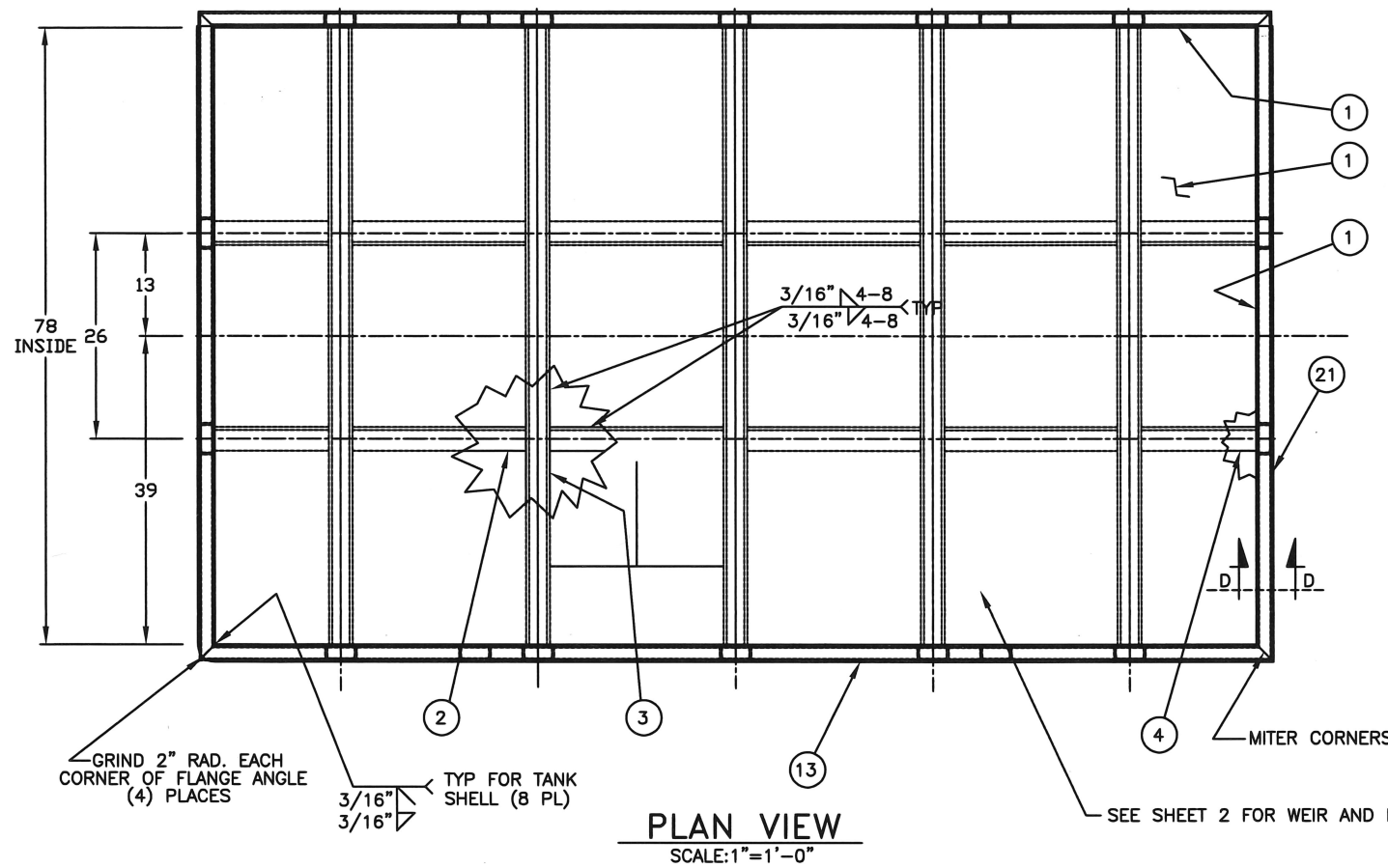
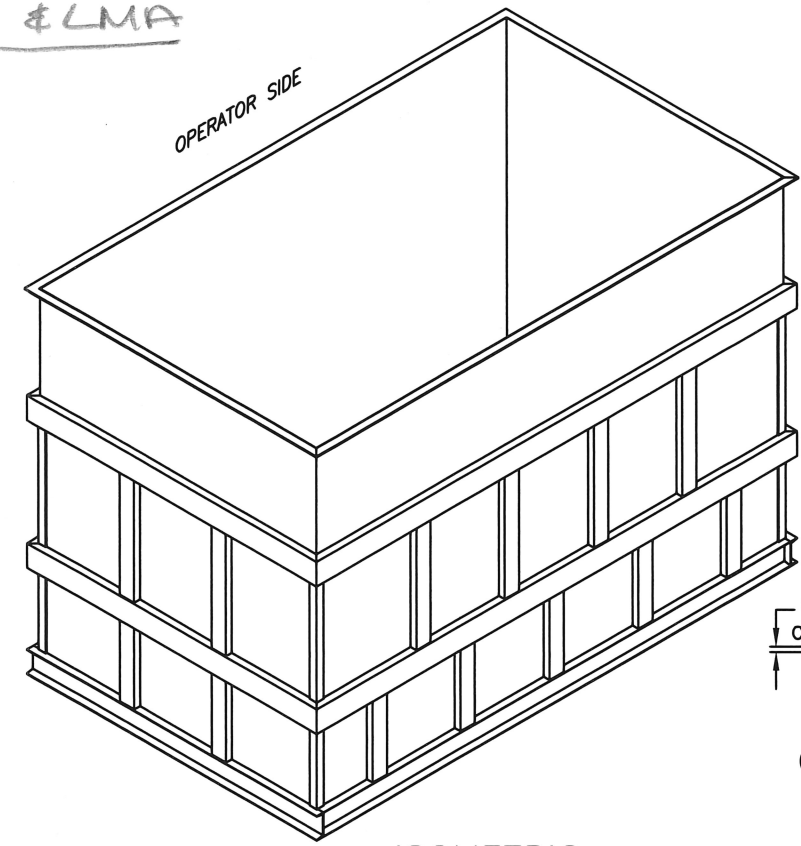


LPC-S
LMA

Steel & LMA

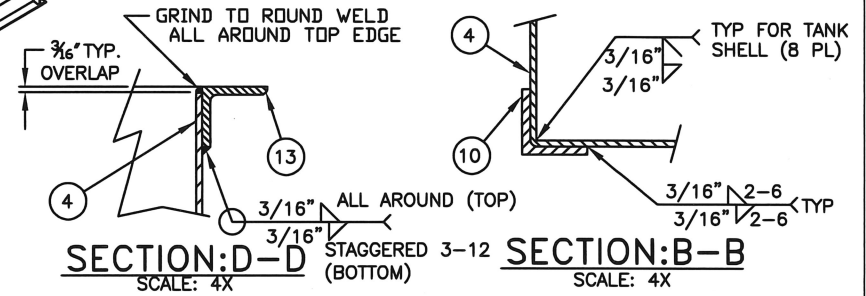


PLAN VIEW
SCALE: 1"=1'-0"



