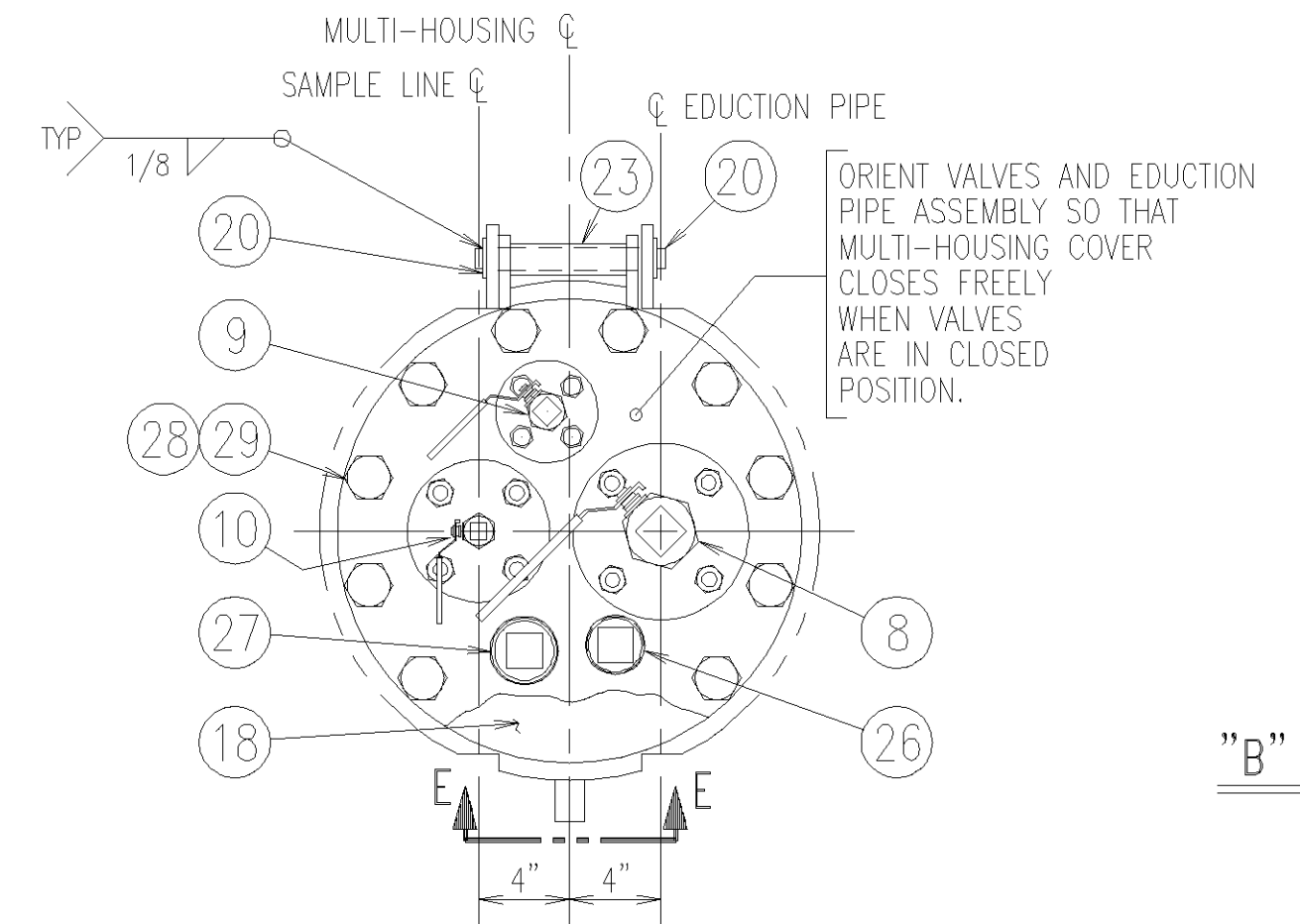
