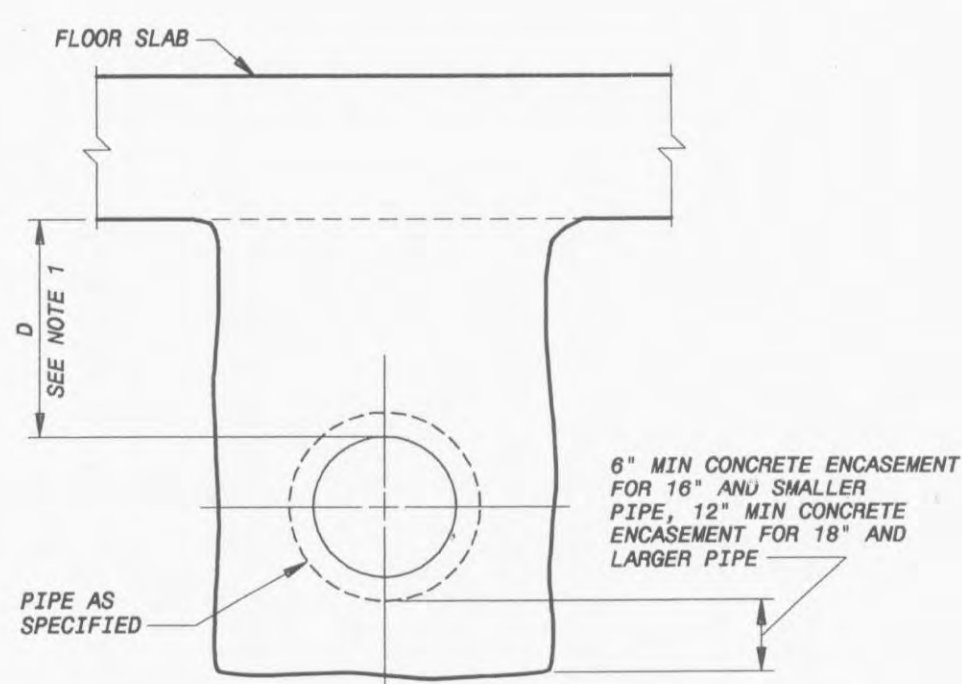


WALL SLEEVE TABLE	
PIPE SIZE	SLEEVE SIZE (UNLESS OTHERWISE INDICATED)
1" & SMALLER	3" (1)
1 1/4" & 1 1/2"	3 1/2" (1)
2"	4" (1)
3"	6" (2)(4)
4"	6" (2)(4)
6"	8" (3)(4)
8" & LARGER	PIPE OD+2" (3)(4)

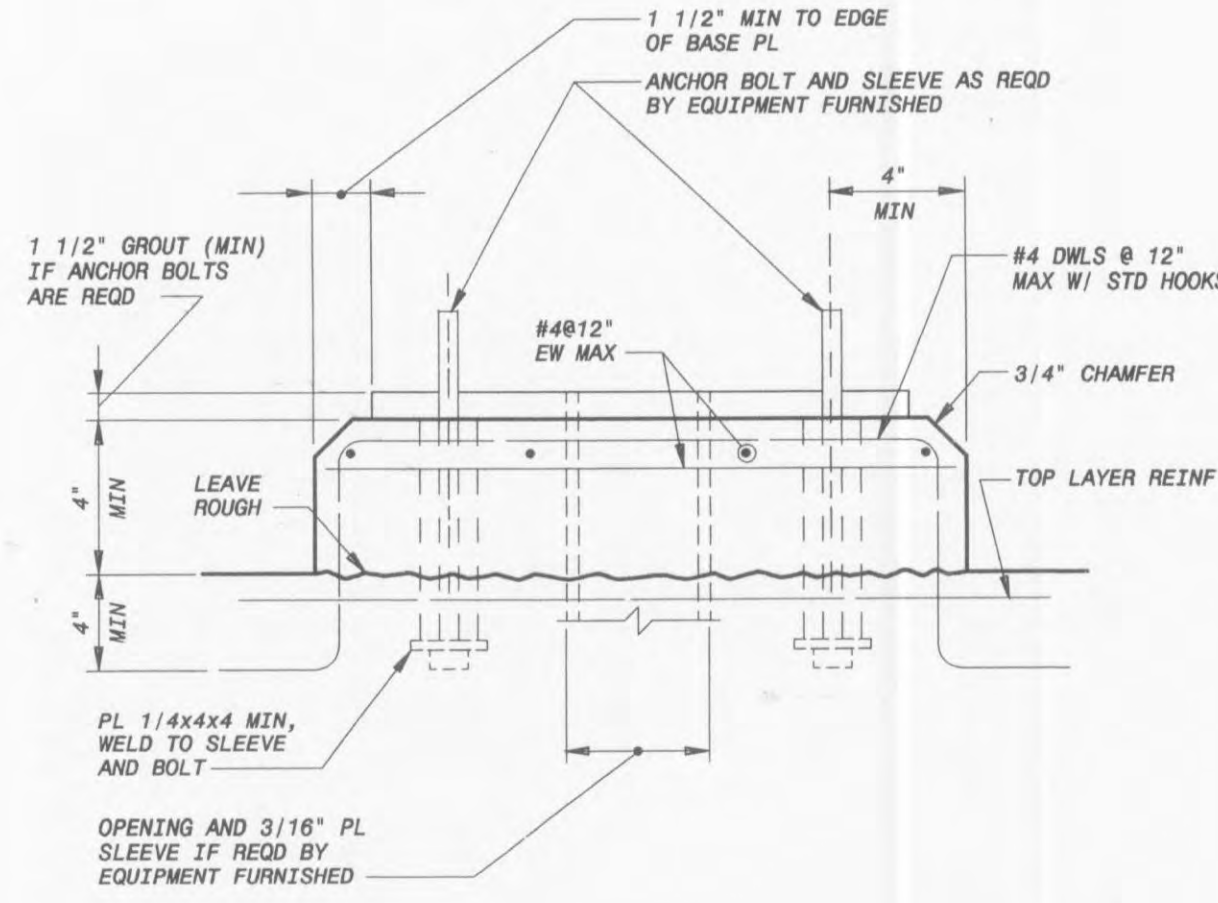
- (1) SCHEDULE 40 GALV STEEL PIPE
- (2) SCHEDULE 20 GALV STEEL PIPE, MINIMUM
- (3) 1/4" MINIMUM WALL THICKNESS
- (4) IF PIPE IS FLANGED, USE SLEEVE LARGE ENOUGH FOR FLANGE TO PASS THROUGH

