ENROLL FRAME DESIGN - INPUT CONDITIONS

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

JOB : 33439 2*
PAGE: 15
DATE: 3-25-88

MEMBER DATA:

MEM	FLANGE TK	FLANGE WIDTH	WEB TK	GAGE	DEPTH	LENGTH (FT)	AREA (IN2)	SX (IN3)	RX (IN)	RY (IN)	YIELD(KSI) FLG	YIELD(KSI) WEB	KLXX (FT)	KLYY (FT)	LB (FT)	SPLICE CODES J1	SPLICE CODES J2
FRAME SIDE 1																	
1	0.060	5.00	DBL C	16	8.50	15.348	1.75	4.32	3.24	1.15	55.0	55.0	14.57	SET BY P&G SPACE		BP	KN
FRAME SIDE 2																	
2	3/16	5.0	1/ 8		10.00	5.164	3.17	11.03	4.17	1.11	50.0	50.0	9.65	SET BY P&G SPACE		KN	SS
3	3/16	5.0	1/ 8		10.00	5.450	3.17	11.03	4.17	1.11	50.0	50.0	9.65	SET BY P&G SPACE		SS	SS
LOCATION OF END POST MEMBER NO. 15 LOCATED AT 11° 0 0/16"																	
4	3/16	5.0	1/ 8		10.00	3.714	3.17	11.03	4.17	1.11	50.0	50.0	20.07	SET BY P&G SPACE		SS	SP
5	3/16	5.0	1/ 8		10.00	10.069	3.17	11.03	4.17	1.11	50.0	50.0	20.07	SET BY P&G SPACE		SP	SS
6	3/16	5.0	1/ 8		10.00	6.307	3.17	11.03	4.17	1.11	50.0	50.0	20.07	SET BY P&G SPACE		SS	SS
LOCATION OF END POST MEMBER NO. 16 LOCATED AT 31° 0 0/16"																	
7	3/16	5.0	1/ 8		10.00	11.233	3.17	11.03	4.17	1.11	50.0	50.0	11.54	SET BY P&G SPACE		SS	SP
FRAME SIDE 3																	
8	3/16	5.0	1/ 8		10.00	11.233	3.17	11.03	4.17	1.11	50.0	50.0	11.54	SET BY P&G SPACE		SS	SP
LOCATION OF END POST MEMBER NO. 17 LOCATED AT 54° 0 0/16"																	
9	3/16	5.0	1/ 8		10.00	6.307	3.17	11.03	4.17	1.11	50.0	50.0	20.07	SET BY P&G SPACE		SS	SS
10	3/16	5.0	1/ 8		10.00	10.069	3.17	11.03	4.17	1.11	50.0	50.0	20.07	SET BY P&G SPACE		SP	SS
11	3/16	5.0	1/ 8		10.00	3.714	3.17	11.03	4.17	1.11	50.0	50.0	20.07	SET BY P&G SPACE		SS	SP
LOCATION OF END POST MEMBER NO. 18 LOCATED AT 74° 0 0/16"																	
12	3/16	5.0	1/ 8		10.00	5.450	3.17	11.03	4.17	1.11	50.0	50.0	9.65	SET BY P&G SPACE		SS	SS
13	3/16	5.0	1/ 8		10.00	5.164	3.17	11.03	4.17	1.11	50.0	50.0	9.65	SET BY P&G SPACE		KN	SS
FRAME SIDE 4																	
14	0.060	5.00	DBL C	16	8.50	15.348	1.75	4.32	3.24	1.15	55.0	55.0	14.57	SET BY P&G SPACE		BP	KN
END POSTS FRAME SIDES 5, 6 AND 7 FOLLOW:																	
FRAME SIDE 5																	
15	0.075	5.00	DBL C	14	8.50	15.370	2.18	5.36	3.23	1.17	55.0	55.0	15.37	SET BY P&G SPACE		BP	SP
16	3/16	5.0	1/ 8		9.00	17.036	3.04	9.69	3.79	1.13	50.0	50.0	17.04	SET BY P&G SPACE		BP	SP
FRAME SIDE 7																	
17	3/16	5.0	1/ 8		9.00	17.036	3.04	9.69	3.79	1.13	50.0	50.0	17.04	SET BY P&G SPACE		BP	SP
18	0.075	5.00	DBL C	14	8.50	15.370	2.18	5.36	3.23	1.17	55.0	55.0	15.37	SET BY P&G SPACE		BP	SP

4 SPECIAL LOADS APPLIED TO THE ABOVE FRAME FOLLOW

	FRAME NO.	SIDE CODE	TYPE CODE	SUPP CODE	DIST MEAS	HORZ. DIST (FEET)	VERT. DIST (FEET)	HORZ LOAD (KIPS)	VERT LOAD (KIPS)	MOMENT (K-IN)	THIS SPECIAL LOAD W/CASE COND 1	COND 2	COND 3	COND 4
5	7	2	2	1	1	-6.0000	0.0000	-0.610	-0.610	0.0	8	0	0	0
6	7	2	2	1	1	-6.0000	0.0000	0.330	0.330	0.0	9	10	0	0
7	7	3	2	1	1	-6.0000	0.0000	-0.610	-0.610	0.0	8	0	0	0
8	7	3	2	1	1	-6.0000	0.0000	0.330	0.330	0.0	9	10	0	0

END POST SPACING AND LOCATION FROM BACK BUILDING LINE

		ELEVATION
SPACING 11° 0 0/16"	LOCATION 11° 0 0/16"	0° 0 0/16"
SPACING 20° 0 0/16"	LOCATION 31° 0 0/16"	0° 0 0/16"
SPACING 23° 0 0/16"	LOCATION 54° 0 0/16"	0° 0 0/16"
SPACING 20° 0 0/16"	LOCATION 74° 0 0/16"	0° 0 0/16"
SPACING 11° 0 0/16"	LOCATION 85° 0 0/16" = SPAN	