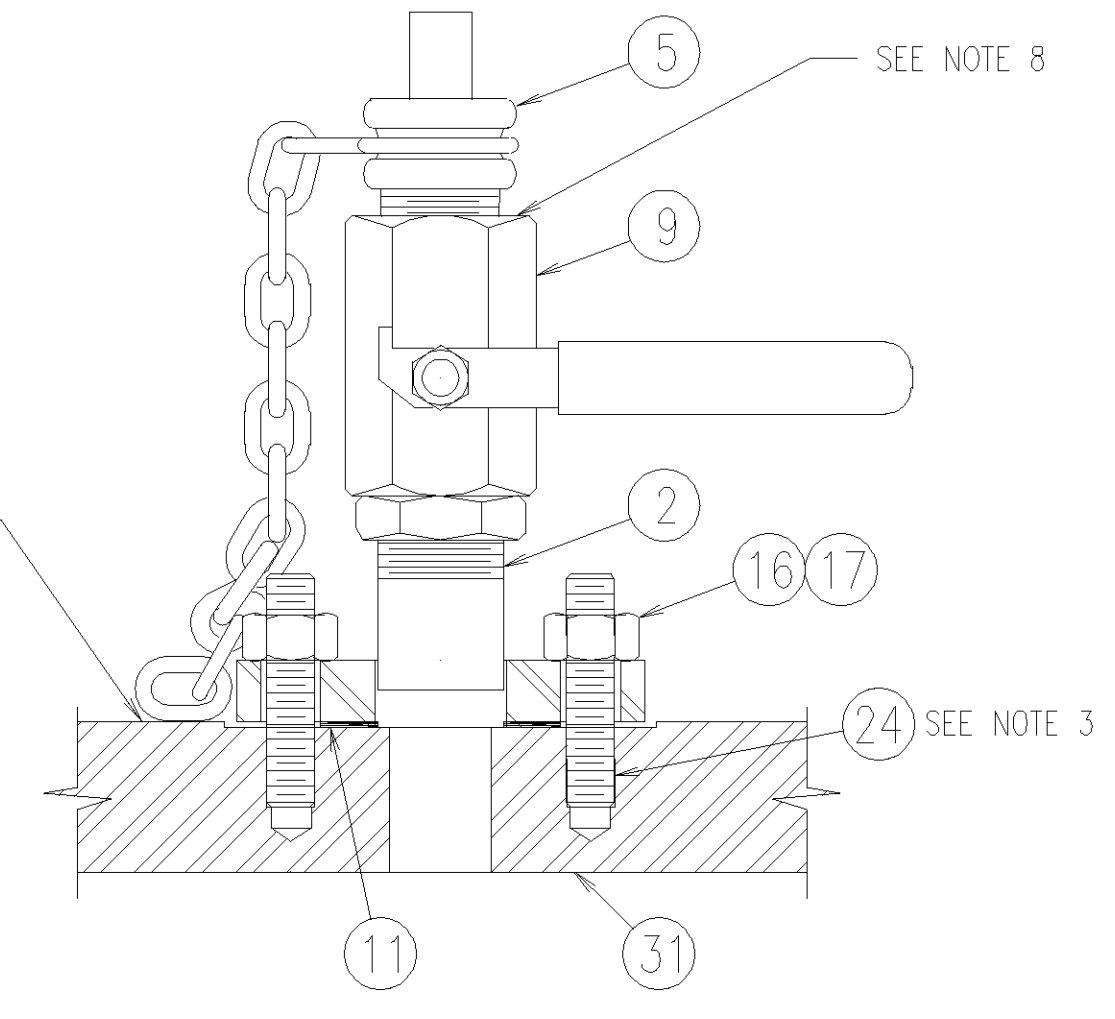