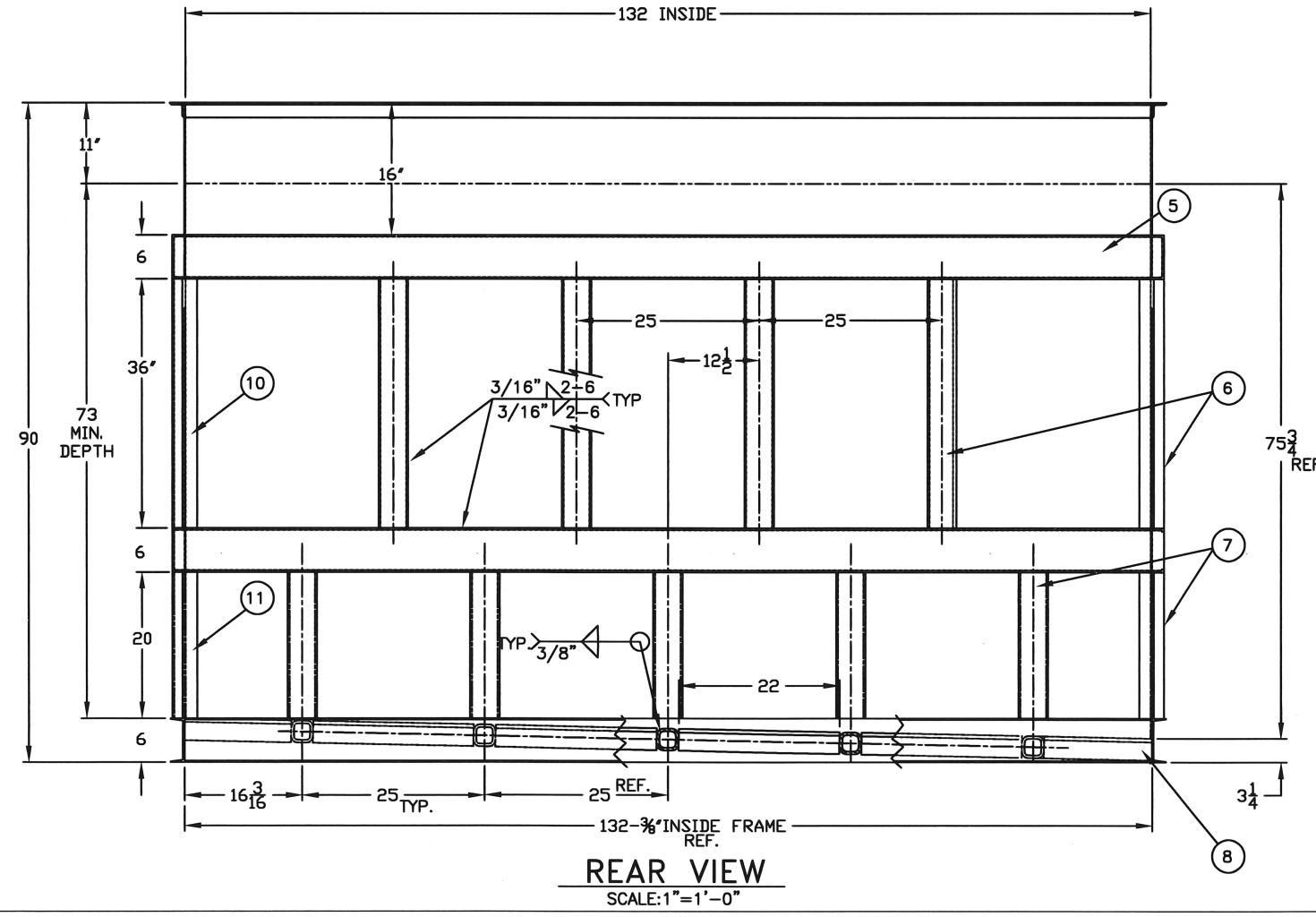
ISOMETRIC
SCALE: 1/4"=1'-0"

ITEM		MATERIAL LIST	
QTY.	DESCRIPTION	QTY.	DESCRIPTION
1	A/R	3/16 THK. 304L SS PL	
2	8	3 X 3 X 1/2 304I ANG X 22 LG.	
3	5	3 X 3 X 3/8 SQ TBG X 78 3/8 LG, 304L	
4	4	3 X 3 X 1/2 MS ANG X 14 5/8 LG. 304L	
5	4	C6X8.2 304L CHANNEL X 136 -1/8" LG.	
6	12	C4X7.25 304L CHANNEL X 36" LG.	
7	14	C4X7.25 304L CHANNEL X 20" LG.	
8	2	C6X8.2 304L CHANNEL X 132 3/8 LG	
9	4	C6X8.2 304L CHANNEL X 81-7/8 LG.	
10	4	2 X 2 X 1/4 FORMED 304L ANG X 36" LG. (BREAK 90')	
11	4	2 X 2 X 1/4 FORMED 304L ANG X 20 LG (BREAK 90')	
12	2	C6X8.2 304L CHANNEL X 82 -1/8" LG.	
13	2	2 X 2 X 1/4 304L SS ANG X 136 3/8 LG	
14	2	2 X 2 X 1/4 304L SS ANG X 82-3/8" LG.	