BACK CORNER POST ORIENTATION = CP
FRONT CORNER POST ORIENTATION = CP

SUMMARY OF REACTIONS:

SIDE	LOAD COMBINATION	HORIZONTAL	VERTICAL	MOMENT
BACK	1, 3, 0, 0, 0	0.00	2.28	0.00
FRONT	1, 3, 0, 0, 0	0.00	2.28	0.00
ENDPOST # 1	1, 3, 0, 0, 0	-0.01	9.60	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1, 3, 0, 0, 0	0.01	13.26	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1, 3, 0, 0, 0	0.01	13.26	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1, 3, 0, 0, 0	-0.01	9.60	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1,25,41, 0, 0	-2.80	-1.00	0.00
FRONT	1,25,41, 0, 0	-2.80	-1.00	0.00
ENDPOST # 1	1,25,41, 0, 0	-4.24	-5.49	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1,25,41, 0, 0	-6.39	-7.65	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1,25,41, 0, 0	-6.39	-7.65	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1,25,41, 0, 0	-4.24	-5.49	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1,27,41, 0, 0	2.80	-1.00	0.00
FRONT	1,27,41, 0, 0	2.80	-1.00	0.00
ENDPOST # 1	1,27,41, 0, 0	-4.24	-5.49	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1,27,41, 0, 0	-6.39	-7.65	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1,27,41, 0, 0	-6.39	-7.65	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1,27,41, 0, 0	-4.24	-5.49	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1, 3,25,41, 0	-2.80	1.07	0.00
FRONT	1, 3,25,41, 0	-2.80	1.07	0.00
ENDPOST # 1	1, 3,25,41, 0	-4.24	3.47	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1, 3,25,41, 0	-6.38	4.69	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1, 3,25,41, 0	-6.38	4.69	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1, 3,25,41, 0	-4.24	3.47	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1, 3,27,41, 0	2.80	1.07	0.00
FRONT	1, 3,27,41, 0	2.80	1.07	0.00
ENDPOST # 1	1, 3,27,41, 0	-4.24	3.47	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1, 3,27,41, 0	-6.38	4.69	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1, 3,27,41, 0	-6.38	4.69	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1, 3,27,41, 0	-4.24	3.47	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1,15,18, 0, 0	0.00	1.91	0.00
FRONT	1,15,18, 0, 0	0.00	1.08	0.00
ENDPOST # 1	1,15,18, 0, 0	-0.01	7.95	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1,15,18, 0, 0	0.01	10.34	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1,15,18, 0, 0	0.00	6.30	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1,15,18, 0, 0	0.00	4.08	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1,16,17, 0, 0	0.00	1.08	0.00
FRONT	1,16,17, 0, 0	0.00	1.91	0.00
ENDPOST # 1	1,16,17, 0, 0	0.00	4.08	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1,16,17, 0, 0	0.00	6.30	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1,16,17, 0, 0	0.01	10.34	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1,16,17, 0, 0	-0.01	7.95	0.00 AT 74.00 FT FROM BACK BLDG. LN.

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION
FRAME NO. 7

REACTION SUMMARY / BASE PLATE SUMMARY

JOB: 33439 2#
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SUMMARY OF REACTIONS:

SIDE	LOAD COMBINATION	HORIZONTAL	VERTICAL	MOMENT
BACK	1, 3,13, 0, 0	-0.01	7.57	0.00
FRONT	1, 3,13, 0, 0	-0.01	7.57	0.00
ENDPOST # 1	1, 3,13, 0, 0	-0.01	7.73	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1, 3,13, 0, 0	0.01	13.40	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1, 3,13, 0, 0	0.01	13.40	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1, 3,13, 0, 0	-0.01	7.73	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1,25,41,13, 0	-2.79	-3.92	0.00
FRONT	1,25,41,13, 0	-2.79	-3.92	0.00
ENDPOST # 1	1,25,41,13, 0	-4.24	-4.47	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1,25,41,13, 0	-6.39	-7.73	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1,25,41,13, 0	-6.39	-7.73	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1,25,41,13, 0	-4.24	-4.47	0.00 AT 74.00 FT FROM BACK BLDG. LN.
BACK	1,27,41,13, 0	2.80	-3.92	0.00
FRONT	1,27,41,13, 0	2.80	-3.92	0.00
ENDPOST # 1	1,27,41,13, 0	-4.24	-4.47	0.00 AT 11.00 FT FROM BACK BLDG. LN.
ENDPOST # 2	1,27,41,13, 0	-6.39	-7.73	0.00 AT 31.00 FT FROM BACK BLDG. LN.
ENDPOST # 3	1,27,41,13, 0	-6.39	-7.73	0.00 AT 54.00 FT FROM BACK BLDG. LN.
ENDPOST # 4	1,27,41,13, 0	-4.24	-4.47	0.00 AT 74.00 FT FROM BACK BLDG. LN.