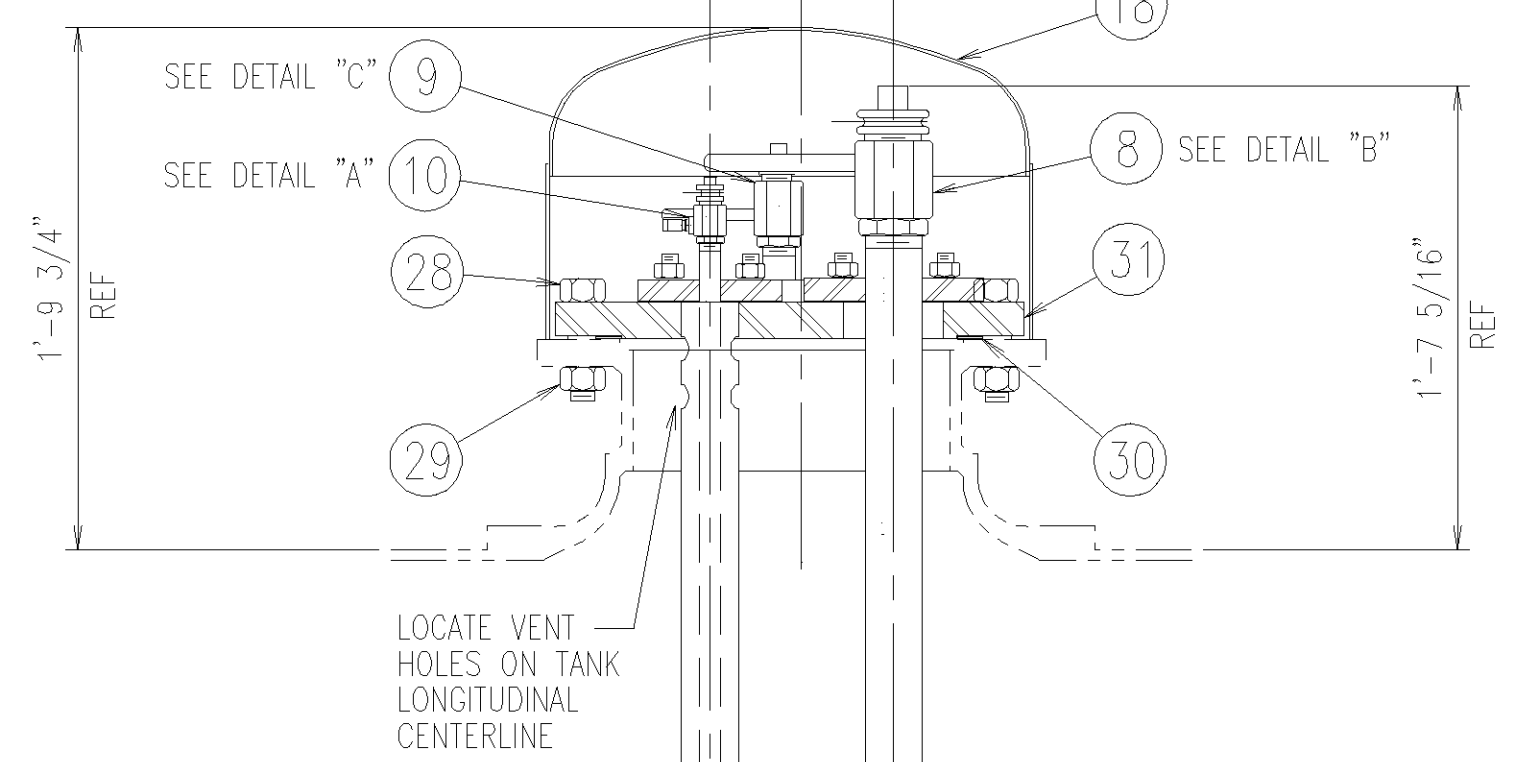


