

PLANS SYMBOLS

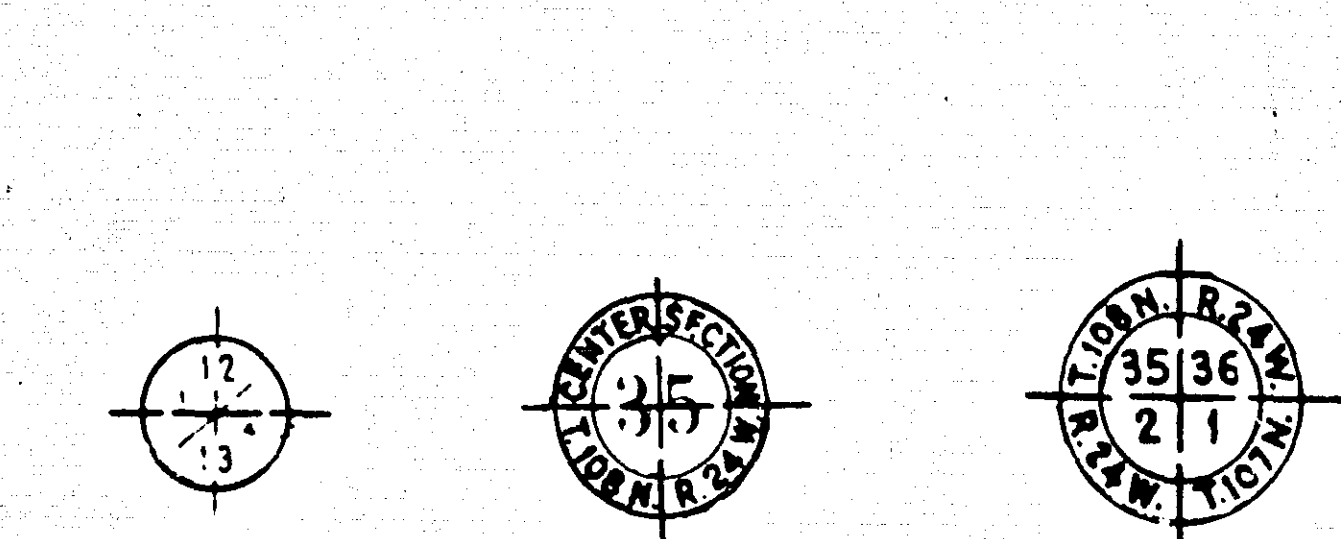
STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
PRESENT RIGHT OF WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK
DRY RUN
DRAINAGE DITCH
DRAIN TILE
CULVERT
DRAIN INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BEEL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER

SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame)
F FRAME C CONCRETE
S STONE T TILE
B BRICK ST STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH
POLE LINE
JOINT TELEPHONE AND POWER
ON POWER POLES
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL TELEPHONE CABLE
TERMINAL
GAS MAIN
WATER MAIN

CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER (SANITARY OR STORM)
SEWER MANHOLE



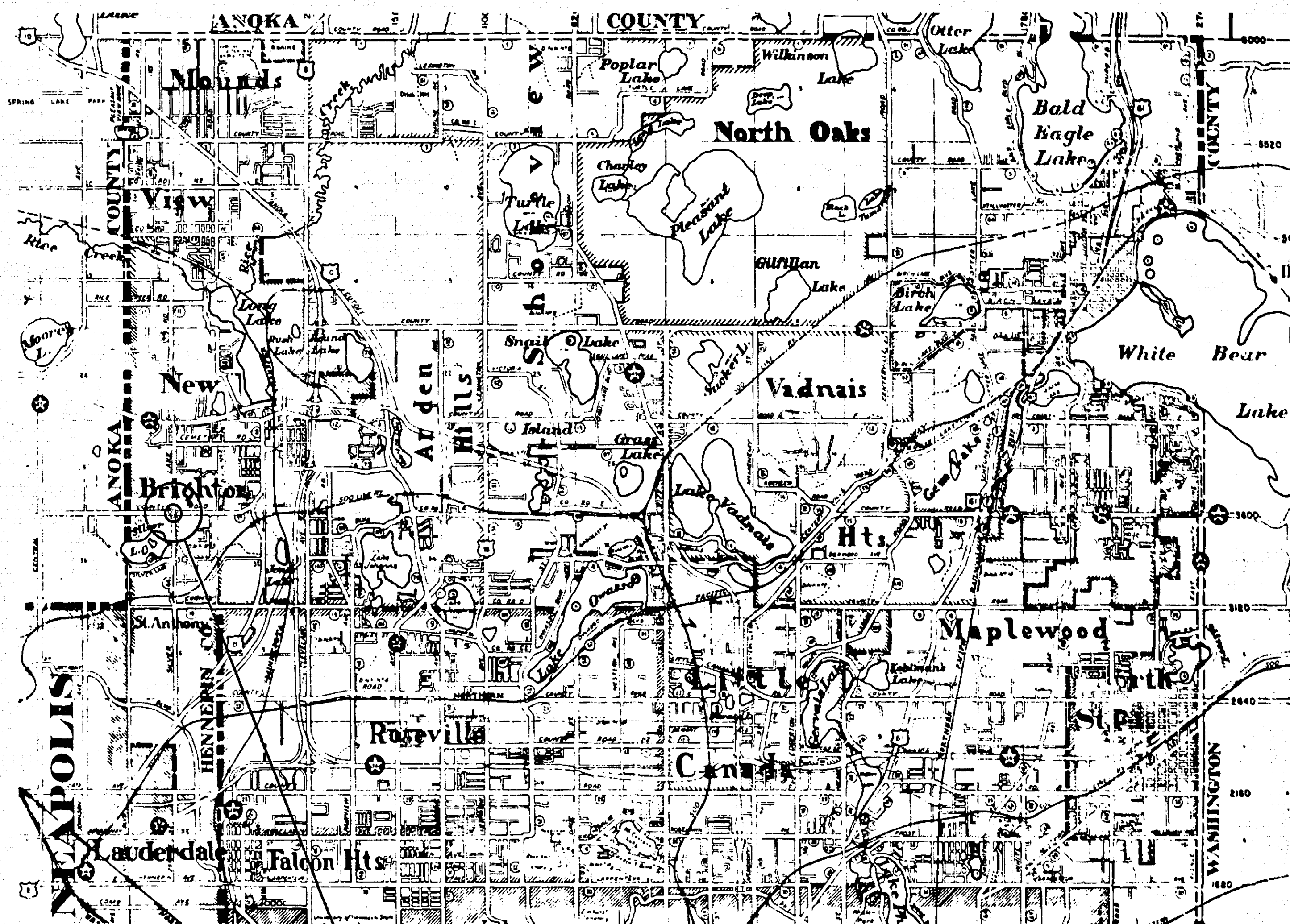
NOTE: SECTION NUMBERS READ FROM "THE SCL"

PIT DATA

PIT NO. Located in
Dead Haul
PIT NO. Located in
Dead Haul

SPECIFICATIONS

THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1964 AS AMENDED BY "SUPPLEMENTAL SPECIFICATIONS" DATED JANUARY 1, 1968 SHALL GOVERN.



CITY OF ST. PAUL

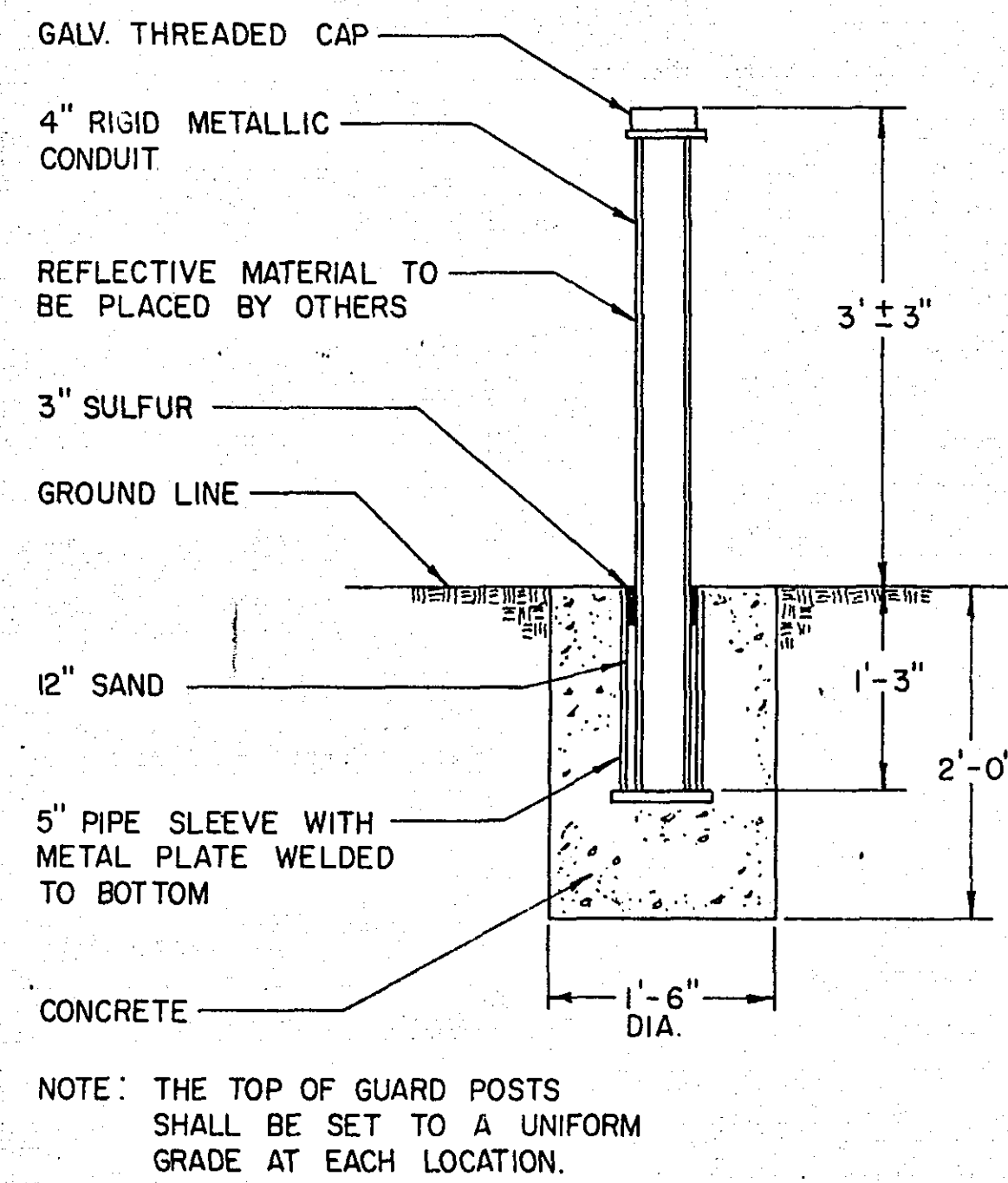
CO. PROJ. NO. 68-44-15

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY PLAN OF TRAFFIC CONTROL SYSTEM FOR THE INTERSECTION OF SILVER LAKE RD. & COUNTY ROAD "E"

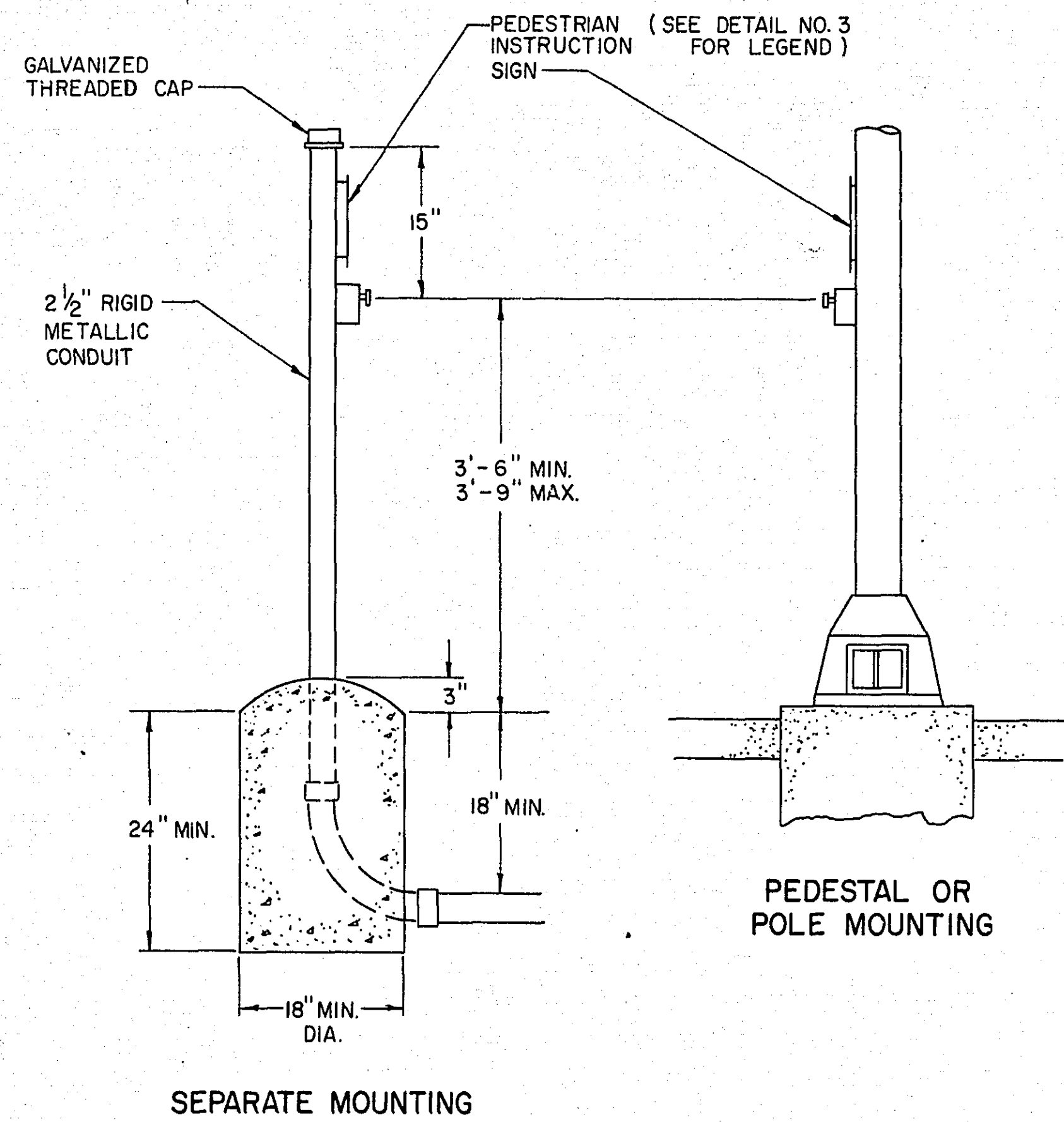
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-4	DETAILS
5	INTERSECTION LAYOUT
6	FIELD WIRING DIAGRAM

