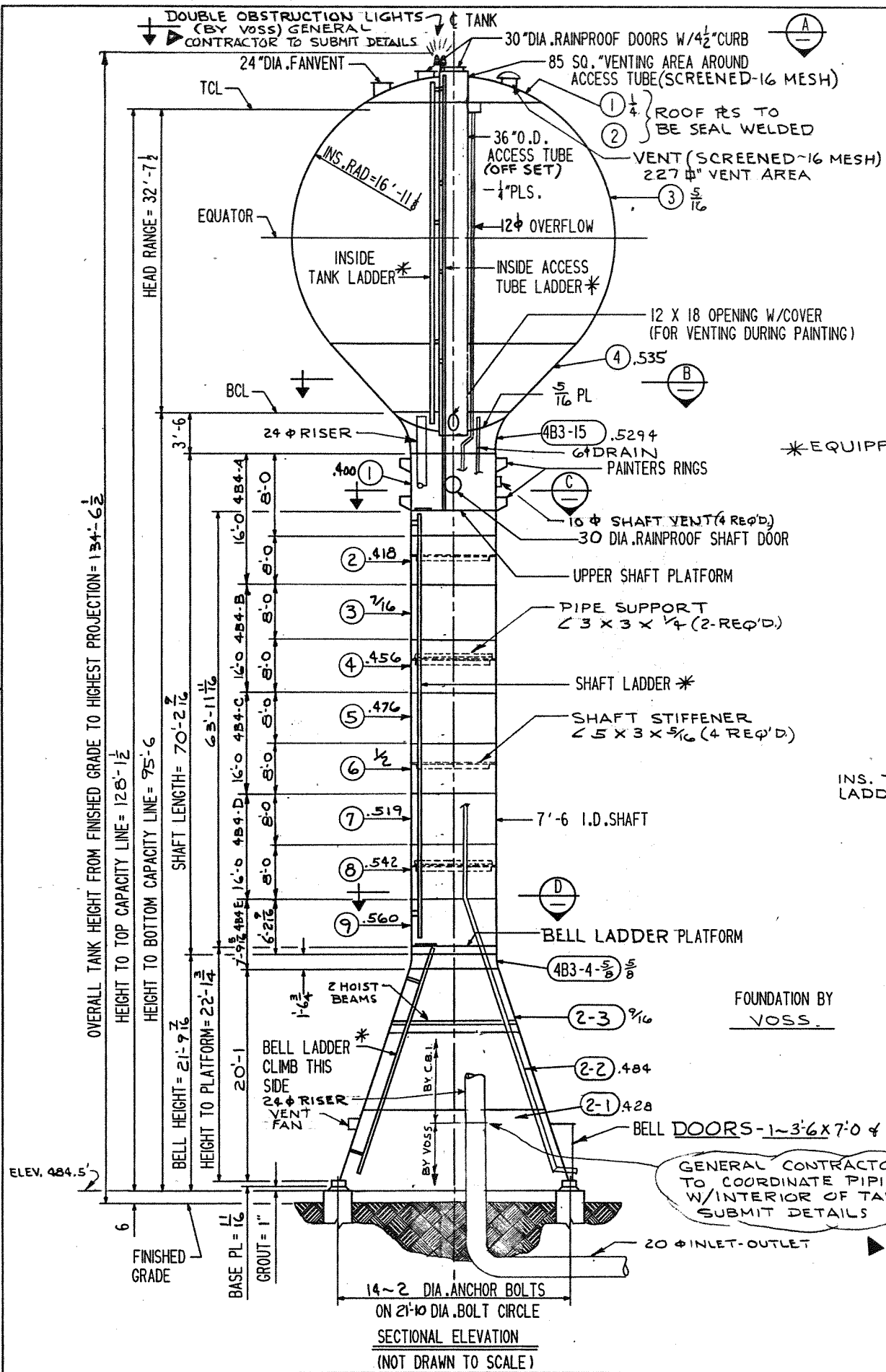




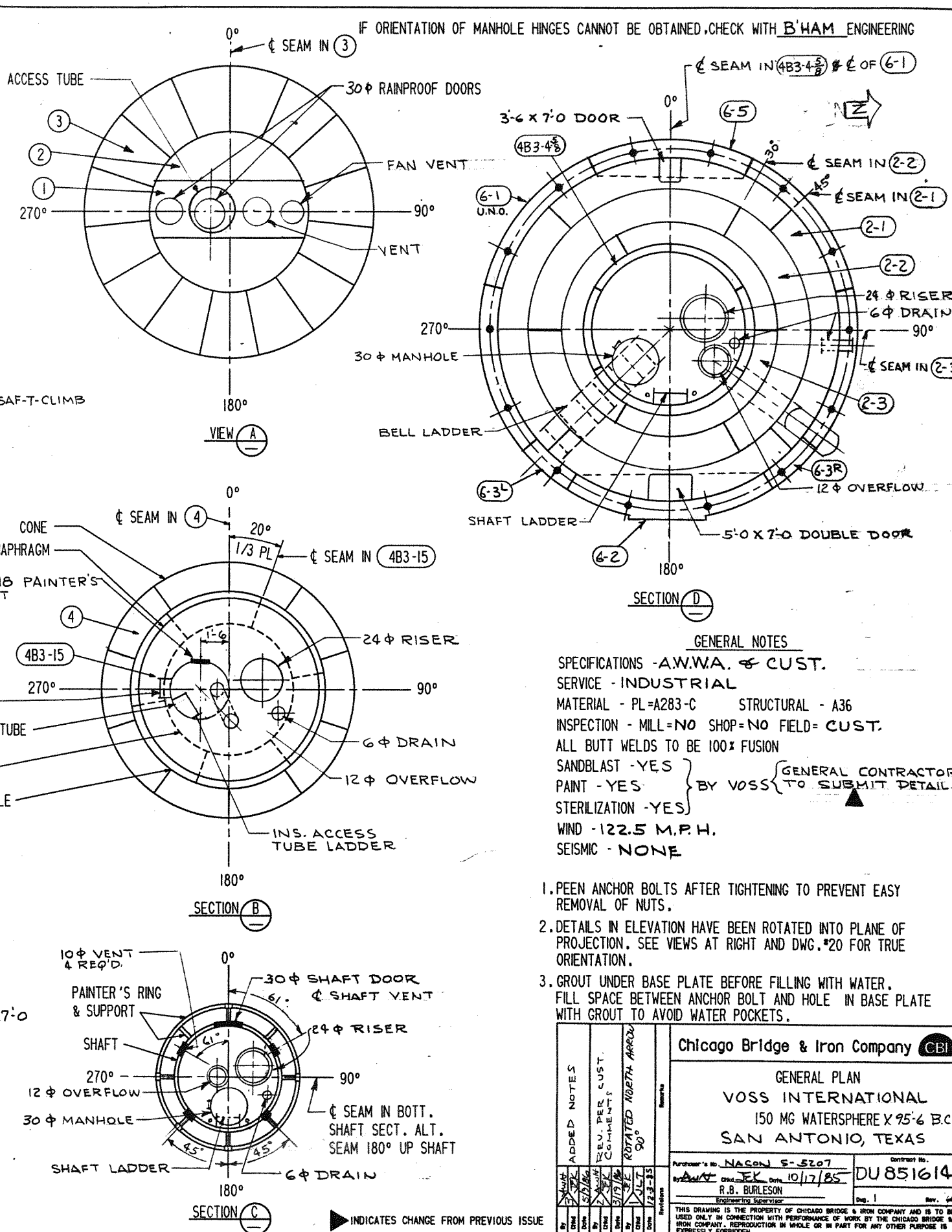
901A



*EQUIPPED W/SAF-T-CLIMB

FOUNDATION BY VOSS.

GENERAL CONTRACTOR TO COORDINATE PIPING W/INTERIOR OF TANK. SUBMIT DETAILS

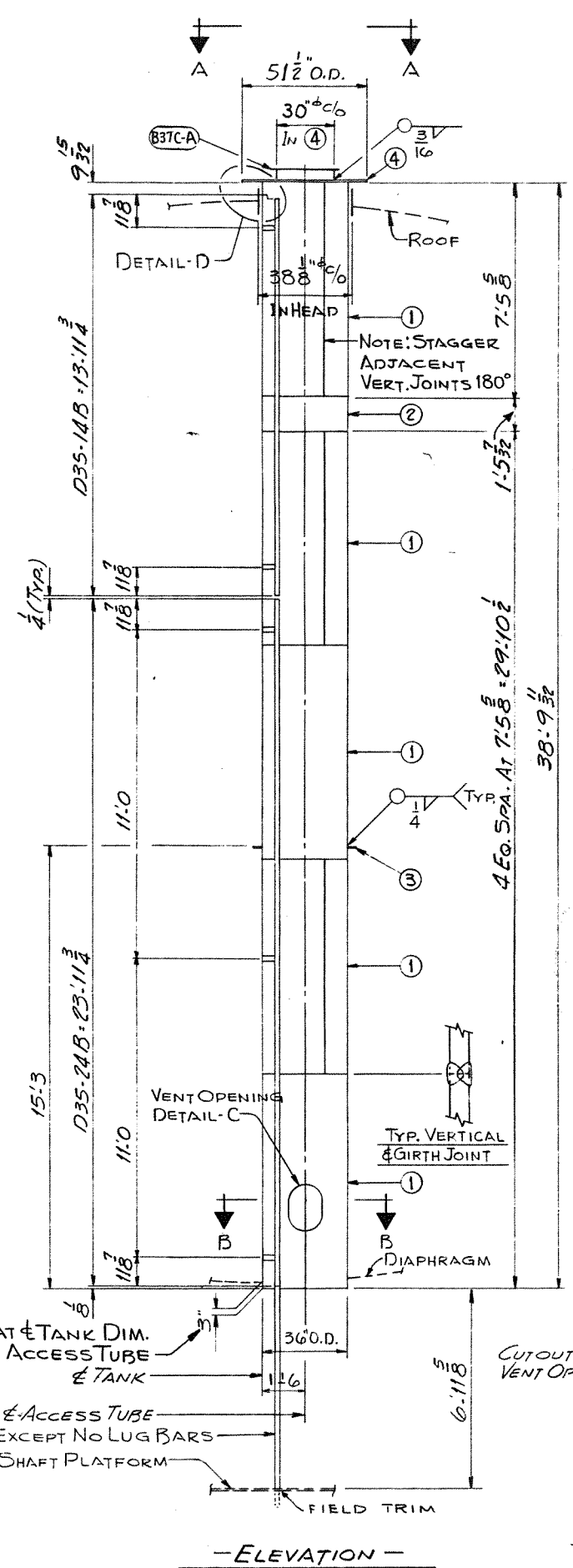


IF ORIENTATION OF MANHOLE HINGES CANNOT BE OBTAINED, CHECK WITH B'HAM ENGINEERING

- GENERAL NOTES**
- SPECIFICATIONS - A.W.W.A. & CUST.
 - SERVICE - INDUSTRIAL
 - MATERIAL - PL-A283-C STRUCTURAL - A36
 - INSPECTION - MILL=NO SHOP=NO FIELD=CUST.
 - ALL BUTT WELDS TO BE 100% FUSION
 - SANDBLAST - YES
 - PAINT - YES
 - STERILIZATION - YES
 - WIND - 122.5 M.P.H.
 - SEISMIC - NONE

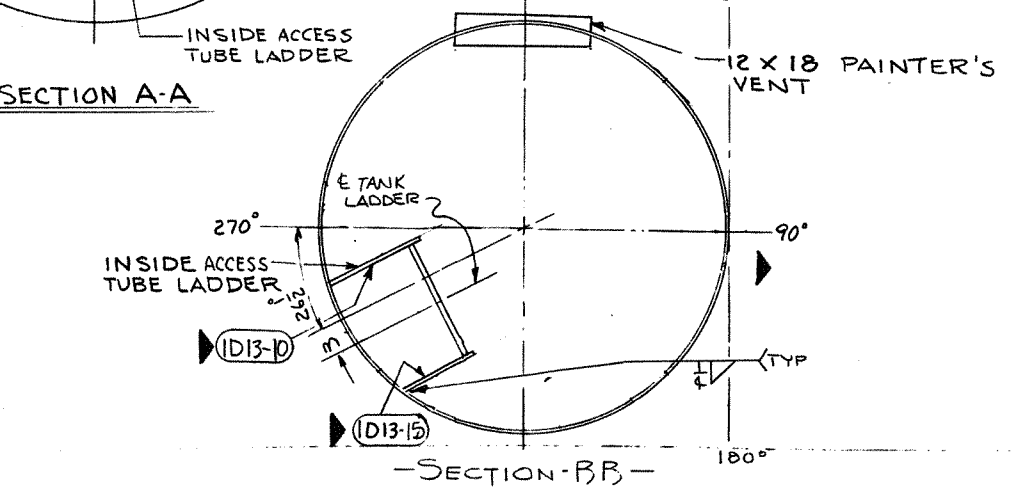
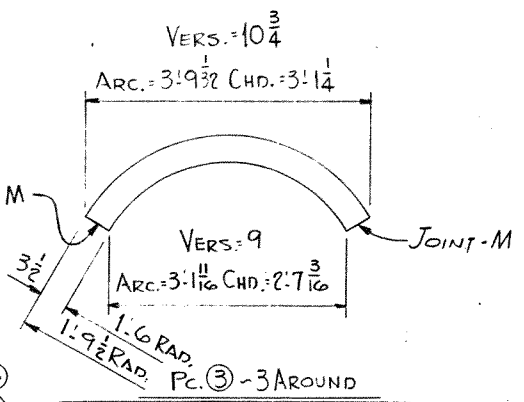
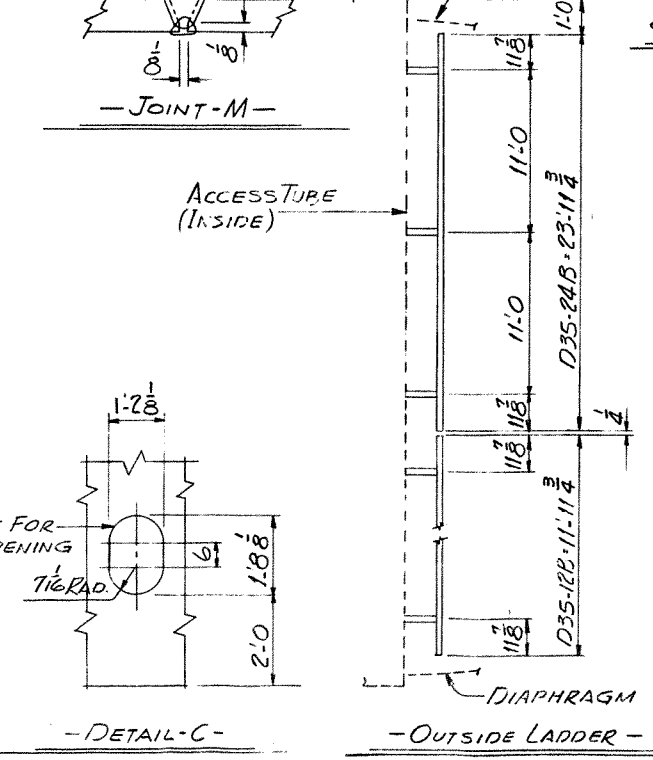
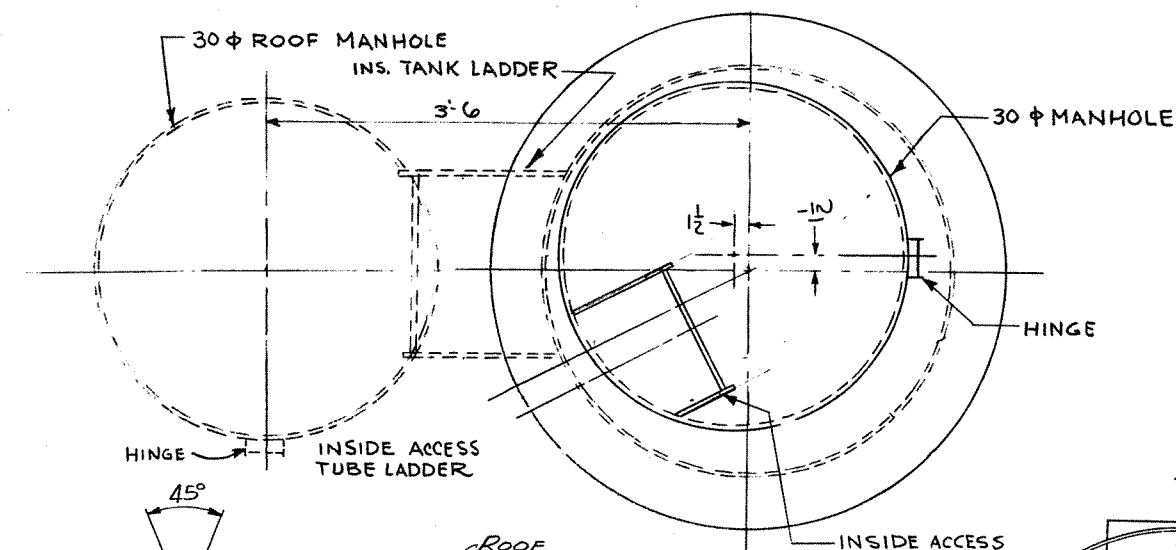
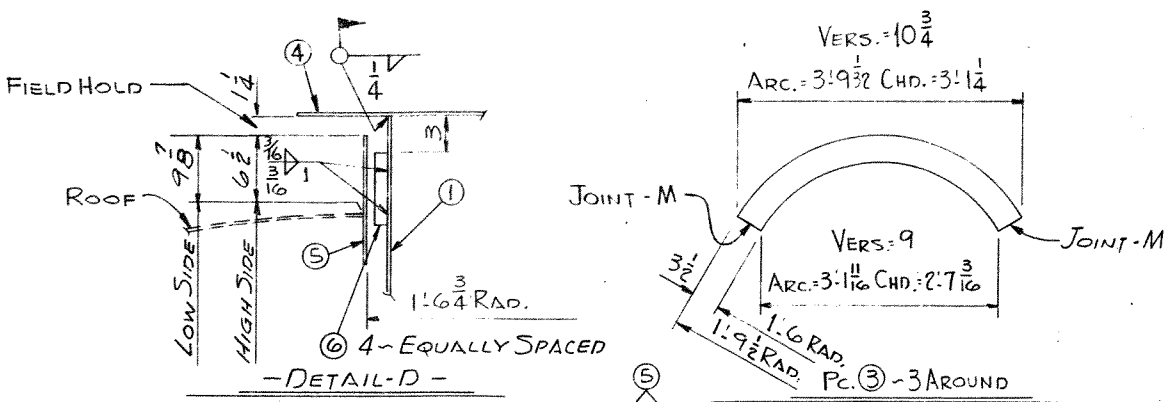
1. PEEN ANCHOR BOLTS AFTER TIGHTENING TO PREVENT EASY REMOVAL OF NUTS.
2. DETAILS IN ELEVATION HAVE BEEN ROTATED INTO PLANE OF PROJECTION. SEE VIEWS AT RIGHT AND DWG. #20 FOR TRUE ORIENTATION.
3. GROUT UNDER BASE PLATE BEFORE FILLING WITH WATER. FILL SPACE BETWEEN ANCHOR BOLT AND HOLE IN BASE PLATE WITH GROUT TO AVOID WATER POCKETS.