MASONRY WALL SLEEVE (A)
NO SCALE



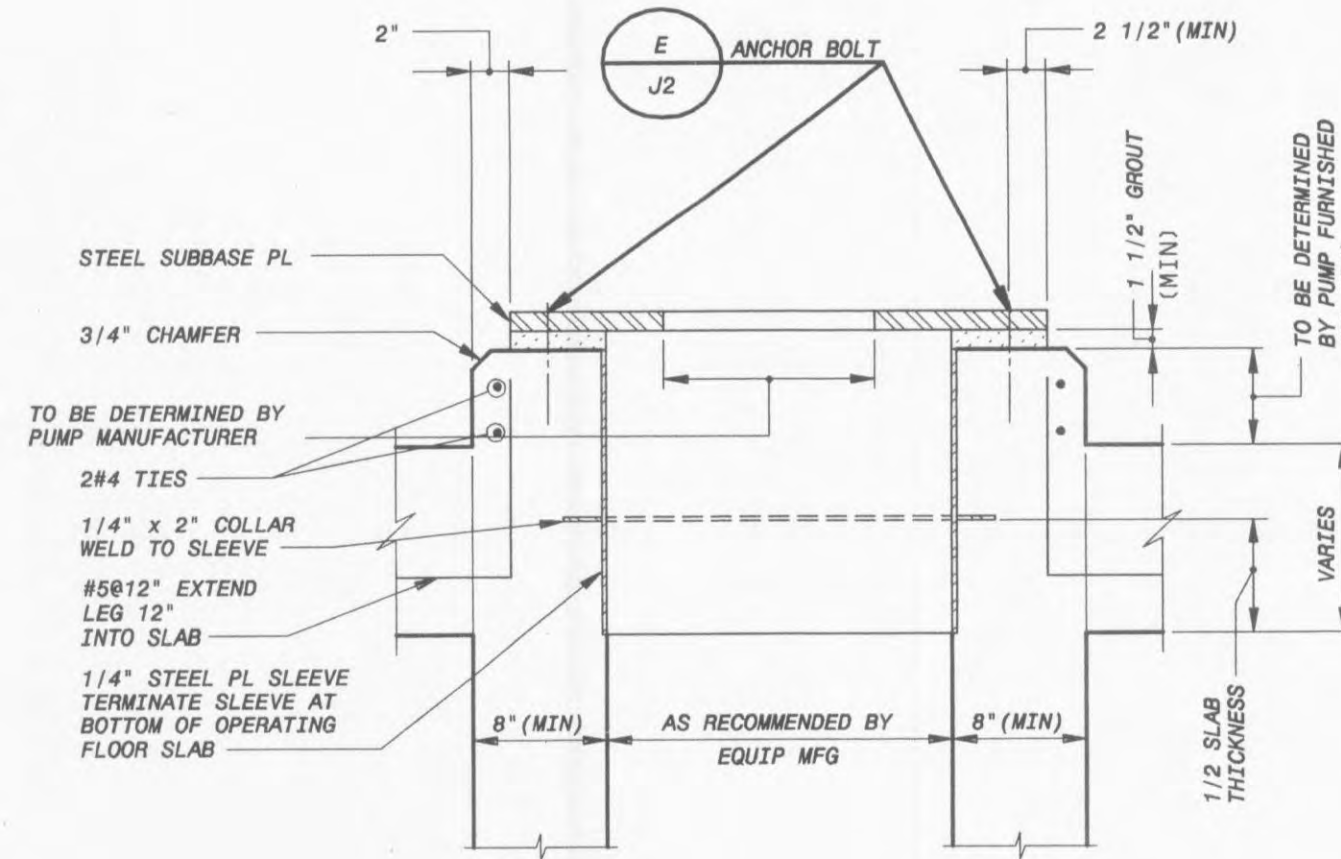
- NOTES:**
- IF D IS LESS THAN 1'-6", PROVIDE ENCASMENT CONTINUOUS TO SLAB. IF D IS GREATER THAN 1'-6", ENCASMENT MAY BE SEPARATED FROM SLAB.
 - PROVIDE A BELL AT THE END OF CONCRETE ENCASMENT WHERE PIPELINE CHANGES FROM AN ENCASED PIPELINE TO A BURIED PIPELINE.