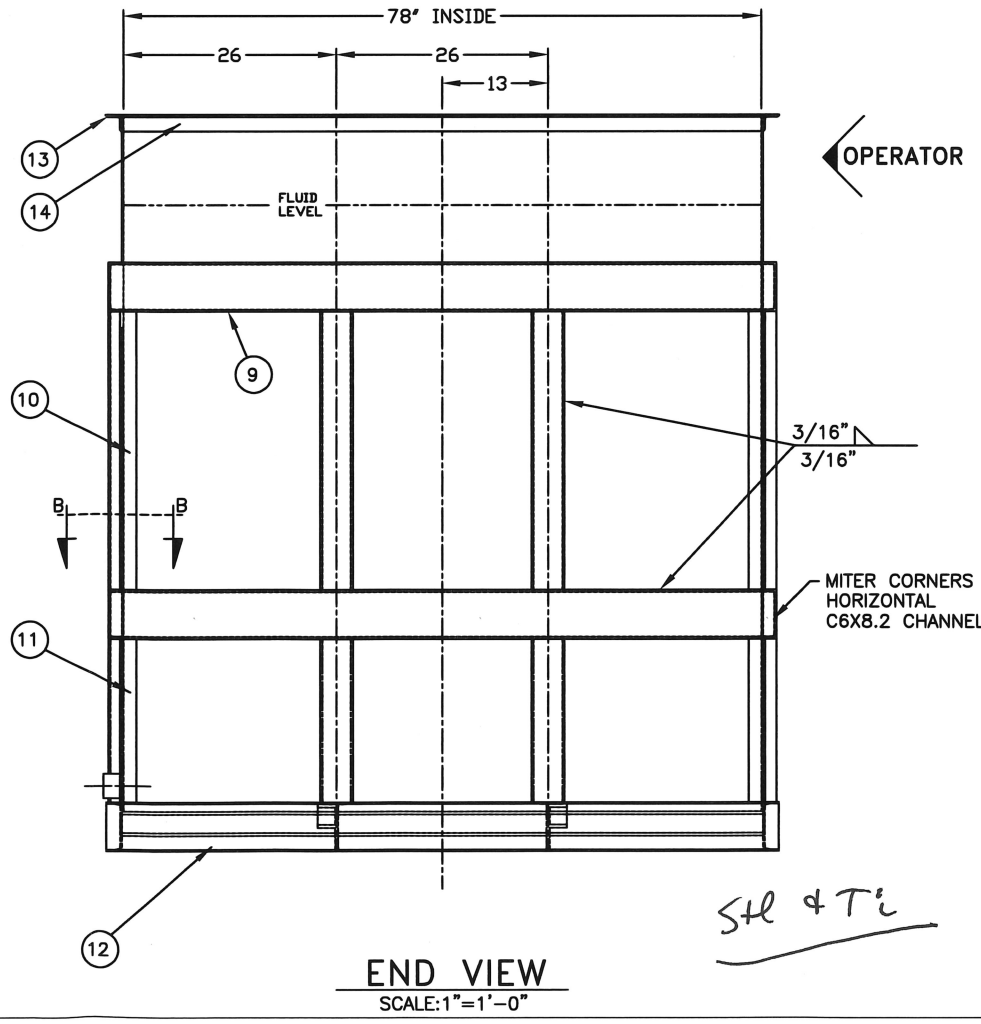


SECTION D-D
SCALE: 4X

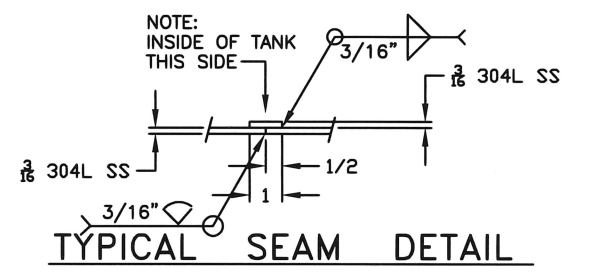
SECTION B-B
SCALE: 4X



REAR VIEW
SCALE: 1"=1'-0"



END VIEW
SCALE: 1"=1'-0"



TYPICAL SEAM DETAIL

GENERAL NOTES:
(UNLESS OTHERWISE SPECIFIED)

- PAINT ALL MS PARTS W/ 1 COAT RED OXIDE PRIMER, 1 COAT RODDA SAFETY BLUE.
- COAT INSIDE OF TANK AND 18" DOWN ON FRONT EXTERIOR OF TANK WITH 411-350 PA VINYL ESTER RESIN, 3/8" THICK MIN, 5/8" THICK MAX.; BUILD THICKNESS USING FIBERGLASS AND RESIN MATRIX SYSTEM; CONTACT PCC ENGINEERING
- TANK SHALL BE WATERTIGHT AND TESTED.
- ALL MATERIALS SHALL BE AS SPECIFIED OR ENGINEER APPROVED EQUAL.

APPROX. VOLUME = 3,275 GALS.

REV	DATE	DESCRIPTION	REV
2	7/16/15	MOD. NOTE 2, SECT D-D WELDS & BOT. WELD	RDB
1	8/11/14	ITEMS 2-14 WERE MS	RDB

PCC **PCC Structurals, Inc.**
 4600 S.E. HARNEY DR., PORTLAND, OREGON
ACID ETCH TANK
McLOUGHLIN BLDG

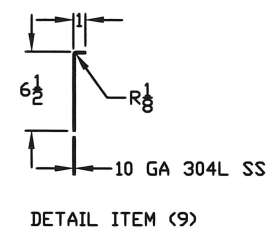
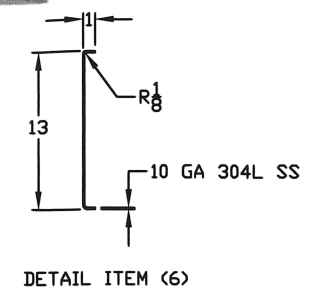
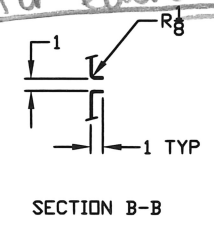
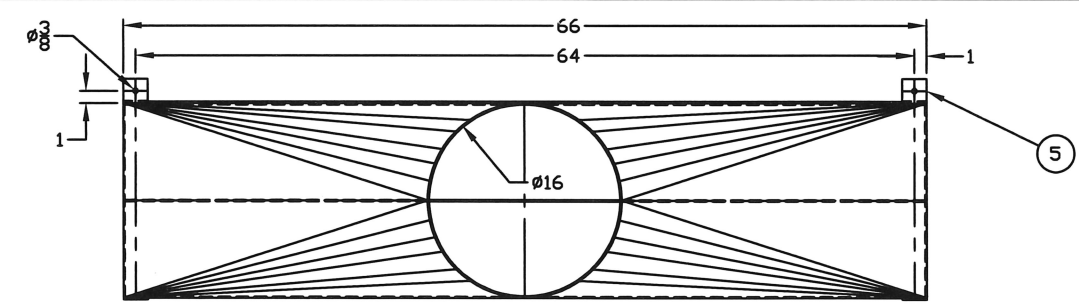
SCALE: 1"=1'-0" DATE: May 31 2006
 DESIGNER: DJD DWN BY: DJD
 CHK/APR - FILE: td35121a.dwg
 TOLERANCES UNLESS OTHERWISE SPECIFIED
 .XX=.030" .XXX=.010" FRAC.=1/16" ANG.=1/2"