DESIGNED BY Wm. V. Chas. Smith DATE 11-4-68
DIRECTOR OF SAFETY
RECOMMENDED FOR APPROVAL Dean R. Gable DATE 11-4-68
COUNTY ENGINEER
APPROVED Thomas R. Byrnie DATE 11-18-68
CHAIRMAN OF THE RAMSEY COUNTY BOARD
APPROVED Donald A. Anderson DATE 11/13/68
MAYOR, THE VILLAGE OF NEW BRIGHTON
APPROVED Robert Schaefer DATE 11/13/68

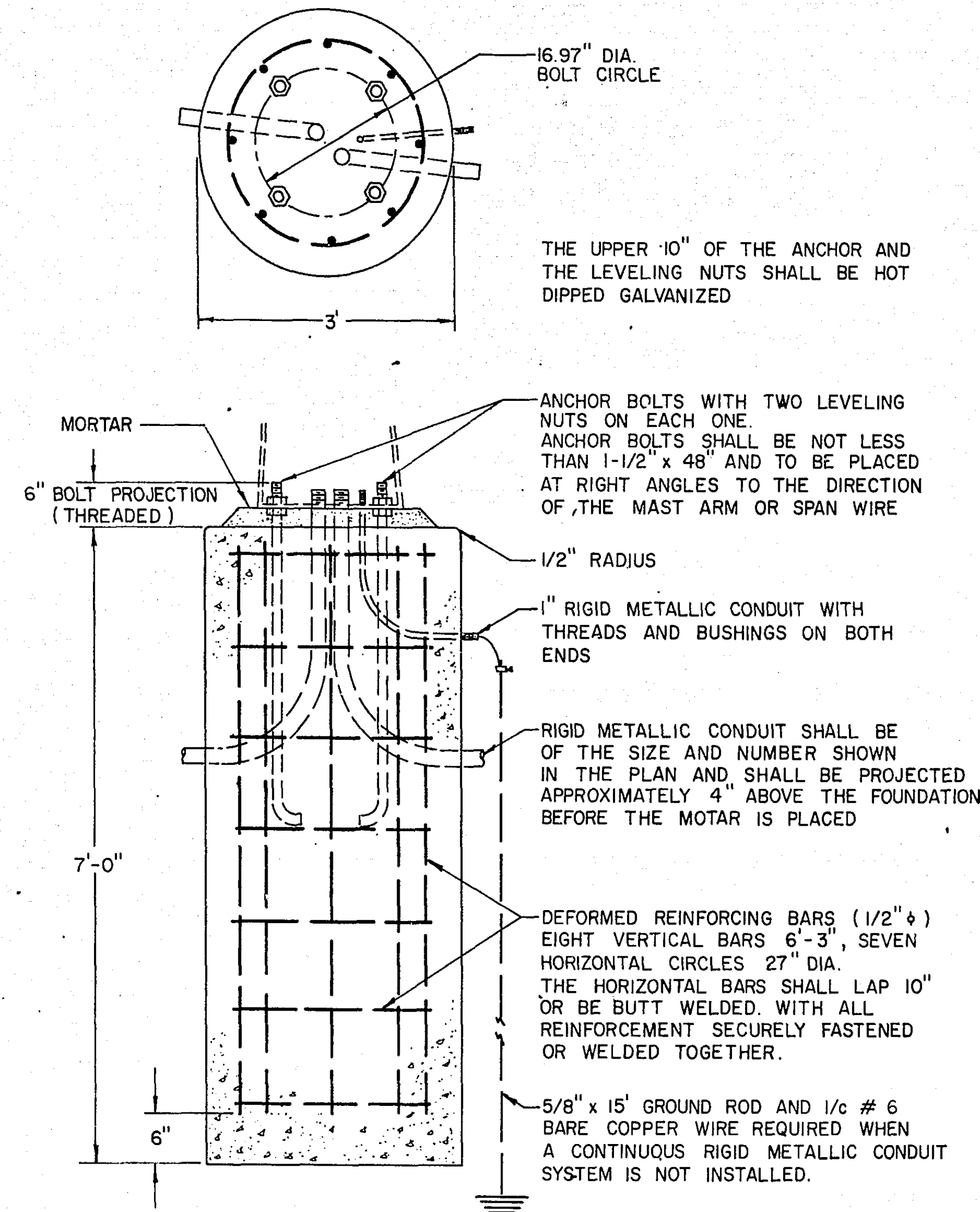
GUARD POST



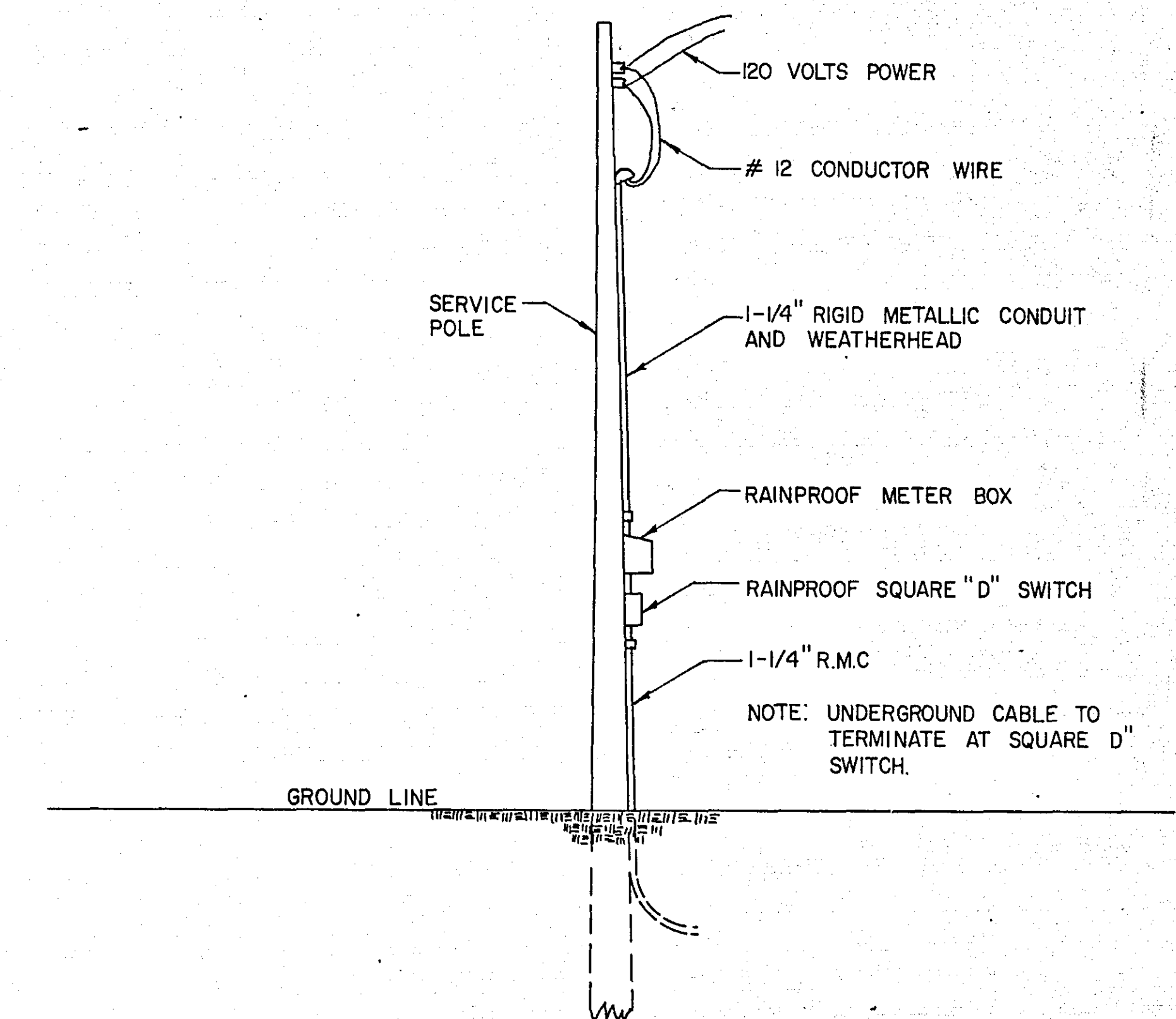
PEDESTRIAN PUSH BUTTON DETAIL NO. 1



CONCRETE FOUNDATION FOR MAST ARM TRAFFIC SIGNAL POLE