SUMMARY OF BASE PLATES:

SIDE	<------ BASE PLATE DATA ------> MARK NO.	WIDTH	TK	LENGTH	<------ ANCHOR BOLT DATA ------> NUMBER	SIZE	BLR	WELDING PATTERN
BACK	BP-A08310	8.00 X	3/8 X	10.00	(2)	3/4 DIA. A36	3.90	OS-3
FRONT	BP-A08310	8.00 X	3/8 X	10.00	(2)	3/4 DIA. A36	3.90	OS-3
ENDPOST # 1	BP-A08310	8.00 X	3/8 X	10.00	(2)	3/4 DIA. A36	5.46	OS-3
ENDPOST # 2	BP-A08310	8.00 X	3/8 X	10.00	(2)	3/4 DIA. A36	7.68	OS-3
ENDPOST # 3	BP-A08310	8.00 X	3/8 X	10.00	(2)	3/4 DIA. A36	7.66	OS-3
ENDPOST # 4	BP-A08310	8.00 X	3/8 X	10.00	(2)	3/4 DIA. A36	5.46	OS-3

WEB STIFFENER REQUIREMENTS:

MEMBER	STIFFENER NUMBER	DESCRIPTION	LOCATION (FT)	WEB DEPTH (IN)	H/T RATIO	A/H RATIO	A (IN)	STIFFENER SIZE TK	WIDTH	SIDES	WELDING L - S	DETAIL ?
2,13	1	BEARING (ENDPOST)	0.97	9.625				3/ 8 X 2	3/ 8	BOTH	STD. CK-OK	YES
3,12	1	BEARING (ENDPOST)	5.09	9.625				3/ 8 X 2	3/ 8	BOTH	STD. CK-OK	YES
6, 9	1	BEARING (ENDPOST)	5.93	9.625				3/ 8 X 2	3/ 8	BOTH	STD. CK-OK	YES

FRAME DESIGN BOLTING PLATE DATA

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FRAME NO. 7

BOLTED CONNECTION DATA:

MEMBER	J T #	PLATE DATA TK	WD	LENGTH	BOLT DATA SIZE	OUTSIDE #ROWS	OUTSIDE 4-BOLT	INSIDE #ROWS	INSIDE 4-BOLT	TYPE	MARK #	CONNECTION CAPACITY OUTSIDE	CONNECTION CAPACITY INSIDE
1, 14	2	3/ 8 X	6.0 X	0'- 9 1/ 2	1/2" DIA A325	1	NO	1	NO	EXT	1B06309411	83.8 "K	83.8 "K
4, 11	2	3/ 8 X	6.0 X	0'-11 0/16	3/4" DIA A325	1	NO	1	NO	EXT	3B06311011	125.0 "K	125.0 "K
5, 10	1	3/ 8 X	6.0 X	0'-11 0/16	3/4" DIA A325	1	NO	1	NO	EXT	3B06311011	125.0 "K	125.0 "K
7, 8	2	4/ 8 X	6.0 X	0'-11 1/16	3/4" DIA A325	1	NO	1	NU	EXT	3B06411011	223.2 "K	223.2 "K
INTERIOR		COLUMN CONNECTION PLATES											
15, 18	2	3/ 8 X	6.0 X	0'- 9 1/ 2	1/2" DIA A325	1	NO	1	NO	EXT	1B06309411	84.3 "K	84.3 "K
16, 17	2	3/ 8 X	6.0 X	0'-10 0/16	1/2" DIA A325	1	NO	1	NO	EXT	1B06310011	92.3 "K	92.3 "K

FLANGE BRACING REQUIREMENTS:

BACK SIDE OF FRAME RIDGE TO EAVE:

MEMBER #	7	7	7	6	5	5	4
LOCATION	1'- 6 0/16	6'- 0 0/16	10'- 6 0/16	15'- 0 0/16	19'- 6 0/16	24'- 0 0/16	28'- 6 0/16
DEPTH @ FB	10.0000	10.0001	10.0001	10.0001	10.0000	10.0000	10.0001
FB MARK #	GFB2064	NOT REQ D	GFB2064	GFB2064	NOT REQ D	GFB2064	NOT REQ D

BACK SIDE OF FRAME RIDGE TO EAVE:

MEMBER #	3	2	2	2
LOCATION	33'- 0 0/16	37'- 6 0/16	39'-10 7/ 8	42'- 3 11/16
DEPTH @ FB	10.0001	10.0300	10.1293	0.0000
FB MARK #	NOT REQ D	NOT REQ D	GFB2064	NOT REQ D

BACK SIDE OF FRAME BASE TO EAVE:

MEMBER #	1	1	1	1
LOCATION	0'- 3 0/16	7'- 2 1/ 4	12'- 2 1/ 4	14'- 9 0/16
DEPTH @ FB	8.5000	8.5000	8.5000	0.0000
FB MARK #	NOT REQ D	NOT REQ D*	NOT REQ D	NOT REQ D

END POST BASE TO RAKE BEAM:

MEMBER #	15	15	15
LOCATION	0'- 3 0/16	7'- 2 1/ 4	12'- 2 1/ 4
DEPTH @ FB	0.0000	8.5003	8.5000
FB MARK #	NOT REQ D	NOT REQ D*	NOT REQ D*

END POST BASE TO RAKE BEAM:

MEMBER #	16	16	16	16
LOCATION	0'- 3 0/16	7'- 2 1/ 4	12'- 2 1/ 4	16'- 9 0/16
DEPTH @ FB	0.0000	9.0000	9.0000	0.0000
FB MARK #	NOT REQ D	NOT REQ D*	NOT REQ D*	NOT REQ D