DRAWING NO. TI-D-3521 SHT 1/3 R 2

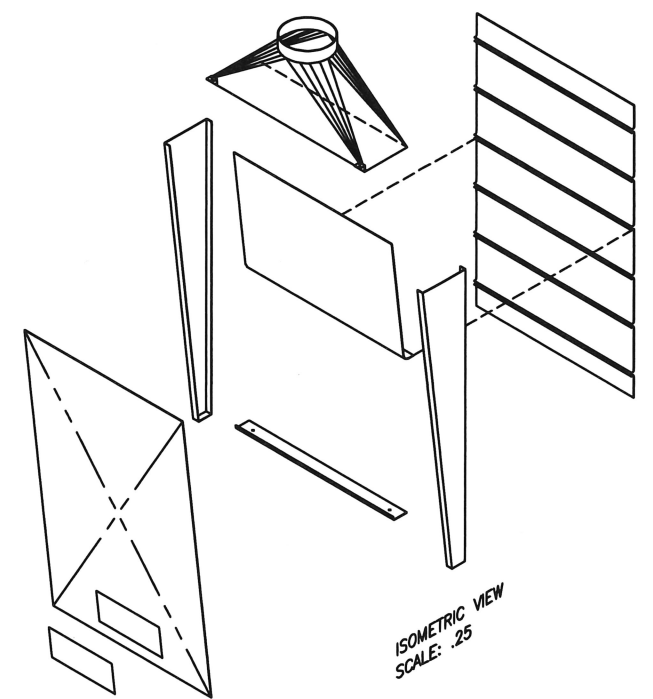
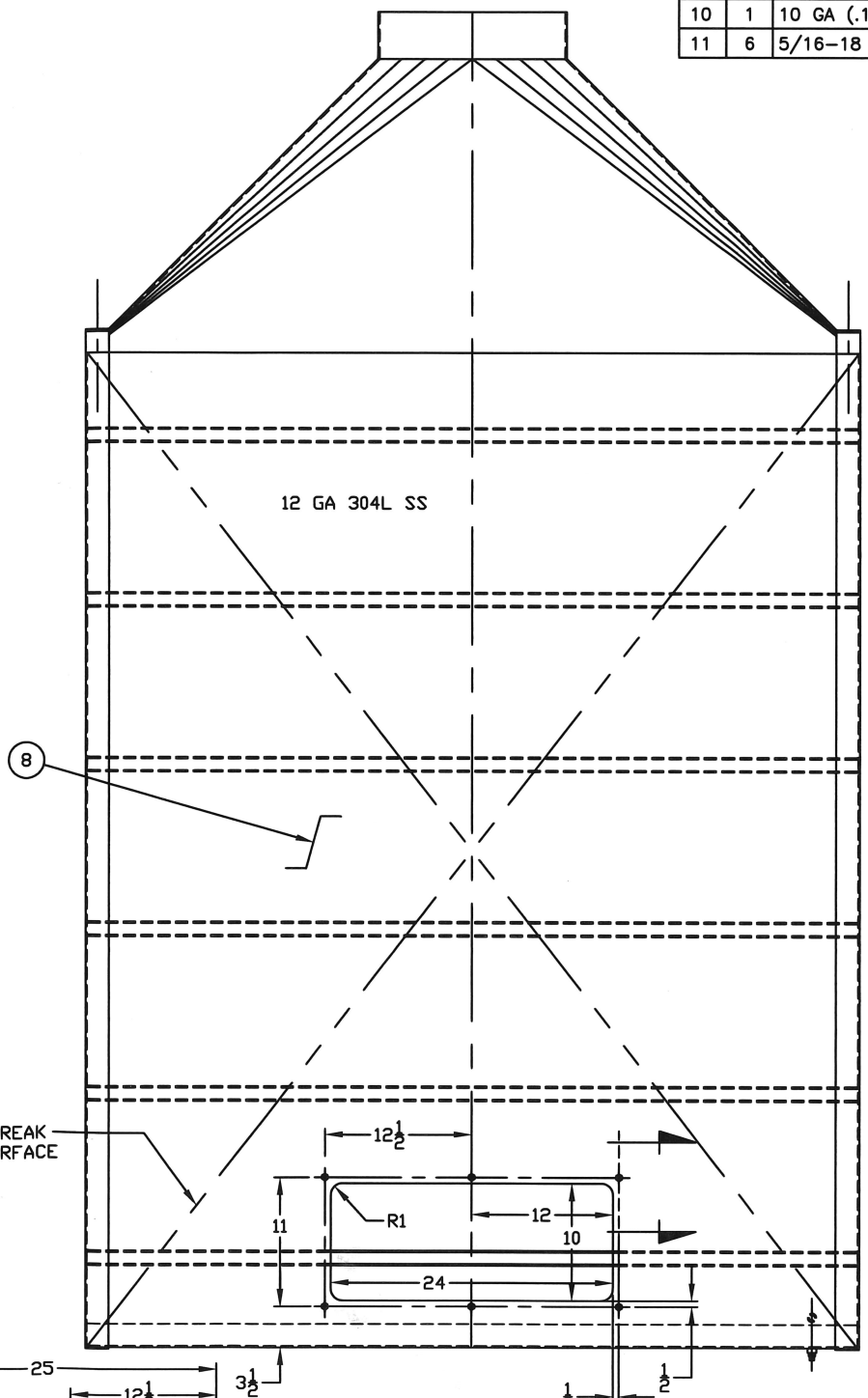
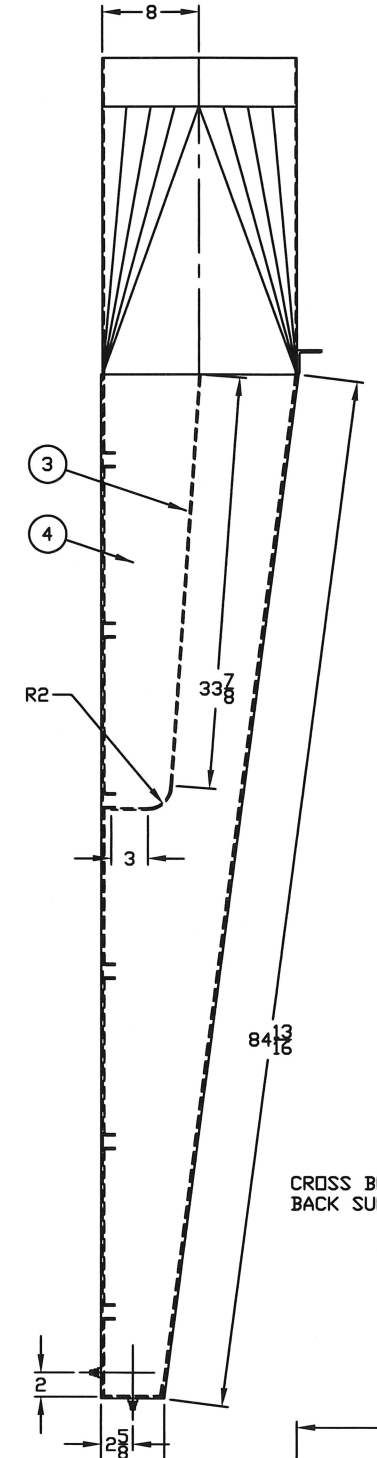
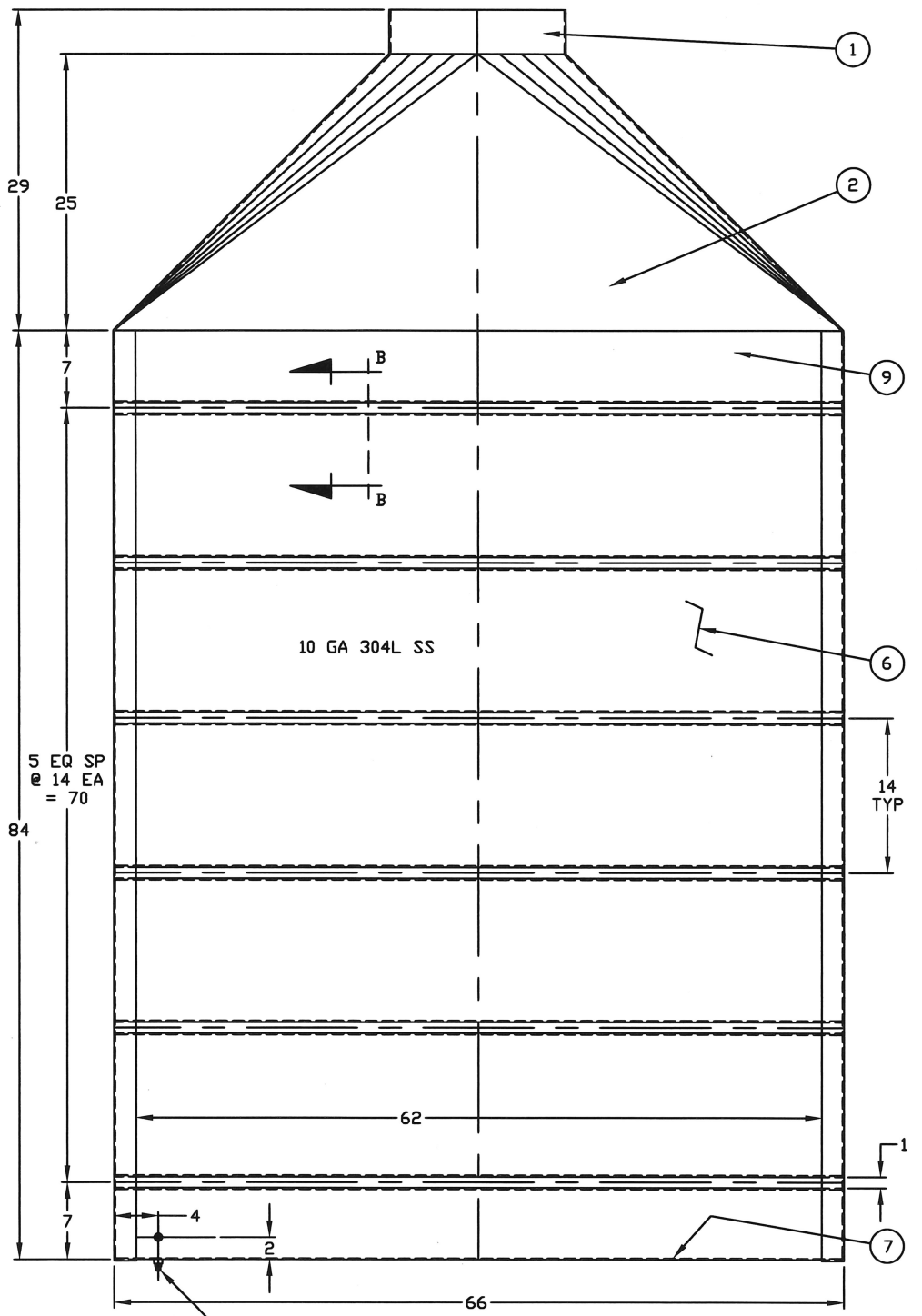
Stl & Tc

