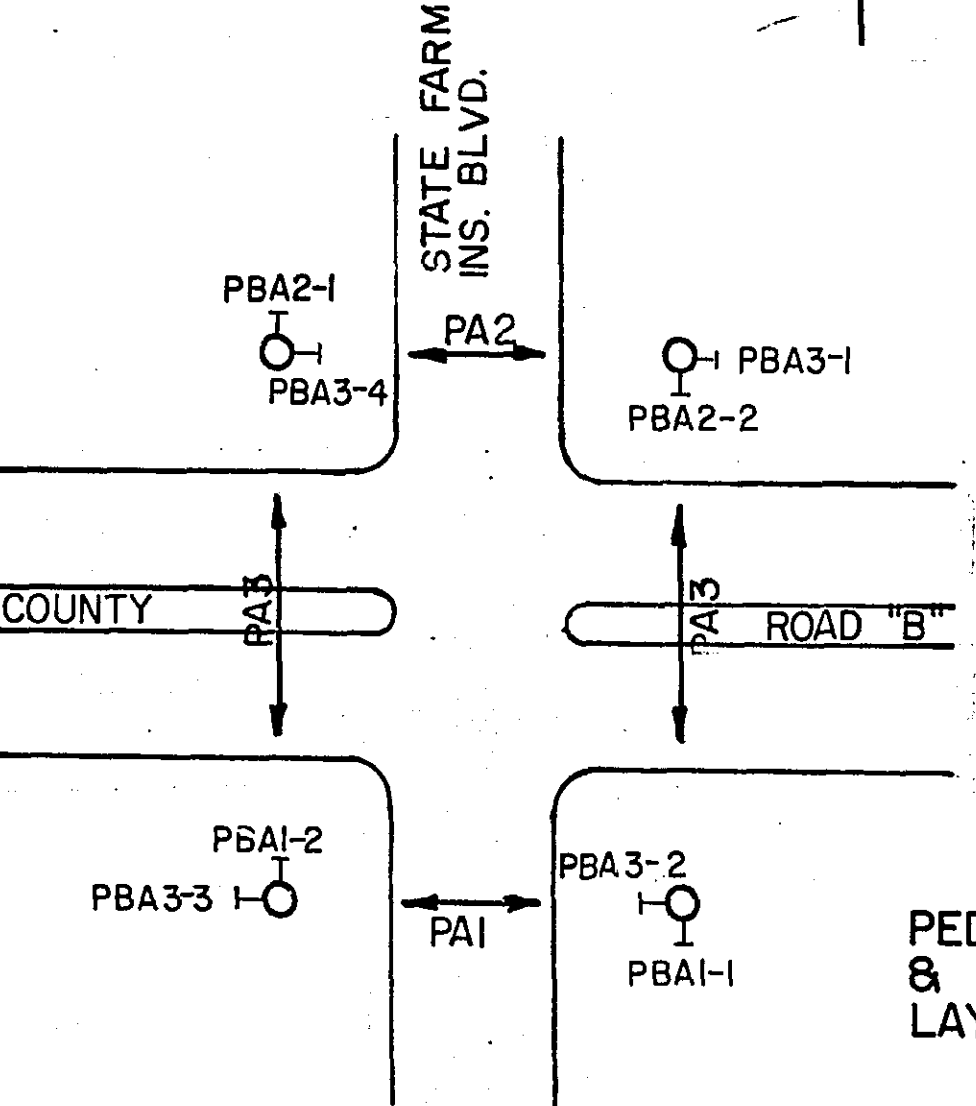
- 1) HANDHOLE 1 SHALL BE TWO HANDHOLES PLACED SIDE BY SIDE WITH 3" R.S.C. BETWEEN
- 2) HANDHOLES 4 AND 8 SHALL BE FURNISHED WITH TYPE LD-METAL FRAME AND COVER

LEGEND OF SYMBOLS	
	CONTROLLER
	PEDESTAL
	HANDHOLE (PULLBOX)
	RIGID STEEL CONDUIT (R.S.C.)
	MAST ARM & POLE
	SIGNAL FACE
	SIGNAL FACE WITH BACKGROUND SHIELD
	MAST ARM & LUMINAIRE
	PEDESTRIAN INDICATION
	SOURCE OF POWER (S.O.P.)