* - FLANGE BRACE REMOVED DUE TO SHALLOW DEPTH

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FRAME NO. 7

ENDWALL FRAME DESIGN SUMMARY

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MEM #	CRIT STRESS LOCATION(FT)	LOAD CASE	DEPTH (IN)	ACTUAL FORCES AXIAL (KIPS)	SHEAR (KIPS)	MOMENT (KIP-IN)	ACTUAL STRESS AXIAL	SHEAR	BENDING	ALLOWABLE STRESS AXIAL	SHEAR	BENDING	STRESS CONDITIONS SUM % COMBINED	% SHEAR
FRAME SIDE 1														
1	7.19	10	8.5	3.9	-0.1	-125.6	2.24	0.11	29.07	44.00	5.69	40.07	0.776	0.019
FRAME SIDE 2														
2	0.32	8	10.0	-0.3	3.1	-170.0	0.08	2.31	15.42	27.42	15.01	30.07	0.516	0.154
3	5.13	8	10.0	0.2	-2.5	-133.1	0.07	1.84	12.07	30.00	15.01	17.73	0.681	0.123
4	0.00	8	10.0	-0.4	5.1	-133.1	0.13	3.81	12.07	23.10	15.01	17.73	0.687	0.254
5	5.86	8	10.0	0.1	-0.6	134.8	0.02	0.45	12.22	30.00	15.01	30.00	0.408	0.030
6	5.97	8	10.0	0.5	-6.5	-298.7	0.17	4.83	27.09	30.00	15.01	30.00	0.909	0.322
7	0.00	8	10.0	-0.6	6.7	-298.7	0.18	4.97	27.09	24.56	15.01	30.00	0.910	0.331
FRAME SIDE 3														
8	0.00	8	10.0	-0.6	-6.7	-298.7	0.18	4.97	27.09	24.56	15.01	30.00	0.910	0.331
9	5.97	8	10.0	0.5	6.5	-298.7	0.17	4.83	27.09	30.00	15.01	30.00	0.909	0.322
10	5.86	8	10.0	0.1	0.6	134.8	0.02	0.45	12.22	30.00	15.01	30.00	0.408	0.030
11	0.00	8	10.0	-0.4	-5.1	-133.1	0.13	3.81	12.07	23.10	15.01	17.73	0.687	0.254
12	5.13	8	10.0	0.2	2.5	-133.1	0.07	1.84	12.07	30.00	15.01	17.73	0.681	0.123
13	0.32	8	10.0	-0.3	-3.1	-170.0	0.08	2.31	15.42	27.42	15.01	30.07	0.516	0.154
FRAME SIDE 4														
14	7.19	9	8.5	3.9	0.1	-125.1	2.24	0.10	28.96	44.00	5.69	40.07	0.774	0.018
END POSTS FRAME SIDES 5, 6 AND 7 FOLLOW:														
FRAME SIDE 5														
15	7.19	4	8.5	-3.5	0.4	-199.5	1.59	0.30	37.22	21.80	8.96	40.76	0.986	0.033
16	7.19	4	9.0	-4.7	1.1	-323.5	1.55	0.93	33.39	27.07	22.34	35.96	0.986	0.042
FRAME SIDE 7														
17	7.19	4	9.0	-4.7	1.1	-323.5	1.55	0.93	33.39	27.07	22.34	35.96	0.986	0.042
18	7.19	4	8.5	-3.5	0.4	-199.5	1.59	0.30	37.22	21.80	8.96	40.76	0.986	0.033

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DESIGN LOADS AND FRAME FOUNDATION LOADS

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DLR-7
BW

SPAN = 85'-0
BACK SIDEWALL HEIGHT = 16'-0
FRONT SIDEWALL HEIGHT = 16'-0
BUILDING LENGTH = 110'-0

RIDGE FROM BACK BLDG LN= 42'-6
ELEVATION OF FRONT COL =
BACK ROOF PITCH = 1.0000 : 12
FRONT ROOF PITCH = 1.0000 : 12

THIS FRAME REQUIRED ON FRAME LINES : 6.

BAY SPACING = 11.00 FT.

LOADING: ADD'L DEAD = 0.00 PSF (TOTAL DEAD LOAD = ADD'L DEAD + 2 PSF (PURLINS & SHEETING) + FRAME WEIGHT = 3.76 PSF)
LIVE = 50.00 PSF
WIND = 34.00 PSF
SNOW = 40.00 PSF

SPECIAL WIND LOAD APPLICATION: BACK WALL = 34.00 PSF - BACK ROOF = 34.00 PSF
FRONT ROOF = 34.00 PSF - FRONT WALL = 34.00 PSF

THE ABOVE LOADS COMBINED WITH ANY SPECIAL LOADS APPEAR IN 10 LOAD CASES AS DESCRIBED BELOW:

LOAD CODES	DESCRIPTION				STRESS >FACTORS
1, 3, 0, 0, 0 DEAD LOAD	+ LIVE LOAD	+	+	+	1.00
1,25,41, 0, 0 DEAD LOAD	+ SPECIAL WIND BACK	+ MBMA EP SUCTION	+	+	1.33
1,27,41, 0, 0 DEAD LOAD	+ SPECIAL WIND FRONT	+ MBMA EP SUCTION	+	+	1.33
1, 3,25,41, 0 DEAD LOAD	+ LIVE LOAD	+ SPECIAL WIND BACK	+ MBMA EP SUCTION	+	1.33
1, 3,27,41, 0 DEAD LOAD	+ LIVE LOAD	+ SPECIAL WIND FRONT	+ MBMA EP SUCTION	+	1.33
1,15,18, 0, 0 DEAD LOAD	+ SNOW BACK TO RIDGE	+ 1/2 SNOW FRT TO RIDG	+	+	1.00
1,16,17, 0, 0 DEAD LOAD	+ 1/2 SNOW BK TO RIDGE	+ SNOW FRONT TO RIDGE	+	+	1.00
1, 3,13, 0, 0 DEAD LOAD	+ LIVE LOAD	+ SPECIAL LOADS	+	+	1.00
1,25,41,13, 0 DEAD LOAD	+ SPECIAL WIND BACK	+ MBMA EP SUCTION	+ SPECIAL LOADS	+	1.33
1,27,41,13, 0 DEAD LOAD	+ SPECIAL WIND FRONT	+ MBMA EP SUCTION	+ SPECIAL LOADS	+	1.33

+ SPECIAL LOADS APPLIED TO THE ABOVE FRAME FOLLOW

	FRAME NO.	SIDE CODE	TYPE CODE	SUPP CODE	DIST MEAS	HORZ. DIST (FEET)	VERT. DIST (FEET)	HORZ LOAD (KIPS)	VERT LOAD (KIPS)	MOMENT (K-IN)	THIS SPECIAL LOAD W/CASE COND 1	COND 2	COND 3	COND 4
5	7	2	2	1	1	-6.0000	0.0000	-0.610	-0.610	0.0	8	0	0	0
6	7	2	2	1	1	-6.0000	0.0000	0.330	0.330	0.0	9	10	0	0
7	7	3	2	1	1	-6.0000	0.0000	-0.610	-0.610	0.0	8	0	0	0
8	7	3	2	1	1	-6.0000	0.0000	0.330	0.330	0.0	9	10	0	0

37

DLR-B
BW

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

DESIGN LOADS AND FRAME FOUNDATION LOADS

FRAME NO. 7

BAY SPACING = 11.00 FT.