Steel & LMA

x 2 for each tank!



ITEM		QTY.	DESCRIPTION
1	1	12 GA (.1054") 304L SS 4 X 50.27 LG. (ROLLED TO 16 DIA.)	
2	A/R	12 GA (.1054") 304L SS TRANSITION (16 X 66 RECT. TO 16 DIA)	
3	1	12 GA (.1054") 304L SS X 38 1/2 X 65 5/8 LG. (FORMED DIVIDER PLATE)	
4	2	12 GA (.1054") 304L SS X 20 X 98 (FORMED SIDE PLATES)	
5	2	2 X 2 X 3/16 MS ANG X 2 LG	
6	5	10 GA (.1350") 304L SS X 65 5/8 X 15 LG. (FRONT PLATE)	
7	1	10 GA (.1350") 304L SS X 6 X 65 5/8 LG. (BOTTOM PLATE)	
8	1	12 GA (.1054") 304L SS X 65 5/8 X 84 13/16 LG. (BACK PLATE)	
9	2	10 GA (.1350") 304L SS X 65 5/8 X 7 LG. (FRONT PLATE)	
10	1	10 GA (.1350") 304L SS X 26 X 12 LG.	
11	6	5/16-18 UNC HEX HD CPSCR X 1 1/2 LG W/NUT & L-WASHER (304L SS)	

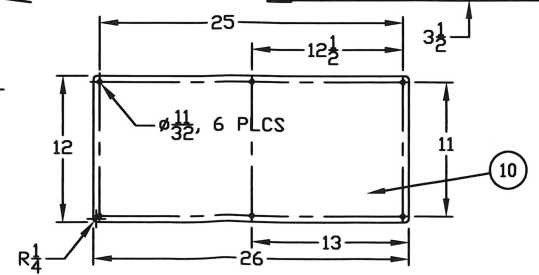
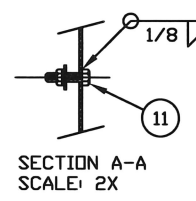


NOTES:
 1) DEBURR ALL AHARP EDGES.
 2)

REF. AREA DATA:
 16 DIA = 201.062 SQ/IN = 1.40 SQ/FT (DUCT)
 4,000 CFM PER PLENUM
 4,000 CFM / 1.40 SQ/FT = 2,857 FT/MIN DUCT VELOCITY

62 X 1 = 62 SQ/IN
 62 SQ/IN X 6 SLOTS = 372 SQ/IN
 372 SQ/IN / 144 SQ/IN' = 2.58 SQ/FT
 4,000 CFM / 2.58 SQ/FT = 1,550 FT/MIN SLOT VELOCITY

3/8 NPT SS HALF COUPLING
 WELD IN PLACE
 WITH SS 3/8 NPT PLUG



steel at i
 Qty (2)

NO.	DATE	REVISION	DLH	SAS
1	9/1/05	ADDED ITEM 5, 10, & ITEM 11	BY	APPR.

