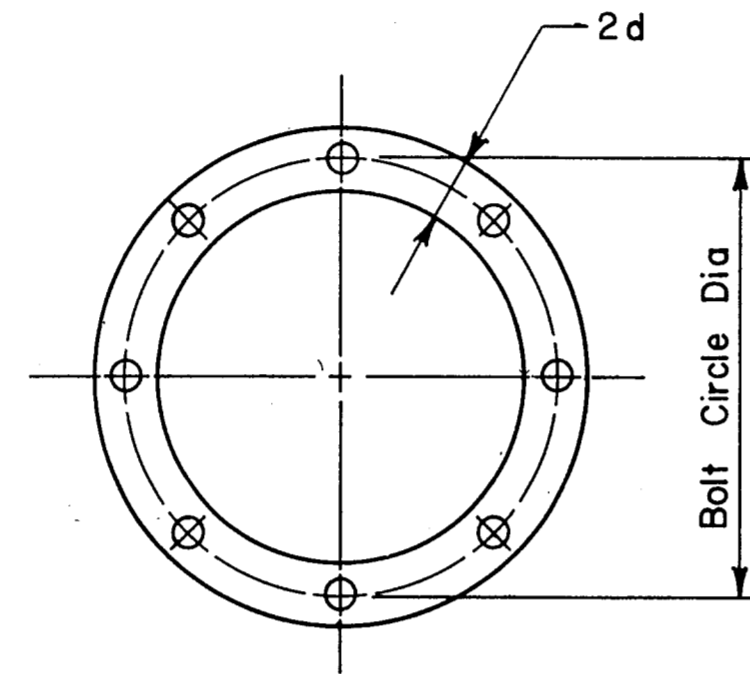


ANCHOR BOLT SIZE	PIPE OUTSIDE DIAMETER											
	16"			20"			24"			30"		
	BOLT CIRCLE DIA.	DR. SHAFT SIZE	DR. SHAFT REINF.	BOLT CIRCLE DIA.	DR. SHAFT SIZE	DR. SHAFT REINF.	BOLT CIRCLE DIA.	DR. SHAFT SIZE	DR. SHAFT REINF.	BOLT CIRCLE DIA.	DR. SHAFT SIZE	DR. SHAFT REINF.
1 1/4" X 2'-1"	20 1/2"	36"	14-#8 (A)	24 1/2"	36"	14-#8 (A)						
1 3/8" X 3'-1"	20 3/4"	36"	12-#9 (A)	24 3/4"	36"	12-#9 (A)						
1 1/2" X 3'-4"	21"	36"	12-#9 (A)	25"	42"	14-#9 (A)	29"	42"	14-#9 (C)			
1 3/4" X 3'-10"	21 1/2"	36"	10-#10 (A)	25 3/8"	42"	12-#10 (B)	29 3/8"	42"	12-#10 (C)	35 3/8"	48"	16-#10 (C)
2" X 4'-3"	22"	36"	12-#10 (A)	25 3/4"	42"	12-#10 (B)	29 3/4"	48"	16-#10 (C)	35 3/4"	54"	18-#10 (C)
2 1/4" X 4'-9"	22 1/2"	36"	10-#11 (A)	26"	42"	10-#11 (B)	30"	48"	14-#11 (C)	36"	54"	14-#11 (D)
2 1/2" X 5'-2"				26 1/2"	42"	12-#11 (B)	30 1/2"	48"	16-#11 (C)	36 1/2"	54"	16-#11 (D)
2 3/4" X 5'-8"							31 1/2"	48"	18-#11 (D)	37"	54"	20-#11 (D)
3" X 6'-1"										37 1/2"	54"	24-#11 (D)

A = #3 Plain Spiral at 6" pitch (Grade 40)
 B = #4 Plain Spiral at 6" pitch (Grade 40)
 C = #4 Plain Spiral at 6" pitch (Grade 60)
 D = #4 Plain Spiral at 3 1/2" pitch (Grade 60)