SUMMARY OF FOUNDATION LOADS:
1. FORCE=KIP MOMENT=INCH-KIPS

SIDE	LOAD COMBINATION	HORIZONTAL IN	HORIZONTAL OUT	VERTICAL UPLIFT	VERTICAL DOWN	MOMENT (+ COUNTERCLOCKWISE)
BACK SW COL	1, 3, 0, 0, 0	-	-	-	2.28	0.00
	1,25,41, 0, 0	2.80	-	1.00	-	0.00
	1,27,41, 0, 0	-	2.80	1.00	-	0.00
	1, 3,25,41, 0	2.80	-	-	1.07	0.00
	1, 3,27,41, 0	-	2.80	-	1.07	0.00
	1,15,18, 0, 0	-	-	-	1.81	0.00
	1,16,17, 0, 0	-	-	-	1.08	0.00
	1, 3,13, 0, 0	0.01	-	-	7.67	0.00
	1,25,41,13, 0	2.79	-	3.92	-	0.00
	1,27,41,13, 0	-	2.80	3.92	-	0.00
FRONT SW COL	1, 3, 0, 0, 0	-	-	-	2.28	0.00
	1,25,41, 0, 0	-	2.80	1.00	-	0.00
	1,27,41, 0, 0	2.80	-	1.00	-	0.00
	1, 3,25,41, 0	-	2.80	-	1.07	0.00
	1, 3,27,41, 0	2.80	-	-	1.07	0.00
	1,15,18, 0, 0	-	-	-	1.08	0.00
	1,16,17, 0, 0	-	-	-	1.81	0.00
	1, 3,13, 0, 0	-	0.01	-	7.67	0.00
	1,25,41,13, 0	-	2.79	3.92	-	0.00
	1,27,41,13, 0	2.80	-	3.92	-	0.00
ENDPOST # 1	1, 3, 0, 0, 0	0.01	0.01	-	9.60	0.00 AT 11.00' FROM BACK BLDG LINE
	1,25,41, 0, 0	4.24	4.24	5.49	-	0.00
	1,27,41, 0, 0	4.24	4.24	5.49	-	0.00
	1, 3,25,41, 0	4.24	4.24	-	3.47	0.00
	1, 3,27,41, 0	4.24	4.24	-	3.47	0.00
	1,15,18, 0, 0	0.01	0.01	-	7.95	0.00
	1,16,17, 0, 0	-	-	-	4.08	0.00
	1, 3,13, 0, 0	0.01	0.01	-	7.73	0.00
	1,25,41,13, 0	4.24	4.24	4.47	-	0.00
	1,27,41,13, 0	4.24	4.24	4.47	-	0.00
ENDPOST # 2	1, 3, 0, 0, 0	0.01	0.01	-	13.26	0.00 AT 31.00' FROM BACK BLDG LINE
	1,25,41, 0, 0	6.39	6.39	7.65	-	0.00
	1,27,41, 0, 0	6.39	6.39	7.65	-	0.00
	1, 3,25,41, 0	6.38	6.38	-	4.69	0.00
	1, 3,27,41, 0	6.38	6.38	-	4.69	0.00
	1,15,18, 0, 0	0.01	0.01	-	10.34	0.00
	1,16,17, 0, 0	-	-	-	6.30	0.00
	1, 3,13, 0, 0	0.01	0.01	-	13.40	0.00
	1,25,41,13, 0	6.39	6.39	7.73	-	0.00
	1,27,41,13, 0	6.39	6.39	7.73	-	0.00

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION
FRAME NO. 7

DESIGN LOADS AND FRAME FOUNDATION LOADS

JOB: 33439 2¢
PAGE: 25
DATE: 3-25-88

DLE-9
BW

BAY SPACING = 11.00 FT.

SUMMARY OF FOUNDATION LOADS:
1. FORCE=KIPS MOMENT=INCH-KIPS

SIDE	LOAD COMBINATION	HORIZONTAL IN	HORIZONTAL OUT	VERTICAL UPLIFT	VERTICAL DOWN	MOMENT (+ COUNTERCLOCKWISE)
ENDPOST # 3	1, 3, 0, 0, 0	0.01	0.01	-	13.26	0.00 AT 54.00" FROM BACK BLDG LINE
	1,25,41, 0, 0	6.39	6.39	7.65	-	0.00
	1,27,41, 0, 0	6.39	6.39	7.65	-	0.00
	1, 3,25,41, 0	6.38	6.38	-	4.69	0.00
	1, 3,27,41, 0	6.38	6.38	-	4.69	0.00
	1,15,18, 0, 0	-	-	-	6.30	0.00
	1,16,17, 0, 0	0.01	0.01	-	10.34	0.00
	1, 3,13, 0, 0	0.01	0.01	-	13.40	0.00
	1,25,41,13, 0	6.39	6.39	7.73	-	0.00
	1,27,41,13, 0	6.39	6.39	7.73	-	0.00
ENDPOST # 4	1, 3, 0, 0, 0	0.01	0.01	-	9.60	0.00 AT 74.00" FROM BACK BLDG LINE
	1,25,41, 0, 0	4.24	4.24	5.49	-	0.00
	1,27,41, 0, 0	4.24	4.24	5.49	-	0.00
	1, 3,25,41, 0	4.24	4.24	-	3.47	0.00
	1, 3,27,41, 0	4.24	4.24	-	3.47	0.00
	1,15,18, 0, 0	-	-	-	4.08	0.00
	1,16,17, 0, 0	0.01	0.01	-	7.95	0.00
	1, 3,13, 0, 0	0.01	0.01	-	7.73	0.00
	1,25,41,13, 0	4.24	4.24	4.47	-	0.00
	1,27,41,13, 0	4.24	4.24	4.47	-	0.00