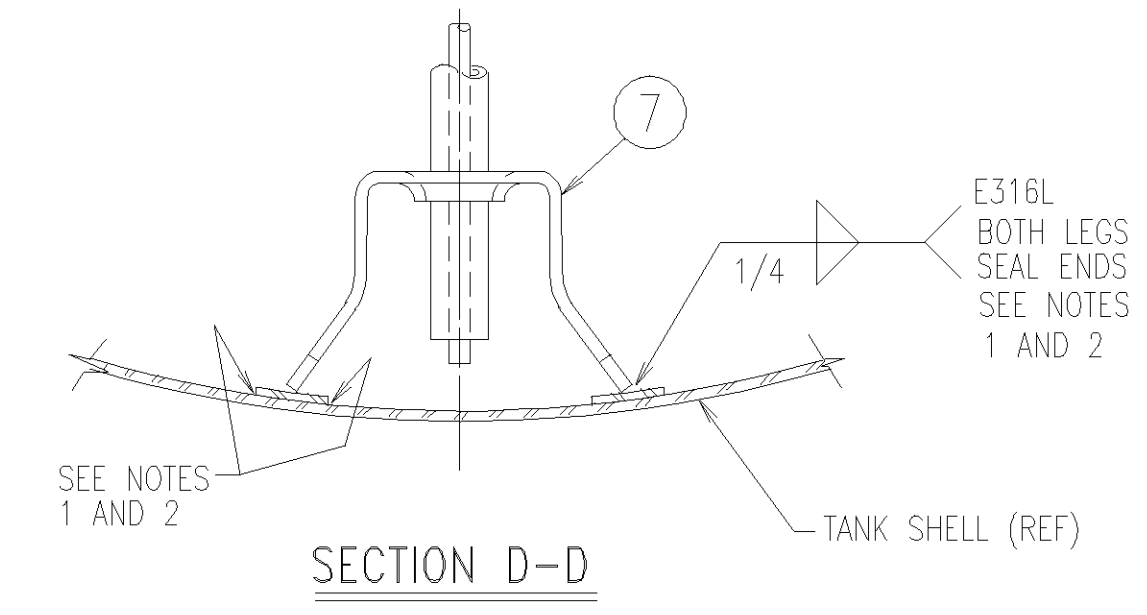
DETAIL "A"
(SAMPLE CONNECTION)