PCC PRECISION CASTPARTS CORP.
 4600 S.E. HARNEY DR., PORTLAND, OREGON

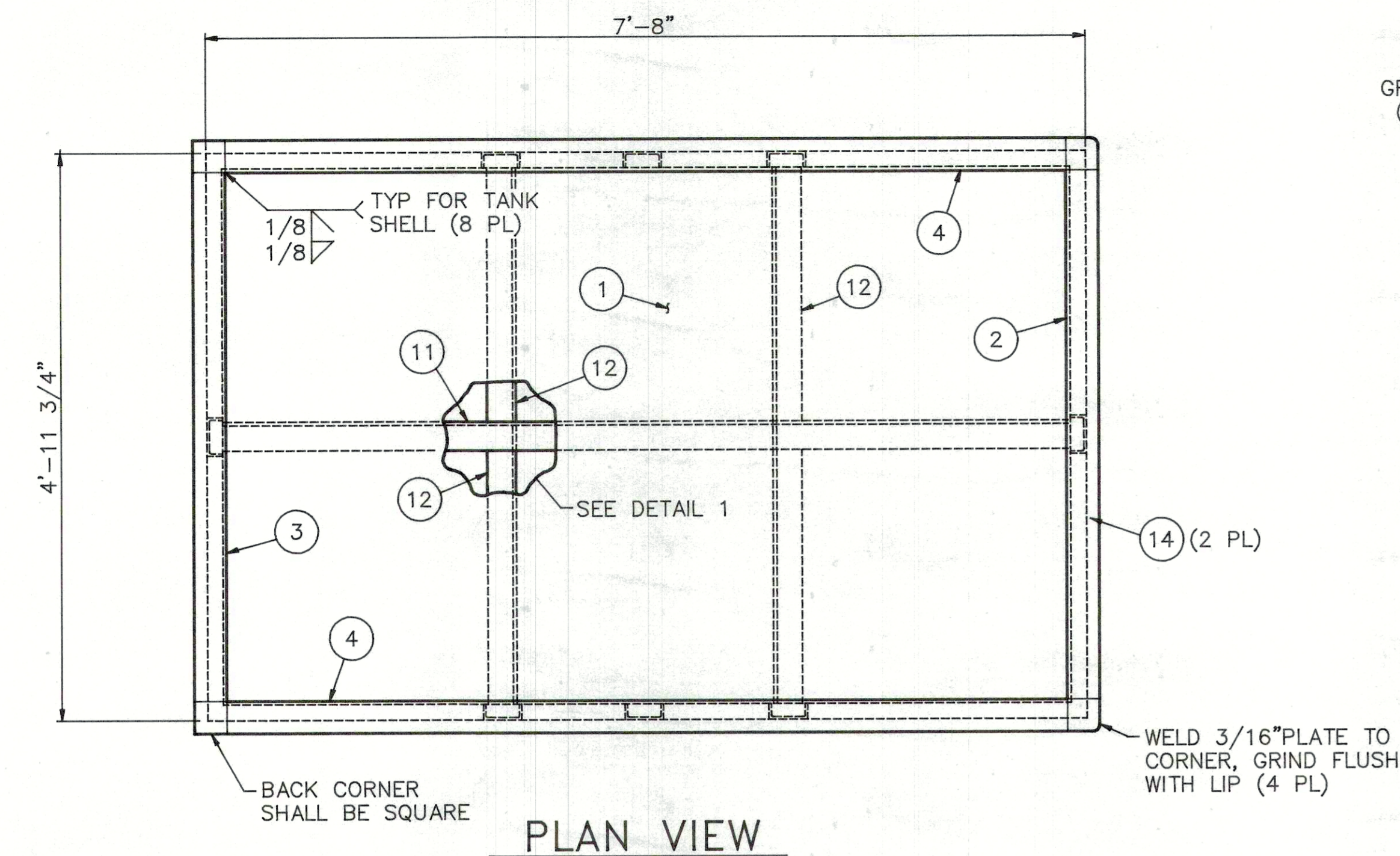
ETCH LINE SS EXTRACTION PLENUM

SCALE: 1/8" = 0'-1" (12:1) DATE: 8/18/05
 DESIGNER: DAVID L. HARRIS DWN BY: DAVID L. HARRIS
 CHK/APR RAS 8/25/05 FILE:

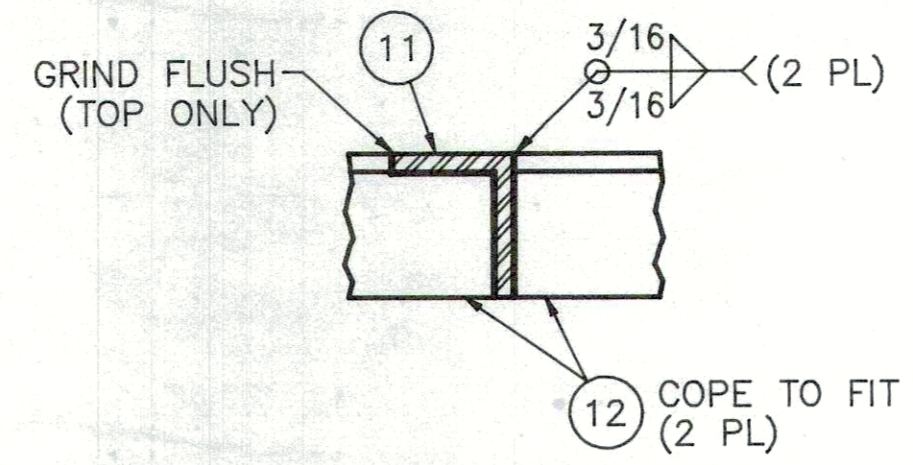
TOLERANCES UNLESS OTHERWISE SPECIFIED
 .XX=.030" .XXX=.010" FRAC.=1/16" ANG.=1/2"