MAXIMUM FOUNDATION LOADS:
1. MAX FOUNDATION LOADS CAN BE FROM ANY LOAD CASE
2. MAX FOUNDATION LOADS ARE NOT FACTORED FOR ANY LOAD CASE

SIDE	HORIZONTAL IN	HORIZONTAL OUT	VERTICAL UPLIFT	VERTICAL DOWN	MOMENT (+ COUNTERCLOCKWISE)
BACK SW COL	2.80	2.80	3.92	7.67	0.00
FRONT SW COL	2.80	2.80	3.92	7.67	0.00
ENDPOST # 1	4.24	4.24	5.49	9.60	0.00 AT 11.00" FROM BACK BLDG LINE
ENDPOST # 2	6.39	6.39	7.73	13.40	0.00 AT 31.00" FROM BACK BLDG LINE
ENDPOST # 3	6.39	6.39	7.73	13.40	0.00 AT 54.00" FROM BACK BLDG LINE
ENDPOST # 4	4.24	4.24	5.49	9.60	0.00 AT 74.00" FROM BACK BLDG LINE

SUMMARY OF BASE PLATES:

SIDE	<------ BASE PLATE DATA ------> MARK NO.	WIDTH	TK	LENGTH	<------ ANCHOR BOLT DATA ------> NUMBER	SIZE
BACK	BP-A08310	8.00	X 3/8	X 10.00	(2)	3/4 DIA. A36 CP
FRONT	BP-A08310	8.00	X 3/8	X 10.00	(2)	3/4 DIA. A36 CP
ENDPOST # 1	BP-A08310	8.00	X 3/8	X 10.00	(2)	3/4 DIA. A36
ENDPOST # 2	BP-A08310	8.00	X 3/8	X 10.00	(2)	3/4 DIA. A36
ENDPOST # 3	BP-A08310	8.00	X 3/8	X 10.00	(2)	3/4 DIA. A36
ENDPOST # 4	BP-A08310	8.00	X 3/8	X 10.00	(2)	3/4 DIA. A36

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

PURLIN DESIGN

JOB: 33439 1*
PAGE: 1
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CK ROOF PURLINS

CONTINUOUS PURLIN SYSTEM
GAGE YIELD STRESS = 55.00 KSI
ALLOWABLE BENDING STRESS = 33.00 KSI
PURLIN LOAD SPACING = 4.50 FT
LOADING:
ADD'L DEAD = 0.00 PSF (TOTAL DEAD LOAD = ADD'L DEAD + 2 PSF FOR PURLINS & SHEETING)
LIVE = 50.00 PSF
WIND = 34.00 PSF

10 LOAD CASES WITH THE FOLLOWING LOAD CODES:
| 1, 1, 3, 0, 0, 0 | 1, 25, 41, 0, 0 | 1, 27, 41, 0, 0 | 1, 3, 25, 41, 0 | 1, 3, 27, 41, 0 |
| 1, 15, 18, 0, 0 | 1, 16, 17, 0, 0 | 1, 3, 13, 0, 0 | 1, 25, 41, 13, 0 | 1, 3, 13, 0, 0 |

BAY 1 = 21.50'			BAY 2 = 22.00'			BAY 3 = 22.00'			BAY 4 = 22.00'			LAPS (IN)
0.0"	18.0"		36.0"	18.0"		18.0"	18.0"		18.0"	36.0"		GAGE
(12)			(16)			(13)			(16)			
3.81	5.97		2.16	5.43		3.27	5.43		2.16	5.97		SX
-0.3 -0.3	-98.6 -98.6	-151.3	-66.0 -72.0	-72.0 -112.5		-69.3 -69.3	-69.3 -112.5		-72.0 -72.0	-66.0 -151.3		MOMENT 1
0.2 0.2	60.7 60.7	93.1	40.6 44.3	44.3 69.2		42.7 42.7	42.7 69.2		44.3 44.3	40.6 93.1		2
0.2 0.2	60.7 60.7	93.1	40.6 44.3	44.3 69.2		42.7 42.7	42.7 69.2		44.3 44.3	40.6 93.1		3
-0.1 -0.1	-34.1 -34.1	-52.4	-22.8 -24.9	-24.9 -38.9		-24.0 -24.0	-24.0 -38.9		-24.9 -24.9	-22.8 -52.4		4
-0.1 -0.1	-34.1 -34.1	-52.4	-22.8 -24.9	-24.9 -38.9		-24.0 -24.0	-24.0 -38.9		-24.9 -24.9	-22.8 -52.4		5
0.0 0.0	-3.8 -3.8	-5.8	-2.5 -2.8	-2.8 -4.3		-2.7 -2.7	-2.7 -4.3		-2.8 -2.8	-2.5 -5.8		6
0.0 0.0	-3.8 -3.8	-5.8	-2.5 -2.8	-2.8 -4.3		-2.7 -2.7	-2.7 -4.3		-2.8 -2.8	-2.5 -5.8		7
-0.3 -0.3	-98.6 -98.6	-151.3	-66.0 -72.0	-72.0 -112.5		-69.3 -69.3	-69.3 -112.5		-72.0 -72.0	-66.0 -151.3		8
0.2 0.2	60.7 60.7	93.1	40.6 44.3	44.3 69.2		42.7 42.7	42.7 69.2		44.3 44.3	40.6 93.1		9
-0.3 -0.3	-98.6 -98.6	-151.3	-66.0 -72.0	-72.0 -112.5		-69.3 -69.3	-69.3 -112.5		-72.0 -72.0	-66.0 -151.3		10
0.78 AT 20.00 FT			1.01 AT 20.50 FT			0.64 AT 20.50 FT			1.01 AT 1.50 FT			MAX STRESS
-1.05			-0.37			-0.61			-0.37			D