Chicago Bridge & Iron Company CBI									
GENERAL PLAN VOSS INTERNATIONAL 150 MG WATERSPHERE X 95'6" B.C.L. SAN ANTONIO, TEXAS									
<table border="1"> <tr> <th>DATE</th> <th>BY</th> <th>REVISION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	DATE	BY	REVISION				<table border="1"> <tr> <td> Project No. NACON 5-5207 Drawn by AK Date 10/17/85 Checked by R.B. BURLESON Engineering Supervisor </td> <td> District No. DU851614 Sheet 1 of 3 </td> </tr> </table>	Project No. NACON 5-5207 Drawn by AK Date 10/17/85 Checked by R.B. BURLESON Engineering Supervisor	District No. DU851614 Sheet 1 of 3
DATE	BY	REVISION							
Project No. NACON 5-5207 Drawn by AK Date 10/17/85 Checked by R.B. BURLESON Engineering Supervisor	District No. DU851614 Sheet 1 of 3								
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NOTE: 3" SHOWN AT TANK DIM. VARIES AROUND ACCESS TUBE TANK

ACCESS TUBE LADDER (D35-8B) EXCEPT NO LUG BARS SHAFT PLATFORM



GENERAL NOTES

1/8\"/>

SHIP PC	MARK	QSSM PC	DESCRIPTION	LENGTH		SPEC
				FT	IN.	
1	4-A		ACCESS TUBE	38	9 1/2	
SHOP ORIENT FITTINGS AS SHOWN IN SECT. A-A & B-B						
4-1	5		RS. 89 5/8 x 3/16 (CFR. 90 x 9:4 3/4)	9	4 3/16	A283-C
4-2	1		RS. 17 7/32 x 5/16 (CFR. 17 13/16 x 9:4 3/4)	9	4 3/16	A283-C
4-3	3		RS. 5K x 1/2 (CFR. 25 x 3:15 8/16)			A283-C
D13-10	5		BARS 3 x 3/8	0	6 3/4	A-36
4-6	4		BARS - 5/8\"/>			
B6C-A	1		12X18 VENT OPENING & COVER (BILL COMPLETE)			
D35-24B	1		WELDED LADDER ASSY. (BILL COMPLETE)	24	0	
D35-14B	1		WELDED LADDER ASSY. (BILL COMPLETE)	14	0	
D13-15	5		BARS - 3 x 3/8	0	3 1/2	A36
1	4-B		ACCESS TUBE COVER ASSY			
4-4	1		RS 5 1/2 O.D. X 1/4 W/CUT OUT			A-283C
B37C-A	1		30\"/>			
D35-24B	1		WELDED LADDER ASSY. (BILL COMPLETE)			
D13-12	6		BARS - 3 x 3/8	0	11 3/4	A36
1	D35-12B		WELDED LADDER ASSY. (BILL COMPLETE)	12	0	
D13-12	4		BARS - 3 x 3/8	0	11 3/4	A36
1	D35-8B		WELDED LADDER ASSY. (BILL COMP)	8	0	
1	4-5		RS 8 x 1/4 ROLL (CFR. 8 3/8 x 9:10 5/8)	9	10 1/4	A-283C

WORK THIS DWG. W/DWG 26

Chicago Bridge & Iron Company **CBI**

36\"/>

INDICATES CHANGE FROM PREVIOUS ISSUE

By	Chkd	Date	By	Chkd	Date
By	Chkd	Date	By	Chkd	Date

Purchaser's No. NACON # S 5207 Contract No. DU-851614

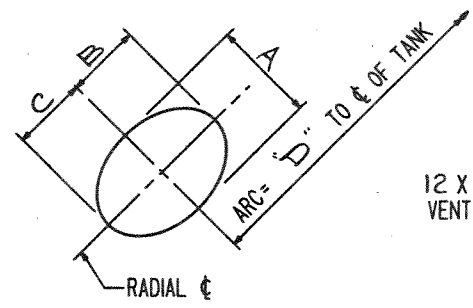
By: *AWK* Chkd: *FR* Date: 10/18/85

R. B. BURLESON Engineering Coordinator Dwg. 4 Rev. 1

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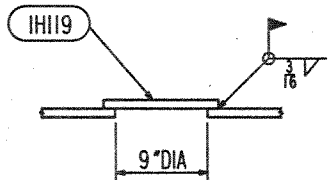


CAD FILE 9D4B-0

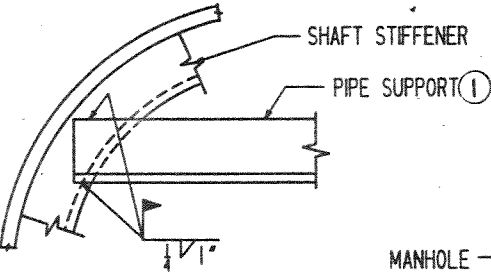
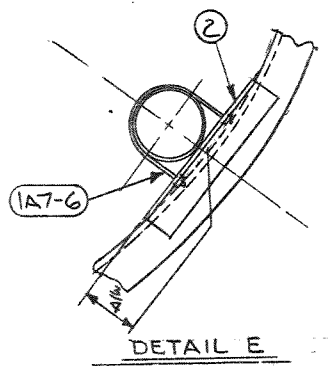


DIAPHRAGM CUTOUT FOR PIPE(S)

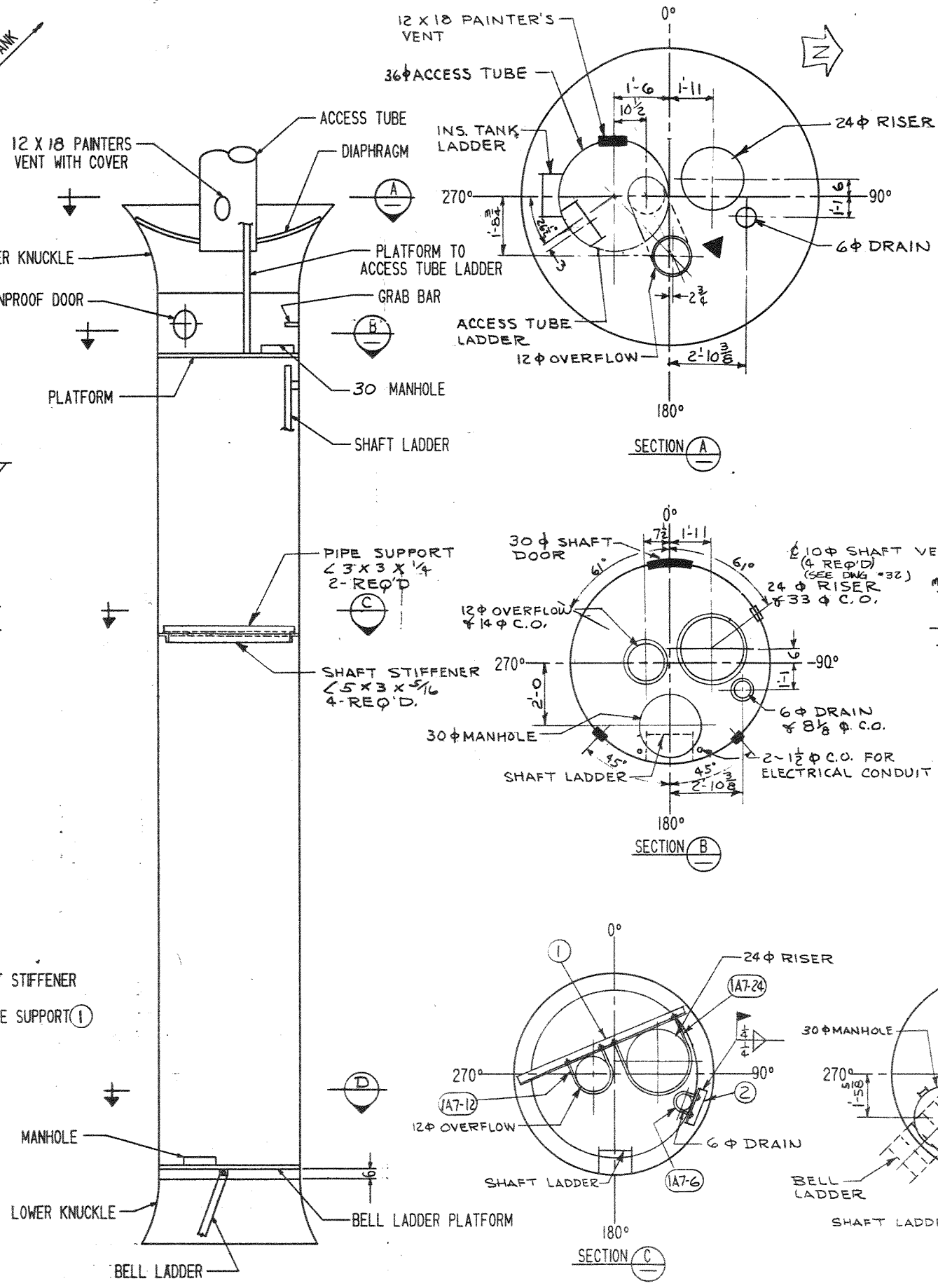
C/O	A	B	C	D
24 φ RISER	24 5/8	1-0 5/8	1-0 5/8	2'-0
6 φ DRAIN	6 3/4	3 3/8	3 3/8	3 13/16
ACCESS TUBE	36 5/8	1-6 5/8	1-7 1/4	1-6 5/8
12 φ OVERFLOW	12 5/8	6 1/2	6 5/8	1-9 5/8



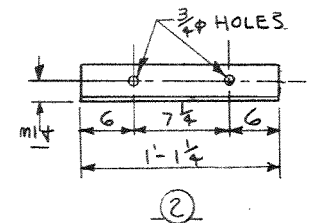
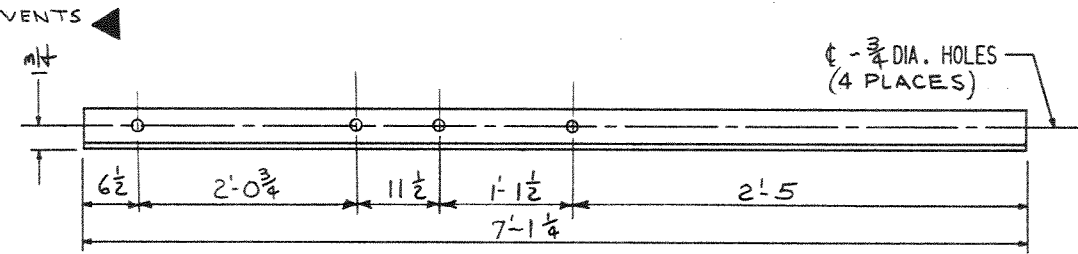
FIELD LOCATE AND BURN CUTOUT FOR DERRICK CABLES WHERE NEEDED IN PLATFORMS



TYPICAL WELDING OF PIPE SUPPORT TO STIFFENER



SHIP PC	MARK	ASSM PC	DESCRIPTION	LENGTH FT	IN	SPEC	ID	CLN & PT	CODE	EST WT	AB-LN
2	IHI19		PL 11 DIA X 3/16			A283C			0-03503		
2	20-1		PIPE SUPPORTS								
2	20-1		L3 X 3 X 1/4	7	1 1/4	A36			0-03503		
2	20-2		L3 X 3 X 1/4 W/HOLES	1	7 1/2	A-36			0-03503		
2	IA7-24		PIPE SUPPORTS AND/OR U-BOLT								
			U-BOLT 5/8 DIA (TBE 2 1/2)	5	7 1/2	A36			0-02100		
		4	NUTS FIN HEX 5/8 DIA			A563A			0-02100		
2	IA7-12		U-BOLT 5/8 DIA (TBE 2 1/2)	3	1 1/2	A36			0-02100		
		4	NUTS FIN HEX 5/8 DIA			A563A			0-02100		
2	IA7-6		U-BOLT 5/8 φ (TBE 2 1/2)	1	9 1/2	A-36			0-02100		
		4	NUTS FIN HEX 5/8 φ			A563A			0-02100		



- GENERAL NOTES**
1. ALL CUTOUTS IN SHAFT PLATFORMS & DIAPHRAGM ARE TO BE MADE IN THE SHOP.
 2. SEE GENERAL PLAN FOR LOCATION OF PIPE SUPPORT BRACKETS IN SHAFT.
 3. MAXIMUM SPACING OF PIPE SUPPORT BRACKETS IN SHAFT TO BE 32'-0.
 4. SEE GENERAL PLAN FOR NUMBER OF STIFFENERS & SHAFT STD. FOR LOCATION.

Chicago Bridge & Iron Company **CBI**

ORIENTATION OF ACCESSORIES IN SHAFT

Purchaser's No. **NACON S-5207** Contract No. **DU-851614**

By **R.B. BURLISON** Date **10/17/85** Rev. **20**

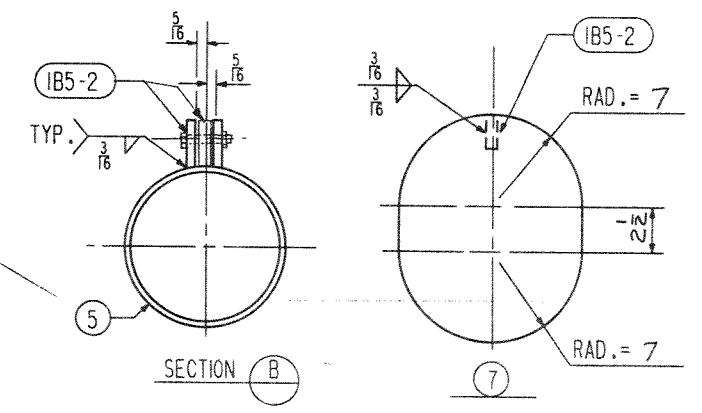
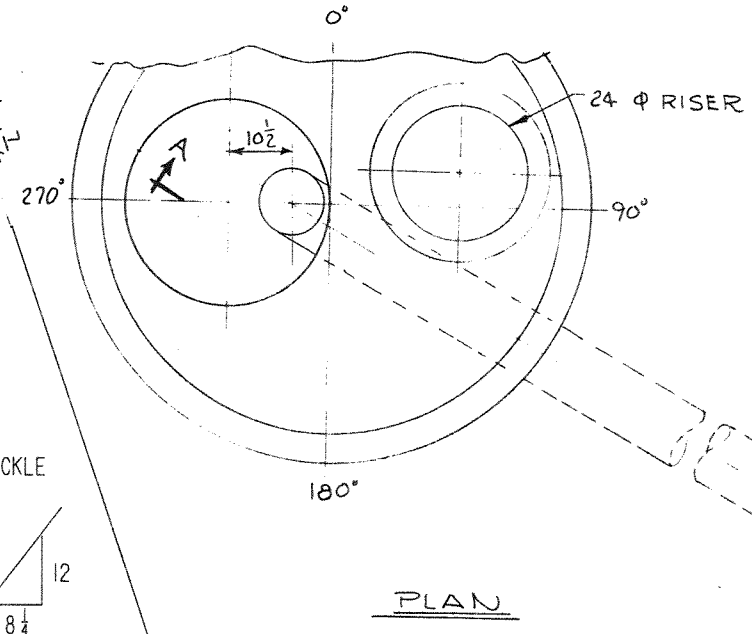
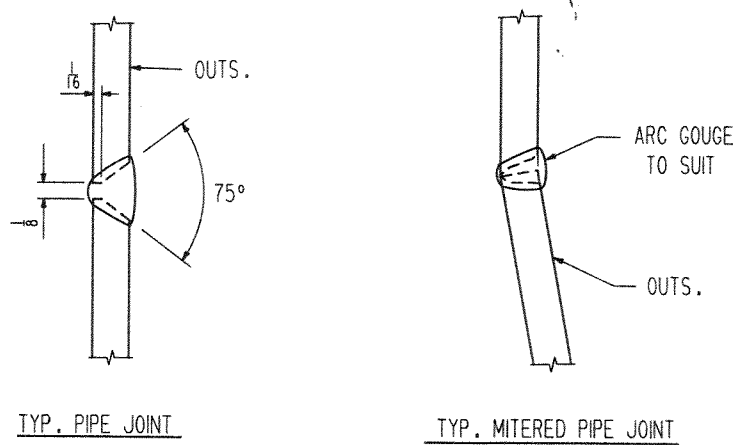
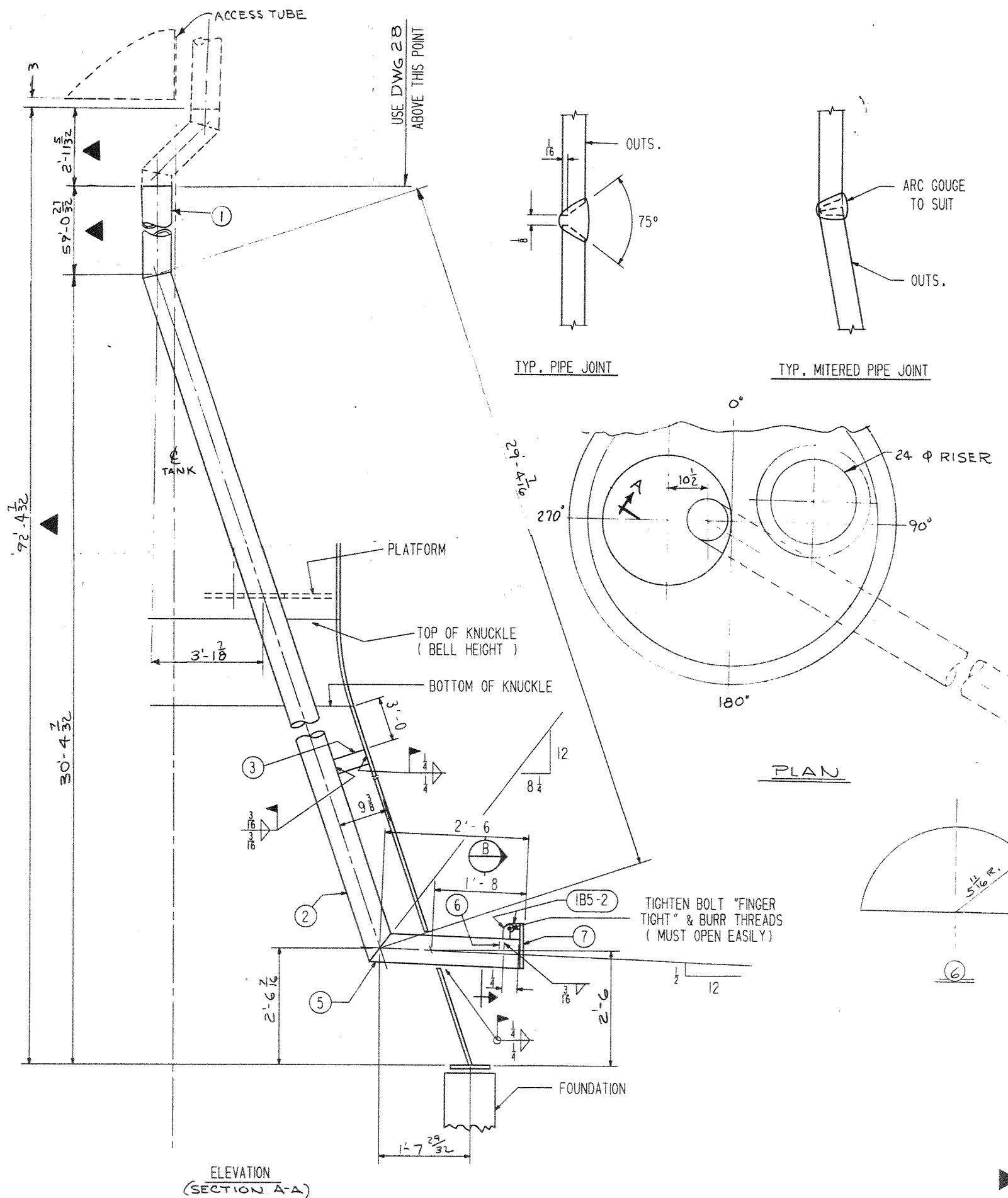
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INDICATES CHANGE FROM PREVIOUS ISSUE

SHIP PC	MARK	ASSM PC	DESCRIPTION	LENGTH FT	IN	SPEC	ID	CLN & PT	CODE	EST WT	AB-LN
1	21-1		12" (1/4" WALL) PIPE M ₃ B ₀ E ₁ (Run 91-102 50' x 1-1 (41-2))	59	0 23/32	M-3	1B	0-0	3504	2070	
1	21-2		RUN 12" (1/4" WALL) PIPE M ₃ B ₀ E ₁	29	4 1/16	M-3	1B	0-0	3504	875	
1	21-3		BAR 3 x 3/4"	0	3	A-36	-	0-0	3504	1	
1	21-A		FLAP VALVE ASS'Y							227	
	21-5	1	PC 12" (SCH. 80) PIPE M ₃ B ₀ E ₁	2	6	M-3	1B	0-0	3504	214	
	21-7	1	FL SK X 3/16" (5/8" X 1.5)			A-283c	-	0-0	3504	10	
	1B5-2	3	FL SK X 3/8" (5/8" X 2.25)			A-283c	-	0-0	3504	2	
	21-6	1	FL SK X 1/4" (5/8" X 1.0)			A-283c	-	0-0	3504	1	
		1	5/8" FIN. HEX BOLT	0	2 1/2	A-307B	-	0-0	3504	✓	
		1	5/8" FIN. HEX NUT			A-563A	-	0-0	3504		

MATERIAL SPECS.

M3 - A53B TYPE E (ELECTRIC-RESISTANCE WELDED) OR TYPE S (SEAMLESS), OR API-5L GRADE B (ELECTRIC WELDED OR SEAMLESS).