PHASING DIAGRAM

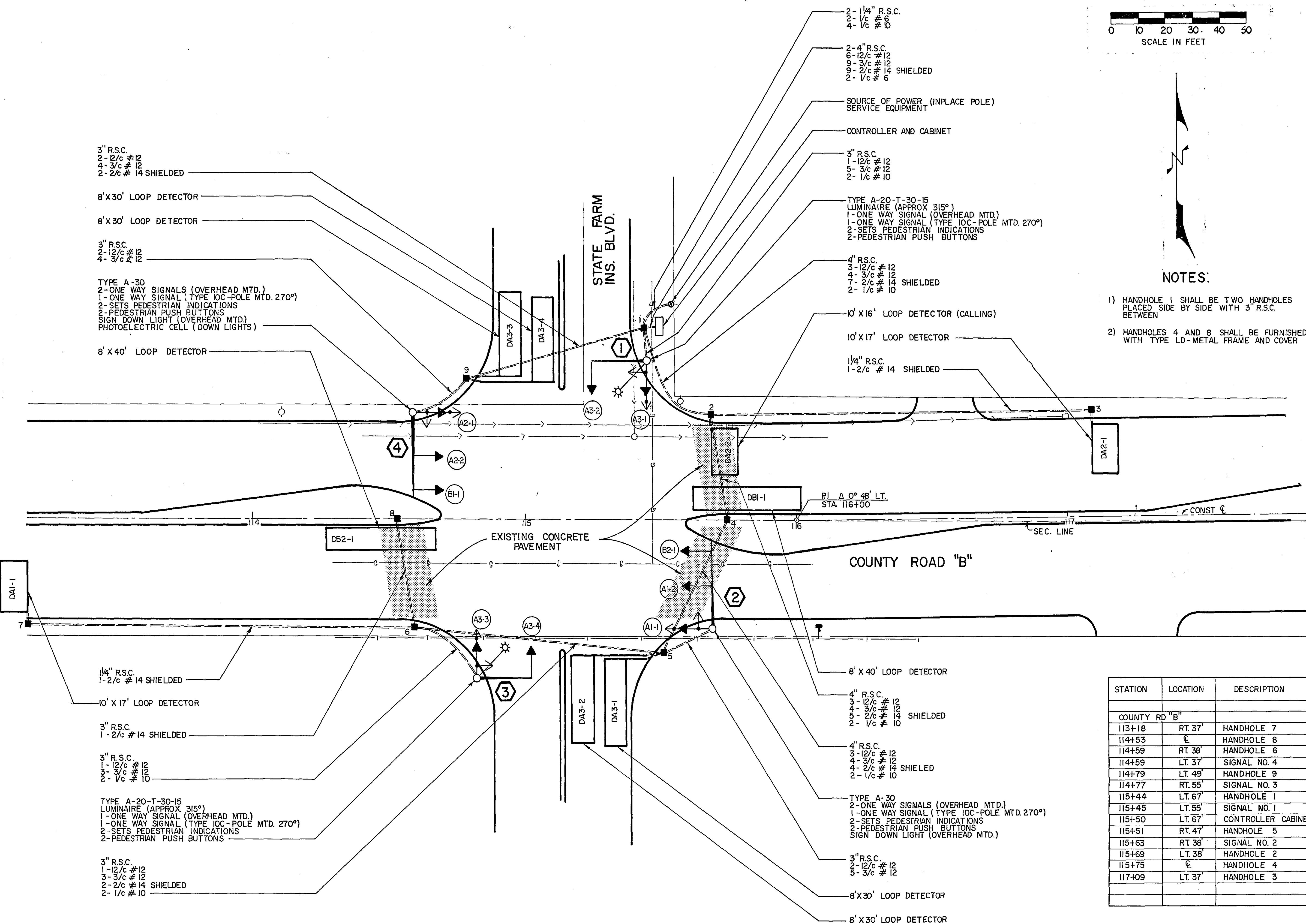


PEDESTRIAN PHASING & PUSH BUTTON LAYOUT



FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1-1	A1	R	12"	12"	12"	—	—	—
A1-2	A1	R	12"	12"	12"	—	—	—
A2-1	A2	R	12"	12"	12"	—	—	—
A2-2	A2	R	12"	12"	12"	—	—	—
A3-1	A3	R	12"	12"	12"	—	—	—
A3-2	A3	R	12"	12"	12"	—	—	—
A3-3	A3	R	12"	12"	12"	—	—	—
A3-4	A3	R	12"	12"	12"	—	—	—
*B1-1	B1	R	12"	12"	—	12"	—	—
*B2-1	B2	R	12"	12"	—	12"	—	—

* SEE SPECIAL PROVISIONS (SPECIAL SIGNAL FACES)



STATION	LOCATION	DESCRIPTION
COUNTY RD "B"		
113+18	RT 37'	HANDHOLE 7
114+53	℄	HANDHOLE 8
114+59	RT 38'	HANDHOLE 6
114+59	LT 37'	SIGNAL NO. 4
114+79	LT 49'	HANDHOLE 9
114+77	RT 55'	SIGNAL NO. 3
115+44	LT 67'	HANDHOLE 1
115+45	LT 55'	SIGNAL NO. 1
115+50	LT 67'	CONTROLLER CABINET
115+51	RT 47'	HANDHOLE 5
115+63	RT 38'	SIGNAL NO. 2
115+69	LT 38'	HANDHOLE 2
115+75	℄	HANDHOLE 4
117+09	LT 37'	HANDHOLE 3