CONCRETE ENCASMENT FOR PIPE UNDER SLABS (B)
NO SCALE

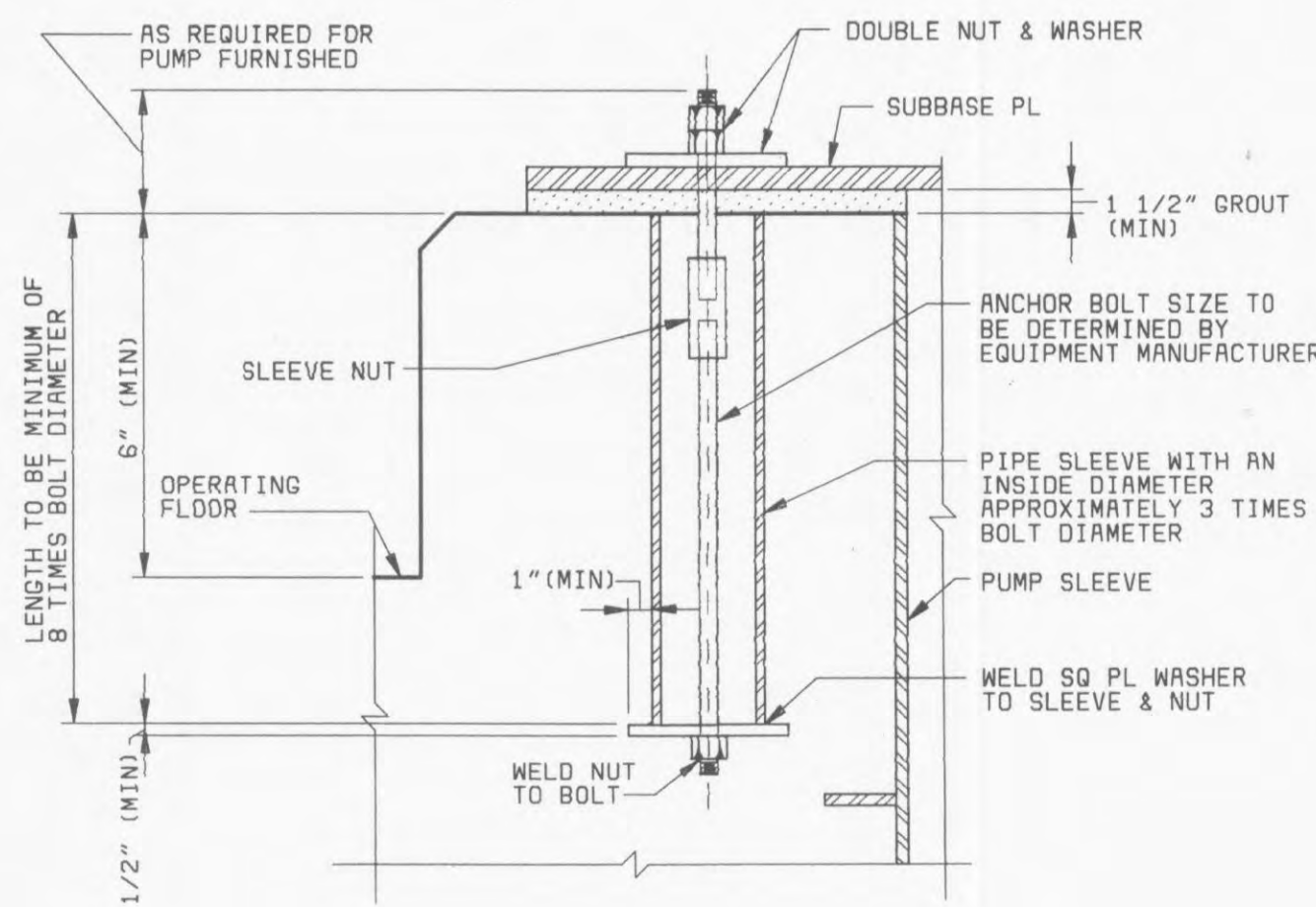


- NOTES:**
- WILSON ANCHOR SLEEVES MAY BE SUBSTITUTED FOR STEEL PIPE SLEEVES.
 - EQUIPMENT BASES SHALL EXTEND AS REQUIRED TO ENCOMPASS OPENINGS IN FLOORS OVER BASEMENT AREAS AND WATER SURFACES.