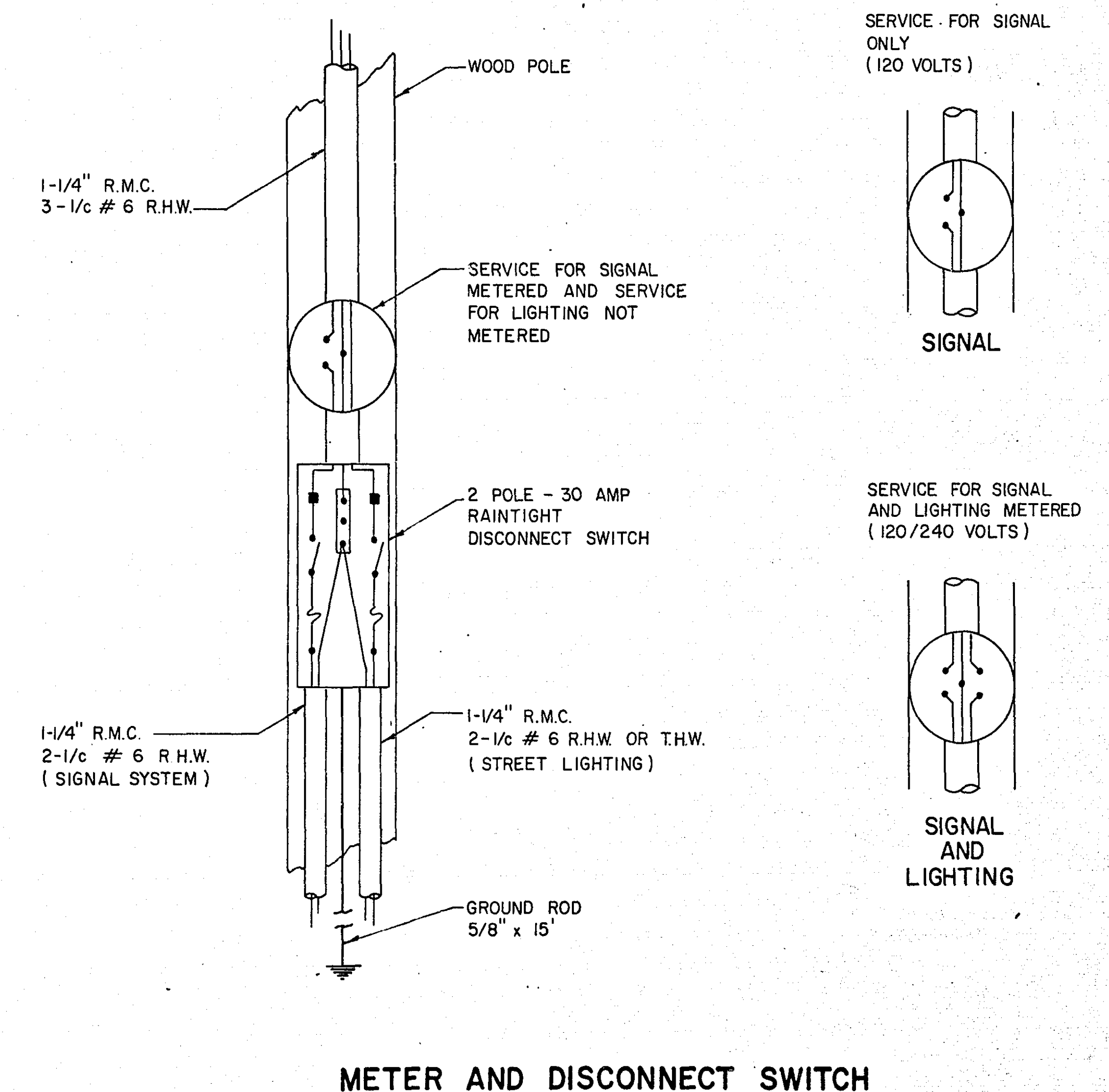
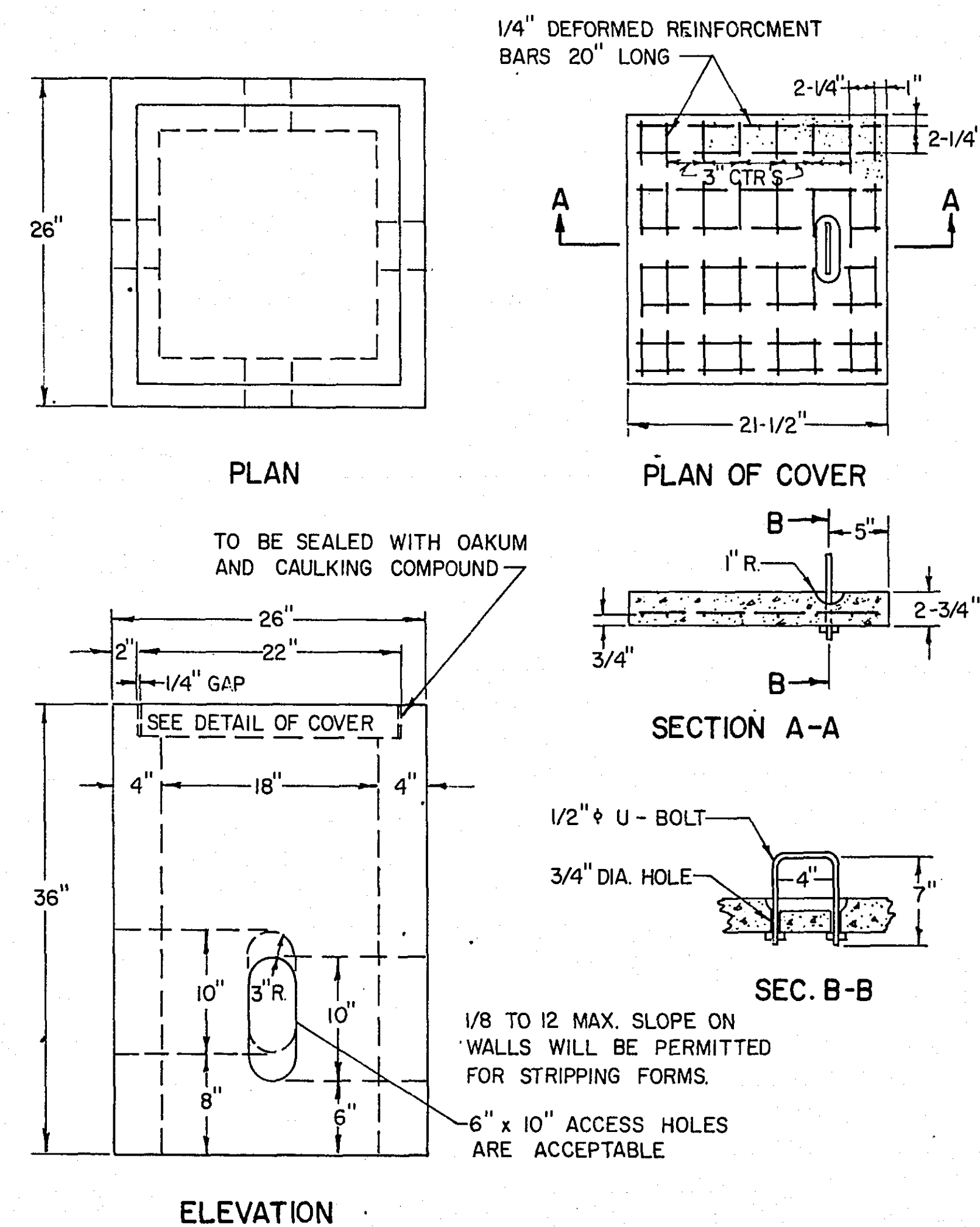
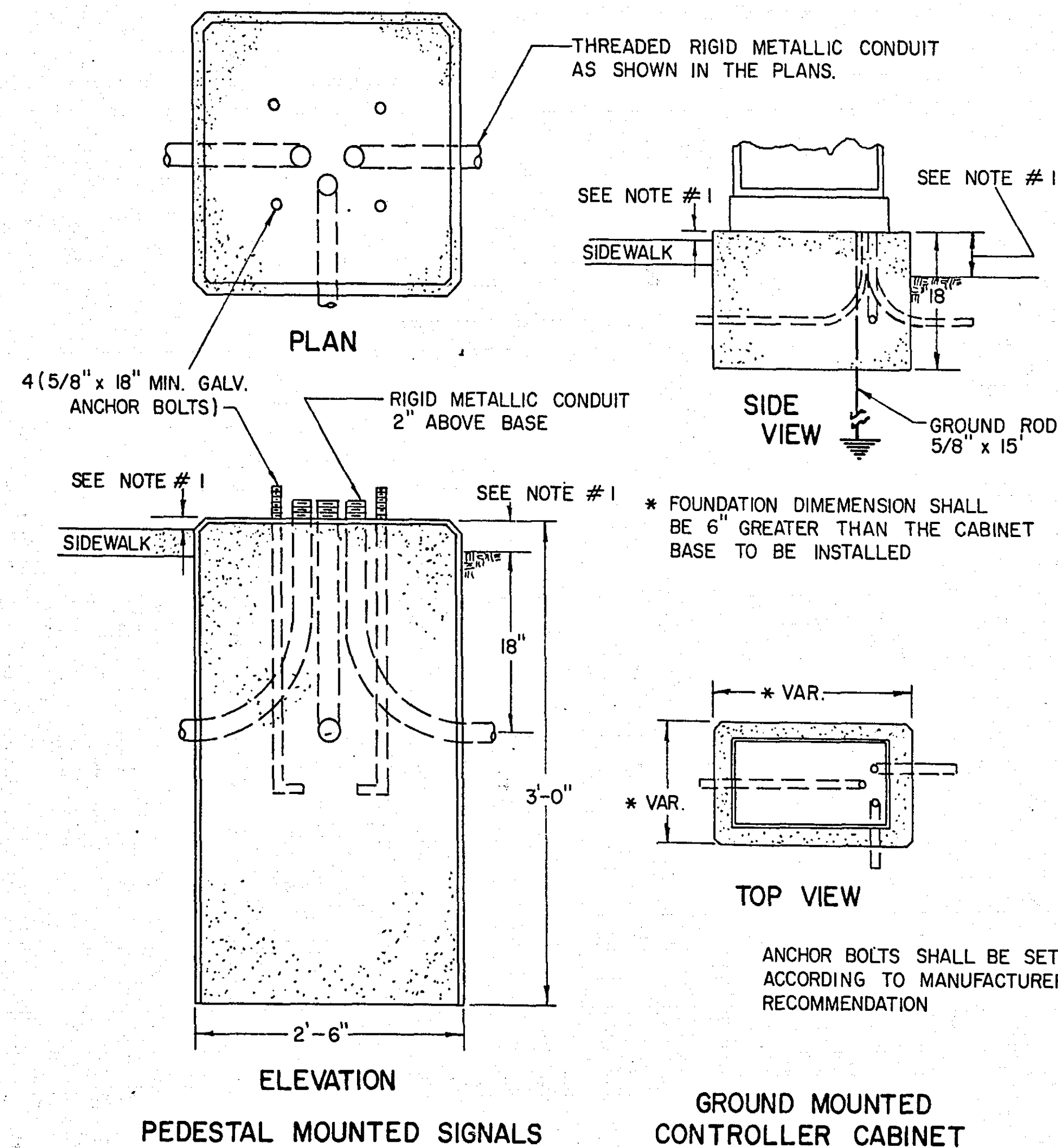


POLE FOR POWER CONNECTION



NOTE # 1

DISTANCE FROM GROUND LINE VARIABLE FROM 1/4" IN THE SIDEWALK AREA TO 2" IN THE SHOULDER OR BLVD. AREA.



CONCRETE FOUNDATIONS

PRECAST CONCRETE HANDHOLE OR PULLBOX

CO. PROJ. NO. 68-44-15

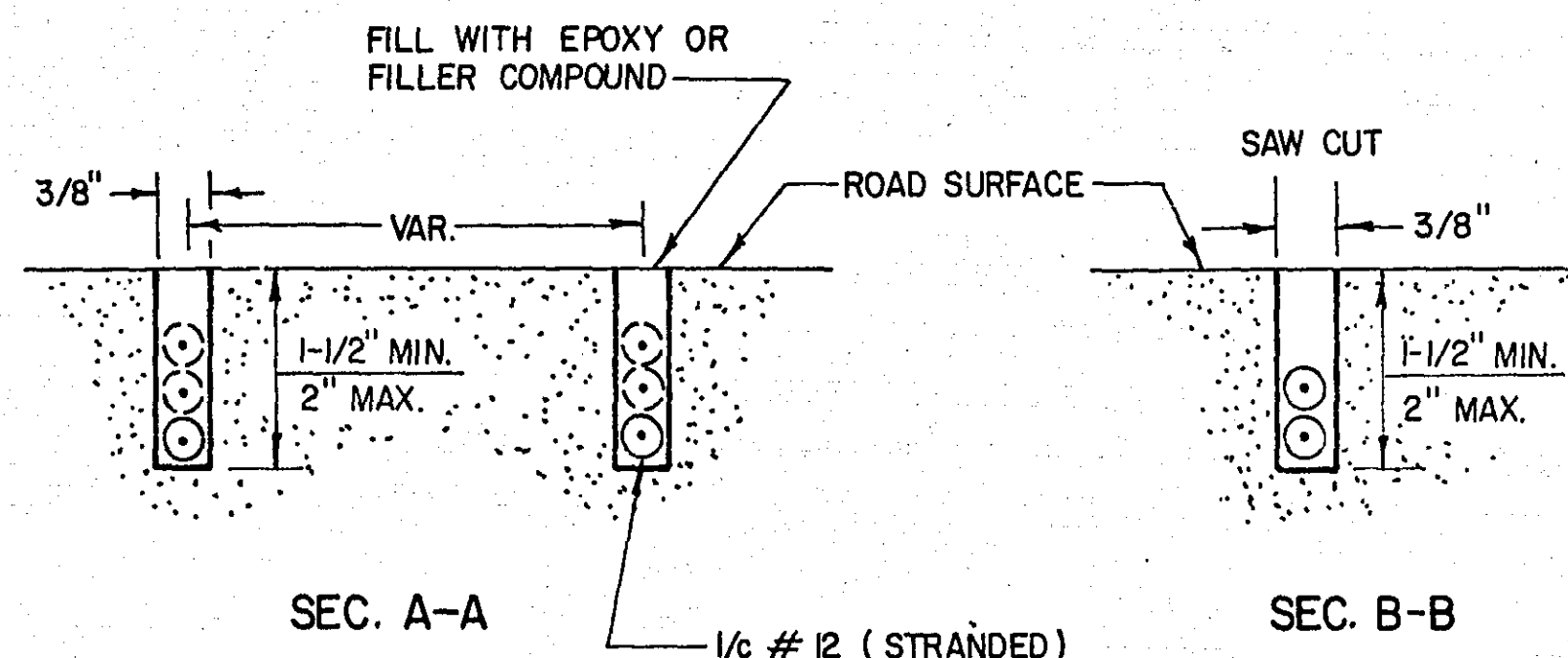
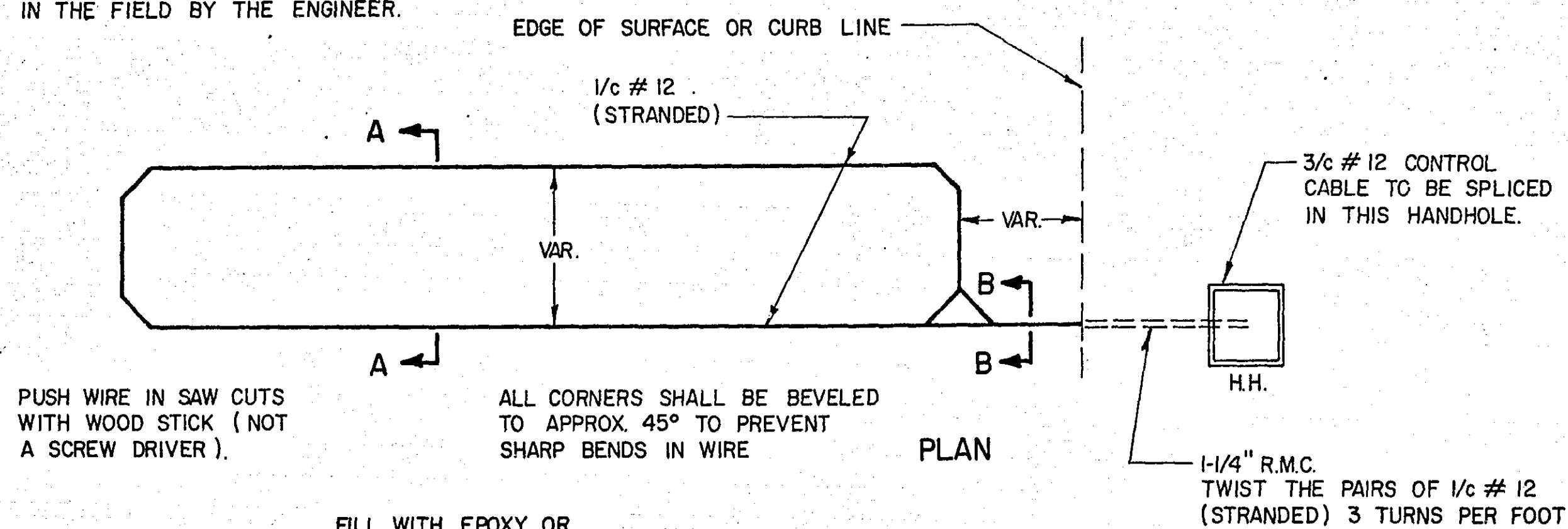
SHEET NO. 2 OF 6 SHEETS

MICROFILMED
RAMSEY CO. ENGR.