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

PURLIN DESIGN

BACK ROOF PURLINS

JOB: 33439 1*
PAGE: 2
DATE: 3-28-88

BAY 5 = 21.50'

18.0"	(12)	0.0"
5.97	3.81	3.81

LAPS (IN) GAGE	SX MOMENT
-151.3	-98.6
93.1	60.7
93.1	60.7
-52.4	-34.1
-52.4	-34.1
-5.8	-3.8
-5.8	-3.8
-151.3	-98.6
93.1	60.7
-151.3	-98.6

-98.6	-0.3	-0.3
60.7	0.2	0.2
60.7	0.2	0.2
-34.1	-0.1	-0.1
-34.1	-0.1	-0.1
-3.8	0.0	0.0
-3.8	0.0	0.0
-98.6	-0.3	-0.3
60.7	0.2	0.2
-98.6	-0.3	-0.3

1
2
3
4
5
6
7
8
9
10

MAX STRESS
D

0.78 AT 1.50 FT
-1.04

WEB CRIPPLING SUMMARY FOR BACK SLOPE PURLINS

FRM. LIN.	CRIT L.C.	ACTUAL MOMENT	ACTUAL REACTN	"M" ALLOW	"P" ALLOW	RATIO
1	1	0.347	2.043	125.730	4.781	0.356
2	1	151.279	5.821	197.010	6.280	0.988
3	1	112.495	5.001	179.190	4.961	0.936
4	1	112.495	5.001	179.190	4.961	0.936
5	1	151.280	5.821	197.010	6.280	0.988
6	1	0.343	2.043	125.730	4.781	0.356

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

PURLIN DESIGN

JOB: 33439 19
PAGE: 3
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BACK EAVE PURLINS

SIMPLE PURLIN SYSTEM
GAGE YIELD STRESS = 55.00 KSI
ALLOWABLE BENDING STRESS = 33.00 KSI
PURLIN LOAD SPACING = 1.48 FT
LOADING:
ADD'L DEAD = 0.00 PSF (TOTAL DEAD LOAD = ADD'L DEAD + 2 PSF FOR PURLINS & SHEETING)
LIVE = 50.00 PSF
WIND = 34.00 PSF

10 LOAD CASES WITH THE FOLLOWING LOAD CODES:
| 1, 3, 0, 0, 0 | 1,25,41, 0, 0 | 1,27,41, 0, 0 | 1, 3,25,41, 0 | 1, 3,27,41, 0 |
| 1,15,18, 0, 0 | 1,16,17, 0, 0 | 1, 3,13, 0, 0 | 1,25,41,13, 0 | 1, 3,13, 0, 0 |

BAY 1 = 21.50"	BAY 2 = 22.00"	BAY 3 = 22.00"	BAY 4 = 22.00"	GAGE
~~LIGHT~~ 11ga	~~LIGHT~~ 11ga	~~LIGHT~~ 11ga	~~LIGHT~~ 11ga	SX MOMENT
2.16	2.16	2.16	2.16	1
53.3	55.9	55.9	55.9	2
-32.8	-34.4	-34.4	-34.4	3
-32.8	-34.4	-34.4	-34.4	4
18.5	19.4	19.4	19.4	5
18.5	19.4	19.4	19.4	6
2.1	2.2	2.2	2.2	7
2.1	2.2	2.2	2.2	8
53.3	55.9	55.9	55.9	9
-32.8	-34.4	-34.4	-34.4	10
53.3	55.9	55.9	55.9	MAX STRESS
0.75 AT 11.00 FT -1.33	0.78 AT 11.00 FT -1.47	0.78 AT 11.00 FT -1.47	0.78 AT 11.00 FT -1.47	D

Use 14ga Purlins in all Bays @ Canopy Line

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VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

PURLIN DESIGN

JOB: 33439 1*
PAGE: 4
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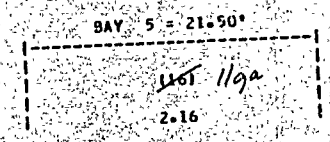
BACK EAVE PURLINS

BAY 5 = 21.50'



GAGE	
SX MOMENT	
1	2.16
2	53.3
3	-32.8
4	-32.8
5	18.5
6	18.5
7	2.1
8	2.1
9	53.3
10	-32.8
MAX STRESS	53.3
D	0.75 AT 10.50 FT
	-1.33

VARCO PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

BRACE ROD DESIGN

JOB: 33439 1*
PAGE: 1
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SPAN = 85'-0
BACK SIDEWALL HEIGH = 16'-0
FRONT SIDEWALL HEIGHT = 16'-0
BUILDING LENGTH = 110'-0

RIDGE FROM BACK BLDG LN= 42'-6
ELEVATION OF FRONT COL = 0'-0
BACK ROOF PITCH = 1.0000 : 12
FRONT ROOF PITCH = 1.0000 : 12