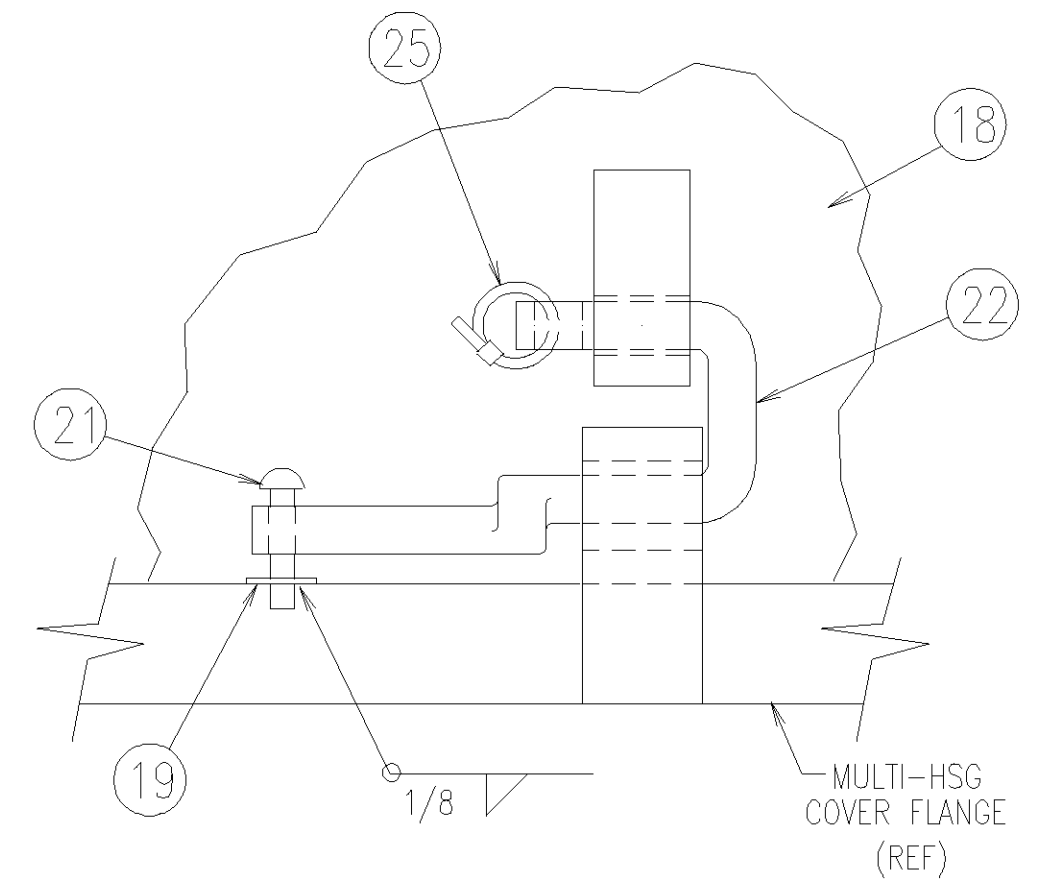
"B" END