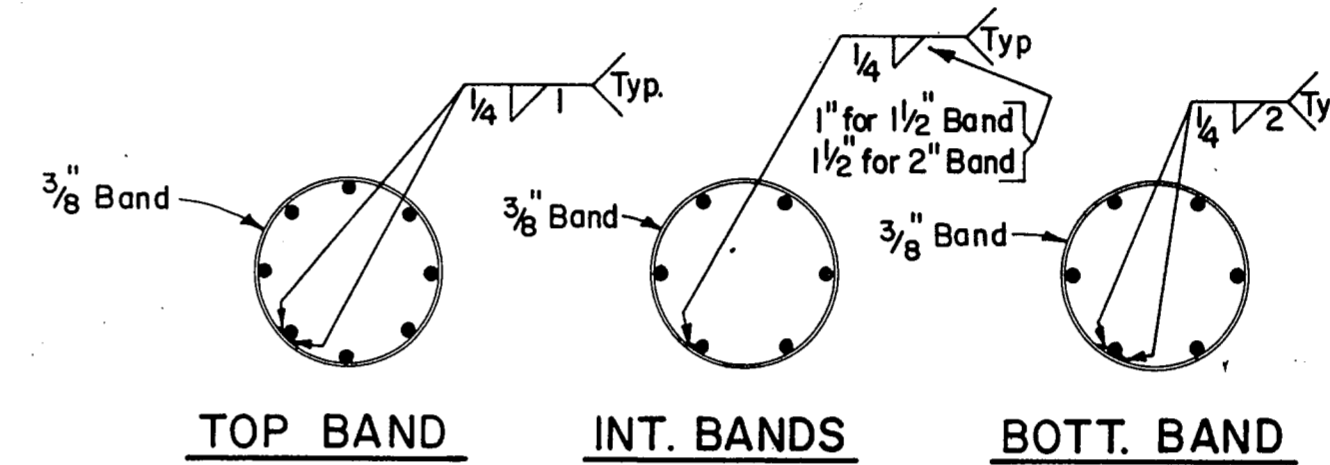
Washers shall conform to ASTM F436-76b.

ANCHOR BOLT DIA. d	WASHER DIMENSIONS			HOLE IN BASE PLATE
	OUTSIDE DIAMETER	HOLE DIAMETER	THICKNESS MIN. MAX.	
1 1/2" or less	2d	d + 1/8"	0.136" 0.177"	d + 1/4"
1 3/4"	2d - 1/8"	d + 1/8"	0.178" 0.280"	d + 5/16"
2"	2d - 1/4"	d + 1/8"	0.178" 0.280"	d + 5/16"
Over 2"	2d - 1/2"	d + 1/8"	0.240" 0.340"	d + 5/16"