GENERAL NOTES

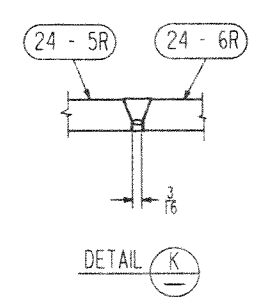
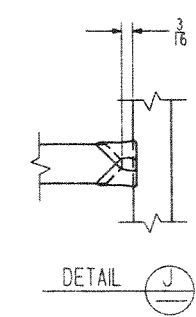
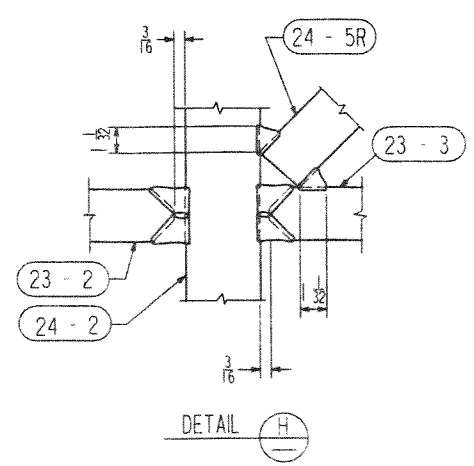
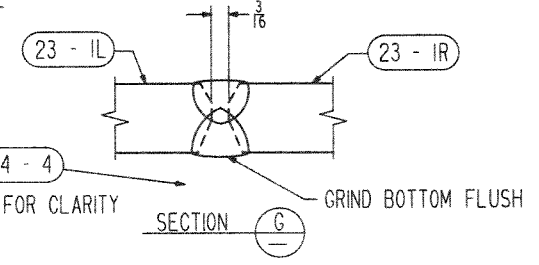
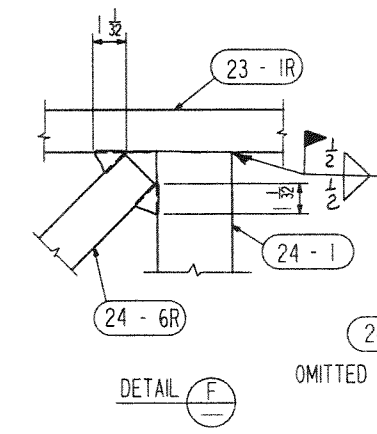
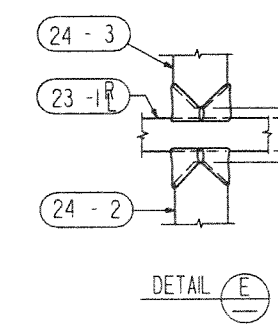
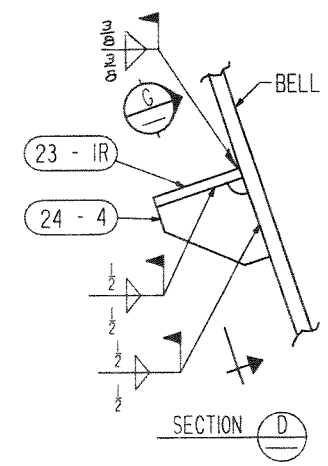
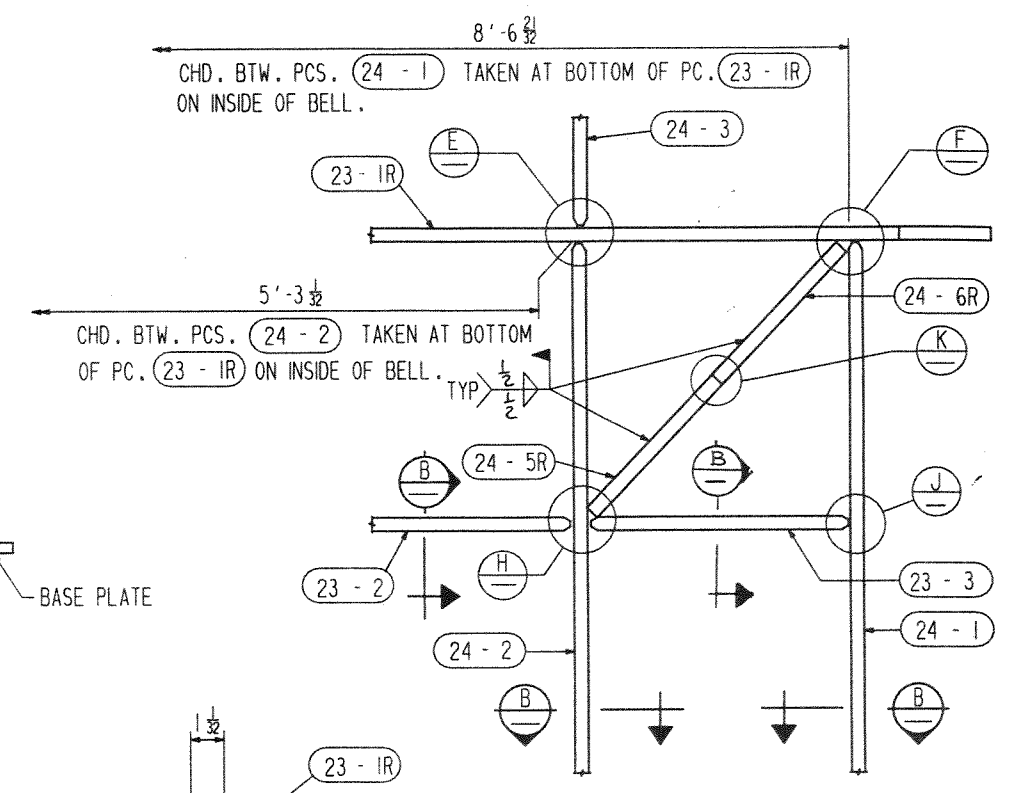
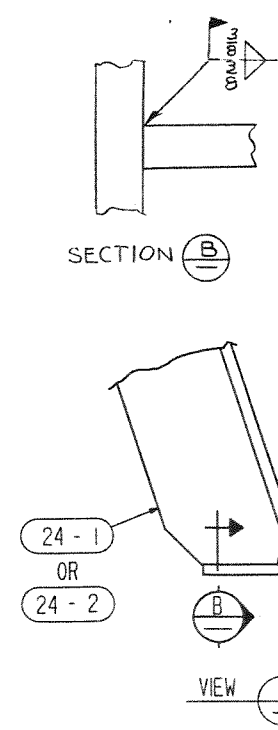
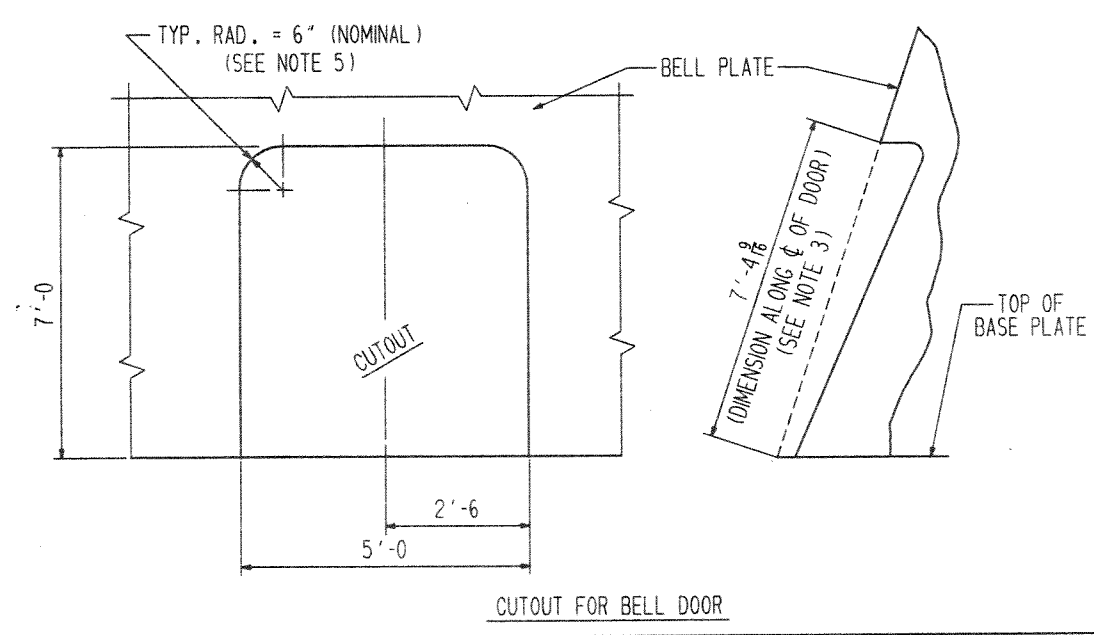
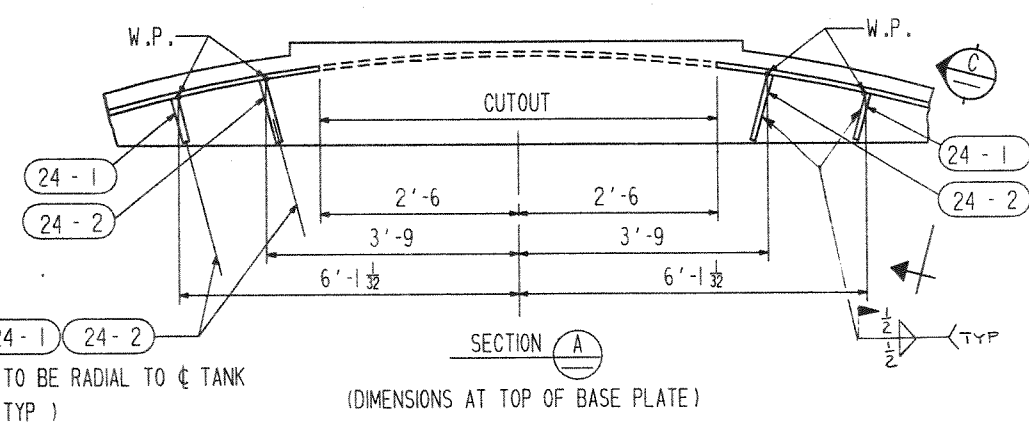
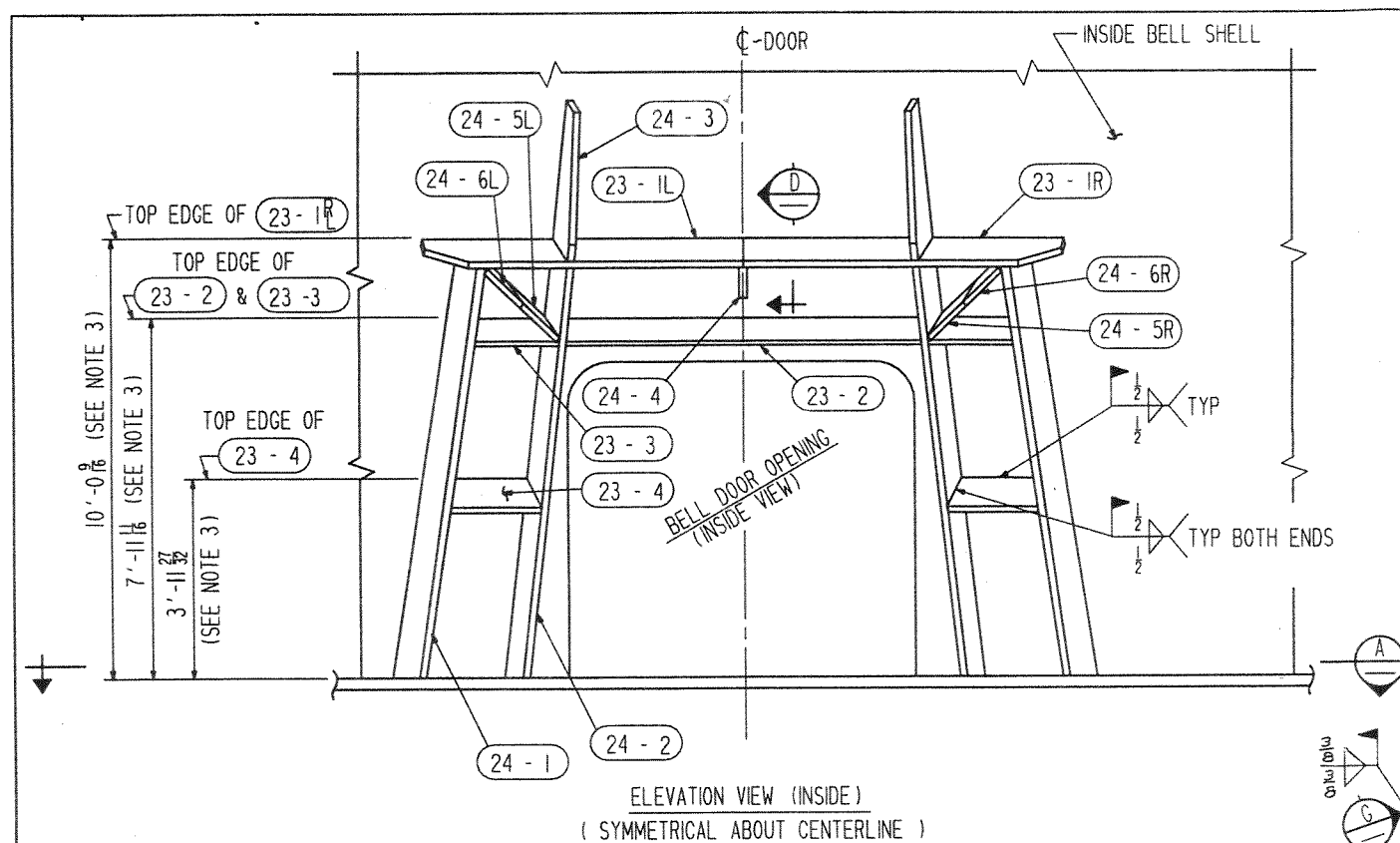
- SEE PIPING & PLATFORM DWG. #20 FOR ORIENTATION & PIPE SUPPORT DETAILS.
- WORK THIS DWG. WITH DWG 28

CAD FILE

ELEVATION (SECTION A-A)

INDICATES CHANGE FROM PREVIOUS ISSUE

CHICAGO BRIDGE AND IRON COMPANY		CBI	
LOWER OVERFLOW			
PURCHASERS NO. NACON #S 5207		CONTRACT NO. DUBS1614	
BY <i>AWH</i> CHKD <i>JEL</i> DATE 10/18/05		DWG 21 REV 1	
BY <i>R.B. BURLESON</i> ENGINEERING SUPERVISOR		SHT 1	
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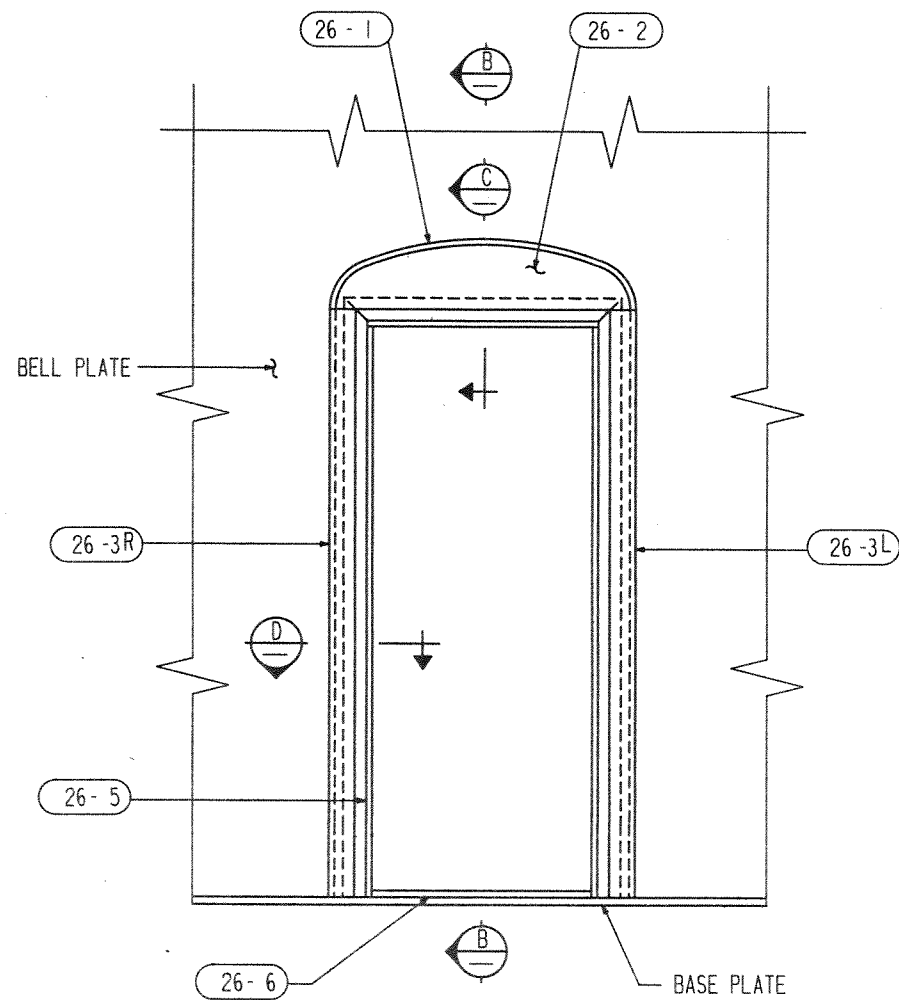
- NOTES:
- DO NOT MAKE CUTOUT UNTIL ALL REINFORCING IS WELDED IN PLACE.
 - ☐ OF ALL PLATES TO BE PERPENDICULAR TO SURFACE OF CONE.
 - REFERENCED DIMENSION IS FROM TOP OF BASE PLATE ALONG INSIDE SLOPE OF BELL.
 - THE 6" RADIUS FOLLOWS THE INSIDE SURFACE OF THE BELL THROUGHOUT ITS SWEEP. (THE RADIUS IS MEASURED ALONG THE INSIDE SLOPE OF THE BELL WHEN "VERTICAL" AND IS MEASURED AS AN ARC WHEN HORIZONTAL.)
 - WORK THIS DWG. WITH DWG. 23 AND 24.
 - DO NOT FIT-UP PCS. 24-5 AND 24-6 UNTIL WELDS OF 23-3 TO 24-2 AND WELDS OF 23-1 TO 24-1 ARE COMPLETE AND APPROVED.

Chicago Bridge & Iron Company CBI	
5'-0 X 7'-0 LARGE BELL DOOR REINFORCEMENT ASSEMBLY DRAWING	
VOSS INTERNATIONAL SAN ANTONIO, TEXAS	
Purchaser's No. S-5207 By: AMH Date: EK 10-01-85 R.B. BURLISON Engineering Supervisor	Contract No.: DU851614 Dwg. 22 Rev. 0
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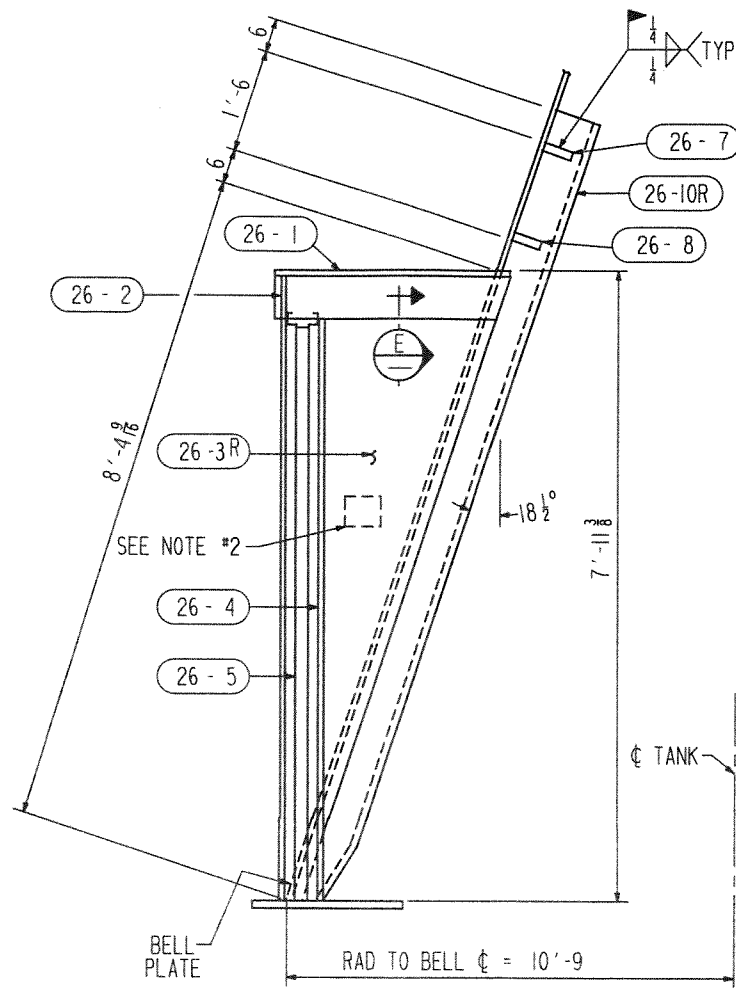
CAD FILE