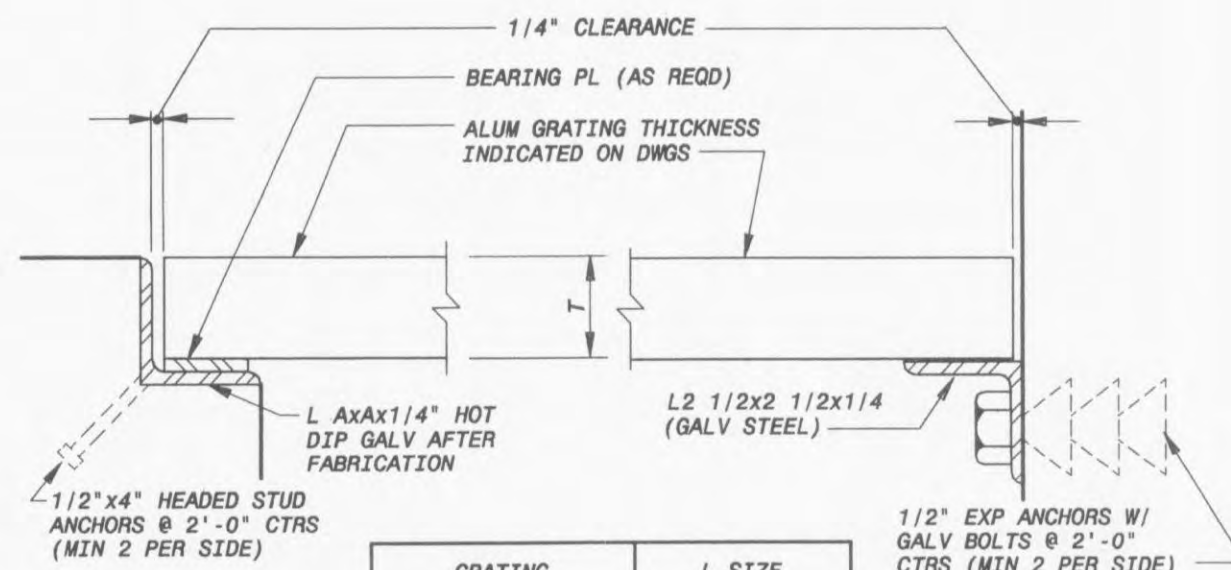
EQUIPMENT BASE (C)
NO SCALE



VERTICAL DIFFUSION (CAN TYPE) PUMP BASE (D)
NO SCALE



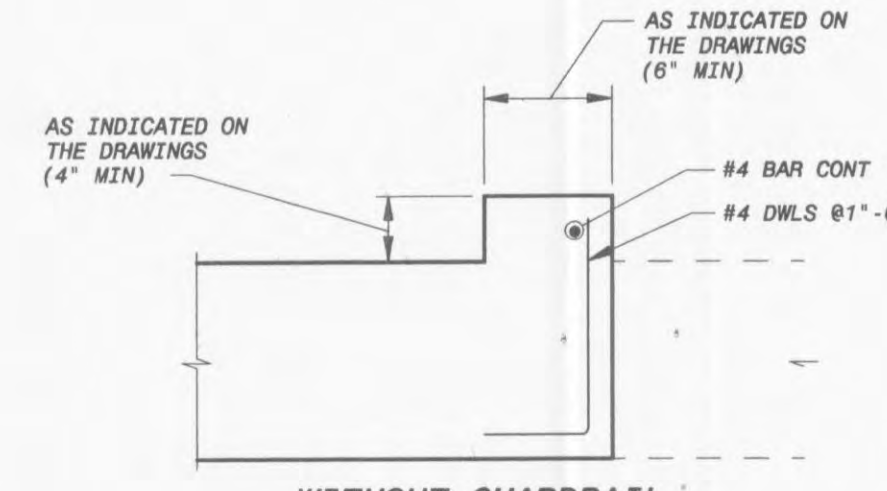
VERTICAL DIFFUSION PUMP ANCHOR BOLT DETAIL (E)
NO SCALE



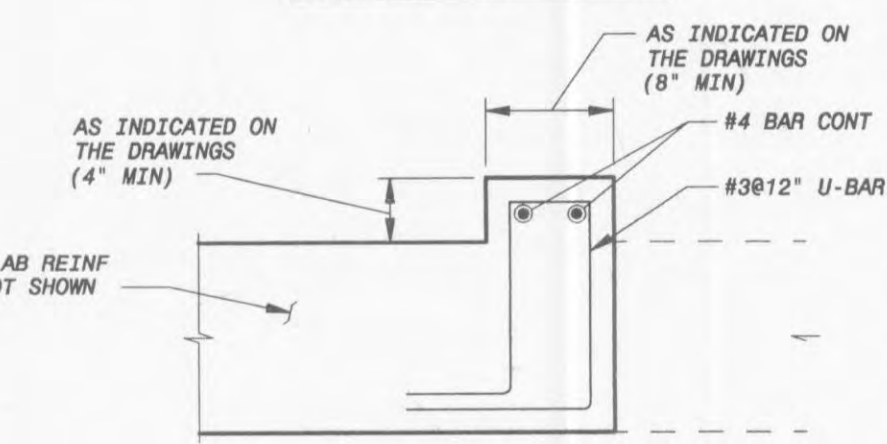
GRATING THICKNESS (T)	L SIZE AXAX1/4
3/4	1x1
1	1 1/4x1 1/4
1 1/4	1 1/2x1 1/2
1 1/2	1 3/4x1 3/4
1 3/4	2x2
2	2 1/2x2 1/2*
2 1/4	2 1/2x2 1/2
2 1/2	3x3*

* 1/4" BEARING PL REOD, (WELD TO L)

GRATING SUPPORT (F)
3" = 1'-0"