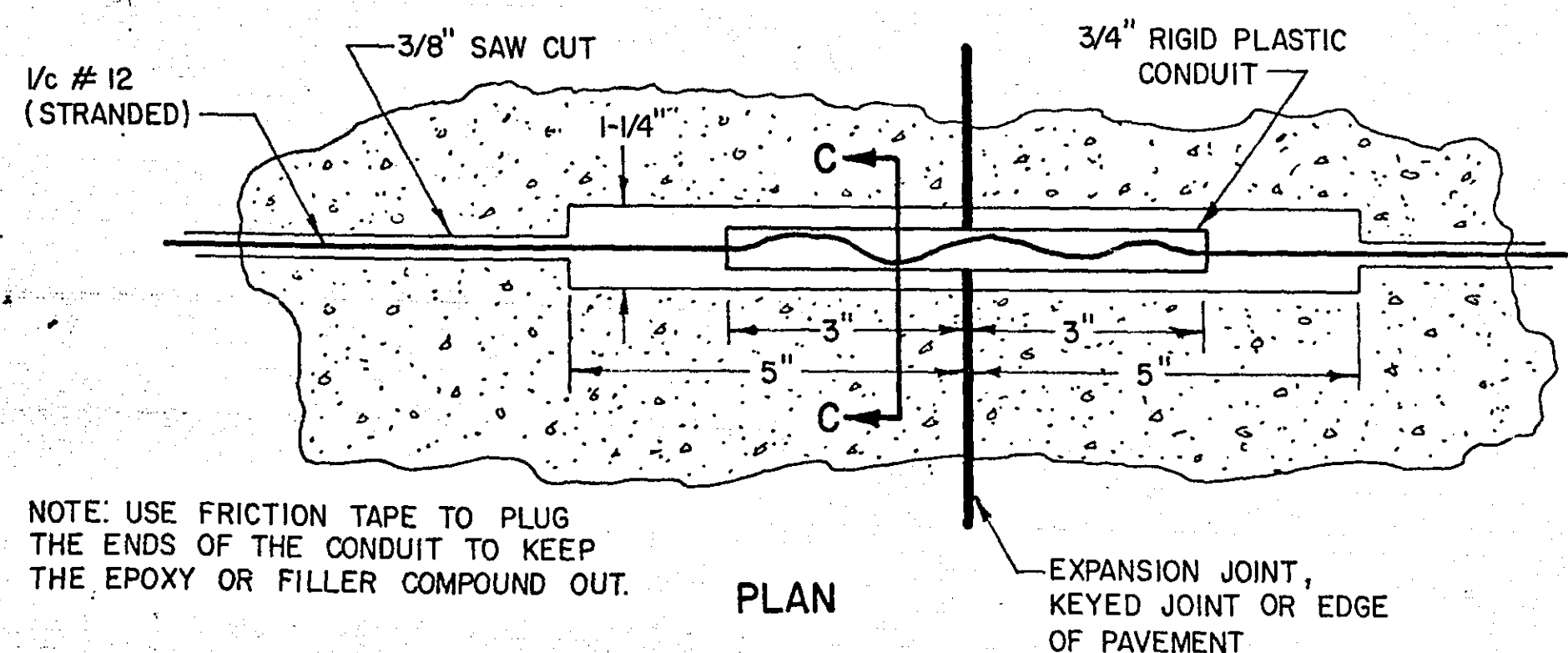
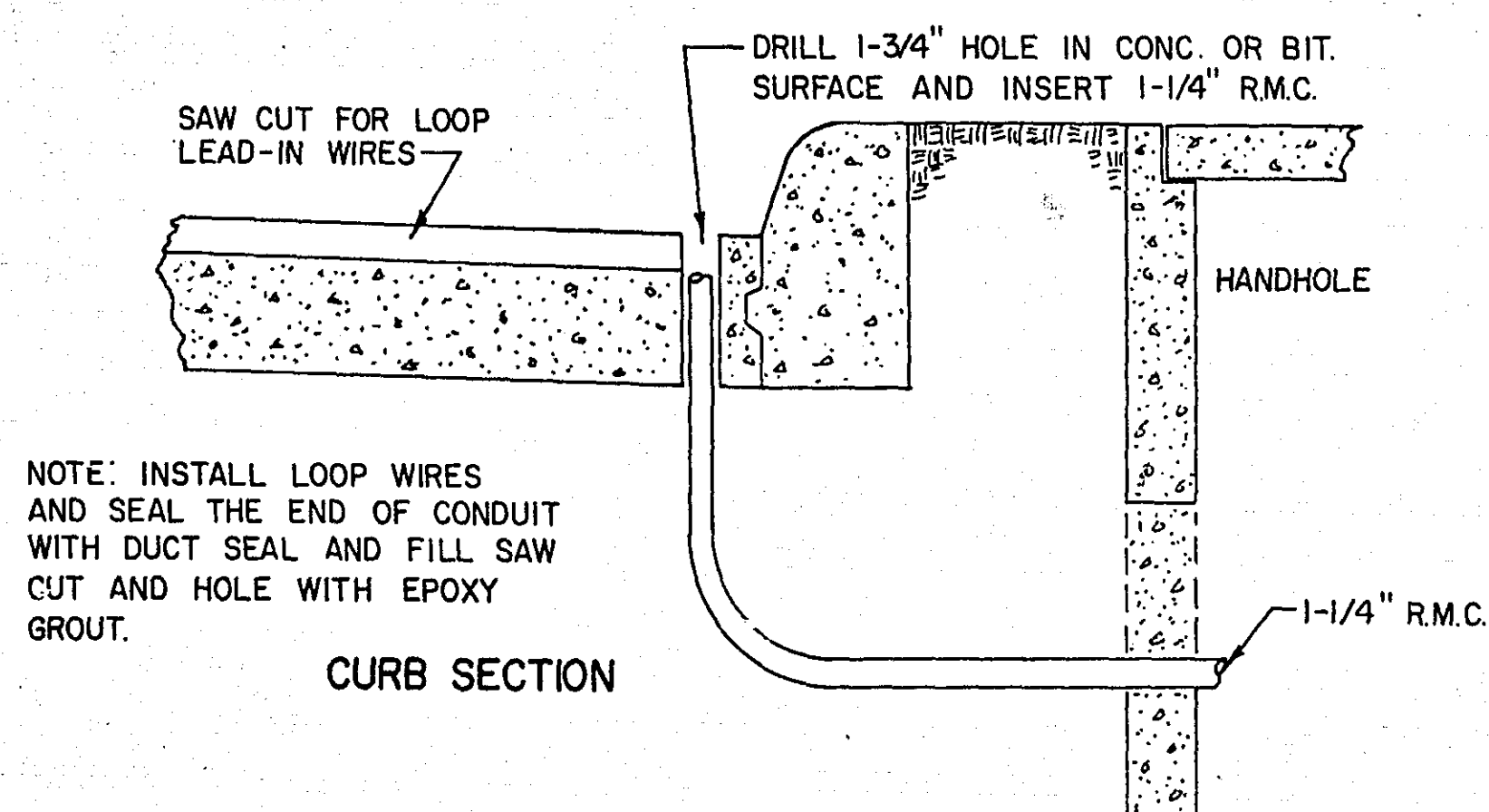
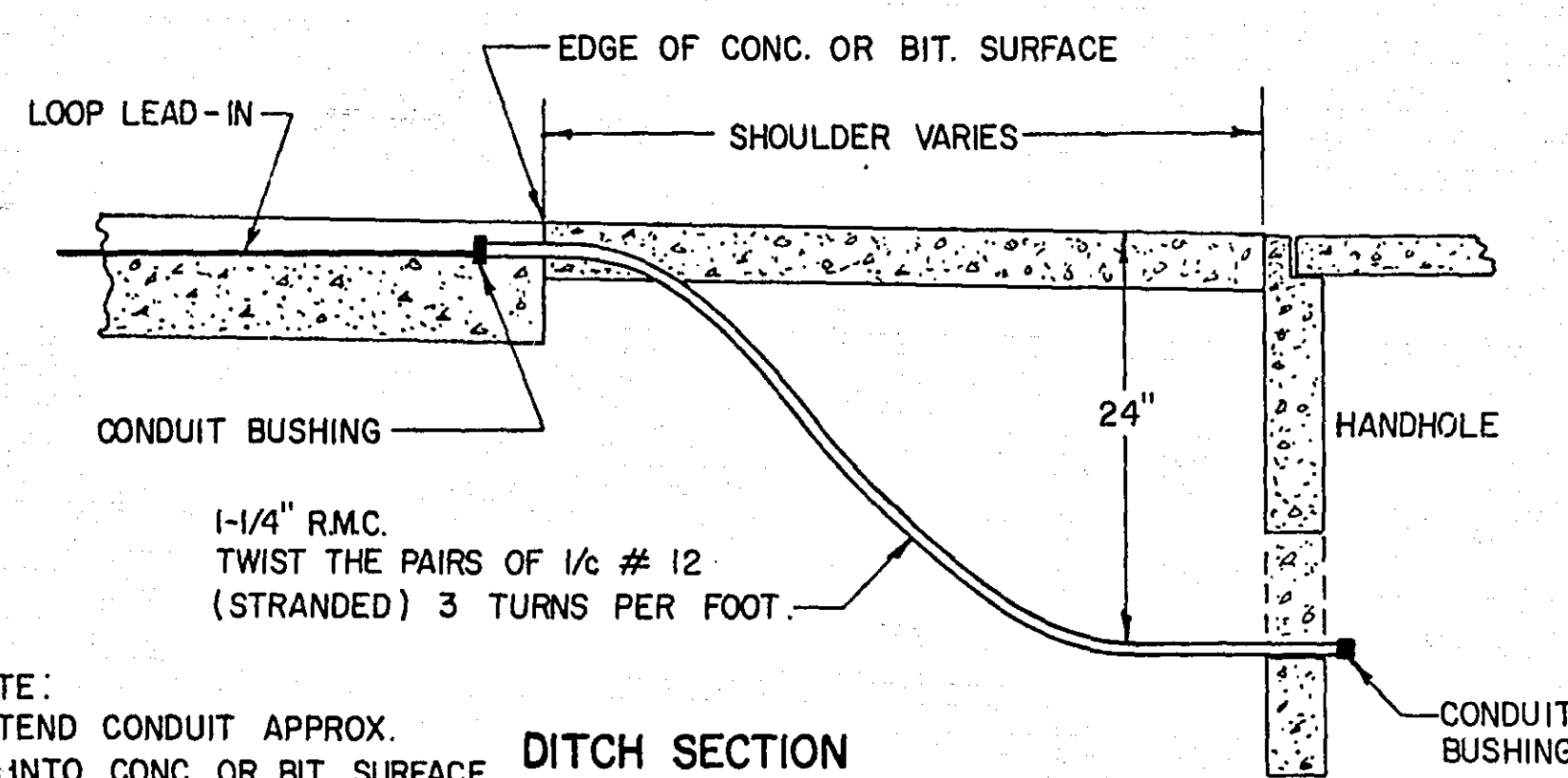
17-106

LOOP DETECTION INSTALLATION DETAIL NO. 2

NOTE: NUMBER OF TURNS & SIZE OF LOOP SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

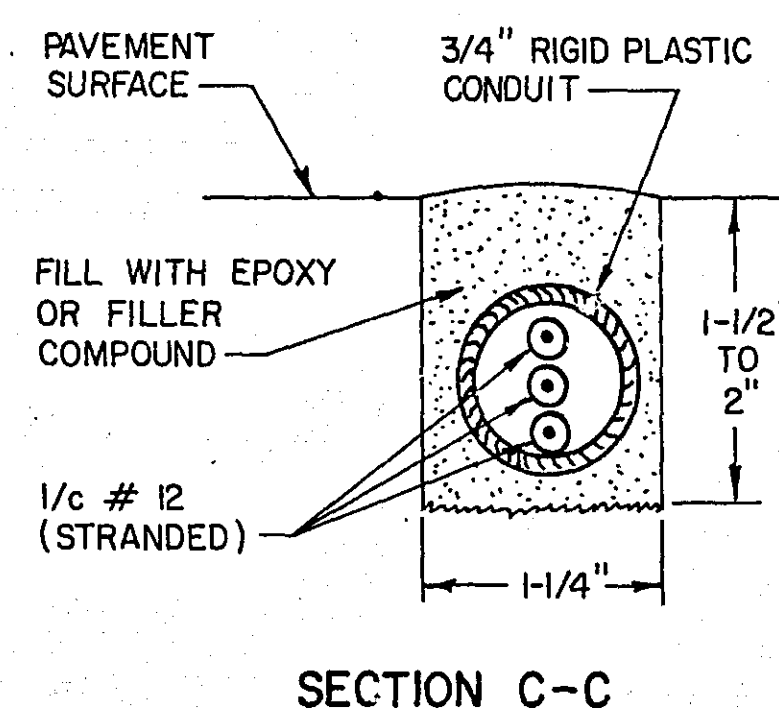


NOTE: THE CONDUCTORS SHALL BE SINGLE-CONDUCTOR #12 (STRANDED) INSULATED WITH FILLED CHEMICALLY CROSS-LINKED POLYETHYLENE AND SHALL BEAR THE U.L. LISTING LABELS FOR TYPE R.H.W. AND TYPE R.H.H.