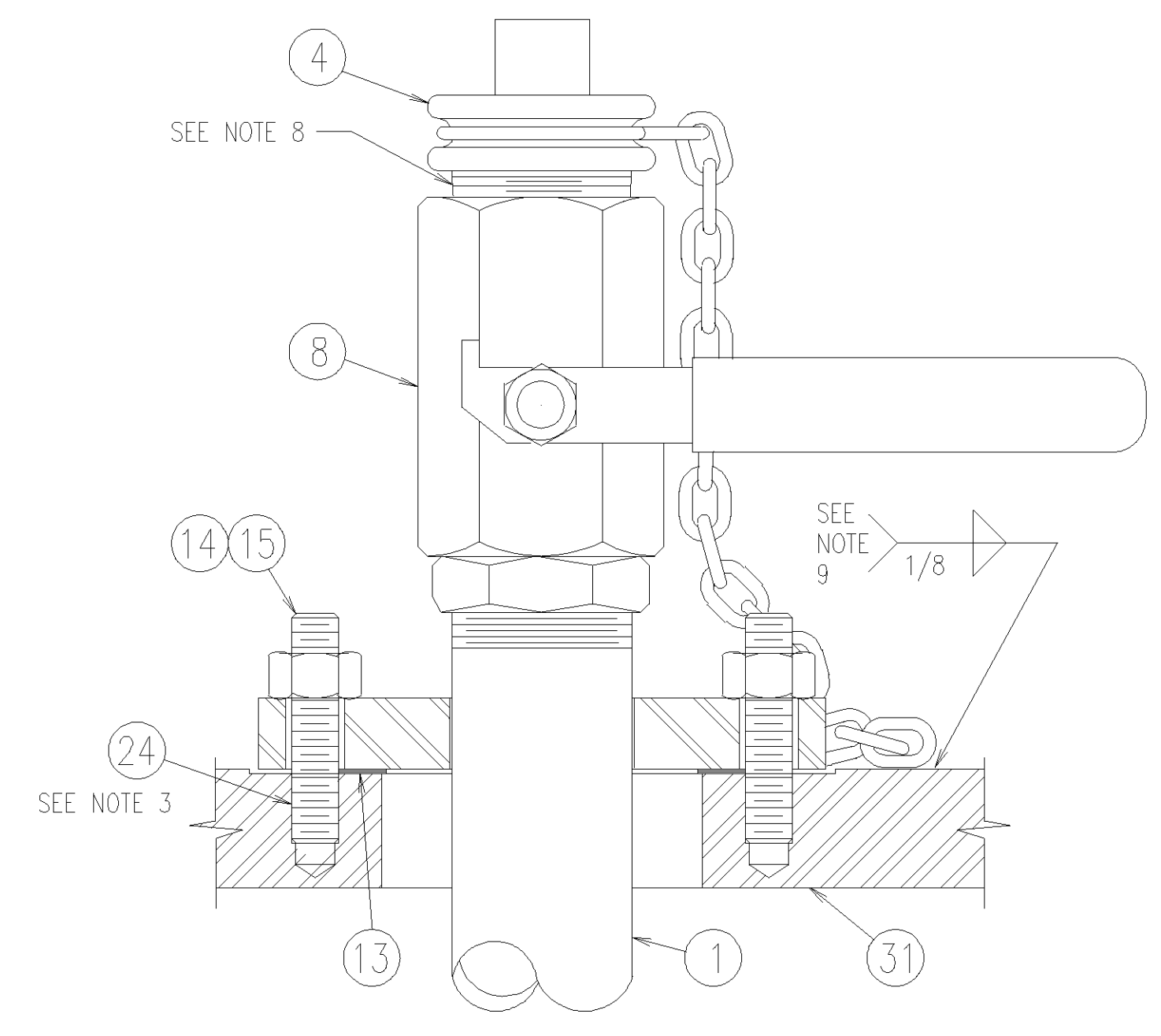
DETAIL "C"
(AIR CONNECTION)