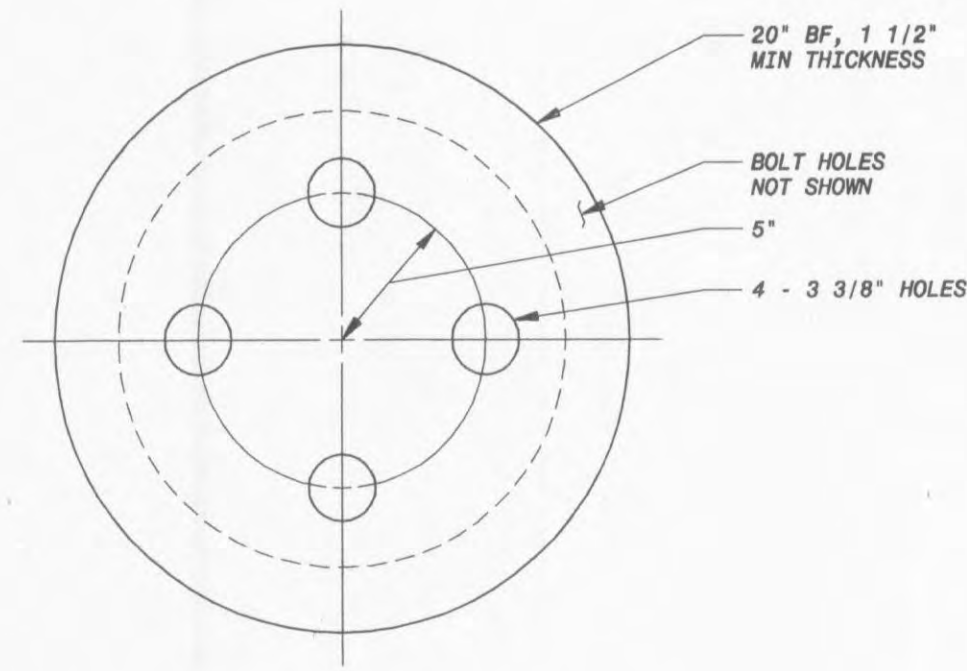


WITHOUT GUARDRAIL

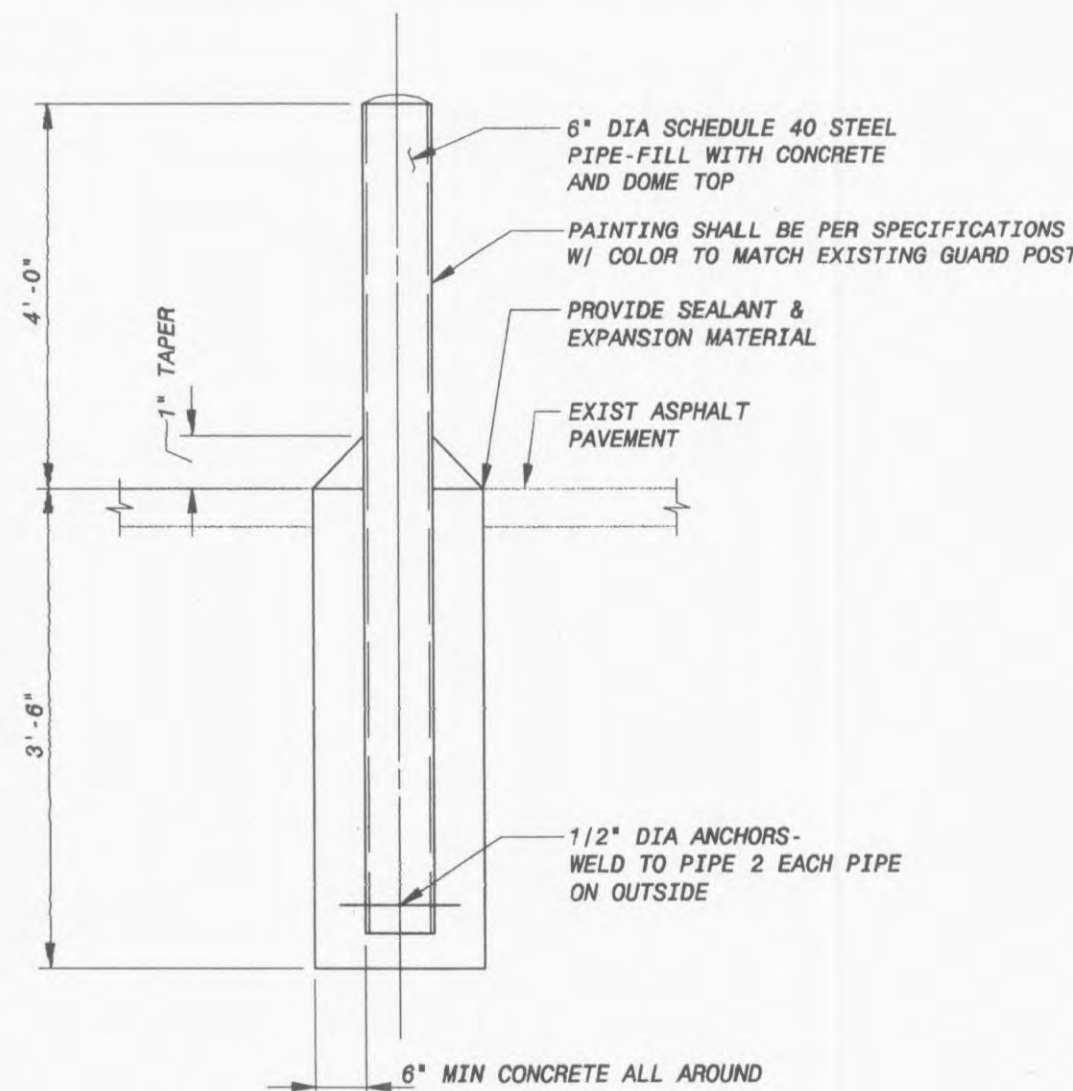


WITH GUARDRAIL

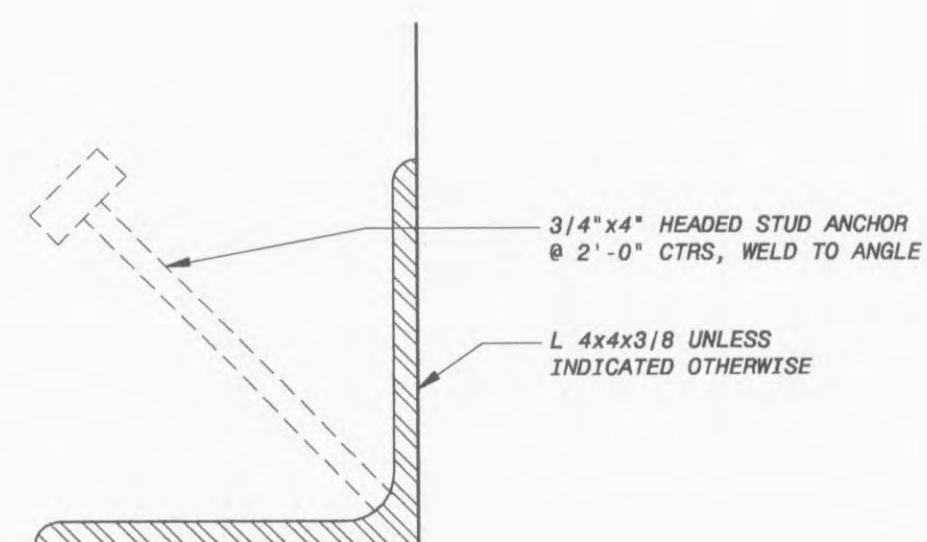
CURB DETAIL (G)
NO SCALE



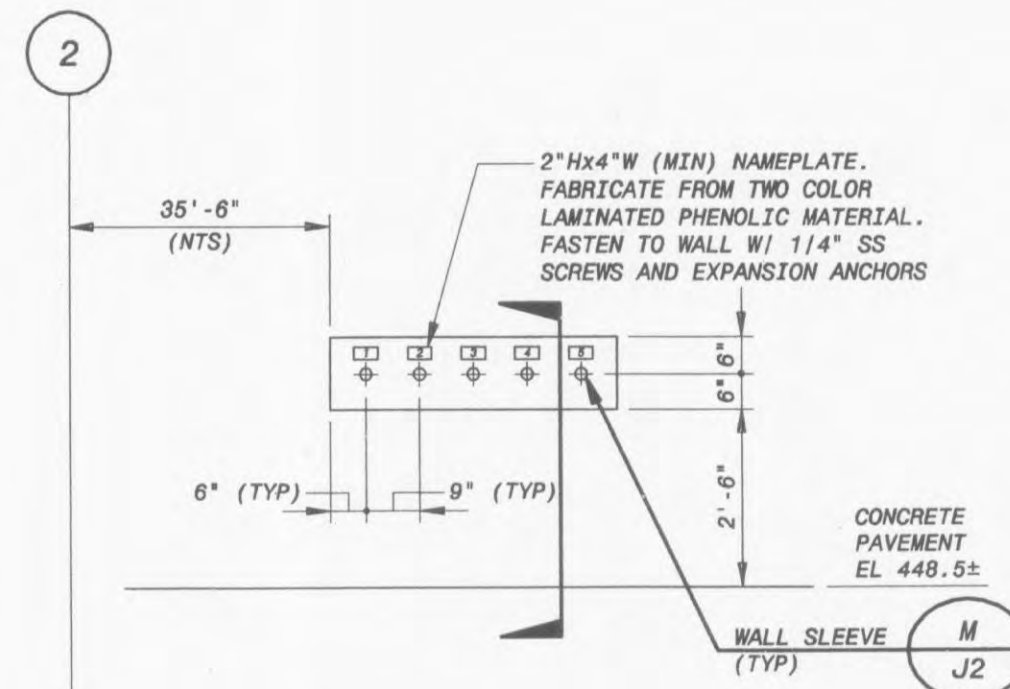
ORIFICE PLATE (H)
NO SCALE



GUARD POST (J)
NO SCALE



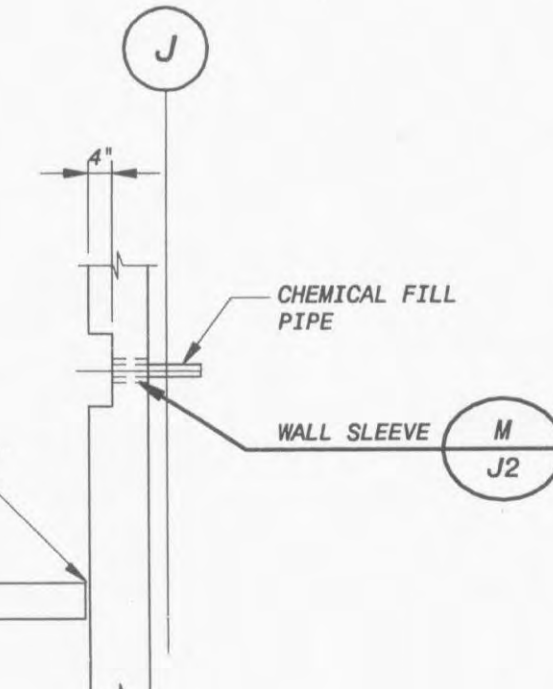