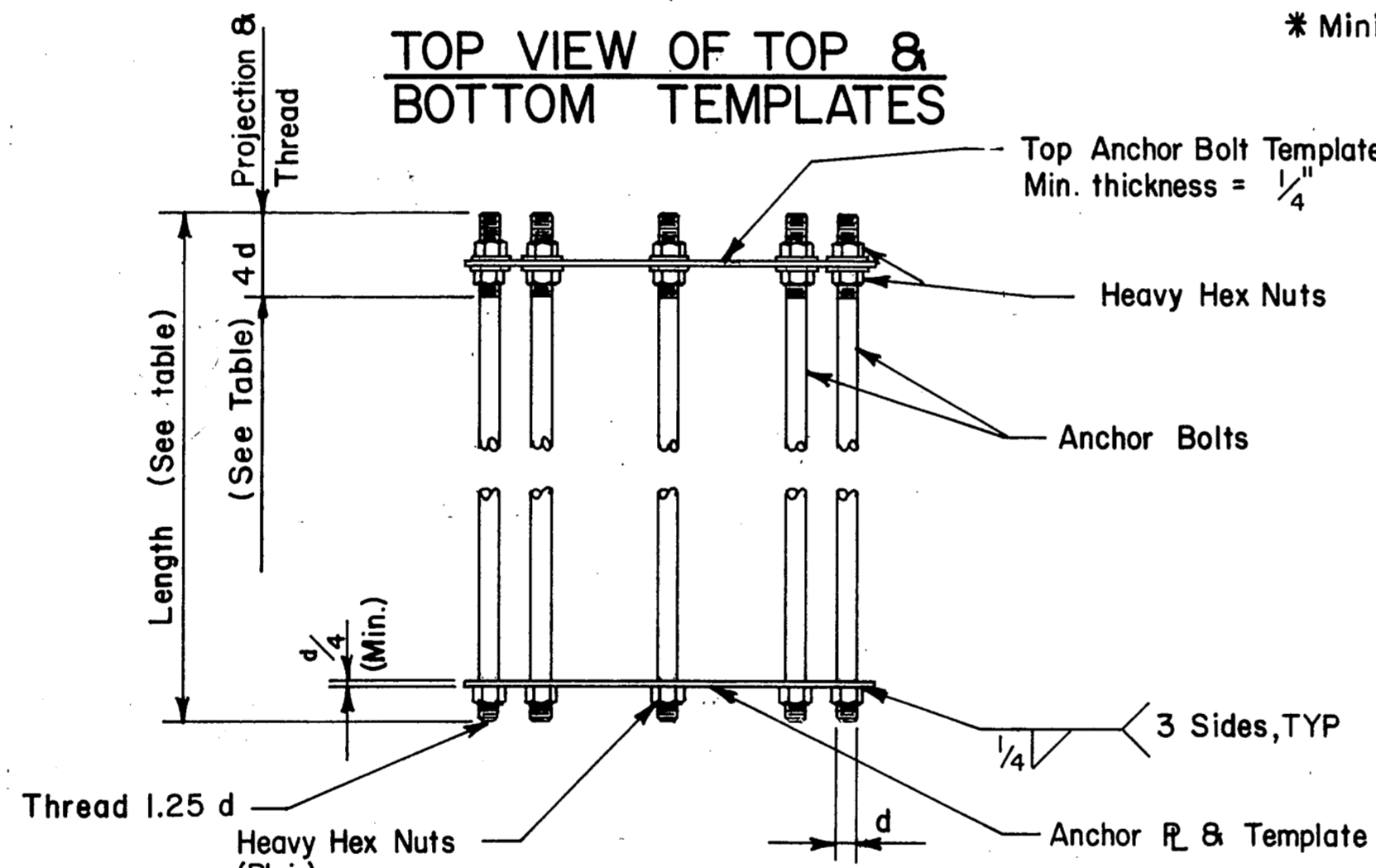
ANCHOR BOLT SIZE		
DIA.	LENGTH	PROJ. & THREAD
1 1/4"	2'-11"	5"
1 3/8"	3'-1"	5 1/2"
1 1/2"	3'-4"	6"
1 3/4"	3'-10"	7"
2"	4'-3"	8"
2 1/4"	4'-9"	9"
2 1/2"	5'-2"	10"
2 3/4"	5'-8"	11"
3"	6'-1"	12"

* Minimum dimensions are given.