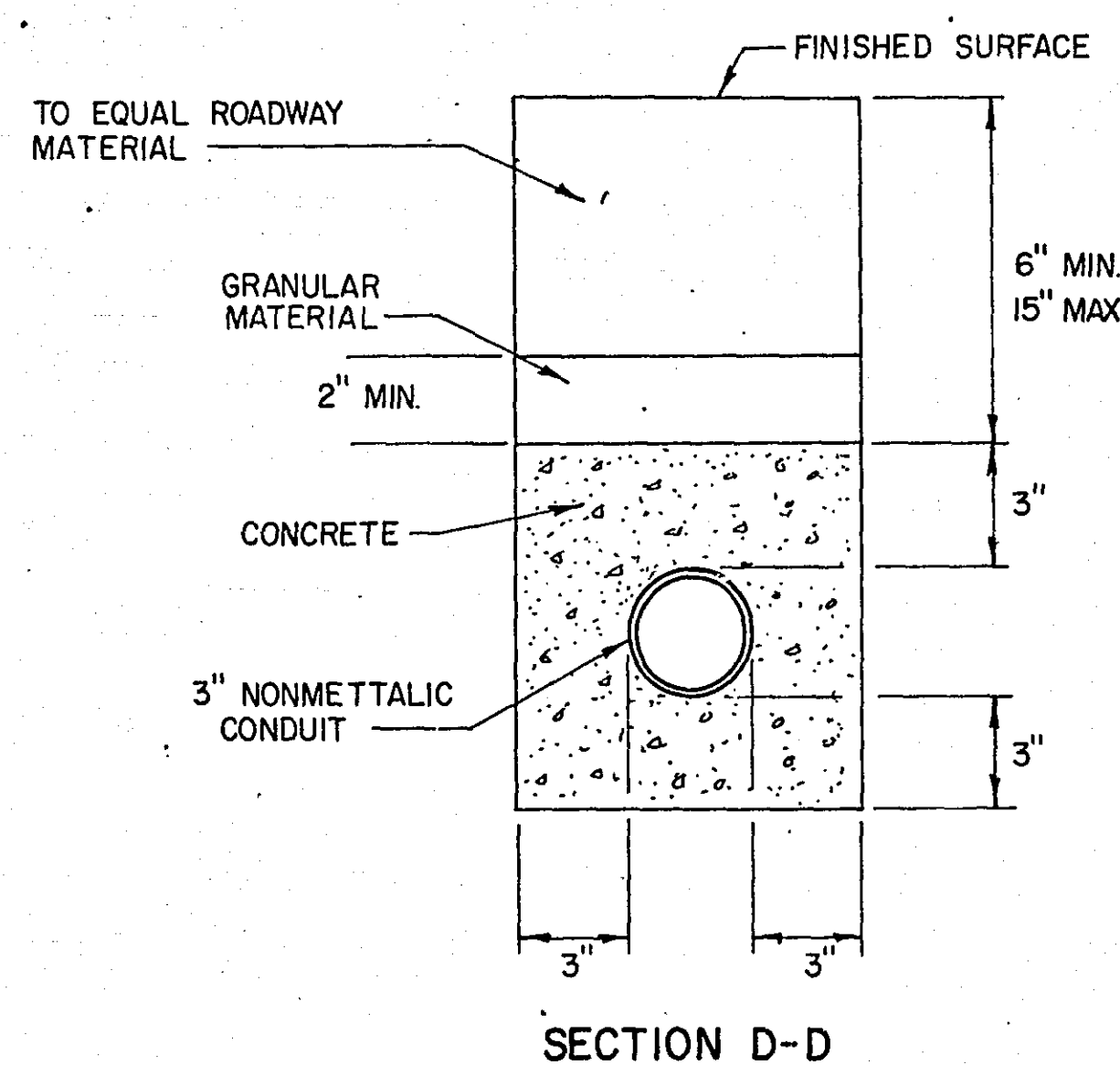
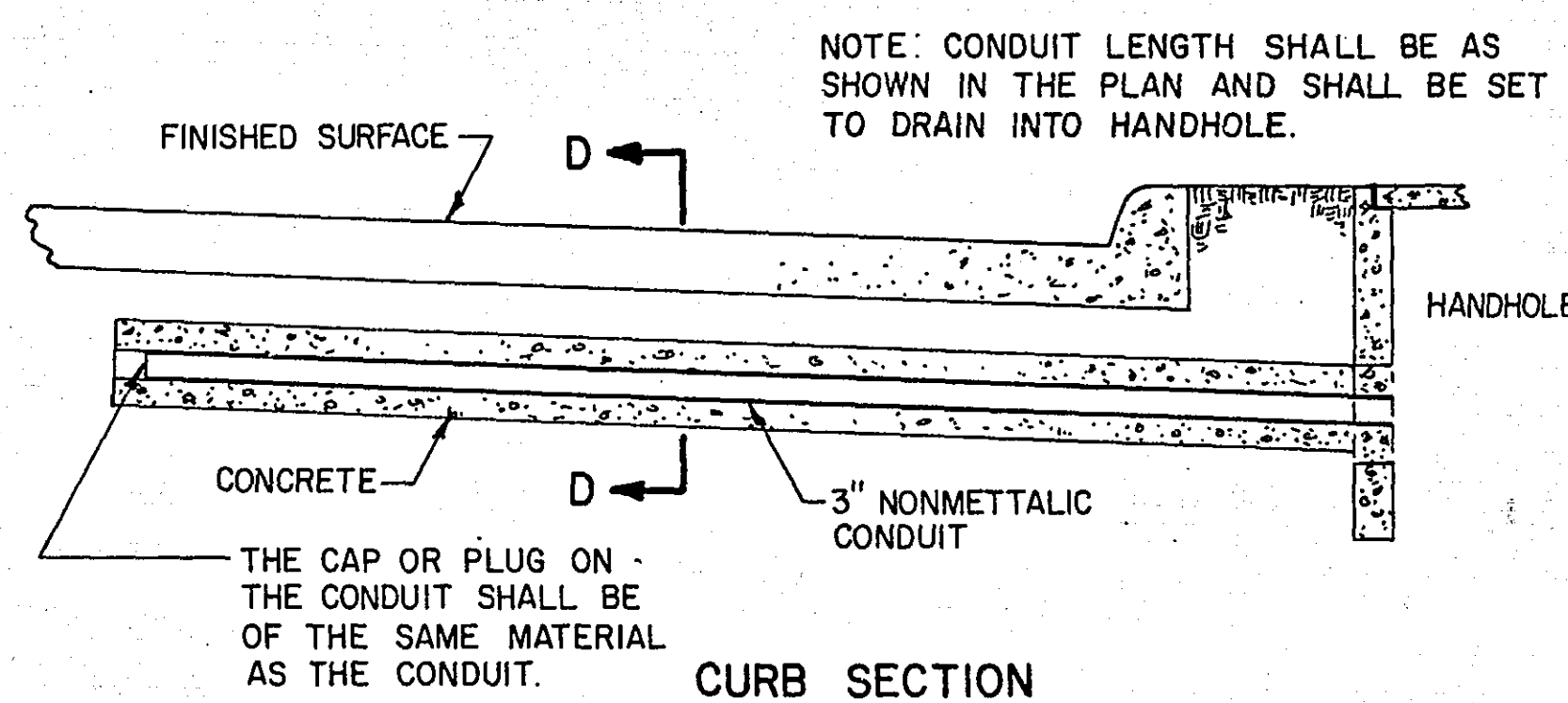


NOTE: USE FRICTION TAPE TO PLUG THE ENDS OF THE CONDUIT TO KEEP THE EPOXY OR FILLER COMPOUND OUT.

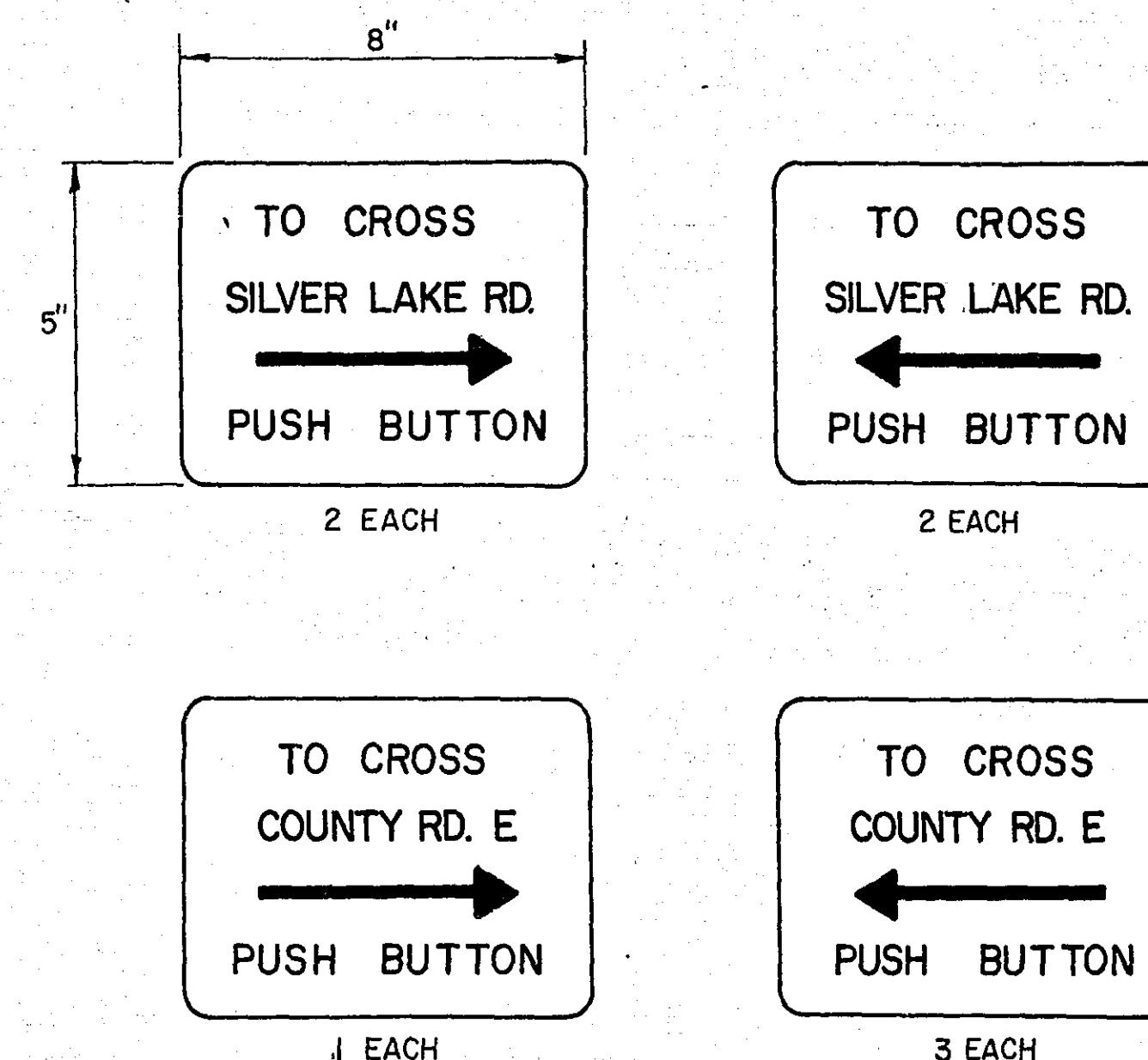
JOINT SLEEVE INSTALLATION
FOR LOOP DETECTORS



MAGNETIC VEHICLE DETECTOR INSTALLATION DETAIL NO. 4



PEDESTRIAN INSTRUCTION SIGNS DETAIL NO. 3



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
WLK - WALK
NEU - NEUTRAL
DWK - DON'T WALK
SW - SWITCH
SWD - SWITCHED
LUM - LUMINAIRE
PA1(eg) - PEDESTRIAN INDICATION - "A" PHASE
PB2(eg) - PUSH BUTTON - "B" PHASE
C3(eg) - SIGNAL HEAD - "C" PHASE
DA4(eg) - DETECTOR - "A" PHASE
H.H. - HANDHOLE
G.R. - GROUND ROD
SERV. - SERVICE

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

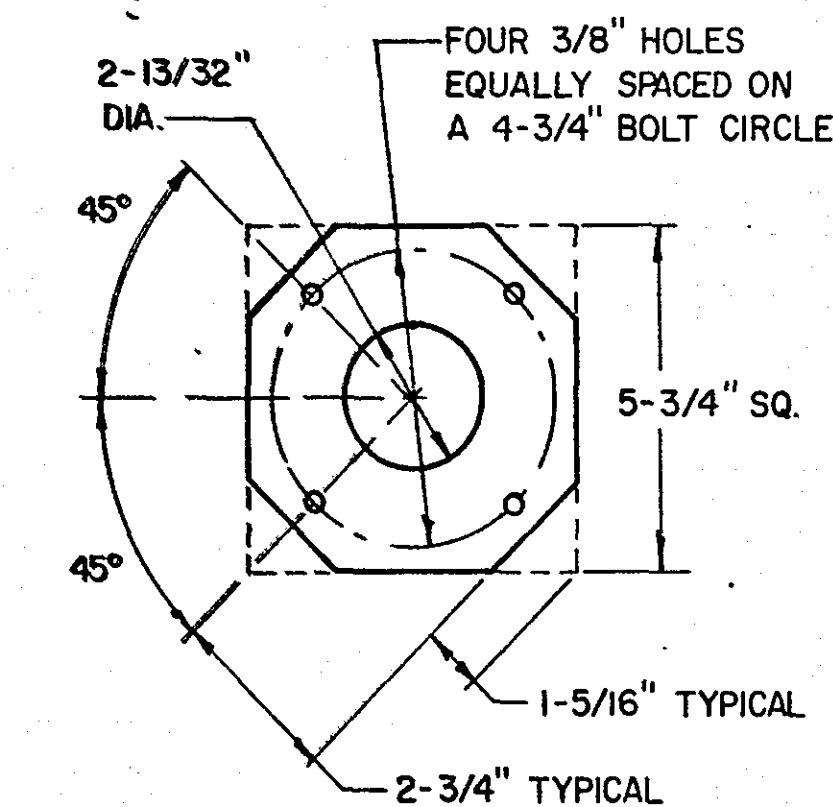
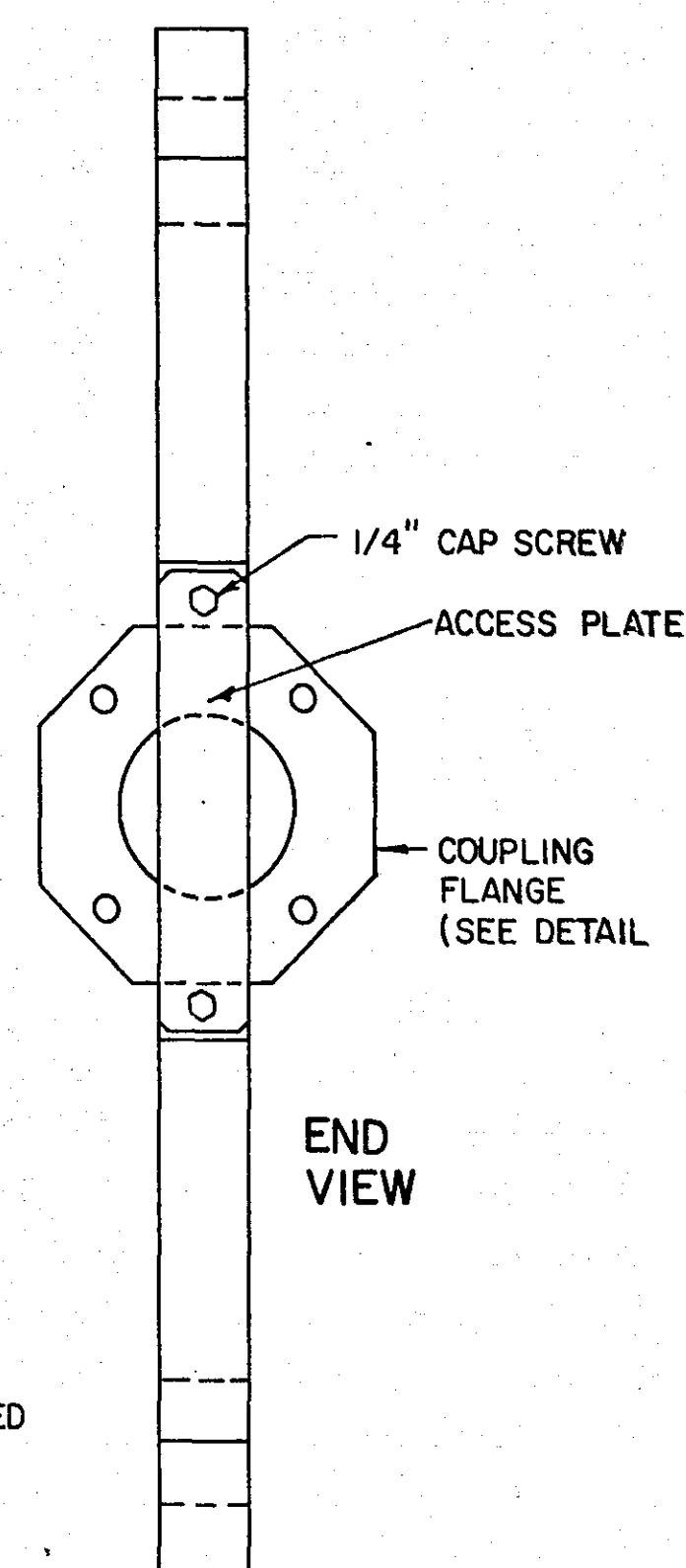
COLOR CODING OF CONDUCTORS