EMBEDDED ANGLE (K)
NO SCALE



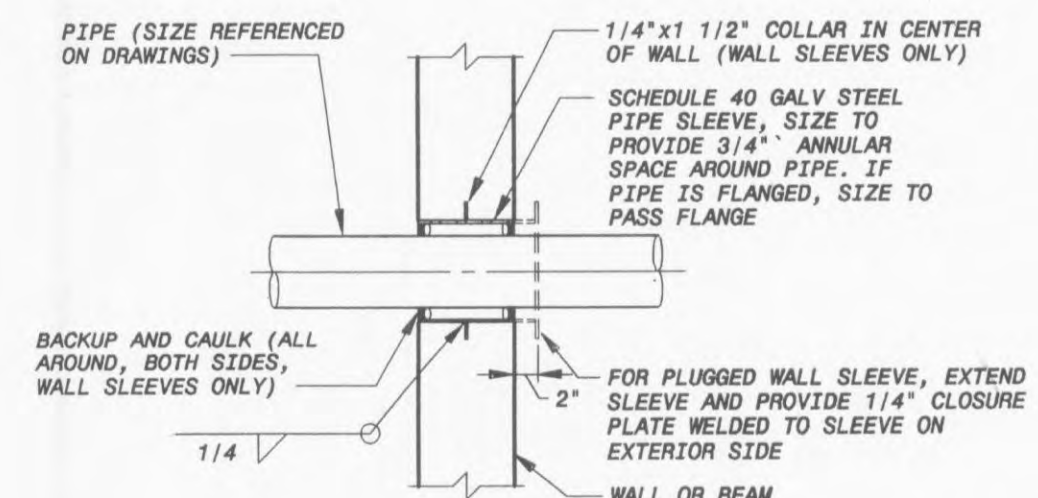
- NAME PLATE LEGEND**
- FLUORIDE STORAGE TANK FILL
 - SULFURIC ACID STORAGE TANK FILL
 - SODIUM HYDROXIDE STORAGE TANK FILL
 - SODIUM HYPOCHLORITE STORAGE TANK NO. 1 FILL
 - SODIUM HYPOCHLORITE STORAGE TANK NO. 2 FILL

ELEVATION