INDICATES CHANGE FROM PREVIOUS ISSUE

Program: C0102N - SMALL BELL DOOR
 Date of Version: 6-22-85
 CAD FILE: U85161425

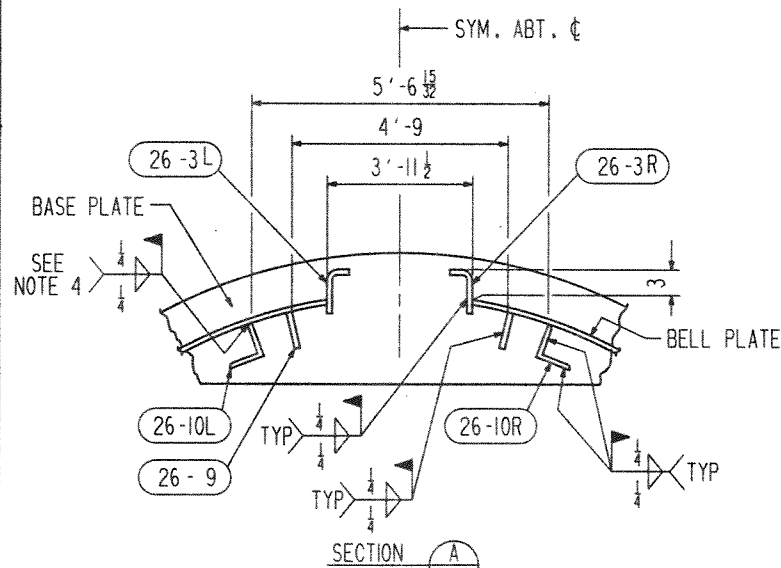
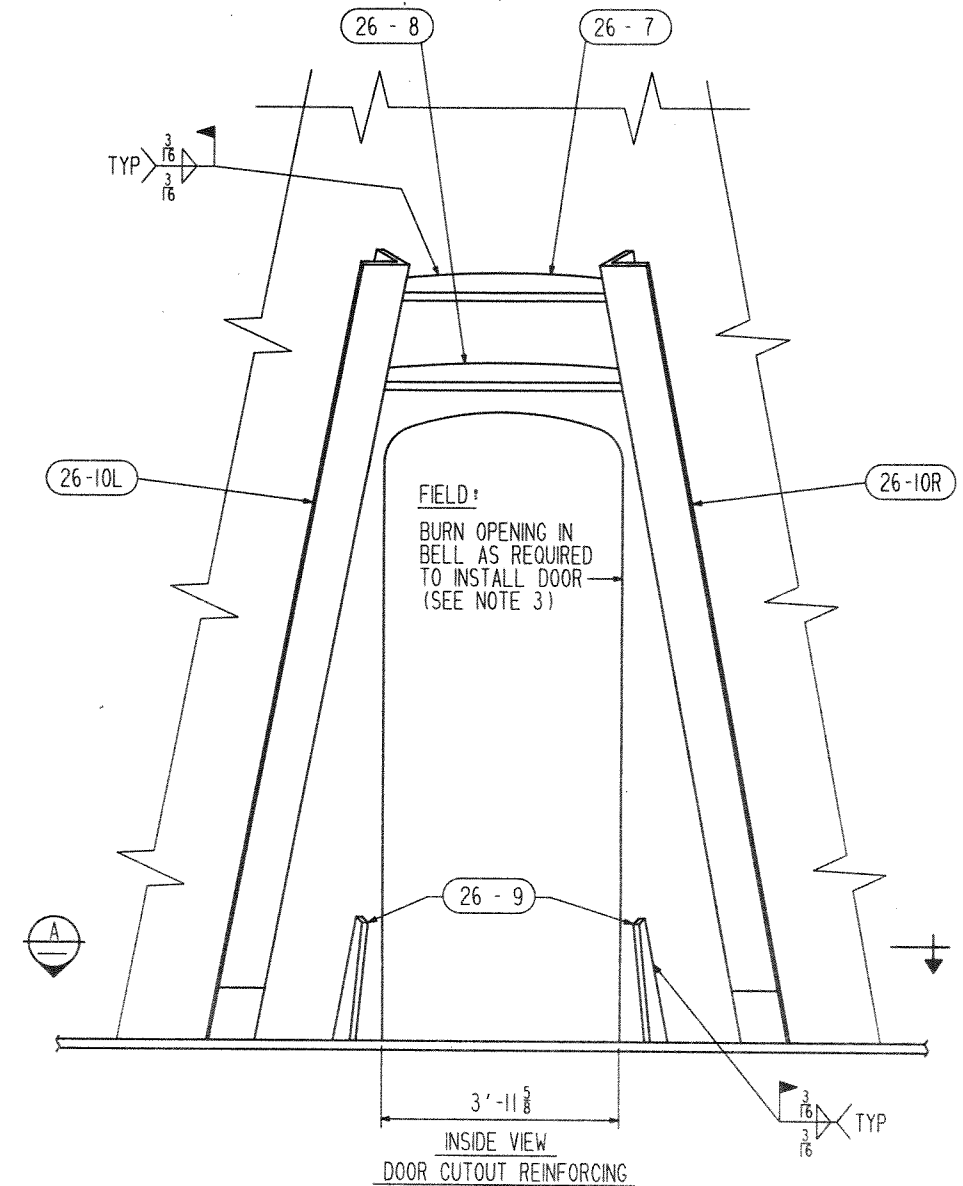


ELEVATION OF DOOR FRAME ASSEMBLY
 (DOOR AND REINFORCING OMITTED FOR CLARITY)

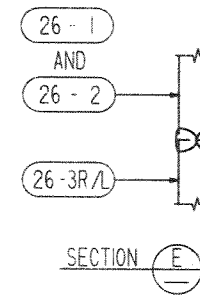
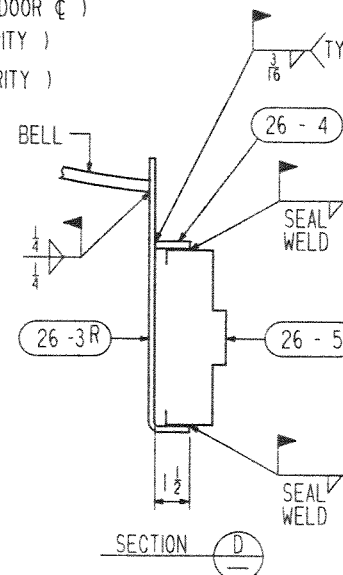
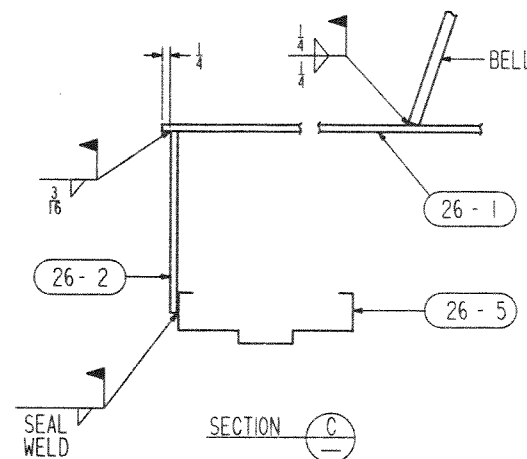


SECTION B

(ANGLES ROTATED IN VIEW FOR CLARITY)
 (ALL DIMENSIONS ARE TAKEN ALONG DOOR ϕ)
 (PC 26-6 OMITTED FOR CLARITY)
 (PC 26-9 OMITTED FOR CLARITY)



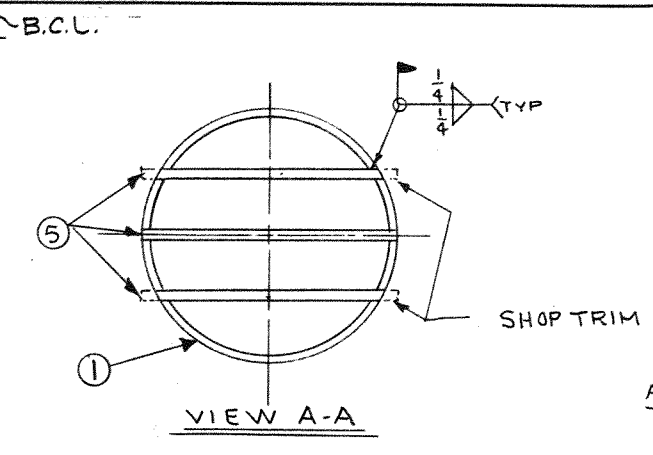
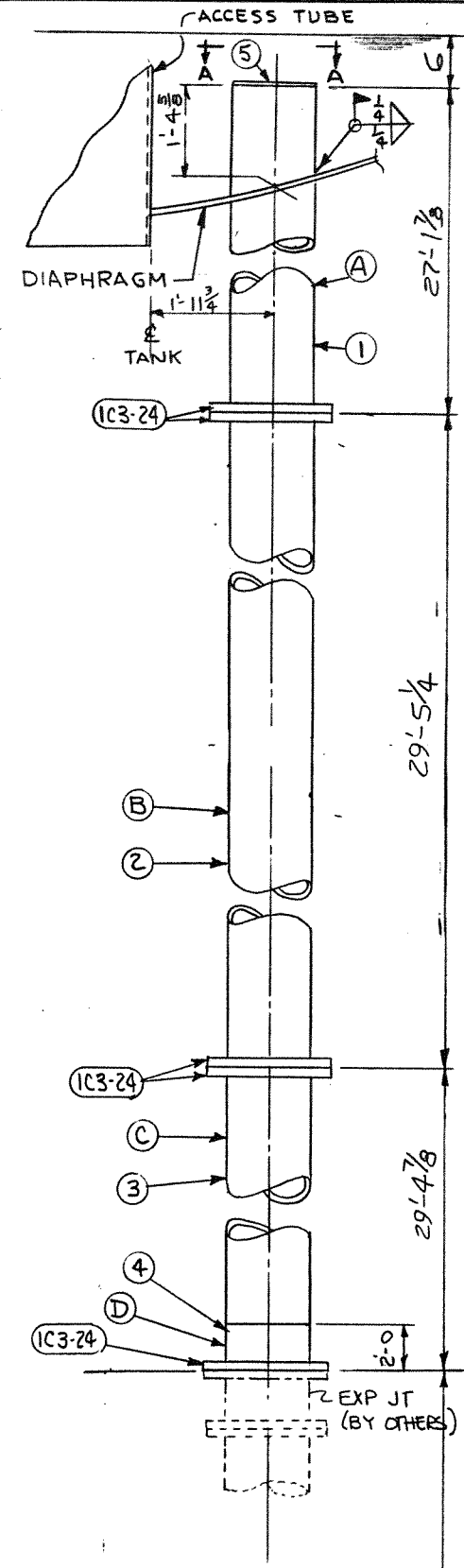
PCS. 26-4 26-5 AND 26-6 OMITTED FOR CLARITY



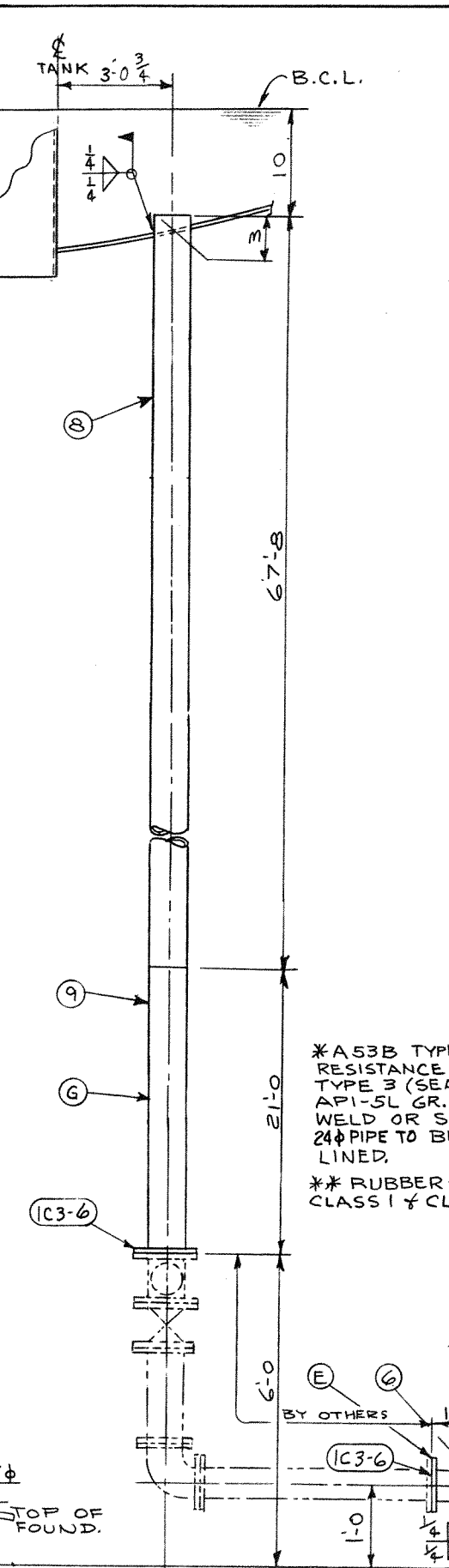
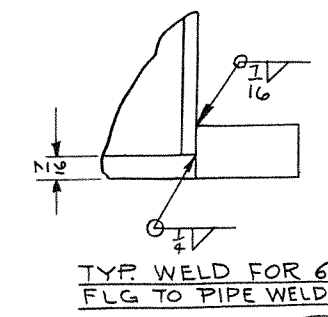
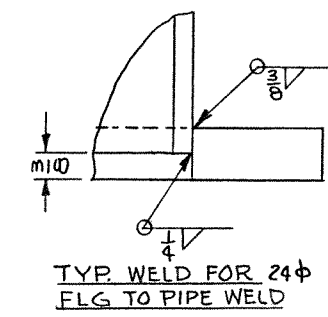
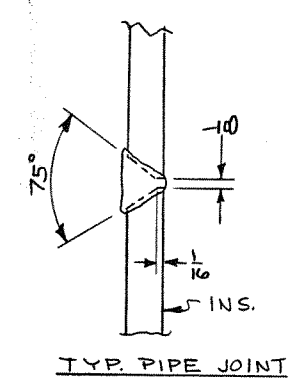
- NOTES:
1. LOCATE BELL DOOR ON VERTICAL ϕ OF BELL PLATE.
 2. WATERSPHERE NAME PLATE, LOCATE BOTTOM EDGE APPROX. 5'-0" ABOVE GROUND, FASTEN WITH FOUR DRIVE SCREWS USE 5/8" DIA. OR #20 DRILL BIT FOR HOLES FOR NAME PLATE.
 3. DO NOT MAKE CUTOUT IN BELL FOR DOOR UNTIL REINFORCING IS WELDED IN PLACE.
 4. USE 1/4" CONTINUOUS FILLET WELD FOR 3'-0" AT TOP AND 1'-6" AT BOTTOM. USE 1/4" INTERMITTENT FILLET OF 2-12" IN BETWEEN TOP AND BOTTOM CONTINUOUS WELDS.
 5. WORK THIS DRAWING WITH DRAWING 26.

CHICAGO BRIDGE AND IRON COMPANY CBI	
42 X 84 BELL DOOR HOOD AND REINFORCEMENT ASSEMBLY	
PURCHASERS NO. 55207	CONTRACT NO. DU851614
BY <i>AWH</i> CHKD <i>JEK</i> DATE 9-27-85	DWG 25 REV 0
R.B. BURLISON ENGINEERING SUPERVISOR	
SHT -	
REVISIONS	
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
REMARKS	
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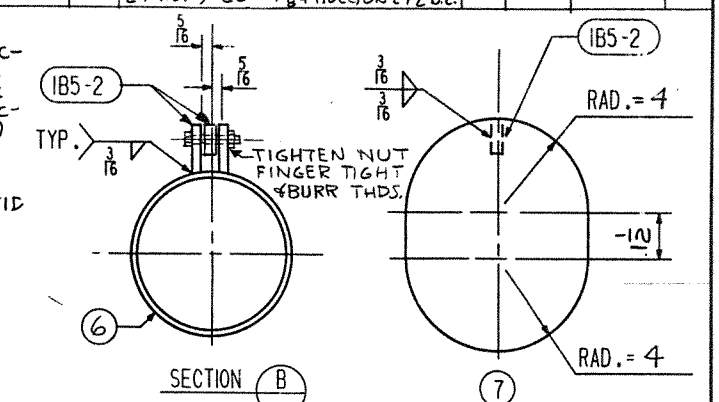
INDICATES CHANGE FROM PREVIOUS ISSUE



FIELD NOTE:
FIELD REPAIR ANY DAMAGE
TO CEMENT LINING CAUSED
BY WELDING



*A53B TYPE 'E' (ELECTRIC-RESISTANCE WELD) OR TYPE 3 (SEAMLESS) OR API-5L GR. B (ELECTRIC-WELD OR SEAMLESS) 24" PIPE TO BE CEMENT LINED.
** RUBBER-HH-P-00151D CLASS 1 & CLASS 3



SHIP PC	MARK	ASSM PC	DESCRIPTION	LENGTH		SPEC	WT
				FT.	IN.		
1	27-A		PIPE ASS'Y	27	1 7/8		3760
	27-1	1	24" (SCH 40) PIPE P _{BE}	27	1 1/2	*	3589
	IC3-24	1	FLG. 24" 150# FLAT FACE (C/F FLG 32 1/2 X 2 X 2'-8 1/2)			A516	168
3	27-5		BAR 1 X 1/4	1	0	A-36	3
1	27-B		PIPE ASS'Y	29	5 1/4		4255
	27-2	1	PC 24" (SCH 40) PIPE P _{BE}	29	4 1/2	*	3582
	IC3-24	2	FLG 24" 150# FLAT FACE (C/F FLG 32 1/2 X 2 X 2'-8 1/2)			A516	672
1	27-C		PIPE ASS'Y				3754
	27-3	1	PC 24" (SCH 40) PIPE P _{BE}	27	4 1/2	*	3588
	IC3-24	1	FLG 24" 150# FLAT FACE (C/F FLG 32 1/2 X 2 X 2'-8 1/2)			A516	168
1	27-D		PIPE ASS'Y				505
	27-4	1	PC 24" (SCH 40) PIPE B _{OE} P _{OE}	1	11 5/8	*	337
	IC3-24	1	FLG 24" 150# FLAT FACE (C/F FLG 32 1/2 X 2 X 2'-8 1/2)			A516	168
60			1/4" FIN. HEX BOLT	0	5 1/2	A307B	173
1	27-E		PIPE ASS'Y				99
	27-6	1	PC 6" (SCH 80) PIPE P _{BE}	2	11 3/4	*	84
	IC3-6	1	FLG 6" 150# FLAT FACE (C/F FLG 11 1/2 X 1 1/2 X 11 1/2)			A516	15
1	27-F		FLAP ASS'Y				21
	IB5-2	3	HINGE FLG SK X 3/8" (C/F 2 3/4 X 0'-2 3/8)			A-283C	2
	27-7	1	FLG SK X 3/16" (C/F 8 1/2 X 0'-9 1/2)			A-283C	18
		1	5/8" FIN. HEX BOLT	0	2 1/2	A307B	1
		1	5/8" FIN. HEX NUT			A563A	✓
1	27-8		RUN 6" (SCH. 40) PIPE P _{OE} B _{OE}	67	8	*	1285
			(BEVEL INTER. JTS. FOR WELDING)				
1	27-G		PIPE ASS'Y	21	0		413
	27-9	1	PC 6" (SCH 40) PIPE P _{OE} B _{OE}	20	11 1/2	*	398
	IC3-6	1	FLG 6" 150# FLAT FACE (C/F FLG 11 1/2 X 1 1/2 X 11 1/2)			A516	15
60			1/4" FIX. HEX. NUT.			A563A	10
3	IC12-24		RUBBER GASKET 32 O.D. X 1/2" X 24 I.D. W/ 20-1 3/8" HOLES ON 29 1/2" B.C.			**	6