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

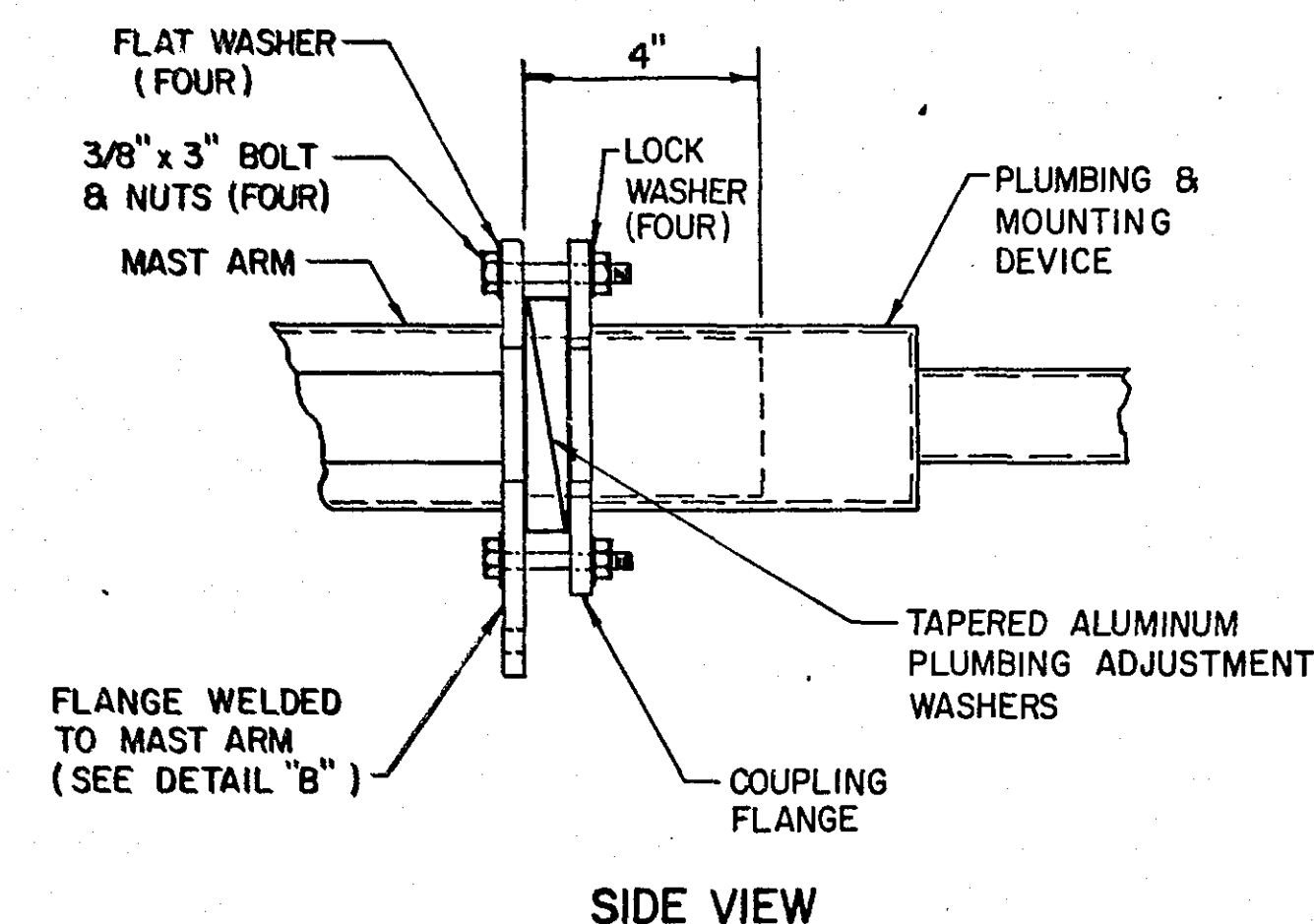
**TWO-WAY TRAFFIC SIGNAL
PLUMBING AND MOUNTING DEVICE**
SPECIFICATION REFERENCE M.H.D. 1703