SECTION D-D



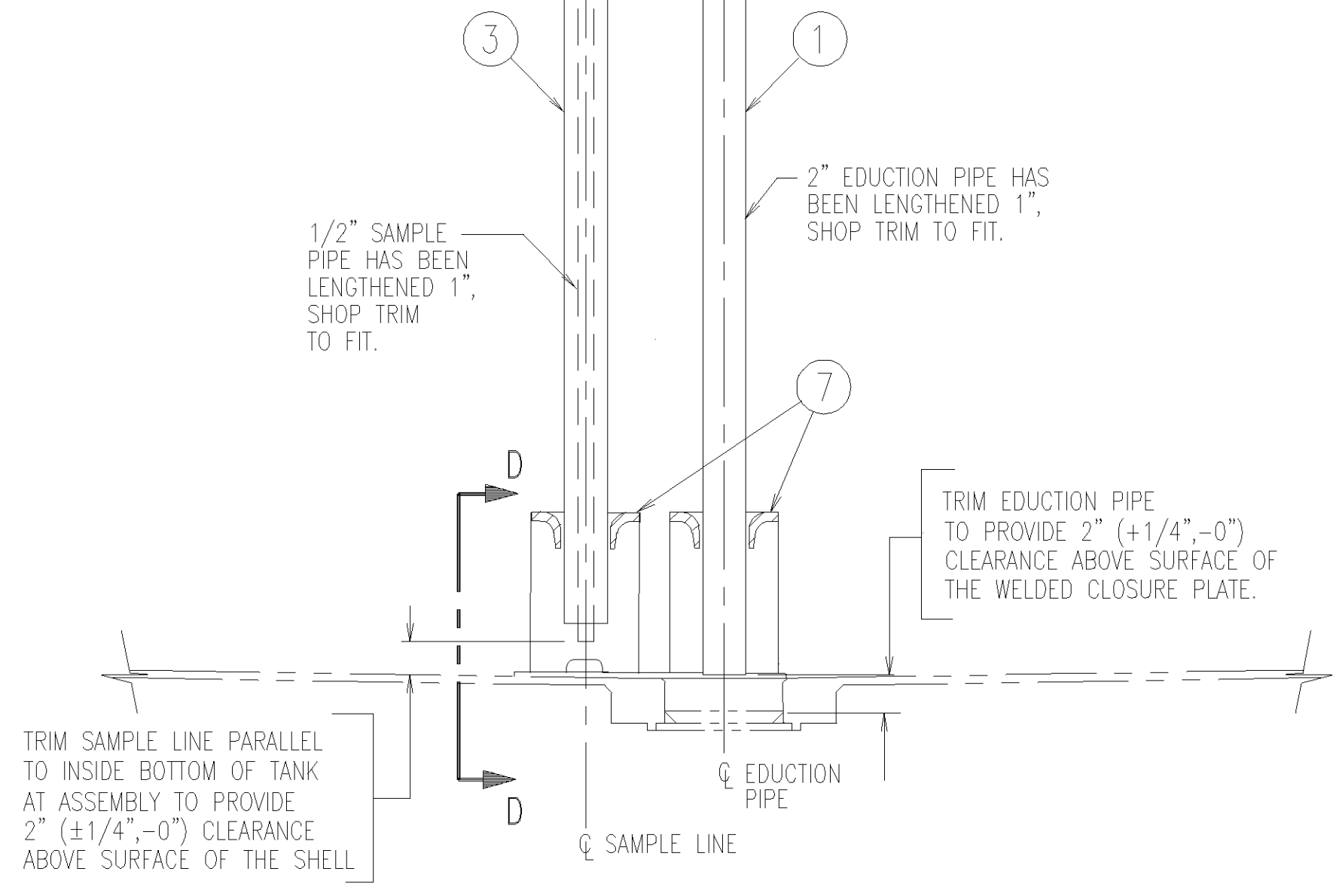
VIEW E-E



DETAIL "B"
(EDUCATION LINE)

- NOTES:**
1. ALL INTERIOR WELDS SHALL BE FREE OF UNDERCUTS, BURRS, POROSITY AND SHARP EDGES.
 2. ROUND OFF ALL SHARP EDGES TO 1/8" RADIUS.
 3. APPLY THREAD SEALANT TO THREADS BEFORE INSTALLATION.
 4. 1", 2", AND 1/2" VALVES SHALL BE INSTALLED WITH SCREWED-IN PIECE OF VALVE TOWARD TANK.
 5. FASTENERS MUST MEET ALL REQUIREMENTS OF THE SPECIFICATION AND MUST BE PROPERLY MARKED WITH MATERIAL GRADE AND THE MANUFACTURERS REGISTERED SYMBOL. MUST COMPLY WITH PUBLIC LAW 101-592.
 6. FEMALE COMPONENT OF THREADED FASTENERS MUST BE FULLY ENGAGED AND NO THREADS MAY BE VISIBLE IN THE FEMALE PART. NYLON INSERT ON LOCKNUTS MUST BE FULLY PENETRATED BY THE MALE THREADED PART.
 7. ROUNDED END OF ALL STUDS IS THE NUT END.

8. IN ORDER TO PREVENT FOULING OF PLUG AND VALVE THREADS DURING BLAST & PAINT WRAP THE EXPOSED AREA FROM BELOW THE SWIVEL TO THE TOP 3/4" TO 1" OF VALVE BODY WITH DUCT TAPE PRIOR TO SHIPMENT OF CAR FROM THE FINAL ASSEMBLY AREA.
9. COMPLETE ALL CHAIN WELDING PRIOR TO INSTALLING PLUGS INTO VALVES.