WORK THIS DWG W/DWG 20

Chicago Bridge & Iron Company CBI

24" RISER & 6" DRAIN

Purchaser's No: **NACON # S-5207** Contract No: **DU 85164**

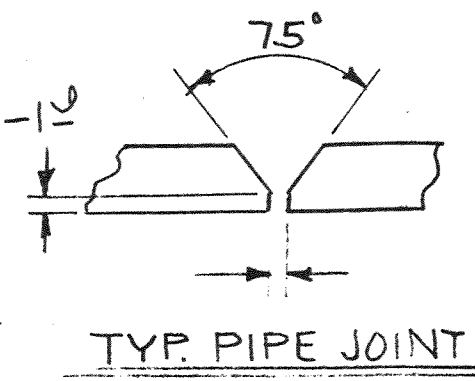
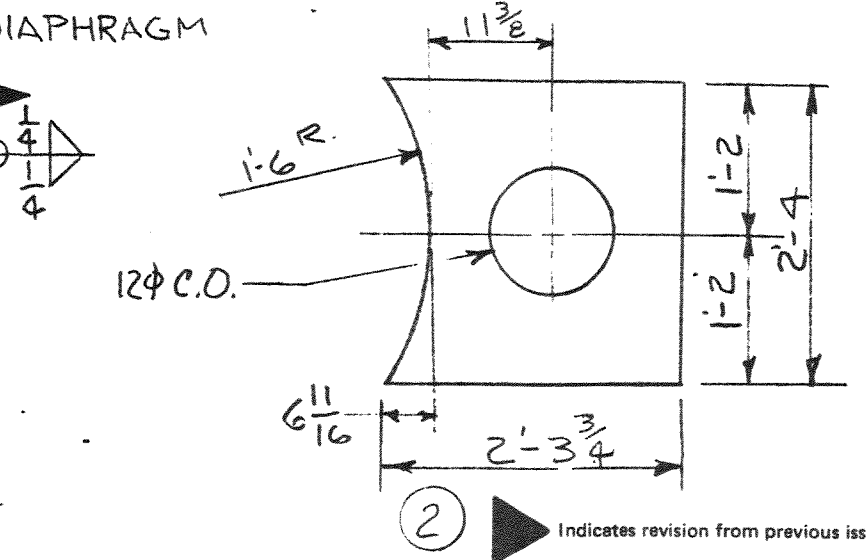
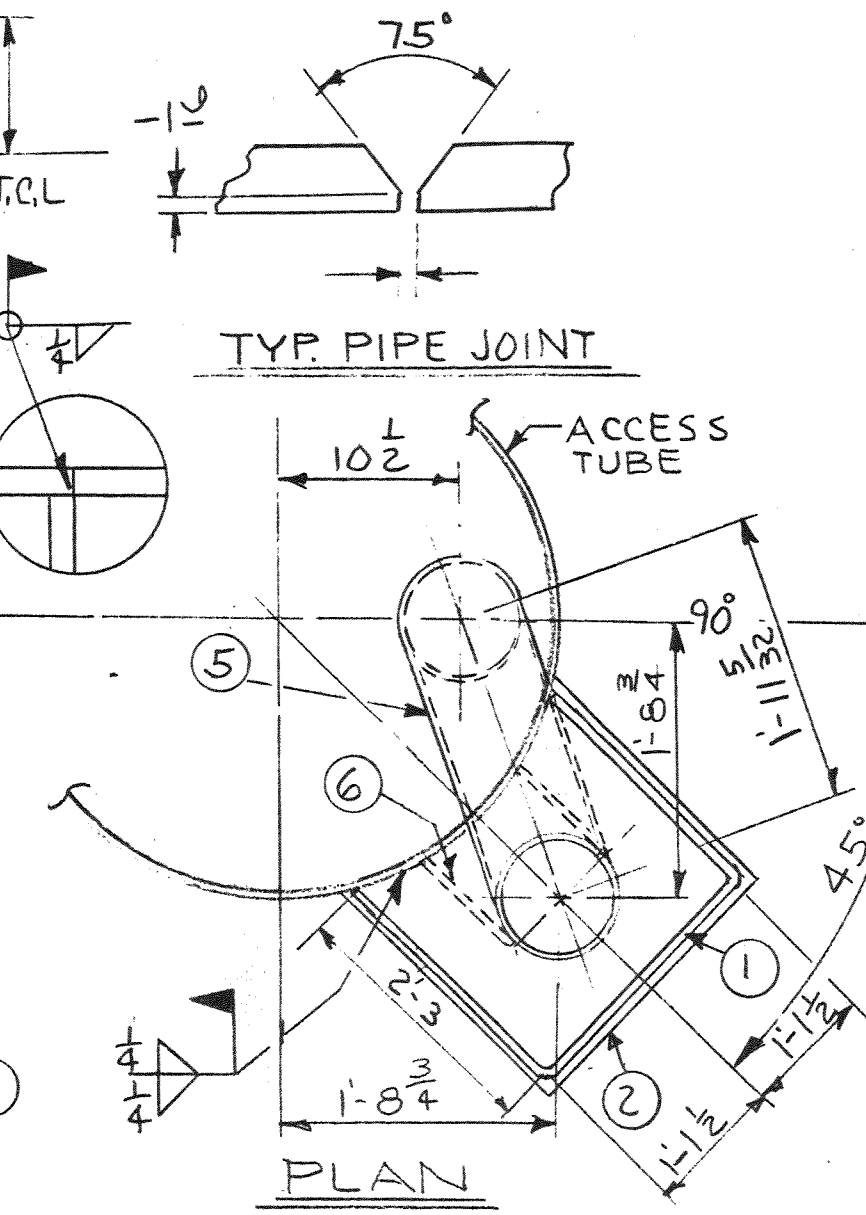
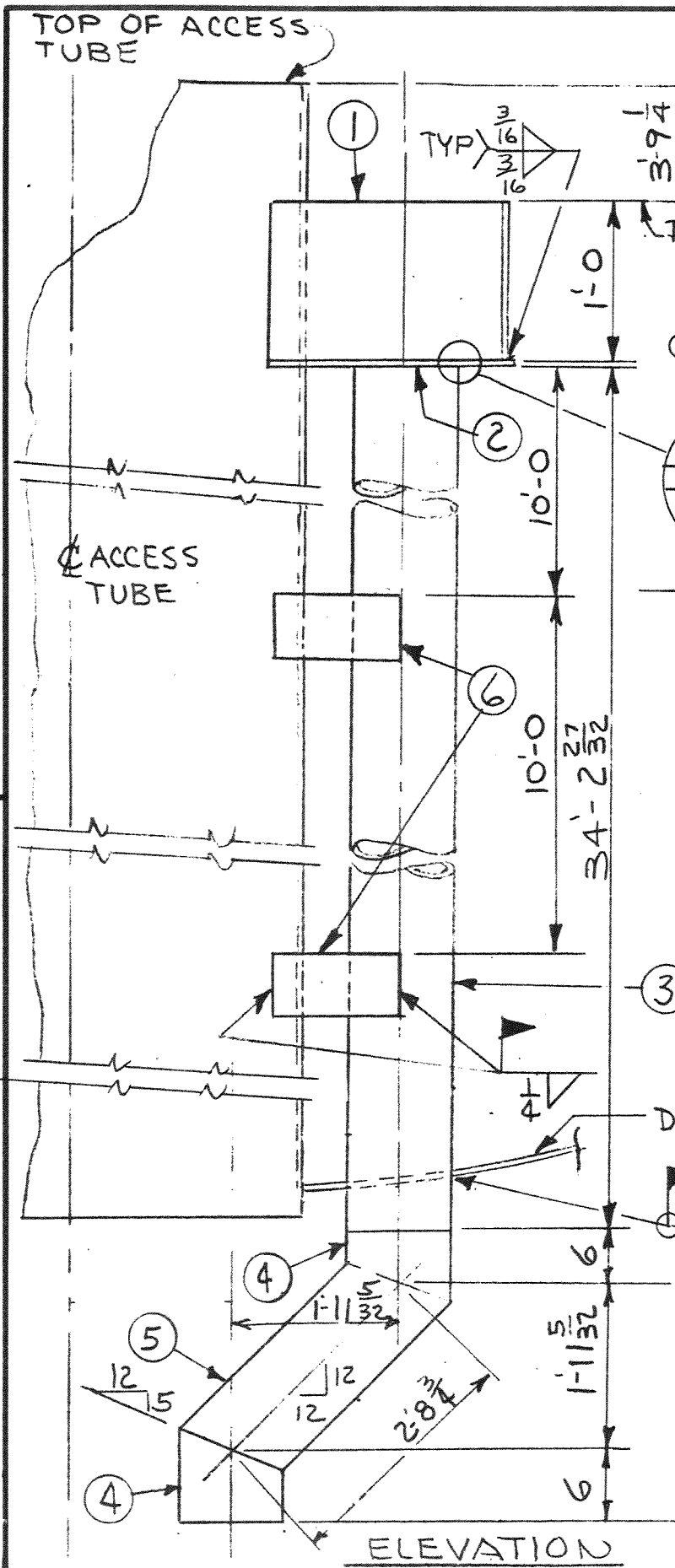
By: **AWH** Chkd: **PK** Date: **10/18/86** Drawn: **R.B. BURLESON** Date: **27**

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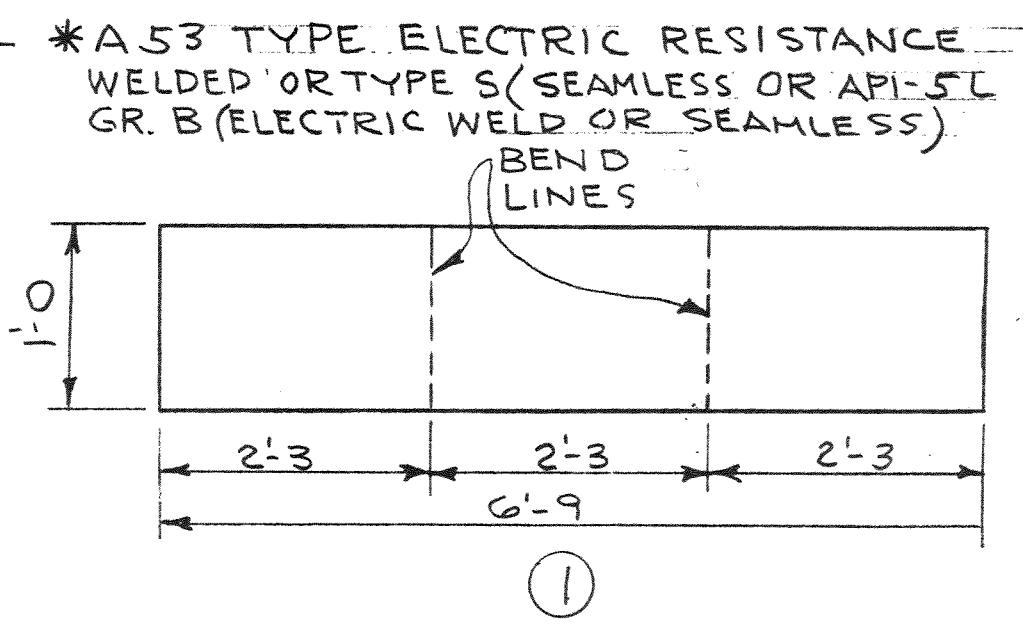
FIELD TRIM PC TO OBTAIN DIM. COMPATIBLE W/ CUST. PIPING BEFORE WELDING
 ⑤ TO ①, GENERAL CONTRACTOR COORDINATE. SUBMIT DETAILS.

24" RISER (ELEVATION)

6" DRAIN (ELEVATION)



Ship Pc	Mark	Asm Pc	Description	Length		Spec
				Ft	In.	
1	28-A		Box Ass'y			
	28-1	1	12 x 1/4 BENT	6	9	A283C
	28-2	1	SK x 1/4 (C/F 28 1/8 x 2-4 3/8)			A283C
1	28-3		RUN 12 phi (SCH 20) PIPE P _{0E} M _{0E}	34	2 27/32	*
1	28-B		PIPE ASS'Y			
	28-4	2	12 phi (SCH. 20) PIPE M _{0E} B _{0E} C _{TOE}	0	6	*
			PC PIPE 3'-9 1/2 TWO (4)			
			ONE (5)			
	28-5	1	12 phi (SCH 20) PIPE M _{BE} C _{TOC}	2	8 3/4	*
4	28-6		BAR 6 x 3/8	1	0 1/2	A-36



Chicago Bridge & Iron Company CBI

UPPER OVERFLOW

Purchaser's No. NACON 55207 Contract No. DU851614

By AWT Chkd _____ Date _____

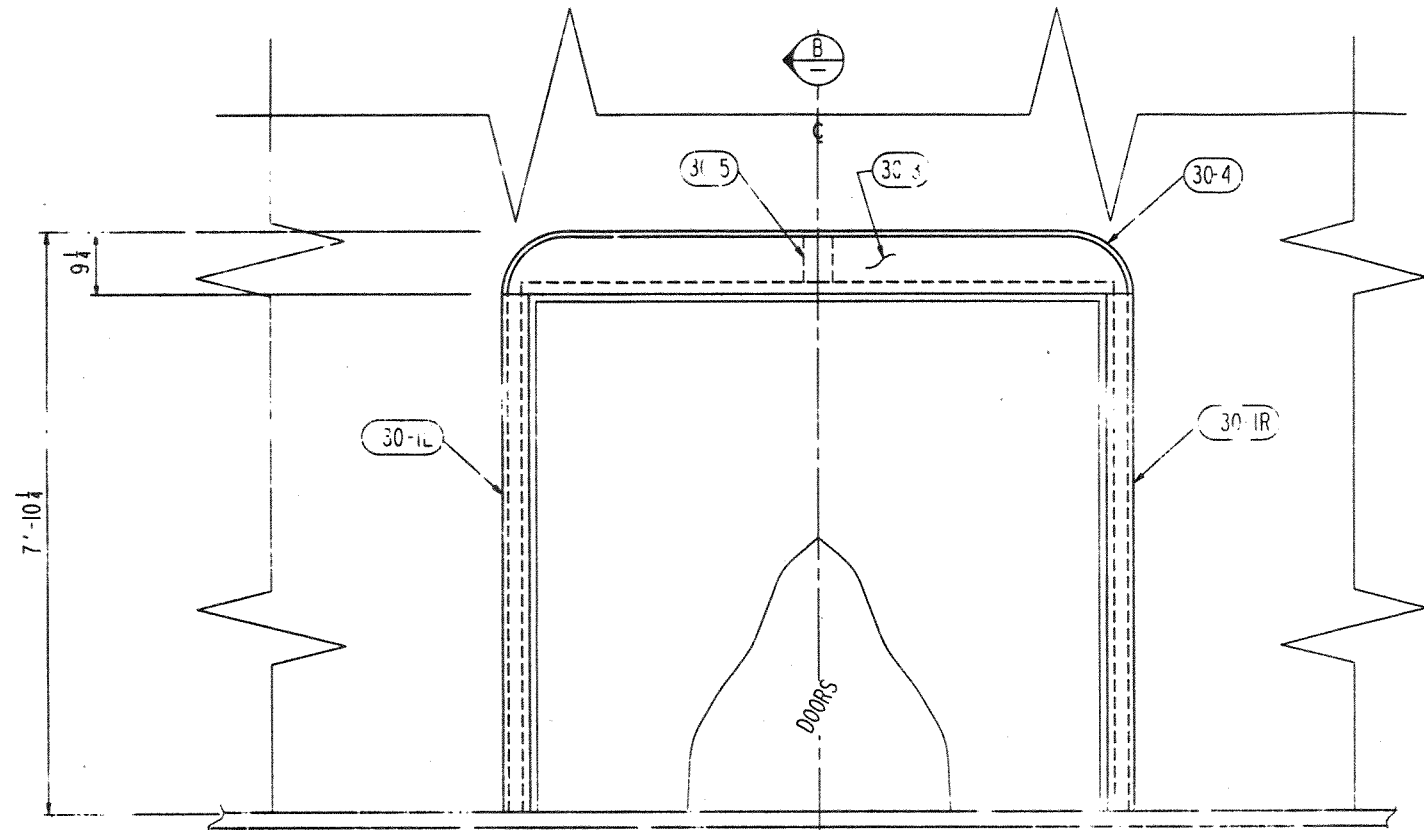
R.B. BURLESON Engineering Coordinator Dwg 28 Rev 1

REVISIONS

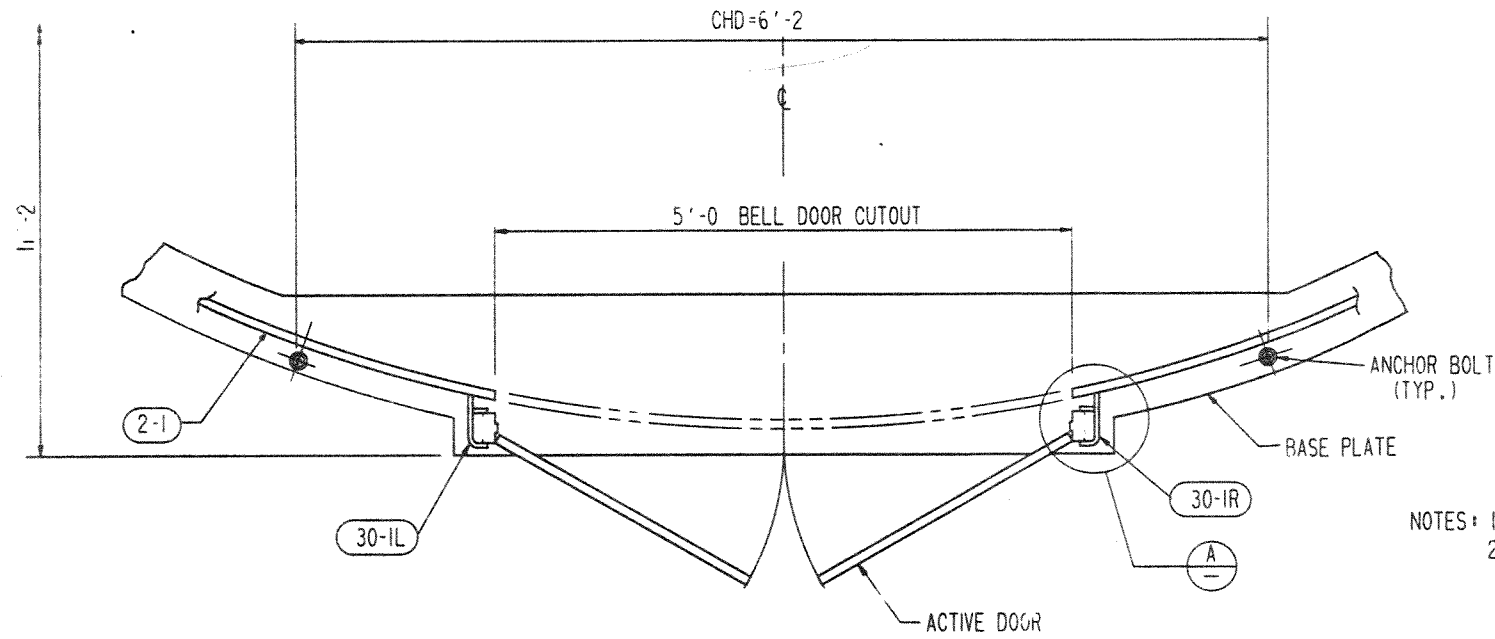
By	Chkd	Date	By	Chkd	Date	Remarks

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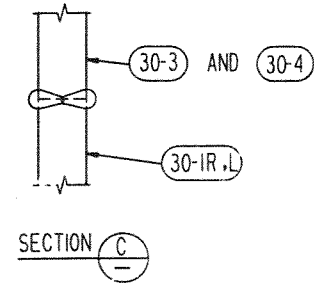
DATE OF VERSION: 10/18/85
 CAD FILE: U85161429



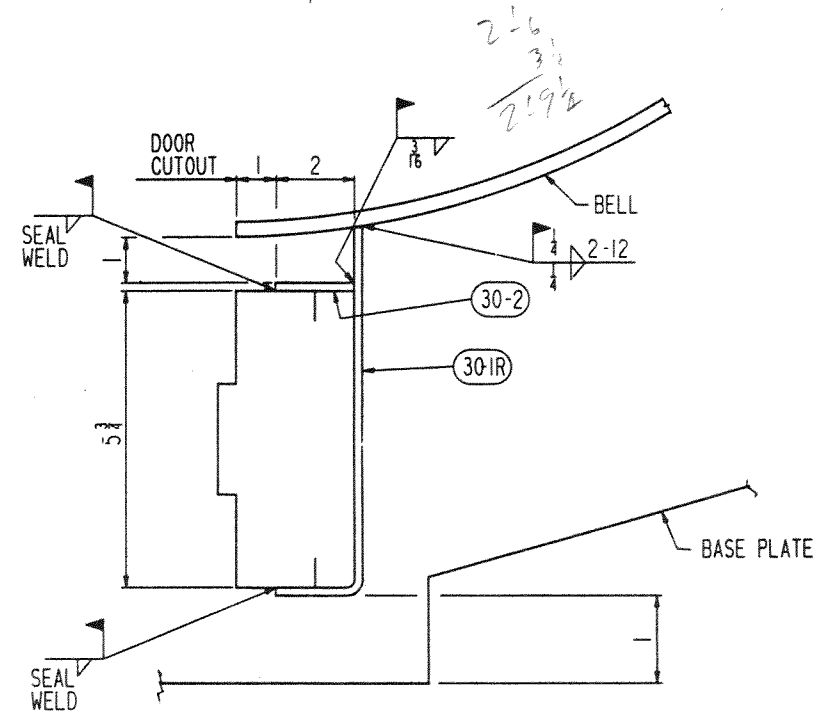
ELEVATION
(OUTSIDE)