ONE-WAY TRAFFIC SIGNAL PLUMBING AND MOUNTING DEVICE

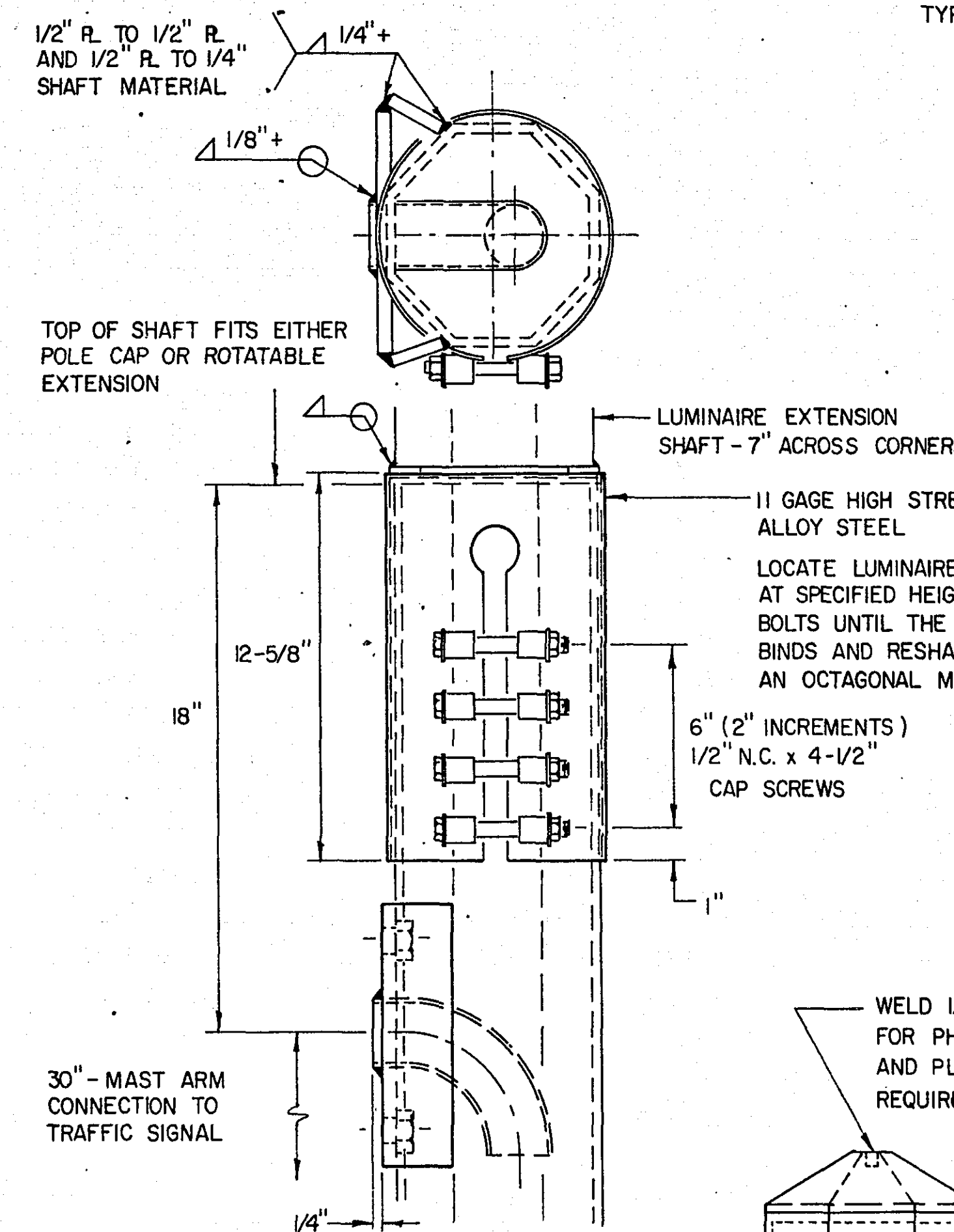
SPECIFICATION REFERENCE M.H.D. 1703



**COUPLING FLANGE
DETAIL**
(ONE-WAY AND TWO-WAY SIGNAL)

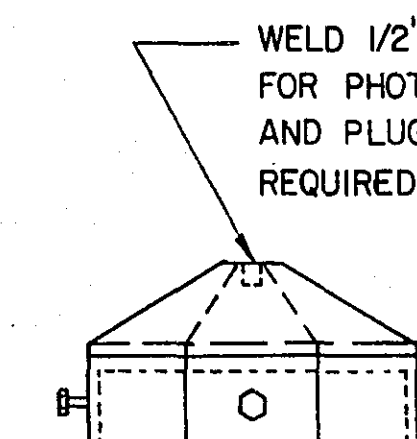


ASSEMBLY DETAIL
(ONE-WAY AND TWO-WAY SIGNAL)
SPECIFICATION REFERENCE M.H.D. 1703

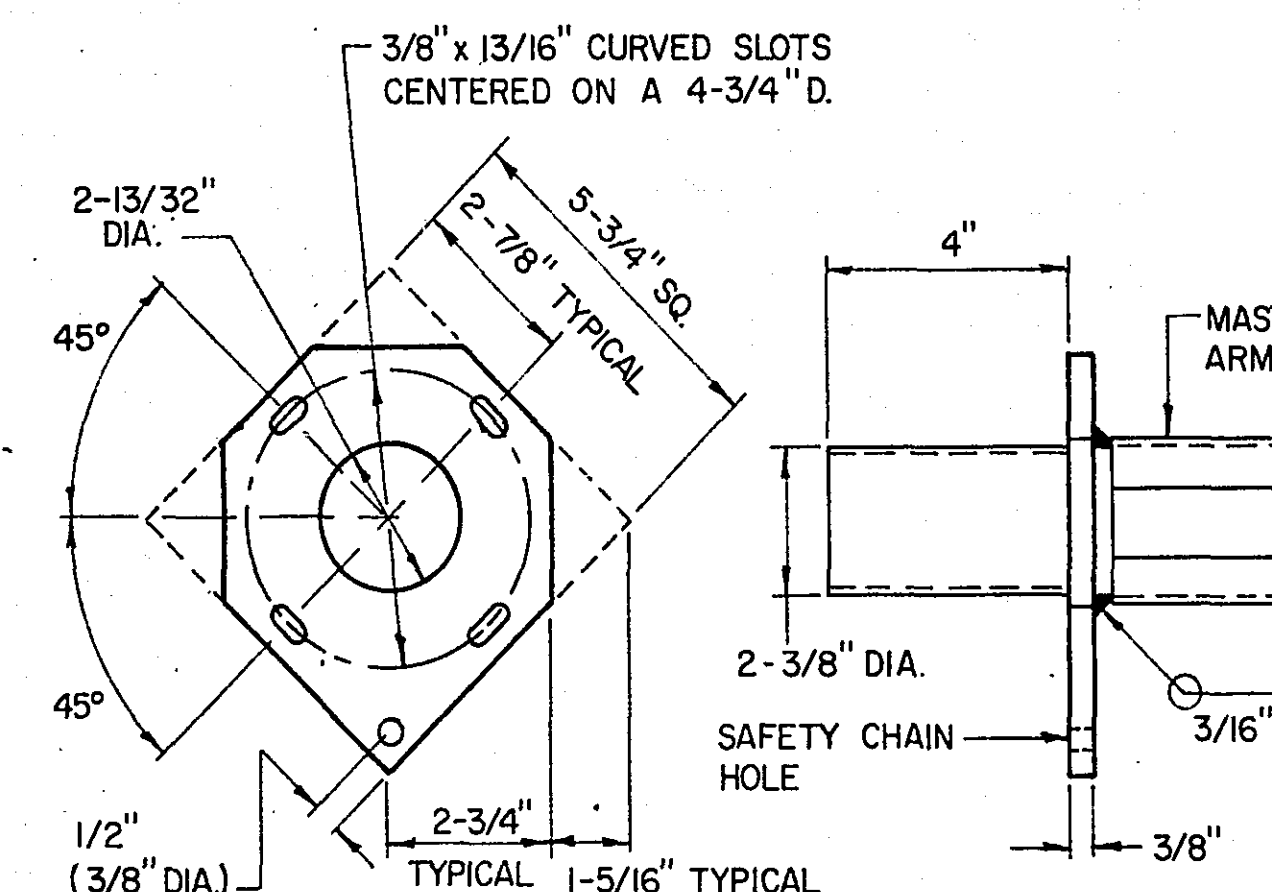


DETAIL C

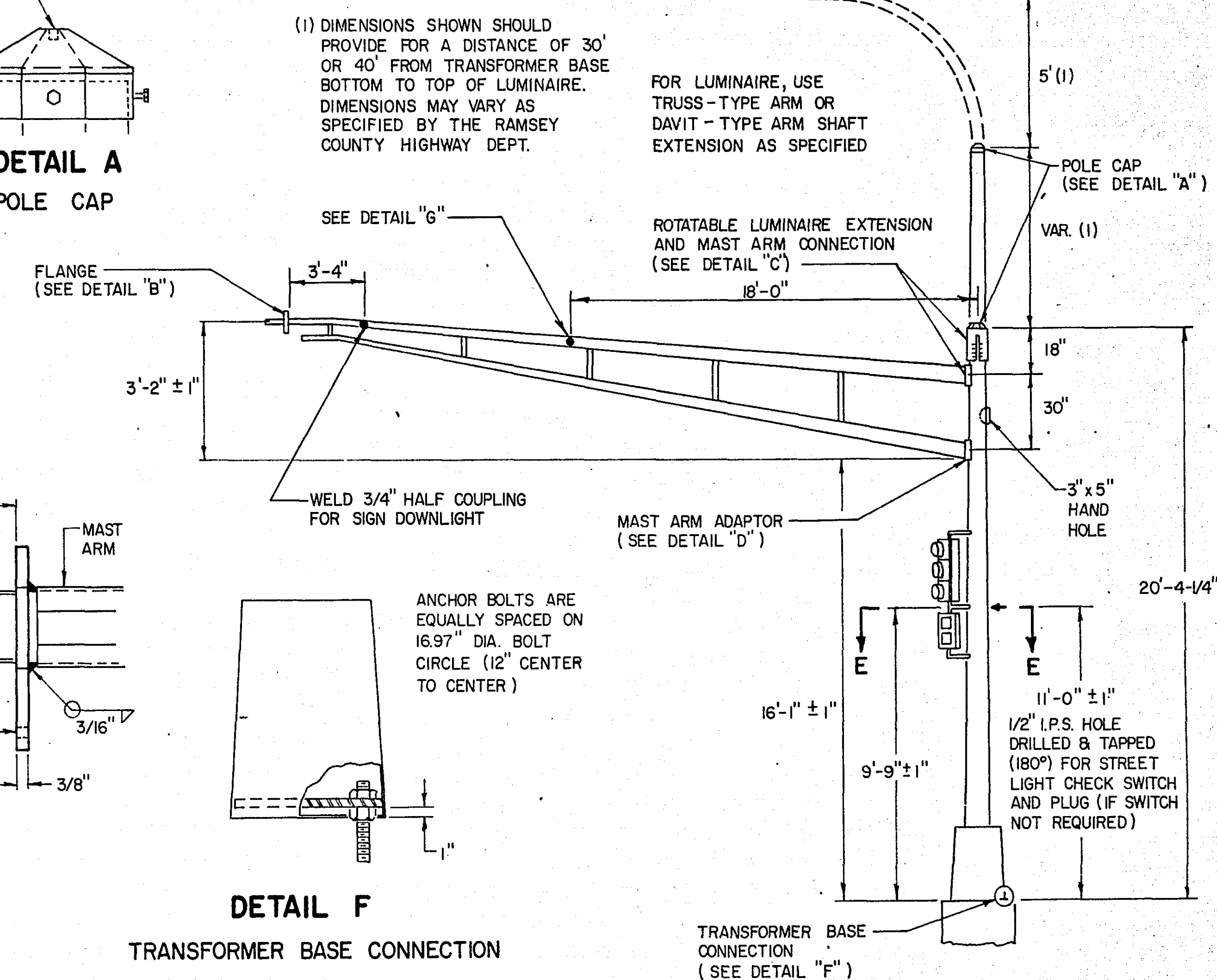
ROTATABLE LUMINAIRE
EXTENSION AND MAST
ARM CONNECTION



DETAIL A
POLE CAP

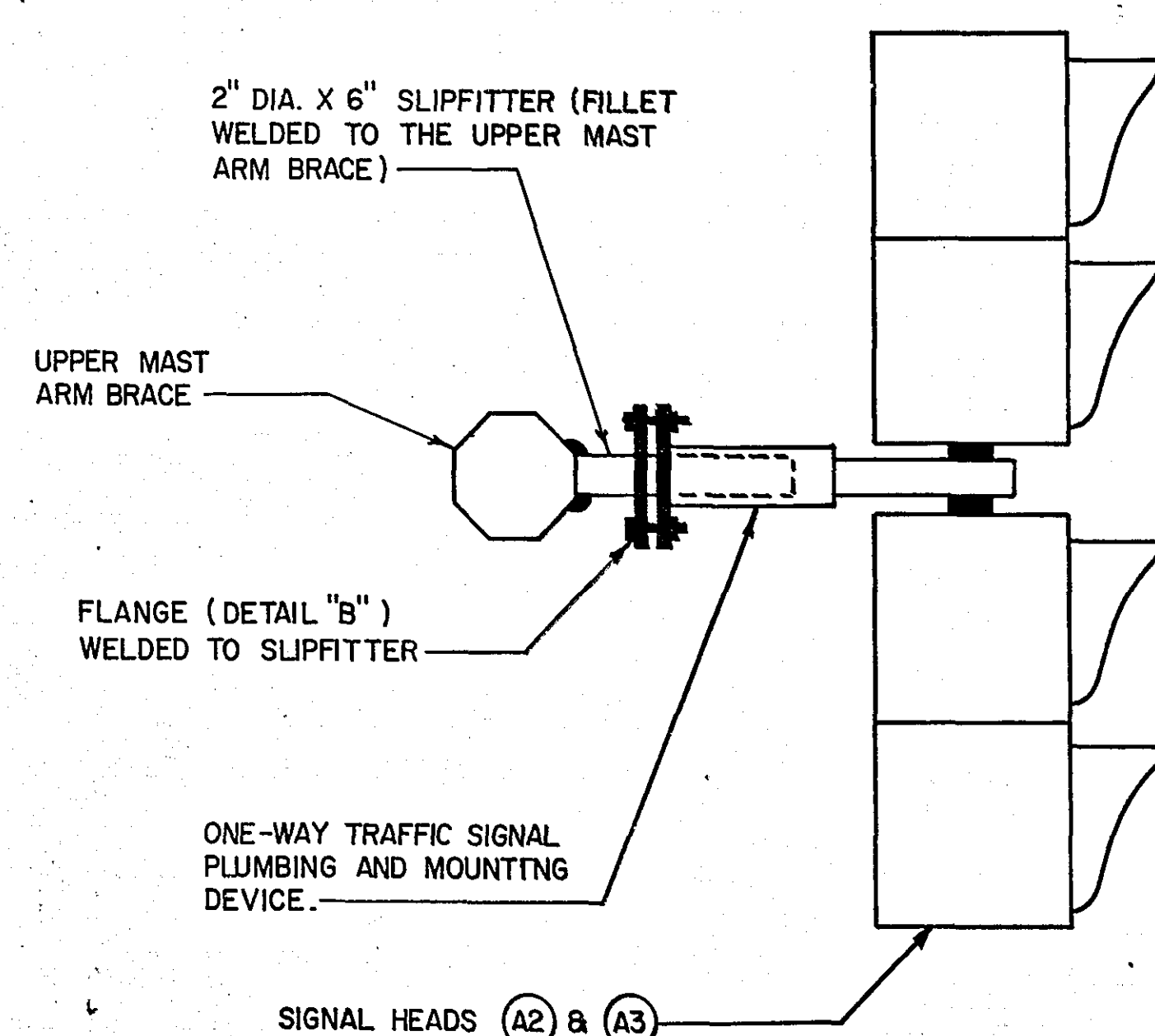


DETAIL B
FLANGE

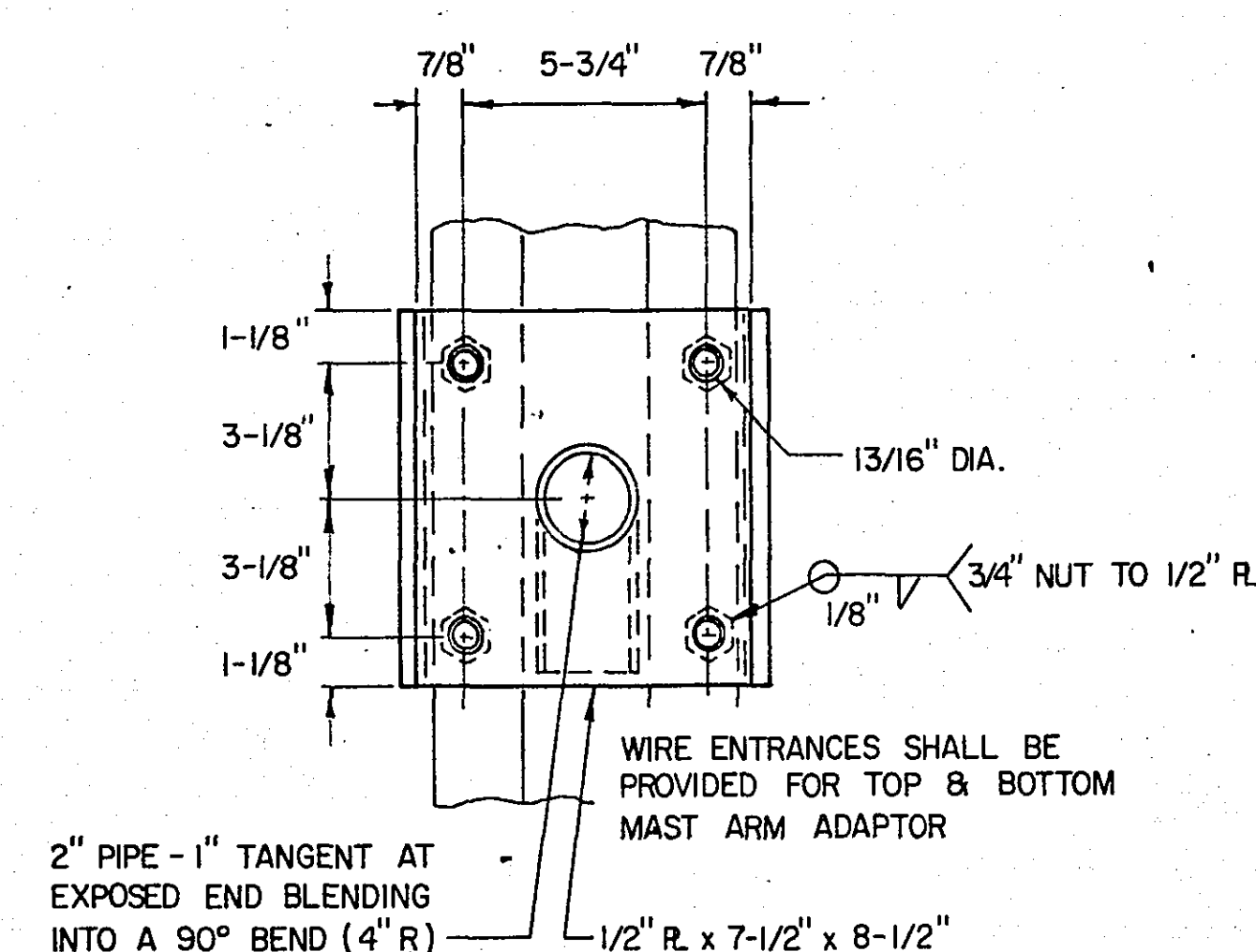


ELEVATION

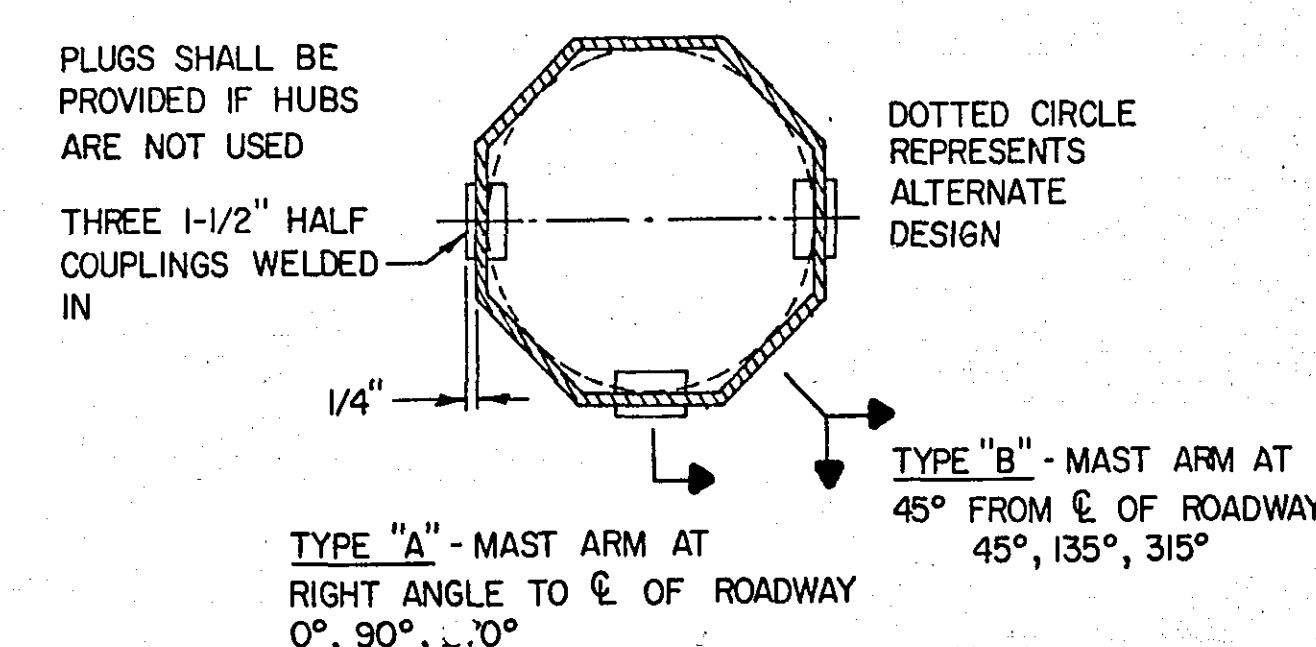
POLE AND MAST ARM



DETAIL "G"