PARTS LIST			
ITEM	PART NO.	QTY	DESCRIPTION
1	B-22730-04	1	EDUCATION PIPE ASSEMBLY, 2" SCH 80, CS
2	B-22741	1	FLANGE ASSEMBLY, 1" AIR INLET
3	B-128136	1	SAMPLE LINE ASSY, 1/2" SCH 80 W/ 2" SHROUD
4	B-22620-01	1	PLUG & CHAIN ASSY, 2" NPT CS PLUG X 17" CHAIN, CS
5	B-22619	1	PLUG & CHAIN ASSY, 1" NPT CS PLUG X 14" CHAIN, CS
6	082-74107-MI	1	PLUG AND CHAIN ASSY, 1/2" NPT, CS
7	B-124035	2	GUIDE, EDUCATION PIPE, 2", 316L SS
8	075-70451-J2	1	VALVE, BALL, 2", SCREWED END, JAMESBURY 23-2236 MT-1
9	075-70448-J2	1	VALVE, BALL, 1", SCREWED END, JAMESBURY 23-2236 MT-1
10	075-29314-J2	1	VALVE, BALL, 1/2", SCREWED END, JAMESBURY 23-2236-MT-1
11	089-74083-03	1	GSKT, 1 5/16" ID X 2 1/2" OD X 1/8" THK, GYLON #3504
12	089-74082-03	1	GSKT, 3" ID X 4" OD X 1/8" THK, GYLON #3504
13	089-71024-16	1	GSKT, 4 1/8" ID X 5 3/8" OD X 1/8" THK, GYLON #3504
14	063-72075	8	STUD, TFL, 5/8"-11 UNC-2A X 2 3/4" LG, A193-B7
15	063-71010	8	NUT, HVY HEX, 5/8"-11 UNC-3B, A194-2H
16	063-79101	4	STUD, TBE, 1/2"-13 UNC-2A X 2 3/4" LG, A193-B7
17	063-70783	4	NUT, HVY HEX, 1/2"-11 UNC-3B, A194-2H
18	B-26783	1	PROTECTIVE HOUSING ASSY
19	063-72012	1	WASHER, TYPE A, 1/4W, .312"ID X .734"OD X .065"
20	063-71905	2	WASHER, TYPE A, 7/8W, .938"ID X 1.75"OD X .134"
21	063-72555	1	RIVET, BUTTON HEAD, 1/4" X 1 1/4" LG
22	063-72787	1	PIN, LOCKING, PROTECTIVE HOUSING (A-111603)
23	A-10168-01	1	PIPE, 1/2" SCHEDULE 80
24	040-73401-LT	1	SEALANT, THREAD, RED #271
25	064-73322	1	SEAL, SURE LOCK, 3/8 WIDE X 8 1/2 LG
26	A-10271	1	MACHINING, 2" NPT, PIPE PLUG, MI OR DI
27	A-10498	1	MACHINING, 2 1/2" NPT, PIPE PLUG, MI OR DI
28	063-75872	12	BOLT, HVY HEX HD, 1"-8 UNC-2A X 4 1/4" LG, A193-B7
29	063-70774	12	NUT, HVY HEX, 1"-8 UNC-2B, A194-2H
30	089-20907-06	1	GASKET, 15" ID X 17 1/8" OD X 1/8" THK GYLON #3504
31	D-640113	1	COVER, FLANGE, 15" MULTI-HOUSING, A516-70

REV	BY	DATE	REVISION
E	JCB	11-10-99	ITEM 16 WAS 063-70782
D	JCB	11-4-99	ITEM 1 WAS B-22730-05
C	JCB	10-8-99	ITEM 10 WAS 075-74067-JA
B	JCB	9-29-99	REVISED ITEMS 8-10 DESCRIPTION
A	JCB	9-27-99	REVISED ITEM 31 PART NUMBER

A.A.R. APPLICATION NO. L996141

FILE:

UNLESS OTHERWISE SPECIFIED ON THIS DRAWING THE FOLLOWING TOLERANCES SHALL APPLY, SEE D-145000 FOR ADDITIONAL TANK CAR TOLERANCES. FRACTIONS MACHINED ±1/64" (0.016") ALL OTHERS: (1" TO 2") ±1/16", (2" TO 10") ±1/8", (10" TO 20") ±1/4", (OVER 20") ±1/2" DECIMALS 3 PLACE ±0.005 2 PLACE ±0.03 1 PLACE ±1 ANGLES MACHINED ±1/2 DEG. ALL OTHERS ±1 DEG.

TRINITY INDUSTRIES, INC.
RAILCAR DIVISION

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DRAWN	LHR	8-27-99	MULTI-HOUSING ARRANGEMENT 119" ID DOT 111A100W1, NC & NI
CHKD	JCB	9-10-99	
APPD	SLM	9-10-99	
1st FILE		9965	
NLA			
WEIGHT			
D-45217	DRAWING NO:	D-45381	SHEET 1 OF 1
			REV E
			SIZE D