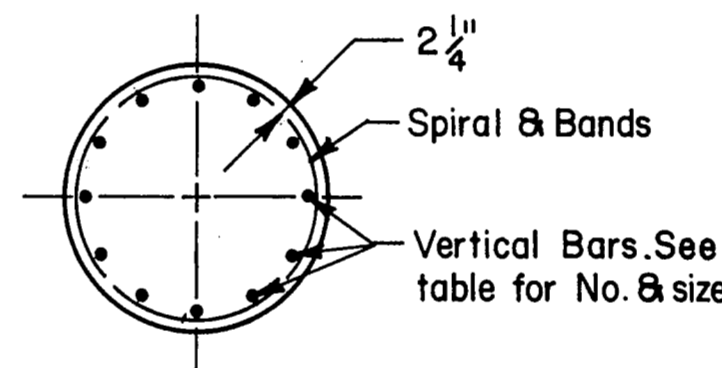


TOP BAND INT. BANDS BOTT. BAND

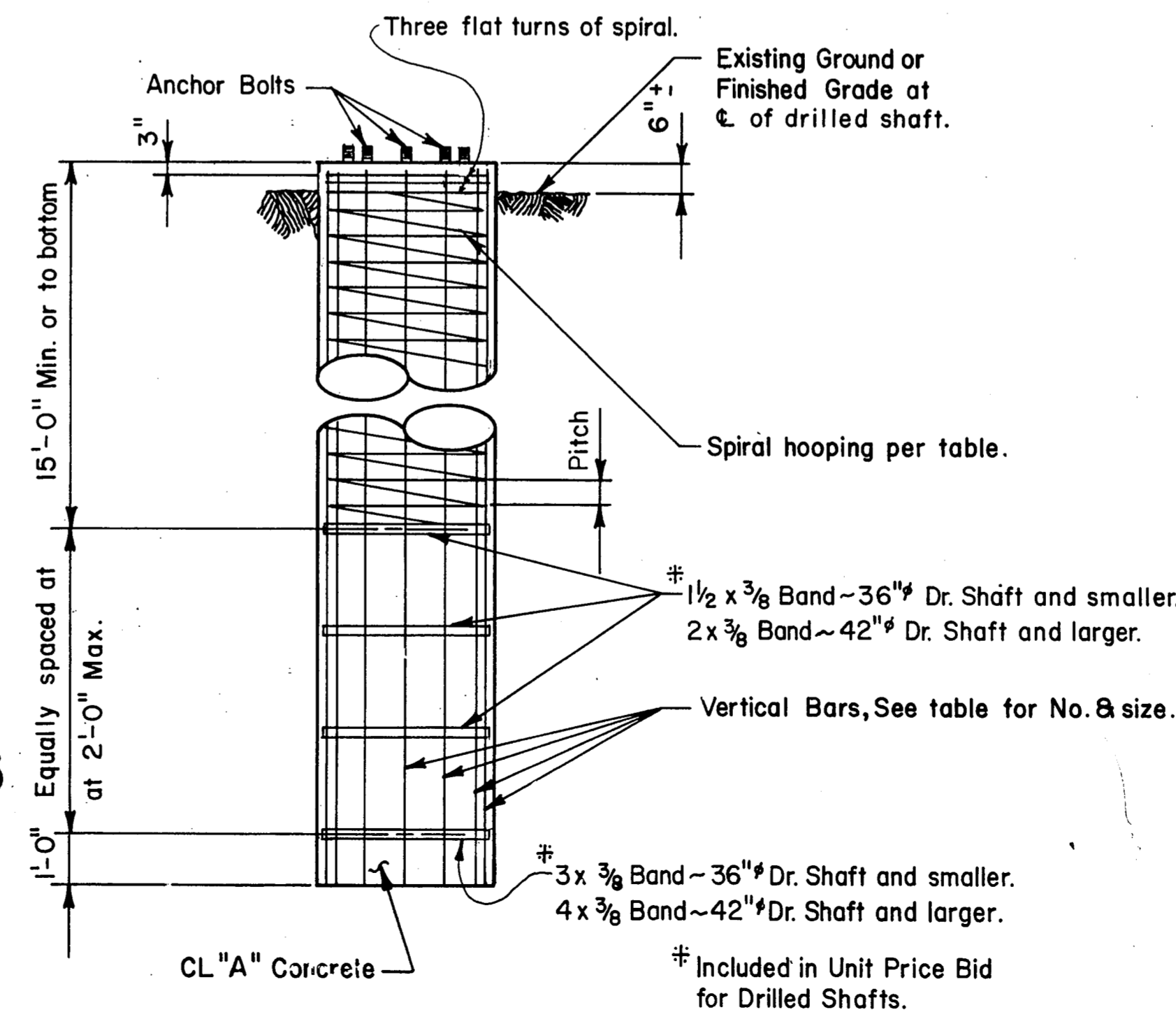