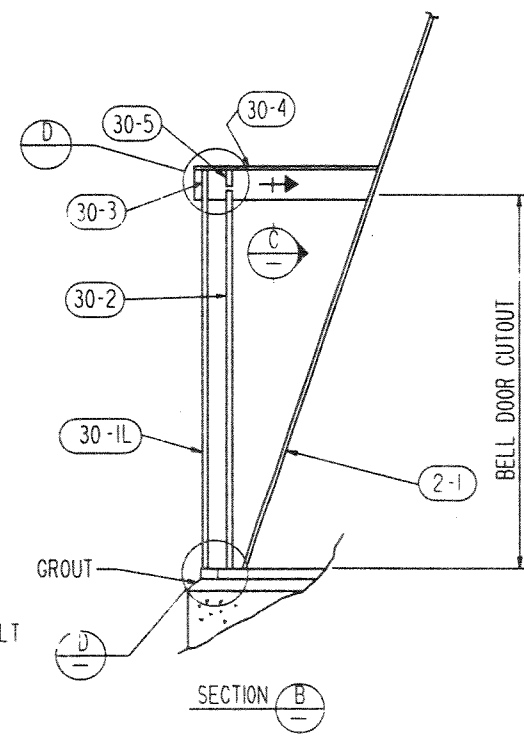
PLAN



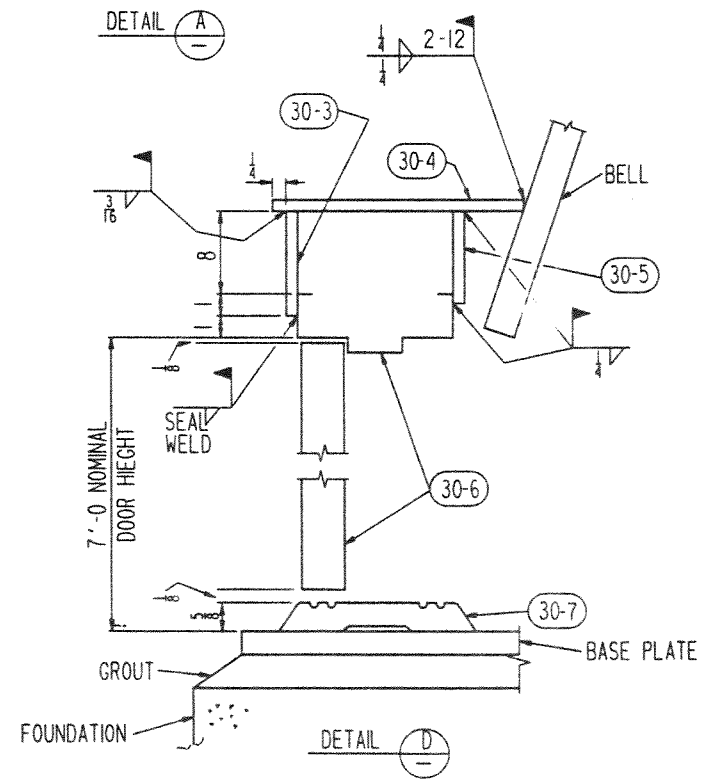
SECTION C



DETAIL A



SECTION B

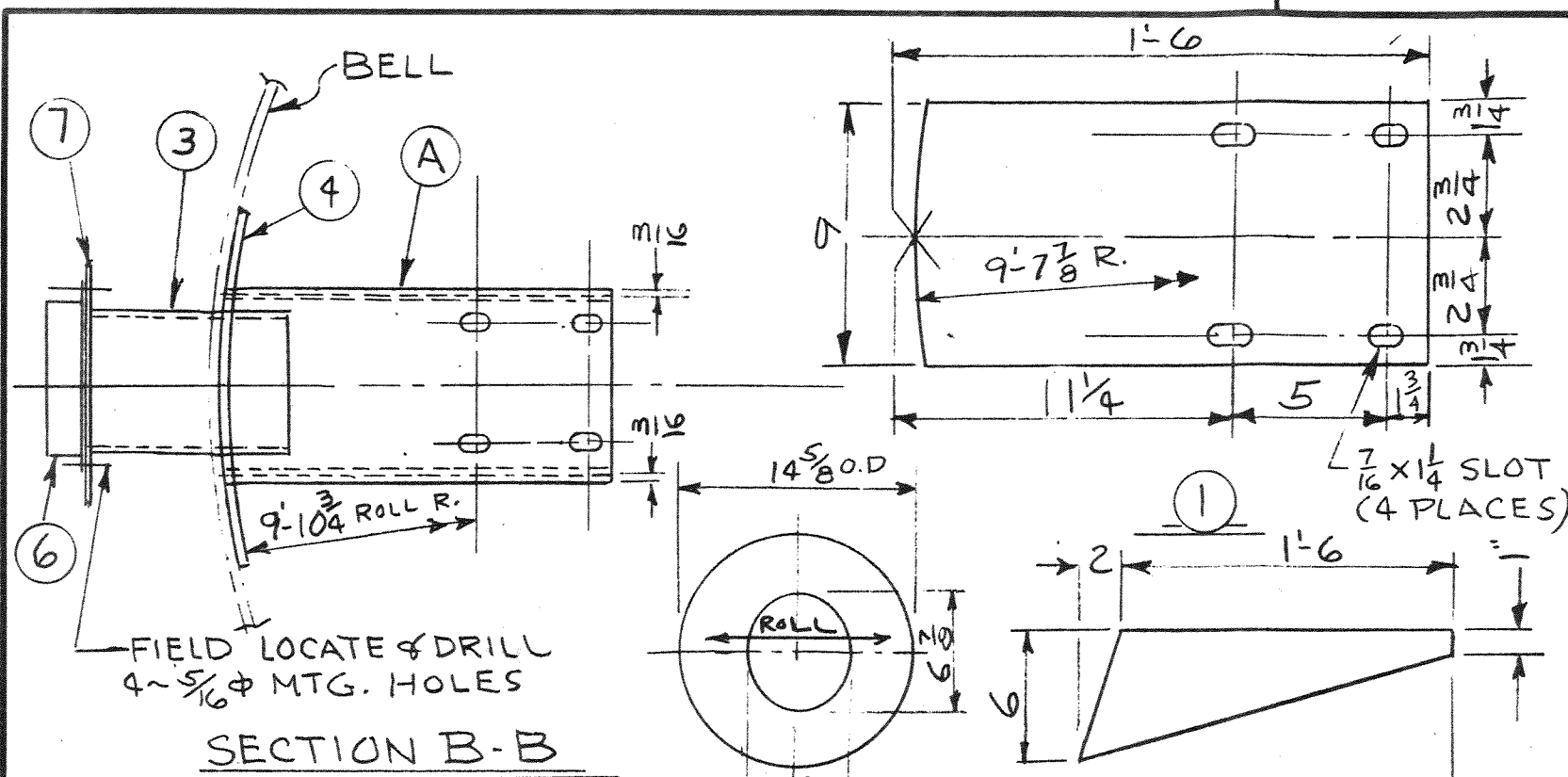


DETAIL D

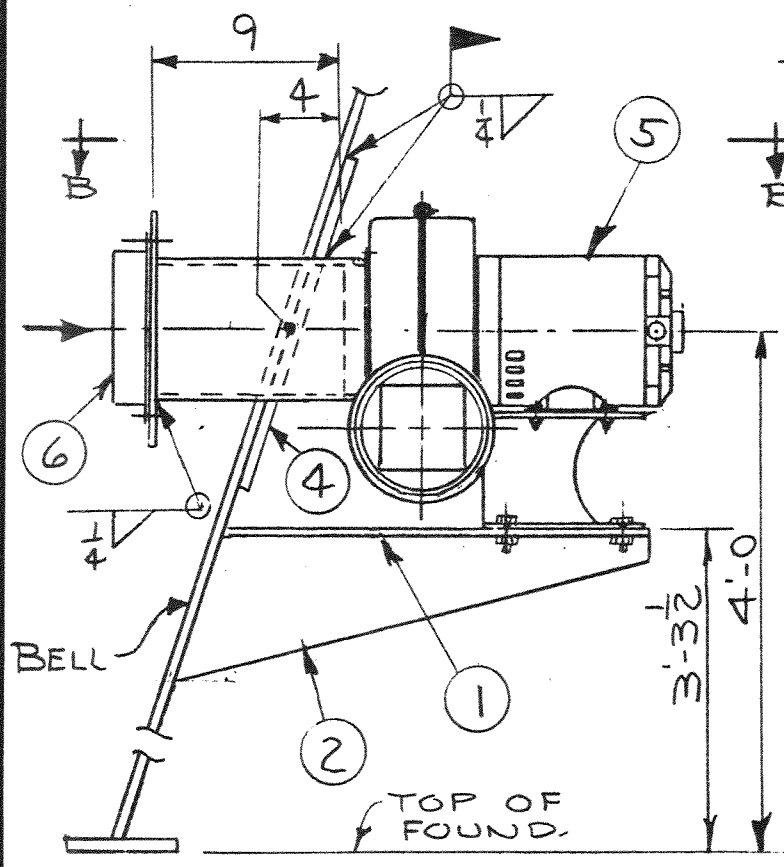
- NOTES: 1. LOCATE DOOR ON VERTICAL SEAM OF BELL PLATE 2-1 TOG.
 2. WORK THIS DRAWING WITH DRAWING 30

INDICATES CHANGE FROM PREVIOUS ISSUE

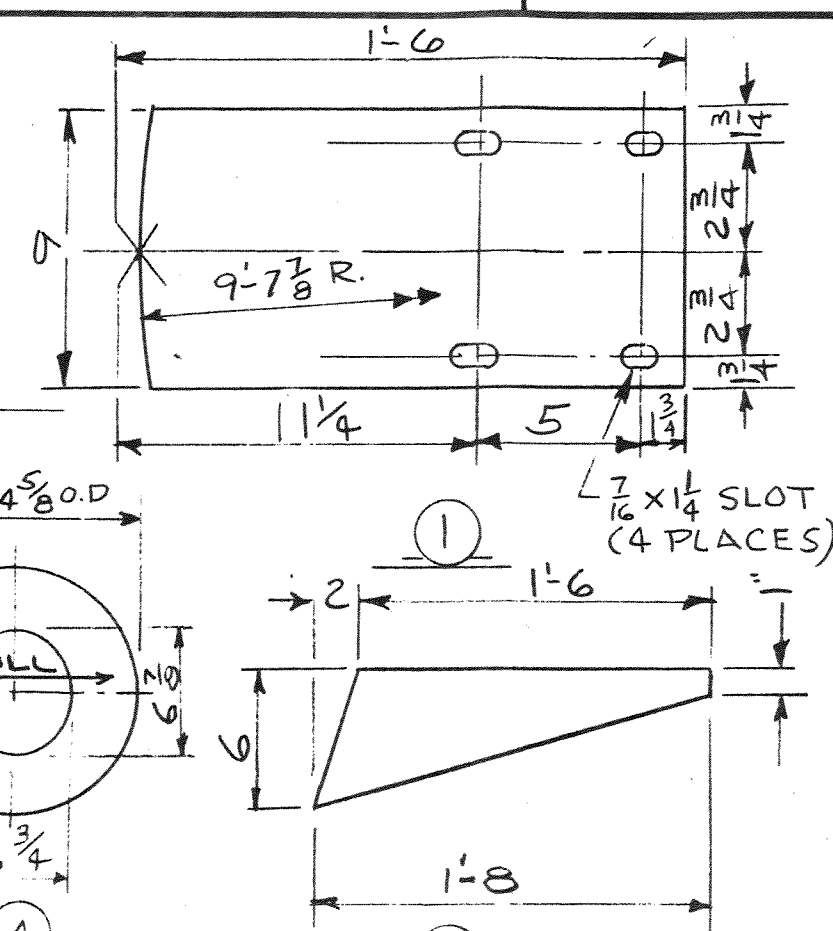
CHICAGO BRIDGE AND IRON COMPANY CBI	
60 X 84 BELL DOOR HOOD AND DOOR ASSEMBLY 150 M.G. WATERSPHERE SAN ANTONIO, TEXAS	
PURCHASERS NO 55207	CONTRACT NO DU851614
BY J.E.K. CHKD L.D.F. DATE 10-23-85	DWG 29 REV 0
R.B. BURLISON ENGINEERING SUPERVISOR	SHT -
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SECTION B-B



SECTION A-A



INS. ELEVATION

Indicates revision from previous issue

Ship Pc	Mark	Asm Pc	Description	Length		Spec
				Ft	In.	
1	31-A		BRACKET ASS'Y			
	31-1	1	Ø SK X 1/4 (Ø # 9 X 1-7)			A-283C
	31-2	2	Ø SK X 1/4 (Ø # 8 X 1-8 1/2 9/2)			A-283C
4			3/8 Ø FIN. HEX BOLT	0	1	A307A
		4	3/8 Ø FIN. HEX NUT			A-563A
1	31-5		DIRECT DRIVE CENTRIFUGAL FAN (500 SCFM @ 1/4 S.P.)			
			CINCINNATI No. LM-6B FIG #1			
			ARRANGEMENT 4 W/ 1/4 H.P. 1750			
			R.P.M. SINGLE PHASE TFC MOTOR			
1	31-6		INTAKE LOUVER 7 X 7			
			OPENING. 8 1/2 X 8 1/2 OUTS			
			TO OUTS MTG. FLGS.			
			C&I BUILDING SUPPLY			
			MODEL # AC 505.			
			(SCREENED W/ 1/4 MESH)			
4			1/4 Ø FIN HEX BOLTS	0	0 3/4	A307A
		4	1/4 Ø FIN. HEX NUT			A563A
1	31-B		PIPE ASS'Y			
	31-3		Pc 6Ø (SCH 40) PIPE P _{BE}	0	9	*
	31-7		Ø 10 X 3/16 W/ 3/64 Ø HOLE IN CTR	0	10	A-283C
1	31-4		REINF. Ø 14 5/8 O.D. X 7/16 X SK I.D. ROLL			A-283C

By	Chkd	Date	By	Chkd	Date	By	Chkd	Date
			AWH	JEK	3/19/86	JEK	JLT	12-3-85

Chicago Bridge & Iron Company **CBI**

INTAKE VENT WITH BLOWER & LOUVER

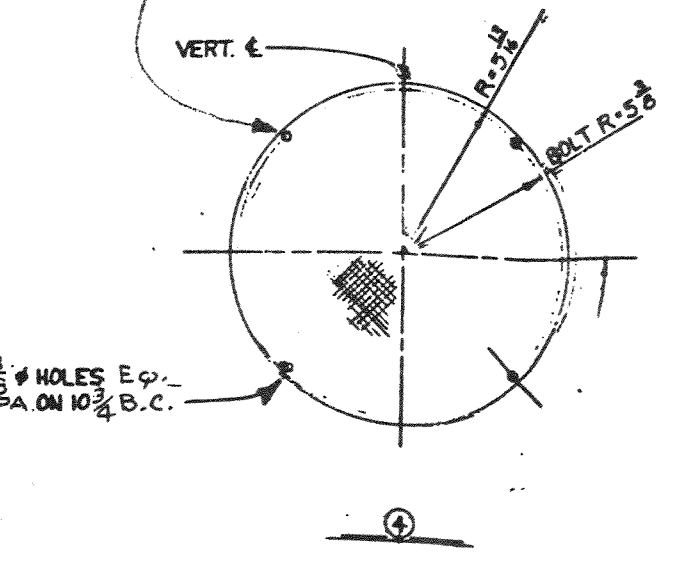
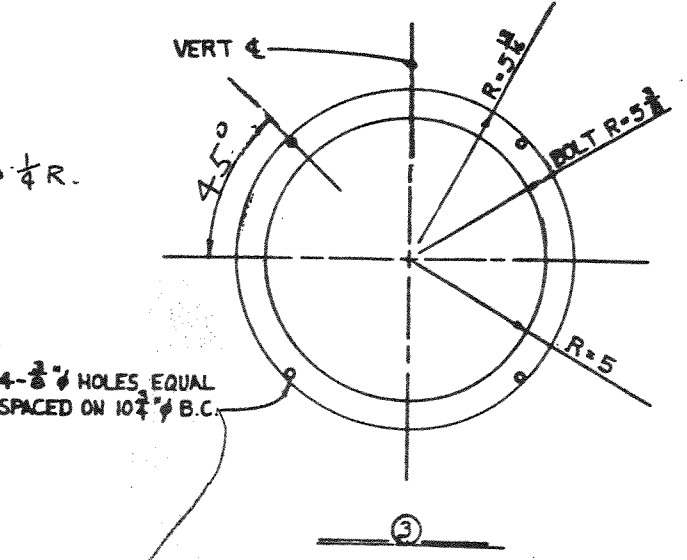
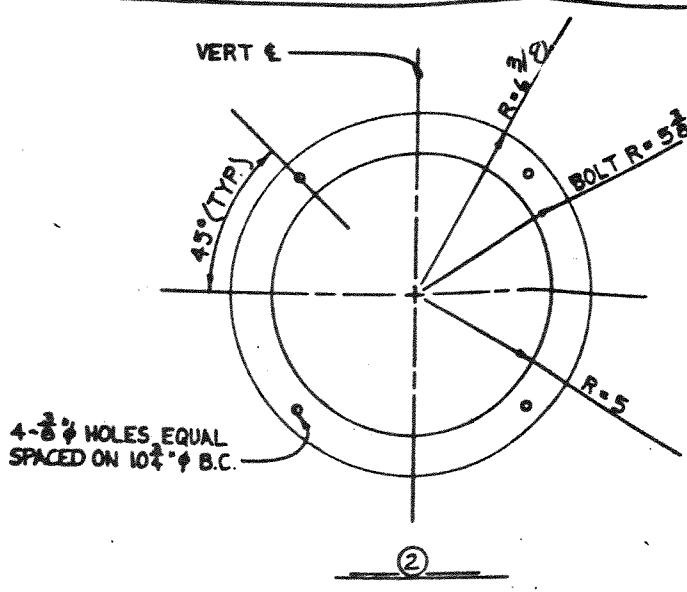
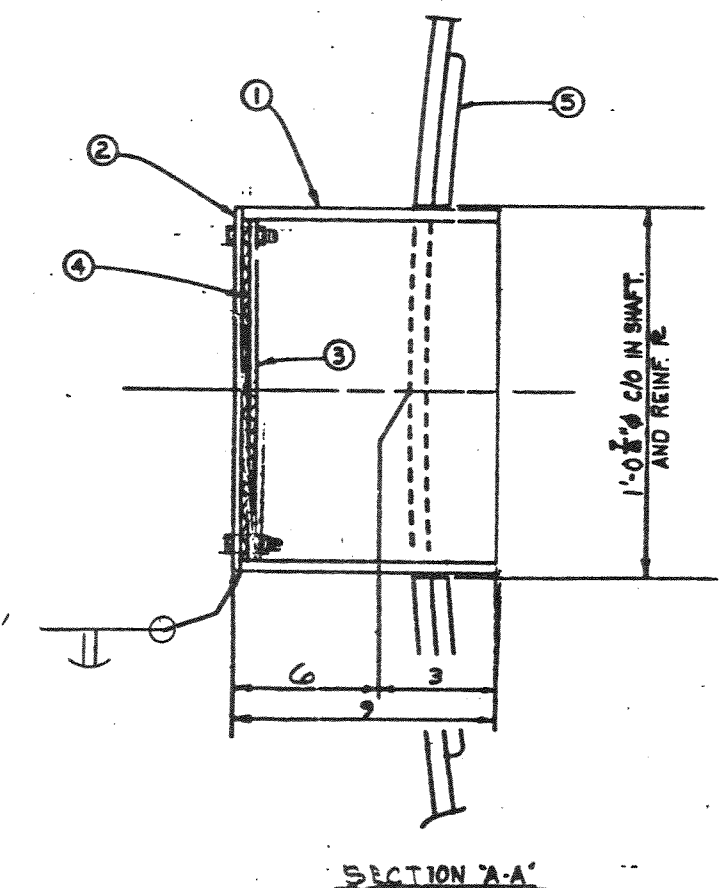
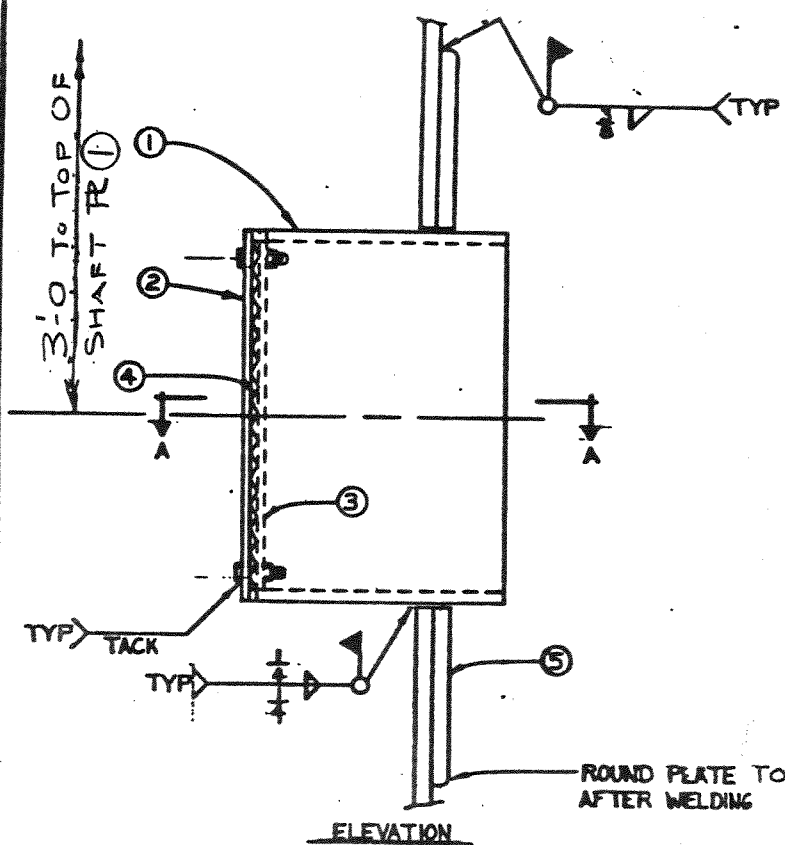
Purchaser's No. NACON # 5 5207 Contract No. DUB51614