DETAIL D
MAST ARM ADAPTOR



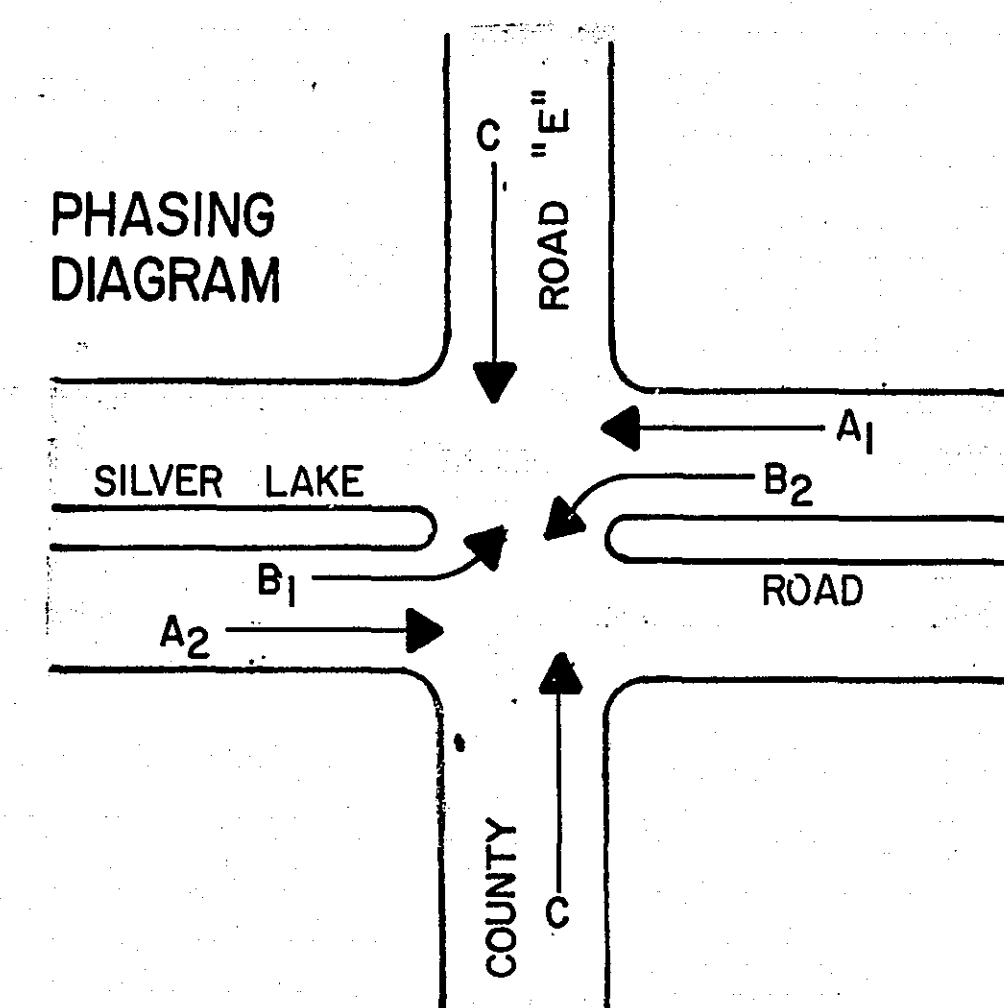
SECTION E-E
POLE-MOUNTED SIGNAL HUB

- NOTES:
- TYPE A-20-D30 OR 40-12 TYPE A-20-T-30 OR 40-20
(1) (2) (3) (4) (1) (2) (3) (4)
1. LETTER TYPE INDICATES POLE MAST ARM POSITION WITH RESPECT TO THE $\angle$ OF ROADWAY.
 2. NUMBER FOLLOWING TYPE LETTER INDICATES SIGNAL MAST ARM LENGTH.
 3. SECOND LETTER INDICATES LUMINAIRE TRUSS -TYPE ARM EXTENSION OR DAVIT -TYPE ARM EXTENSION, SECOND LETTER FOLLOWED BY NUMBERS INDICATES LUMINAIRE MOUNTING HEIGHT.
 4. NUMBER FOLLOWING INDICATES LENGTH OF LUMINAIRE TRUSS ARM OR DAVIT ARM.

(1) DIMENSIONS SHOWN SHOULD PROVIDE FOR A DISTANCE OF 30' OR 40' FROM TRANSFORMER BASE BOTTOM TO TOP OF LUMINAIRE. DIMENSIONS MAY VARY AS SPECIFIED BY THE RAMSEY COUNTY HIGHWAY DEPT.

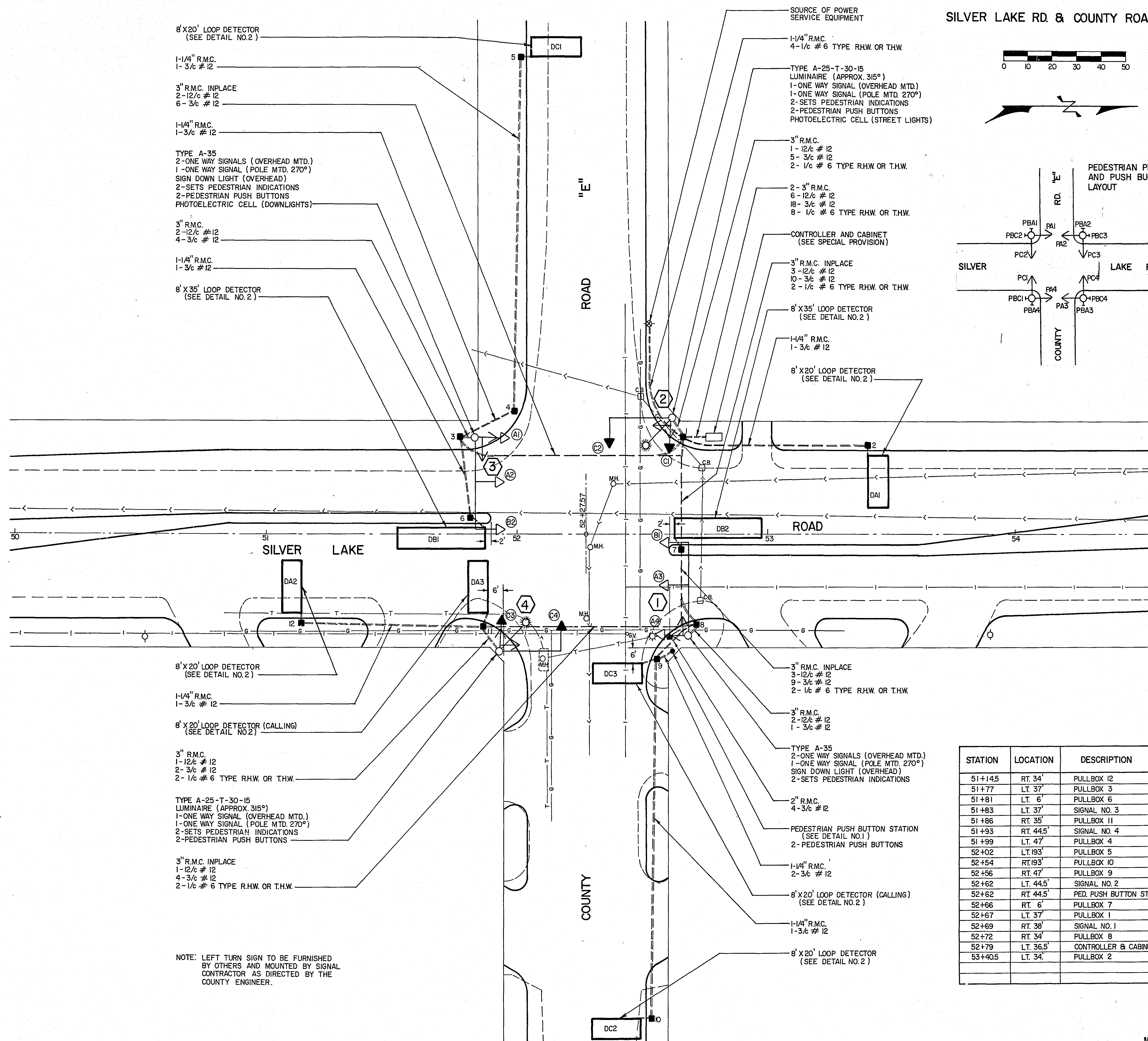
FOR LUMINAIRE, USE
TRUSS-TYPE ARM OR
DAVIT-TYPE ARM SHAFT
EXTENSION AS SPECIFIED

LEGEND OF SYMBOLS	
	CONTROLLER
	HANDHOLE (PULLBOX)
	RIGID METALLIC CONDUIT (R.M.C.)
	MAST ARM & POLE
	SIGNAL FACE
	SIGNAL FACE WITH BACKGROUND SHIELD
	MAST ARM & LUMINAIRE
	PEDESTRIAN INDICATION
	PEDESTRIAN PUSH BUTTON STATION
	SOURCE OF POWER (S.O.P.)
	RIGID METALLIC CONDUIT (R.M.C.) INPLACE

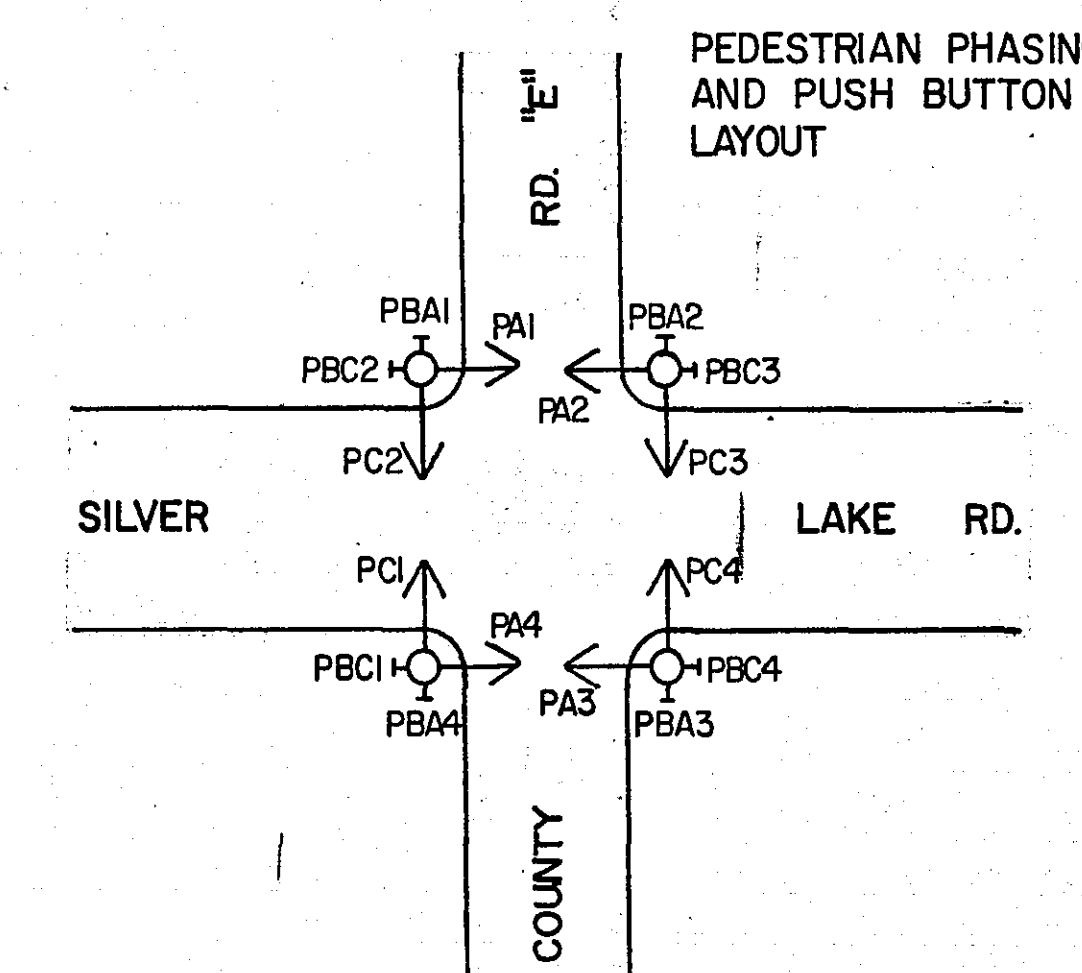
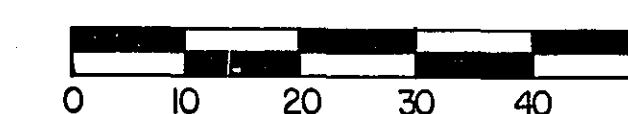


FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1	A1	R	12"	12"	-	-	12"	12"
A2	A1	R	12"	12"	-	-	12"	12"
A3	A1	R	12"	12"	-	-	12"	12"
A4	A1	R	12"	12"	-	-	12"	12"
* B1	B1	R	12"	12"	-	12"	-	-
* B2	B2	R	12"	12"	-	12"	-	-
C1	C	R	12"	12"	12"	-	-	-
C2	C	R	12"	12"	12"	-	-	-
C3	C	R	12"	12"	12"	-	-	-
C4	C	R	12"	12"	12"	-	-	-

* SEE SPECIAL PROVISIONS - PAGE 8 (SPECIAL SIGNAL FACES)



SILVER LAKE RD. & COUNTY ROAD "E"



STATION	LOCATION	DESCRIPTION
51+145	RT. 34'	PULLBOX 12
51+77	LT. 37'	PULLBOX 3
51+81	LT. 6'	PULLBOX 6
51+83	LT. 37'	SIGNAL NO. 3
51+86	RT. 35'	PULLBOX 11
51+93	RT. 44.5'	SIGNAL NO. 4
51+99	LT. 47'	PULLBOX 4
52+02	LT. 193'	PULLBOX 5
52+54	RT. 193'	PULLBOX 10
52+56	RT. 47'	PULLBOX 9
52+62	LT. 44.5'	SIGNAL NO. 2
52+62	RT. 44.5'	PED. PUSH BUTTON STA.
52+66	RT. 6'	PULLBOX 7
52+67	LT. 37'	PULLBOX 1
52+69	RT. 38'	SIGNAL NO. 1
52+72	RT. 34'	PULLBOX 8
52+79	LT. 36.5'	CONTROLLER & CABINET
53+405	LT. 34'	PULLBOX 2