TOP VIEW OF TOP & BOTTOM TEMPLATES



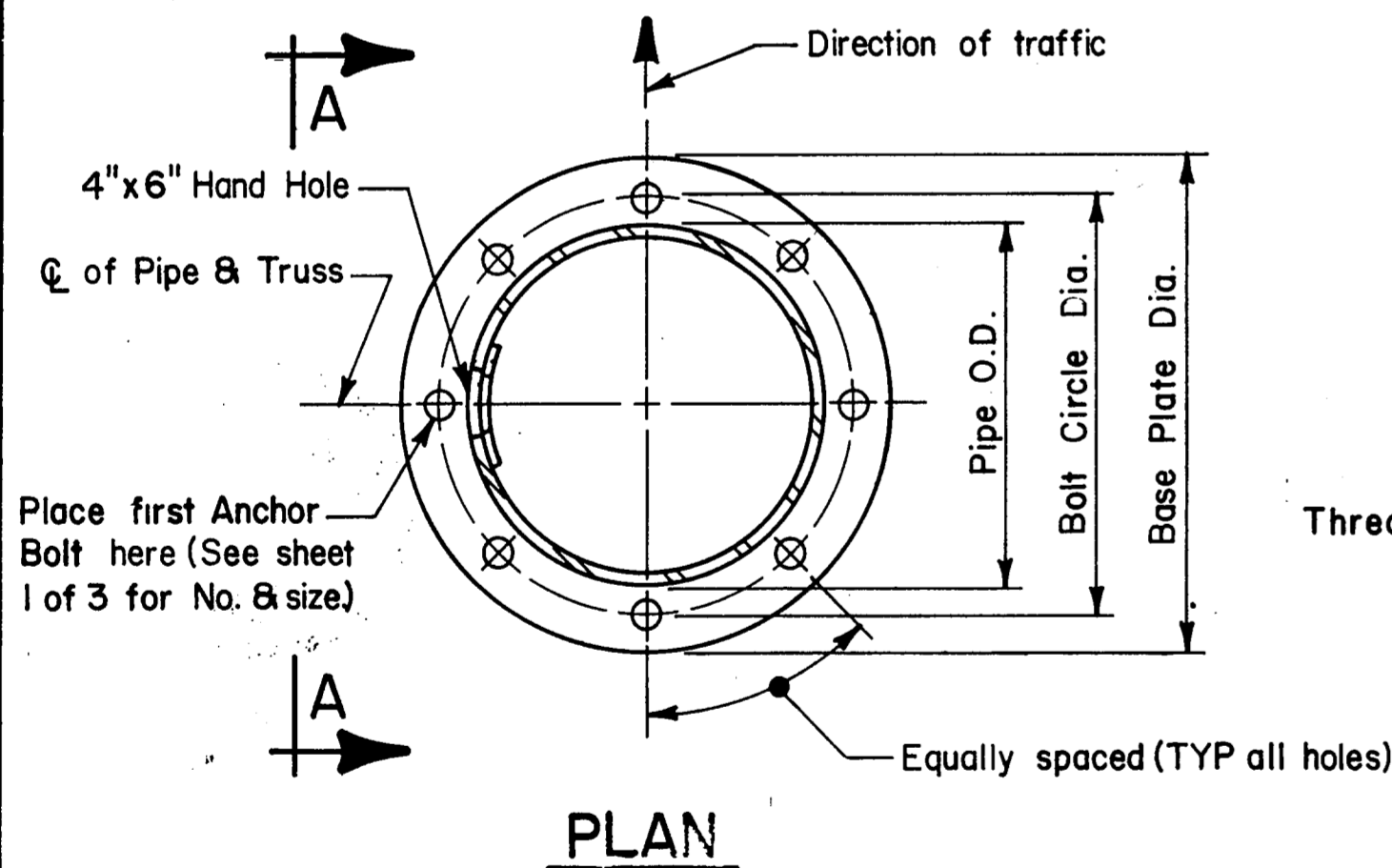
ANCHOR BOLT ASSEMBLY (PRIOR TO INSTALLATION)