By AWH Chkd JEK Date 11/1/85

R.B. BURLESON
Engineering Coordinator

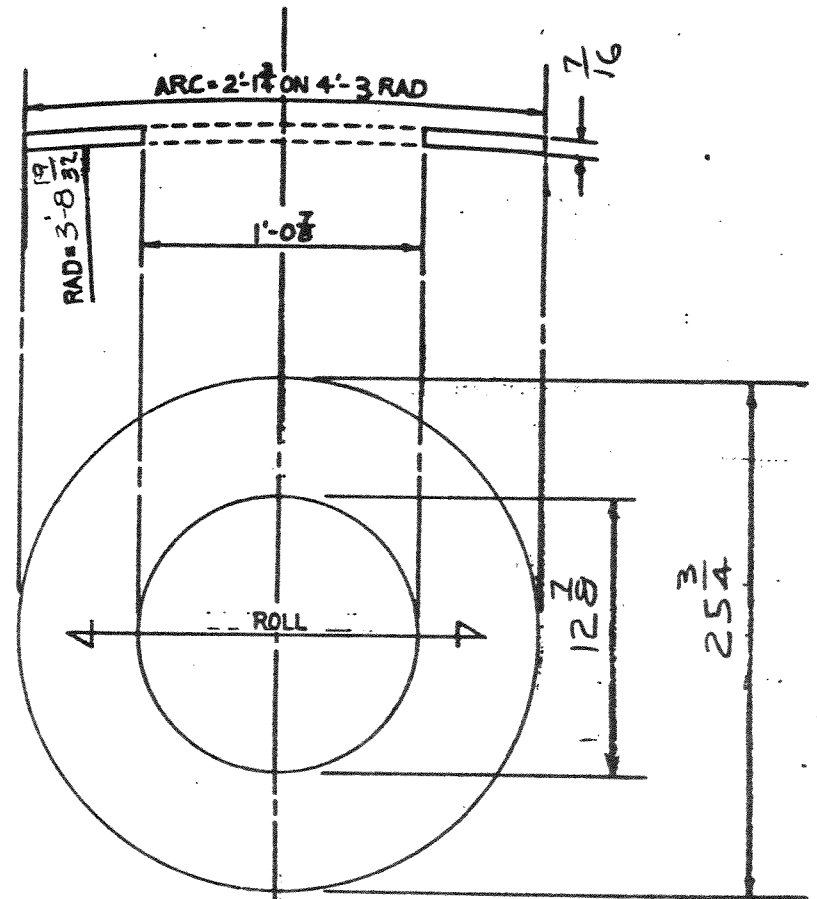
Dwg 31 Rev 2

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* A53B TYPE E (ELECTRIC RESISTANCE WELDED) OR TYPE S (SEAMLESS) OR API-5L GRADE B (ELECTRIC WELD OR SEAMLESS)

NO.	QTY	DESCRIPTION	UNIT	REMARKS
4	32-A	10" VENT ASSY	0	9
	32-1	4 PC. 12" STD. WT. PIPE	0	8 3/4
	32-2	4 R-12 3/4" O.D. x 1/4" I.D. HOLES		A283C 3
	32-3	4 R-11 5/8" O.D. x 1/4" I.D. HOLES		A283C 2
	32-4	4 PC. #16 MESH SCREEN WIRE (WIRE φ .018) (DIAM. = 11 5/8")		BRONZE 1
		W/4-3/8" HOLES EQ. SPA. ON 10 3/4" BOLT CIRCLE		
	16	5/16" FN HEX HD BOLTS	0	1 A307A ✓
	16	5/16" FN HEX NUTS		A563A ✓
4	32-5	R-5K x 1/16 (ROLL)		A283C 74
		(WF R-24 LB x 7/16-2'2 LB)		



DWG. 1/20 FOR ORIENTATION

INDICATES CHANGE FROM PREVIOUS

Chicago Bridge & Iron Company **CBI**

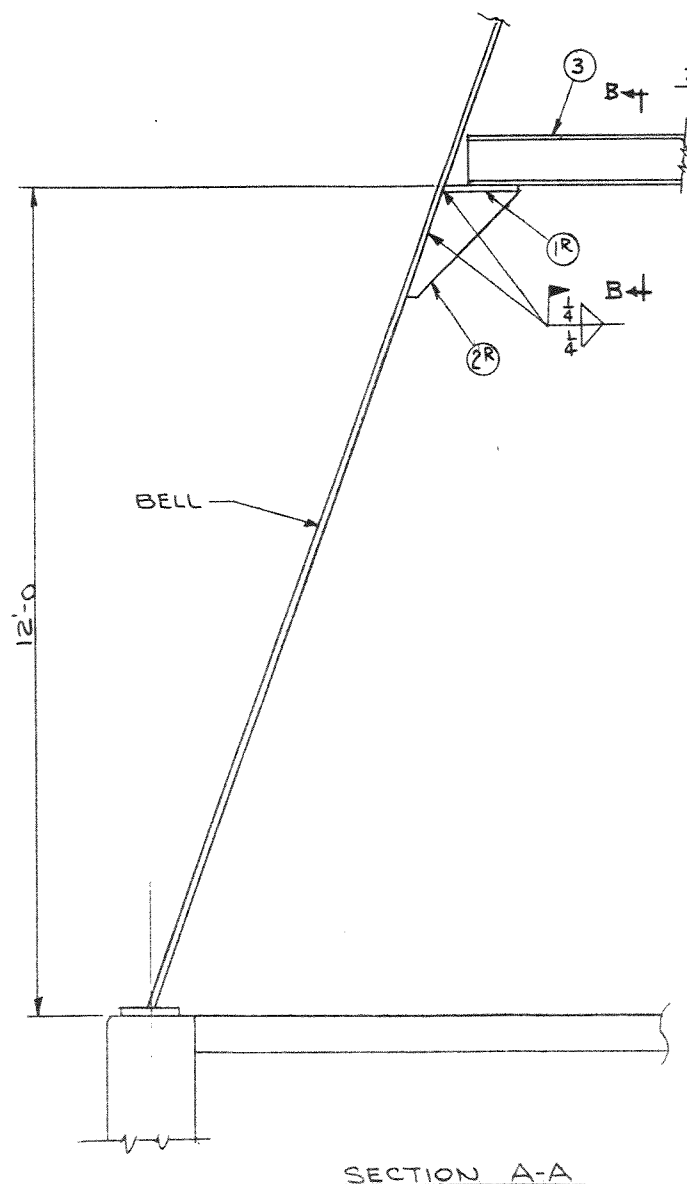
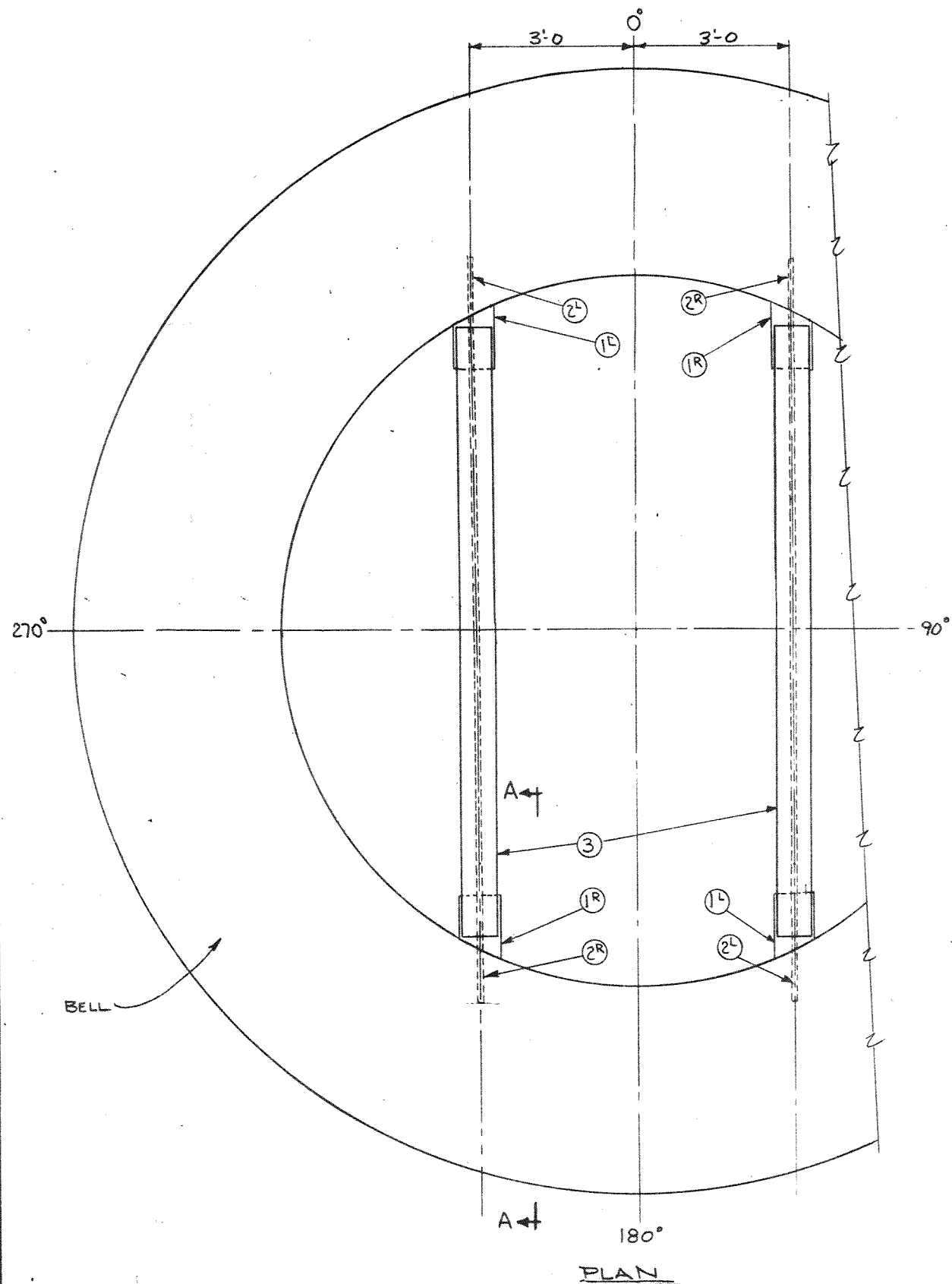
SHAFT VENTS
10'-0"

PROJECT NO. **MACON #S 5207**

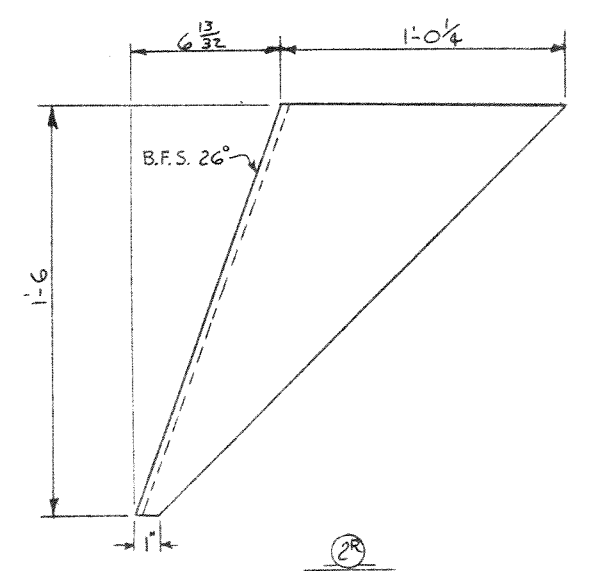
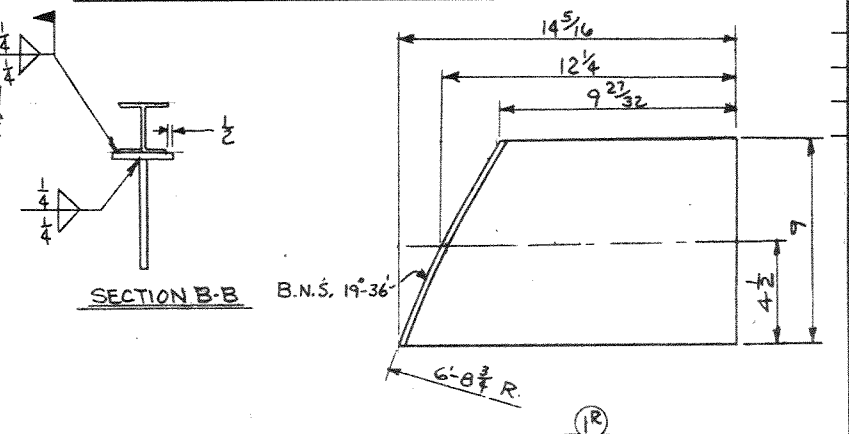
BY **R.B. BURLINSON** DATE **DUB51614**

SCALE **3/2 = 0**

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SHIP PC	MARK	ASSM PC	DESCRIPTION	LENGTH		SPEC	WT
				FT.	IN.		
4	33-A1 ^R		BEAM SEAT ASS'Y				214
	33-1 ^R	4	PL SK X 3/4 (FR 9 1/2 X 4 1/4)			A-283C	94
	33-2 ^R	4	PL SK X 1/2 (FR 18 1/2 X 3 1/4)			A-283C	120
2	33-3		8 WF 31	11	2 3/8	A-36	362



Chicago Bridge & Iron Company CBI

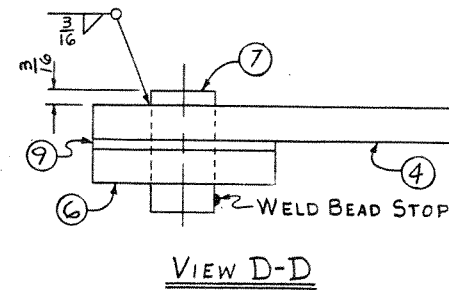
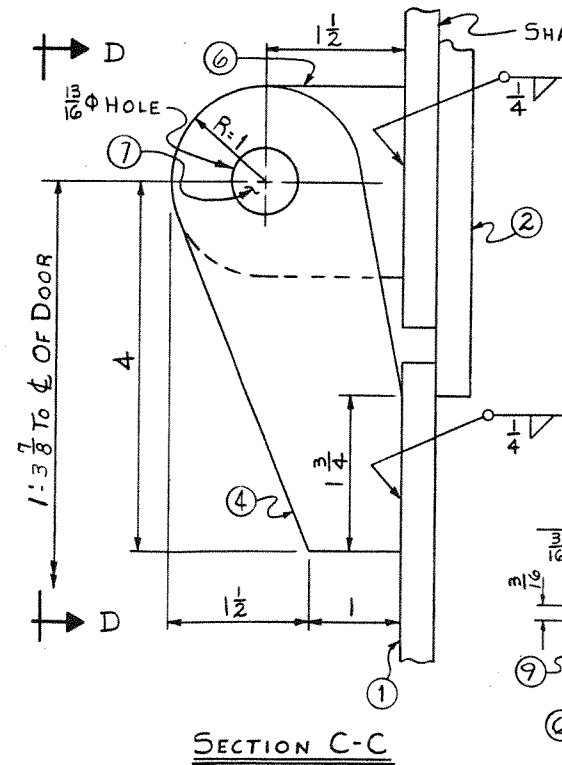
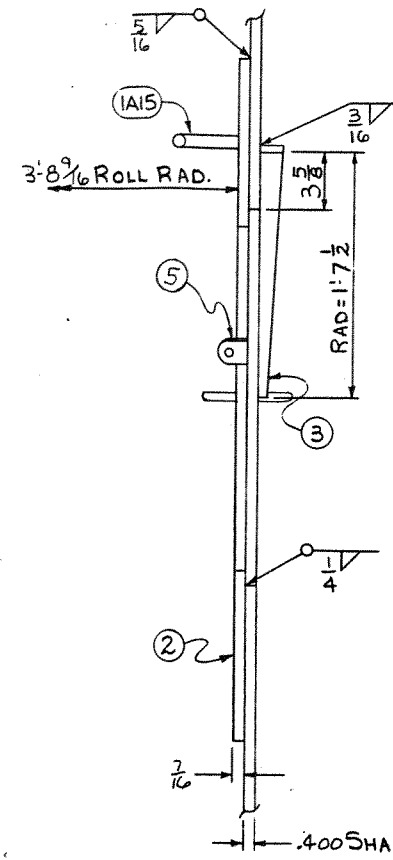
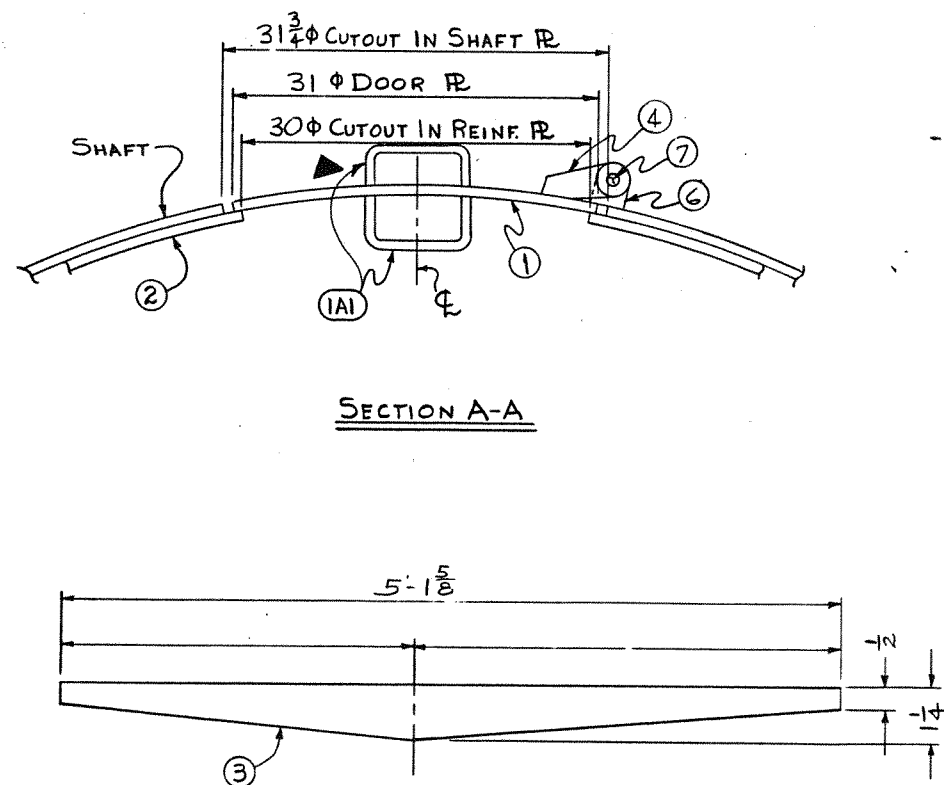
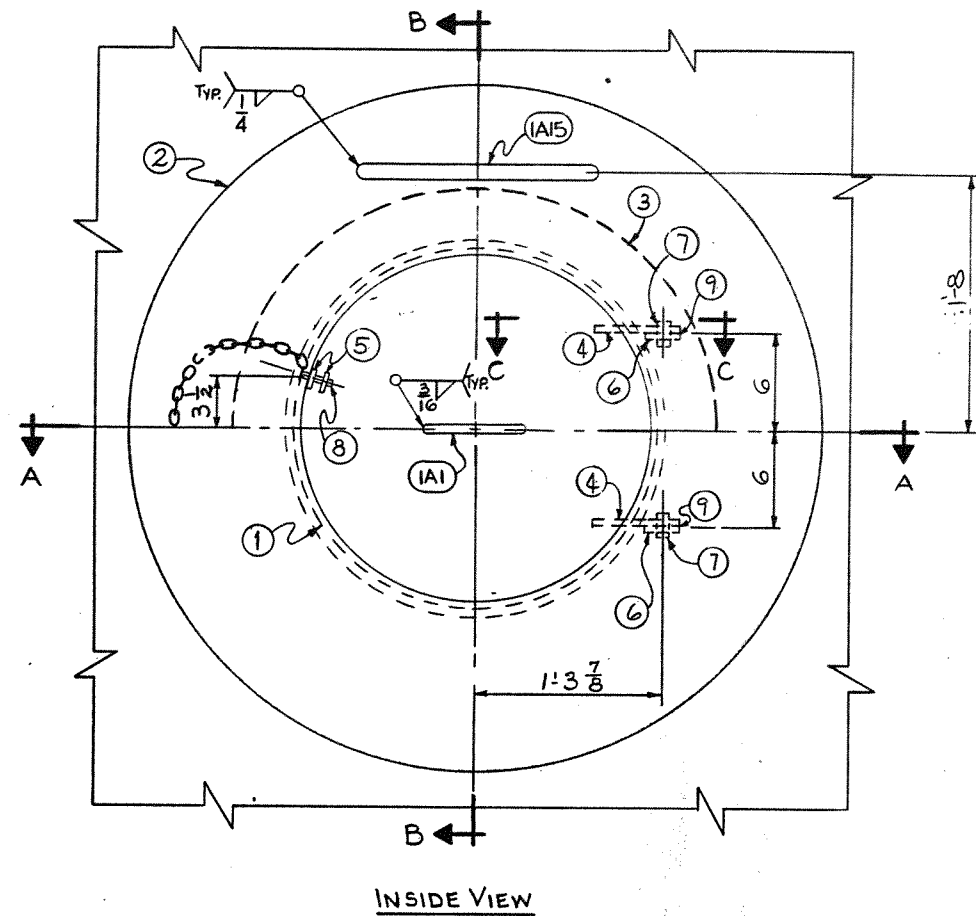
HOIST BEAMS