DRAWING NO. LS-D-11841 SHT 1/1 R 1

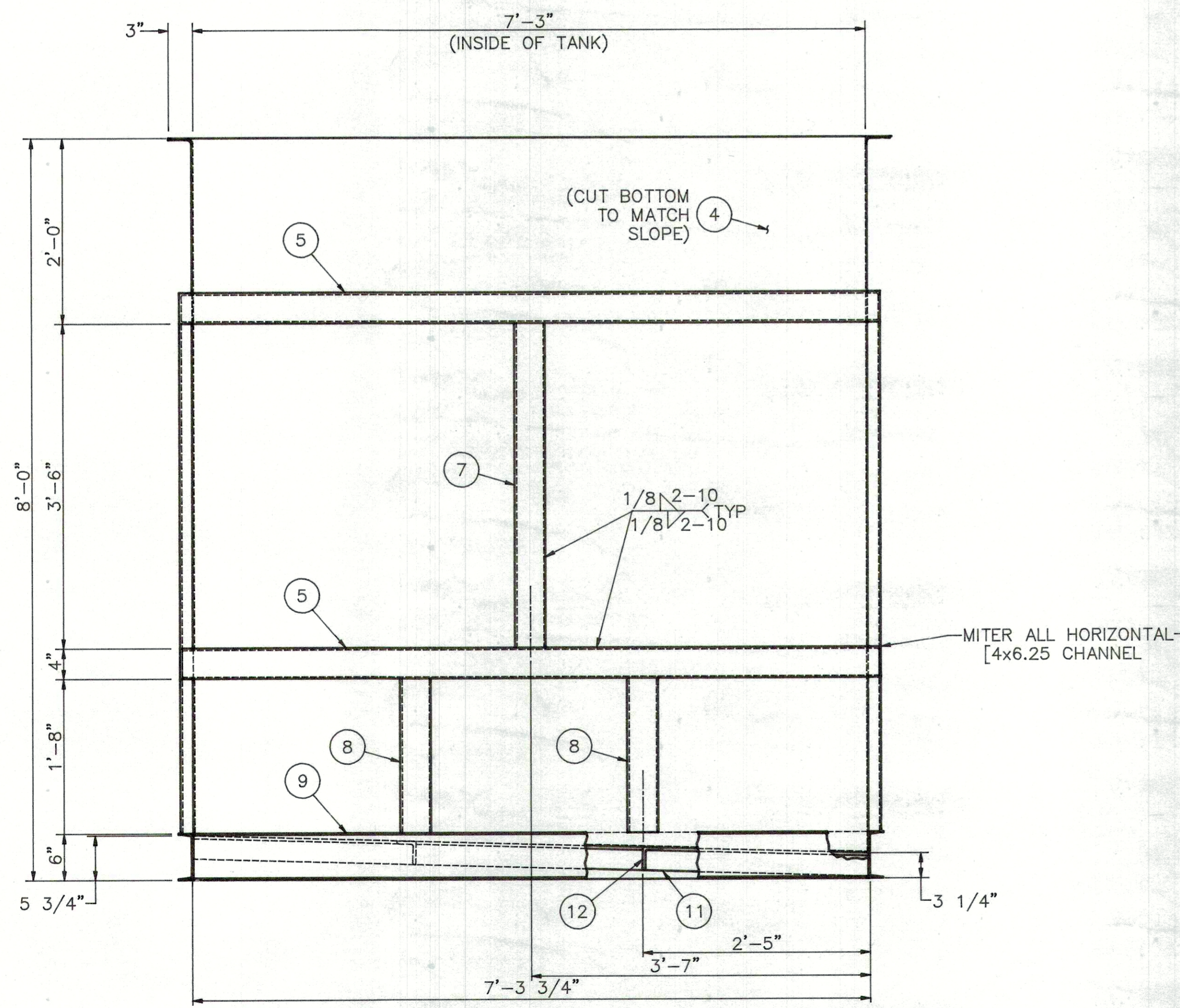
LPC-T



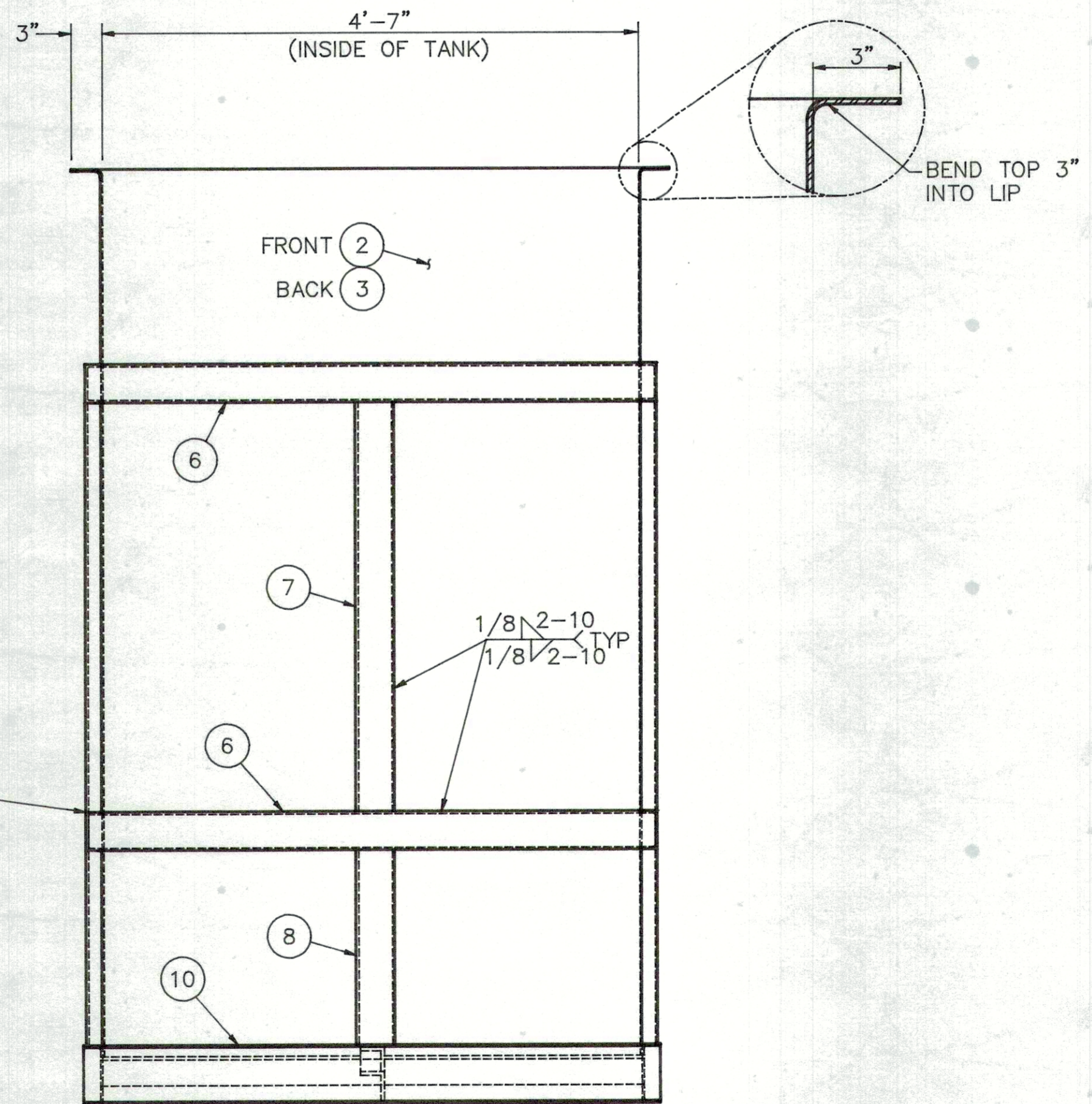
PLAN VIEW



DETAIL 1
SCALE: 3" = 1'-0"