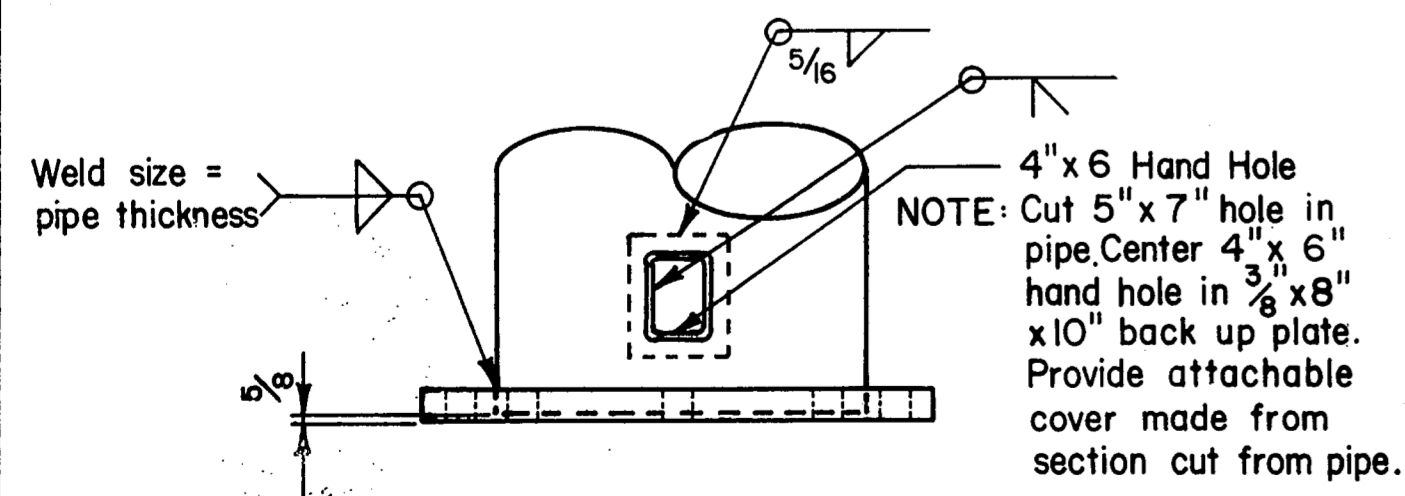
SECTION



FOUNDATION DETAIL



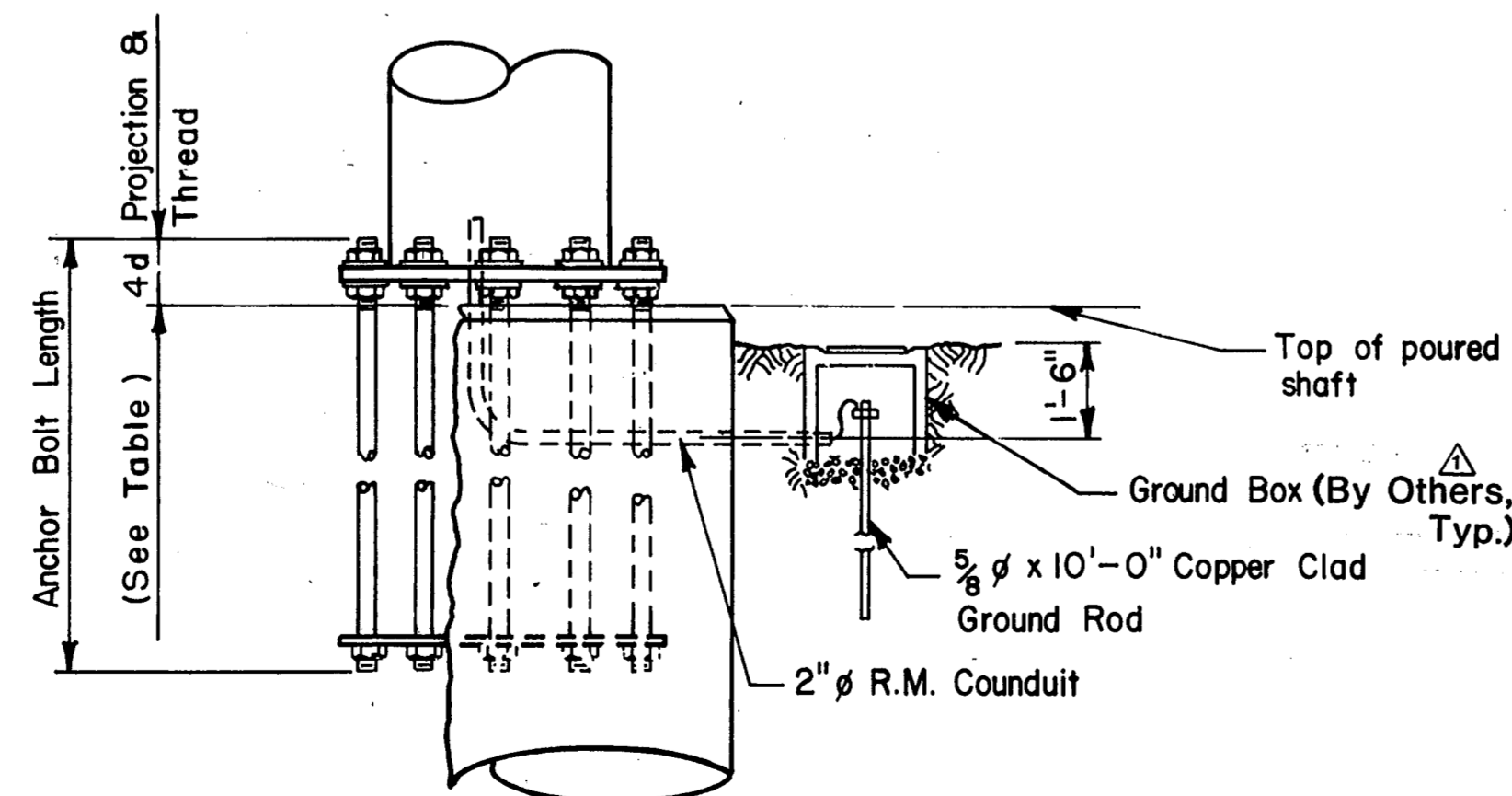
PLAN



VIEW A-A

BASE PLATE & HANDHOLE DETAILS

(SEE SHEET 1 OF 3 FOR DIAMETER & THICKNESS OF BASE PLATE)



BEARING SEAT ELEVATION

GENERAL NOTES:

Concrete shall be Class "A".
 Reinforcing shall conform to item 440.
 Anchor bolts shall conform to ASTM A193-B7. Nuts for anchor bolts shall be heavy hex and shall conform to ASTM A194-2H. Thread for anchor bolts and nuts shall be 8 UN. Unless noted otherwise, anchor bolt top end projection plus 6" shall be galvanized. Nuts and washers at the base plate shall be galvanized. Nuts shall be tapped or chased after galvanizing. Bolts and nuts shall have Class 2A and 2B fit tolerances.
 Anchor bolts shall be rigidly held in position during concrete placement using steel templates at the top and bottom. The top templates shall be removed after the concrete has set.
 After the structure has been aligned in its final position, tack weld anchor bolt nuts to washer, and tack weld washers to base plate. Galvanizing in welded area shall be repaired in accordance with the Specification.
 Unless shown otherwise welded steel bands may be replaced with spiral as noted on the foundation detail.
 All vertical reinforcing shall be carried to the bottom of the Dr. Shaft.

REPRODUCED FROM STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION STANDARD DRAWING COSSE

FINAL RECORD DRAWING
 Date: 12/25/99

2	MISC. REVISION	PJ	9-19-91
1	ADD NOTE	GAL	4-1-86
NO.	REVISION	BY	DATE

TEXAS TURNPIKE AUTHORITY
 DALLAS NORTH TOLLWAY

CANTILEVER OVERHEAD
 SIGN SUPPORT FOUNDATION

HNTB
 HOWARD NEEDLES TAMMEN & BERGENDOFF

DRAWN	DATE	DESIGNED	DATE
CHECKED	DATE	SCALE	

STANDARD DRAWING NO. SS-25