Purchaser's No. **NACON # C-5207** Contract No. **DUB51614**

By **R.B. BURLESON** Date **10/31/85** Chg. **33** Rev. **0**

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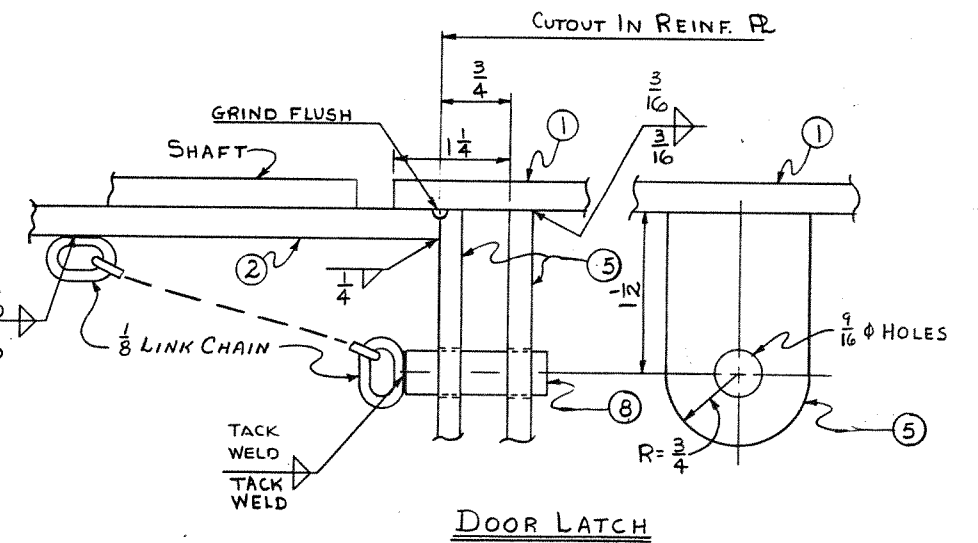
INDICATES CHANGE FROM PREVIOUS ISSUE



NOTE:
BILL AS ASSEMBLY TO
TOP SHAFT SECTION

SHIP PC.	MARK	ASSEM. PC.	DESCRIPTION	LENGTH		SPEC.	WT.
				FT.	IN.		
34-A			30φ RAINPROOF DOOR				
34-1	1		R-31φ X 1/4 ROLL TO 3'9 RAD.			A283-C	
34-2	1		REINF. R-6 1/4 O.D. X 1/4 X 30 I.D. (9/16 R-62 1/2 X 5'-2 1/2 9/16) ROLL RAD. = 3'-8 9/16			A283-C	284
34-3	1		R-5K X 1/4 (9/16 R-1 1/4 X 5'-1 3/8) ROLL			A283-C	5
34-4	2		R-5K X 3/8 (9/16 R-3 X 0'-5 1/2)			A283-C	2
34-5	2		R-5K X 1/4 (9/16 R-1 1/2 X 0'-2 1/2)			A283-C	1
34-6	2		R-5K X 3/8 (9/16 R-2 X 0'-2 3/4)			A283-C	1
34-7	2		ROD ~ 3/4 φ	0	1 3/8	A36	1
34-8	1		ROD ~ 1/2 φ	0	1 1/2	A36	1
IA1	2		HANDLE ROD ~ 5/8 φ (BENT)	1	0	A36	2
IA15	1		HANDLE ROD ~ 3/4 φ (BENT)	1	8	A36	3
	1		PC. ~ 1/8 LINK CHAIN	1	0	STL.	1
34-9	2		BRASS WASHER ~ 2 O.D. X 1/16 X 1 3/16 I.D.			BRASS	1

SHOP NOTE:
PCS 4 THRU 9 AS PCS
4 THRU 9 ON STD. B19-5



Chicago Bridge & Iron Company CBI	
30φ SHAFT MANHOLE	
Purchaser's No. NACON 5-5207	Contract No. DUB51614
By AWM Chd. JK Date 3/19/86	Rev. 34
By R.B. BURLESON Engineering Supervisor	Rev. 1
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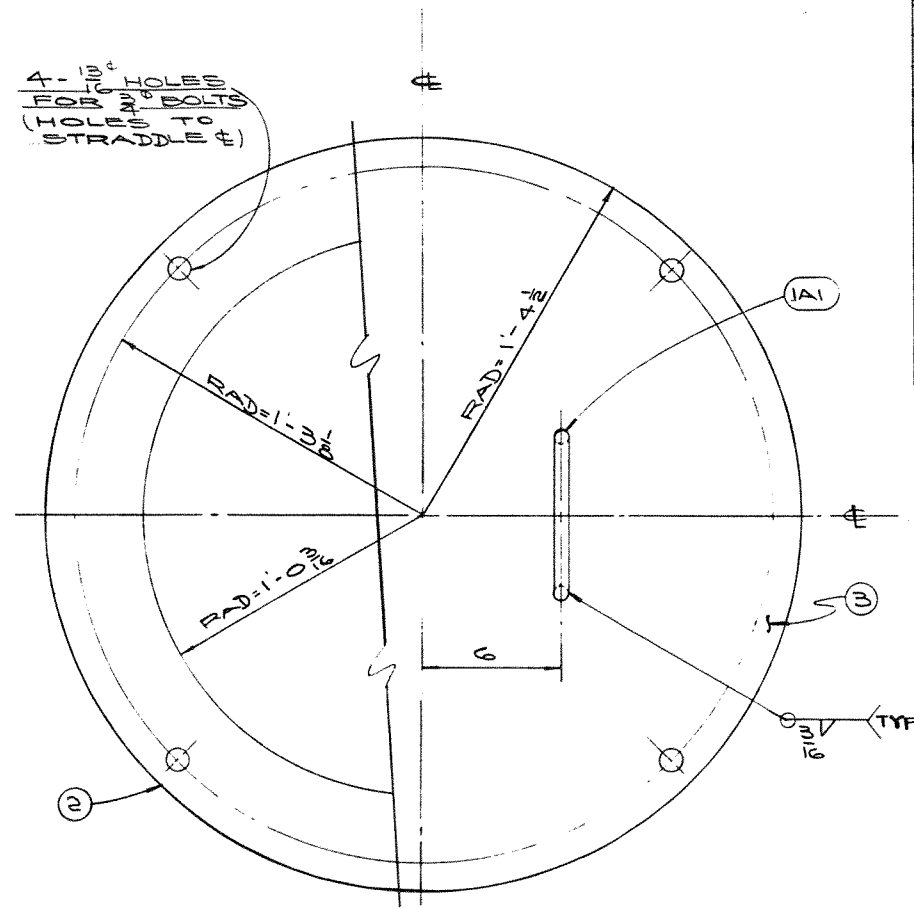
INDICATES CHANGE FROM PREVIOUS ISSUE

SHIP PC	MARK	ASSEM PC	DESCRIPTION	LENGTH		SPEC	WT
				FT	IN		
1	B41-A		24" VENTILATION ROOF HATCH				SEE BILLS
	B41-1		NECK # W x 3/16 (ROLL)	6	4	A283-C	SEE BILLS
	B41-2		FLANGE # 33 ^{OD} x 1/4 x 24 3/8 ^{ID}			A283-C	28
	B41-3		COVER # 33 ^Ø x 1/4			A283-C	60
	1A1		HANDLE 5/8 ^Ø ROD (BENT)	1	0	A36	2
	B41-5		PC SIZE 5/0 WELDED SIDE CHAIN	1	1	STL (GALV)	-
4			3/4" HVY. HEX BOLT & NUT	0	1 1/2		2
1			GASKET 29 1/2 ^{Ø-D} x 1/8 x 24 ^{ID}			*	1

BILLER ADD'N TO

BOLT FOR SHIPMENT WITH 4 BOLTS

4 - 1 1/2" HOLES FOR 3/4" BOLTS (HOLES TO STRADDLE #)



* - COMPRESSED ASBESTOS ASTM D-1170, GRADE P-1161A

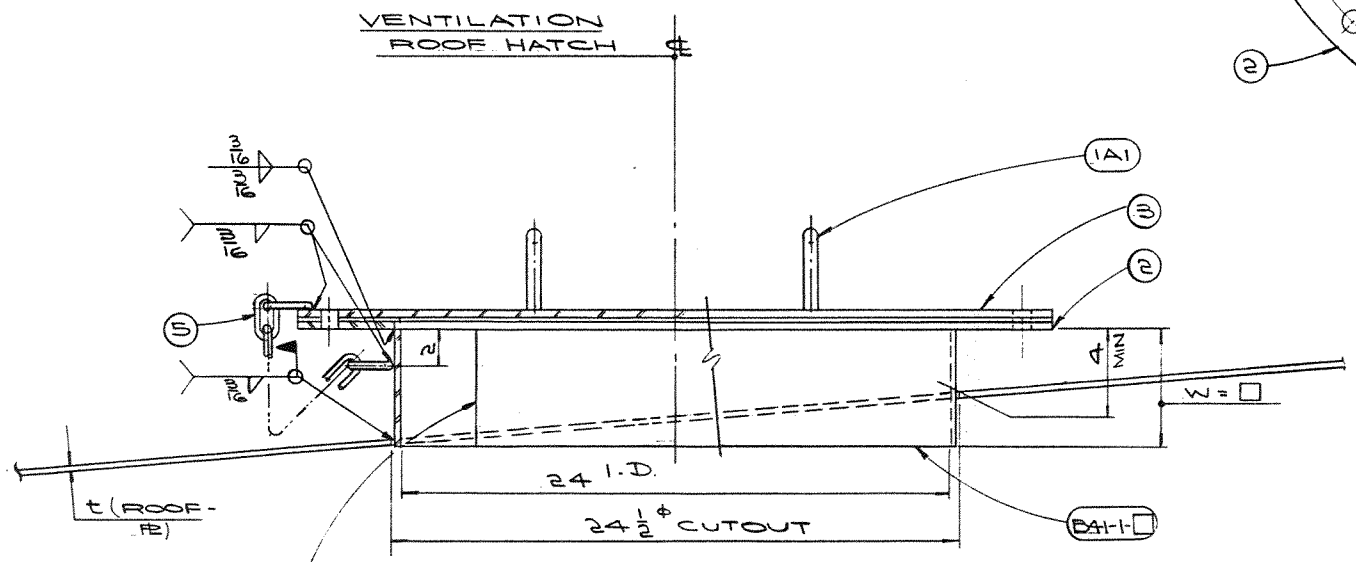
• - BOLTS-A307B, NUTS-A563A

FIELD NOTES -

1. AN EXHAUST FAN MAY BE BOLTED TO THE HATCH IF REQUIRED FOR VENTILATION DURING PAINTING.
2. HATCH MAY ALSO BE USED FOR THE ATTACHMENT OF EXTERIOR PAINTING SCAFFOLDING.
3. HATCH TO BE LOCATED NEAR THE CENTER OF THE TANK.
4. WHEN LOCATING VENT HATCH CUTOUT IN ROOF, AVOID THREE WAY LAPS.

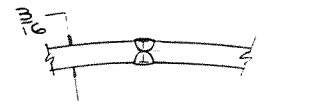
SHOP NOTE:
THIS DWG IS THE SAME AS STD. B41-4 EXCEPT PC. 5 IS GALVANIZED

VENTILATION ROOF HATCH



SEE TYPICAL NECK # BUTT WELD DET.

ELEVATION



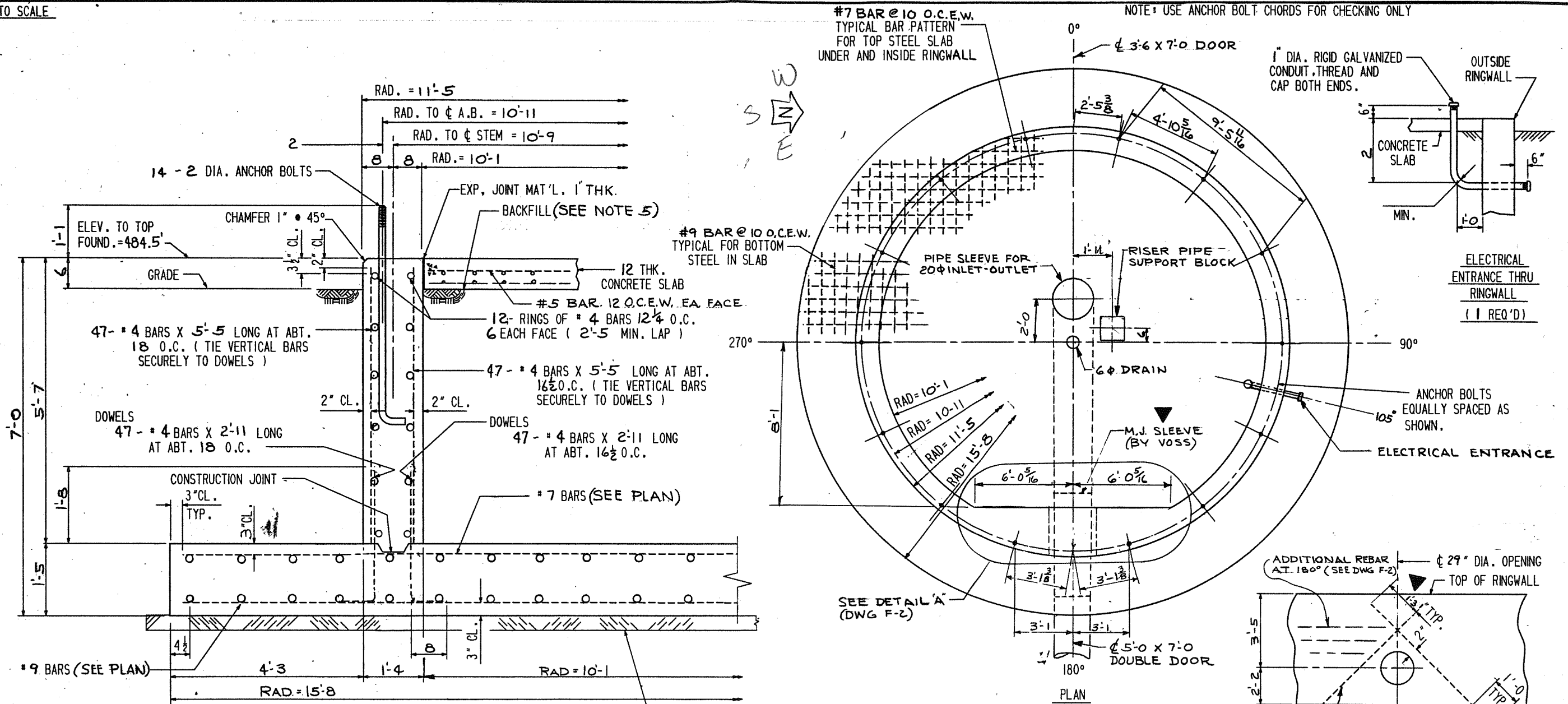
TYPICAL NECK # BUTT WELD DET.

INDICATES CHANGE FROM PREVIOUS ISSUE

Chicago Bridge & Iron Company CBI	
24" FAN VENT MANHOLE	
Purchaser's No.	Contract No.
By <i>AWH</i> Chd. <i>PK</i> Date <i>5/9/80</i>	<i>DUB51614</i>
<i>R.B. BURLESON</i> Engineering Coordinator	Dep. <i>35</i> Rev. <i>0</i>
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NOT TO SCALE

NOTE: USE ANCHOR BOLT CHORDS FOR CHECKING ONLY



- DESIGN NOTES:**
1. THE FOUNDATION DESIGN ASSUMES THAT THE CONCRETE WORK IS IN CONFORMANCE TO THE REQUIREMENTS OF ACI 301-84, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
 2. AD MIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED.
 3. THE FOUNDATION DESIGN ASSUMES THAT A MONOLITHIC POUR OF THE SLAB WILL BE MADE. THE DESIGN ALSO ASSUMES THAT A SEPARATE MONOLITHIC POUR OF THE WALL WILL BE MADE.
 4. WELDING OF THE REINFORCING STEEL WILL NOT BE ALLOWED.
 5. THE FOUNDATION DESIGN ASSUMES THAT ALL BACKFILL WILL HAVE A MINIMUM COMPACTED UNIT SOIL WEIGHT OF NOT LESS THAN 100 PCF.
 6. ALL SPLICES TO BE CLASS "C"
 7. *See before.*
 8. *mix*

- PIPE OPENING IN RINGWALL**
- 1) DO NOT CAULK AROUND PIPE.
 - 2) 20 DIA. PIPE MUST BE INSTALLED BEFORE INSIDE BACKFILL IS PLACED.
 - 3) 2 - #5 BARS 8'-0" LONG IN EACH FACE

ROD NOVIS (512) 6279291 33
DESIGNER'S EVALUATION OF SOIL REPORT
POOR SOIL PROTECT IT
SUBGRADE PROTECT BEARING

CALCULATED FOUNDATION QUANTITIES		
ITEM	CONCRETE (CU. YDS.)	REIN' F. STEEL (LB.)
FND. STEM	20.4	1362
FND. BASE SLAB	40.7	11228
FLOOR SLAB	12.0	1310
TOTAL	73.1	13900

QUANTITIES ARE APPROXIMATE. FOUNDATION CONTRACTOR SHALL MAKE OWN ESTIMATE OF QUANTITIES FOR BIDDING AND/OR CONTRACTING

TABLE OF LOADINGS		BEARING PRESSURE (PSF) NET		
ITEM	LOAD			
WATER	1258.8 K	1891 PSF		
METAL	118.5 K			
CONCRETE 44 PCF NET	74.5 K			
SNOW	5.6 K			
TOTAL W/O WIND	1457.4 K			
	W/WIND	W/SEISMIC	W/WIND	W/SEISMIC
OVERTURNING MOMENT	3916.6	—	1297	—
MAXIMUM TOE PRESSURE (PSF)			3188	

TOLERANCES:
 TOP OF RINGWALL TO BE TROWELLED LEVEL AND TO BE WITHIN + OR - 1/4" OF THE THEORETICAL ELEVATION. ANCHOR BOLTS TO BE WITHIN 1/4" OF THEORETICAL POSITION, TO BE PLUMB WITHIN 1/8", AND WITH PROJECTION ABOVE THE TOP OF RINGWALL WITHIN + OR - 1/2" OF THE SPECIFIED HEIGHT.

SPECIFICATIONS:
 SEE SPECIFICATIONS BY CUSTOMER
 ALL CONCRETE TO HAVE 4,000 P.S.I. COMP. STRENGTH IN 28 DAYS. REINFORCING STEEL TO HAVE MINIMUM YIELD STRENGTH OF 60,000 P.S.I. AND CONFORM TO ASTM A615 (SI) GR. 60.
 ALL MATERIAL UNLESS OTHERWISE NOTED TO BE FURNISHED AND INSTALLED BY FOUNDATION CONTRACTOR. ANCHOR BOLTS ARE FURNISHED BY C.B.I. PIPE COVER = 2'-0" **INDICATES CHANGE FROM PREVIOUS ISSUE**

Chicago Bridge & Iron Company **CBI**

FOUNDATION
 150 M.G. WATERSPHERE
 VOSS INTERNATIONAL

Purchaser's No. **55207** Contract No. **DU 851614**
 By **R.B. BURSON** Date **9/25/85**
 Engineering Coordinator

Rev. **F-1** Rev. **B**

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