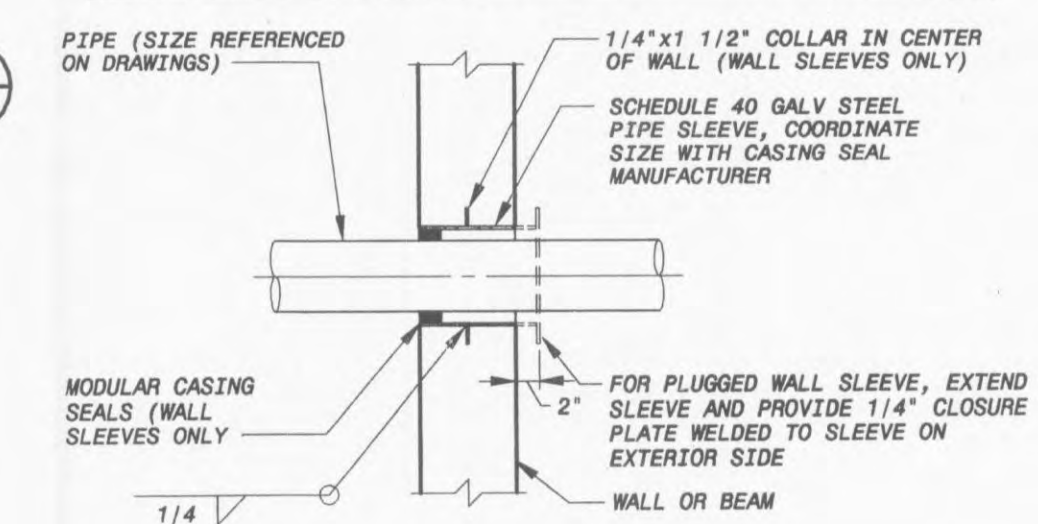
CHEMICAL FILL STATION DETAIL (L)
3/8" = 1'-0"



SECTION



FOR PIPE SMALLER THAN 2 1/2 INCH DIAMETER



FOR PIPE 3 INCH DIAMETER AND LARGER

CONCRETE WALL OR BEAM SLEEVE (M)
NO SCALE

THIS DRAWING WAS ORIGINALLY APPROVED FOR CONSTRUCTION BY JAMES G. WINGER ON 10/08/01 AND SEALED BY JAMES G. WINGER A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MISSOURI, NO. E 25004*

BLACK & VEATCH Corporation
St. Louis, Missouri

CITY OF O'FALLON, MISSOURI
WATER TREATMENT PLANT
PIPING AND MISCELLANEOUS DETAILS

DESIGNED: JGW
DETAILED: WMT
CHECKED: WLK
APPROVED: JGW
DATE: 10/08/01

PROJECT NO.
97515

J2

SHEET
44 OF 96