SIDE VIEW

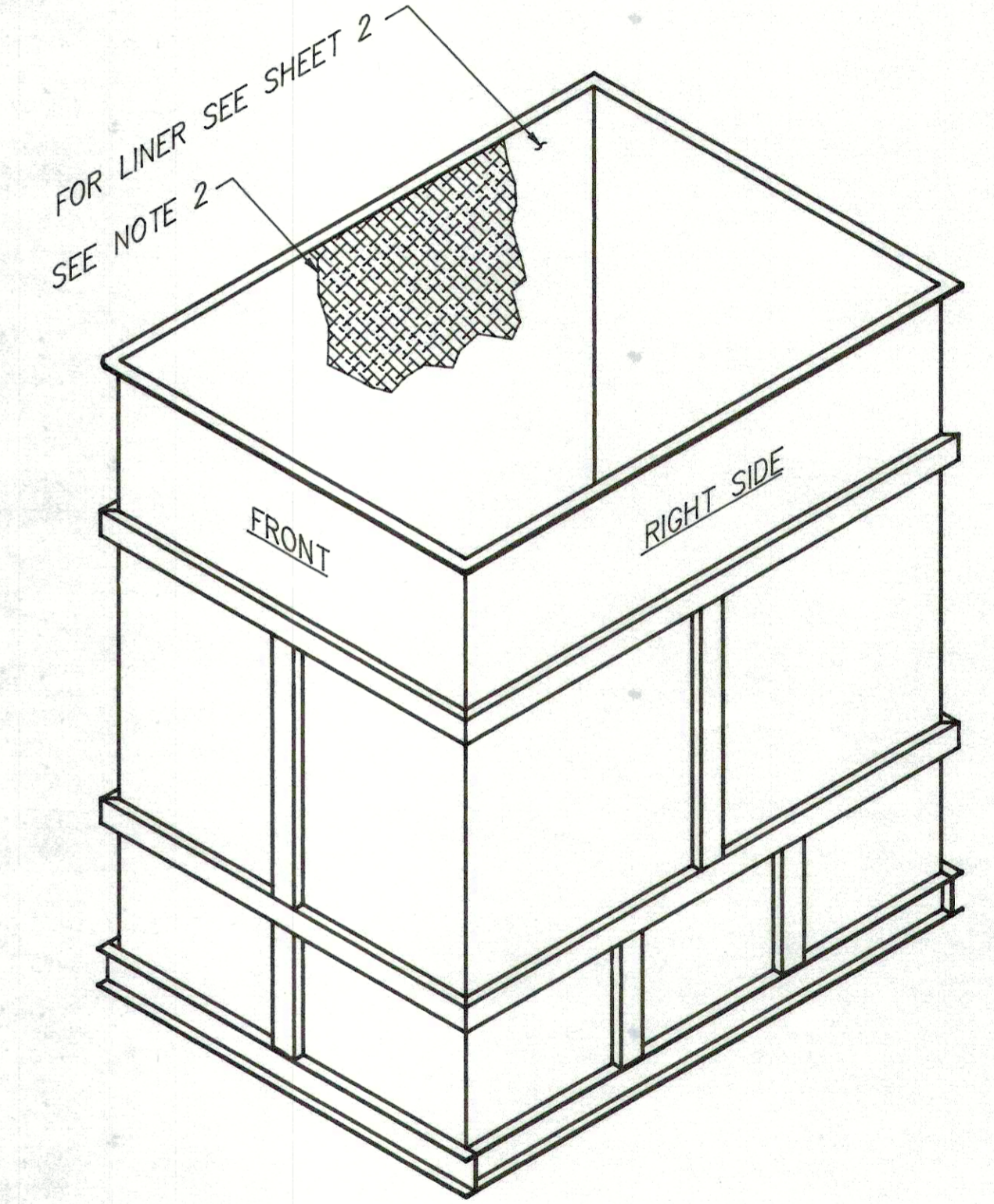


FRONT VIEW

GENERAL NOTES:
(UNLESS OTHERWISE SPECIFIED)

1. PAINT ALL MS PARTS W/ 1 COAT RED OXIDE PRIMER, 1 COAT RODDA SAFETY BLUE.
2. COAT INSIDE OF TANK AND 18" DOWN ON FRONT EXTERIOR OF TANK W/ 60% DERAKANE & 40% FRP, 3/8" THICK MIN, 5/8" THICK MAX.
3. TANK SHALL BE WATERTIGHT AND TESTED.
4. ALL MATERIALS SHALL BE AS SPECIFIED OR ENGINEER APPROVED EQUAL.

MATERIAL LIST		
ITEM	QTY	DESCRIPTION
1	1	3/16" 304L SST PLATE, 7'-3 3/4"x4'-7 3/8"
2	1	3/16" 304L SST PLATE, 7'-11"Hx4'-7"W
3	1	3/16" 304L SST PLATE, 7'-9 1/4"Hx4'-7"W
4	2	3/16" 304L SST PLATE, 7'-11"Hx7'-3"W
5	4	[4x6.25 x7'-7 3/4"LG MS CHANNEL
6	4	[4x6.25 x4'-11"LG MS CHANNEL
7	4	[4x6.25 x3'-6"LG MS CHANNEL
8	6	[4x6.25 x1'-8"LG MS CHANNEL
9	2	[C6x8.2 x7'-3 3/4"LG MS CHANNEL
10	2	[C6x8.2 x4'-11"LG MS CHANNEL
11	1	L 3x2 1/2x3/8 x7'-3 3/4"LG MS ANGLE
12	2	L 3x2 1/2x3/8 x4'-7 3/4"LG MS ANGLE



ISOMETRIC
SCALE: 1 1/2" = 1'-0"

REFERENCE DRAWINGS

- TI-D-2593 - AIR CURTAIN SUPPLY
- TI-D-2594 - AIR CURTAIN EXHAUST
- TI-D-2595 - TANK EXHAUST PLENUM
- TI-D-2599 - EQUIPMENT ARRANGMENT

PCC PRECISION CASTPARTS CORP.
4600 S.E. HARNEY DR., PORTLAND, OREGON

**ETCH TANK ASSEMBLY
CROSSWHITE EAST SIDE**

SCALE: 1" = 1'-0" DATE: JUNE 21 1996
 DESIGNER: DJ DORAN DWN BY: DJ DORAN
 CHK/APR: [Signature] FILE: TID2592A

TOLERANCES UNLESS OTHERWISE SPECIFIED
 .XX=.030" .XXX=.010" FRAC.=1/16" ANG.=1/2"

DRAWING NO. TI-D-2592 SHT 1/2 R 0