LOAD - WIND = 34.00 PSF STRESS FACTOR = 1.33
ROD YIELD = 65.00 KSI
WINDWARD COEFF = 0.76
LEEWARD COEFF = 0.22
TOTAL COEFF = 0.98

REF POST SPACES = RIGHT ENDWALL
11'-0 20'-0 23'-0 20'-0 11'-0

ROOF 2 BRACED BAYS DSGN BAY SP = 22.00 FT BRACED BAYS = 2 4
BACK SIDEWALL 2 BRACED BAYS DSGN BAY SP = 22.00 FT BRACED BAYS = 2 4
FRONT SIDEWALL 2 BRACED BAYS DSGN BAY SP = 22.00 FT BRACED BAYS = 2 4

ROOF BRACING

TOTAL APPLIED LOADS(KIPS)	WINDWARD LOADS	LEEWARD LOADS	STRUT FORCES BRACED BAY	STRUT FORCES UNBRACED BAY	PANEL SHEAR	ROD QTY	ROD DIAMETER
1.46(BK EAVE)	1.14	0.32	6.64	0.41	5.50	1.0	1/2" EAVE PANEL
4.36	3.39	0.97	6.72	1.21	3.32	1.0	1/2"
6.64	5.17	1.47	5.17	1.85	0.00	1.0	3/8" RIDGE PANEL
0.00(RIDGE)	0.00	0.00	0.00	0.00			
6.64	5.17	1.47	5.17	1.85	0.00	1.0	3/8" RIDGE PANEL
4.36	3.39	0.97	6.72	1.21	3.32	1.0	1/2"
1.46(FR EAVE)	1.14	0.32	6.64	0.41	5.50	1.0	1/2" EAVE PANEL

BACK SIDEWALL BRACING EAVE REACTION = 6.23 KIPS PER BAY

ROD QTY	ROD DIAMETER
1.0	5/8"

FRONT SIDEWALL BRACING EAVE REACTION = 6.23 KIPS PER BAY

ROD QTY	ROD DIAMETER
1.0	5/8"

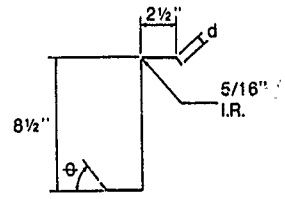
No. _____
Page _____OF_____
Date _____
Prepared by _____
Reviewed by _____

SECTION PROPERTIES

Section Properties have been calculated in accordance with AISI specification, section 2.3.

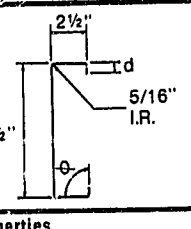
Material - ASTM 570
Fy = 55 ksi
Fu = 70 ksi

Theoretical dimensions are nominal dimension which have been used for section property determinations.



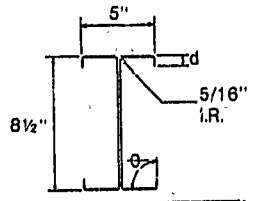
8½" ROLL FORMED ZEE

Theoretical Dimensions						Effective Section Properties						
Gage	t (in.)	θ (deg.)	d (in.)	Area (in.²)	Wt. (plf)	Sx (in.³)	Ix (in.⁴)	rx (in.)	Sy (in.³)	Iy (in.⁴)	ry (in.)	Q
16	0.060	50	0.80	0.87	2.97	2.16	9.34	3.27	0.42	1.27	1.21	0.58
15	0.067	50	0.82	0.98	3.32	2.45	10.41	3.26	0.48	1.43	1.21	0.63
14	0.075	50	0.83	1.09	3.72	2.74	11.64	3.26	0.54	1.61	1.21	0.67
13	0.090	50	0.86	1.31	4.46	3.27	13.92	3.25	0.65	1.95	1.22	0.71
12	0.105	50	0.89	1.53	5.20	3.81	16.18	3.25	0.76	2.30	1.22	0.75
11	0.120	50	0.92	1.75	5.95	4.34	18.43	3.24	0.88	2.65	1.23	0.78



8½" ROLL FORMED CEE

Theoretical Dimensions						Effective Section Properties						
Gage	t (in.)	θ (deg.)	d (in.)	Area (in.²)	Wt. (plf)	Sx (in.³)	Ix (in.⁴)	rx (in.)	Sy (in.³)	Iy (in.⁴)	ry (in.)	Q
16	0.060	90	0.96	0.87	2.97	2.16	9.16	3.23	0.41	0.74	0.92	0.61
15	0.067	90	0.98	0.98	3.32	2.40	10.21	3.23	0.46	0.83	0.92	0.64
14	0.075	90	1.01	1.09	3.72	2.68	11.40	3.23	0.52	0.93	0.92	0.68
13	0.090	90	1.05	1.31	4.46	3.20	13.62	3.22	0.63	1.12	0.92	0.71
12	0.105	90	1.09	1.53	5.20	3.72	15.81	3.21	0.74	1.30	0.92	0.75
11	0.120	90	1.13	1.75	5.95	4.23	17.98	3.20	0.85	1.49	0.92	0.78



8½" DOUBLE CEE

Theoretical Dimensions						Effective Section Properties						
Gage	t (in.)	θ (deg.)	d (in.)	Area (in.²)	Wt. (plf)	Sx (in.³)	Ix (in.⁴)	rx (in.)	Sy (in.³)	Iy (in.⁴)	ry (in.)	Q
16	0.060	90	0.96	1.75	5.95	4.32	18.32	3.23	0.93	2.32	1.15	0.61
15	0.067	90	0.98	1.95	6.64	4.80	20.42	3.23	1.05	2.61	1.16	0.64
14	0.075	90	1.01	2.18	7.44	5.36	22.80	3.23	1.18	2.96	1.17	0.68
13	0.090	90	1.05	2.62	8.92	6.40	27.23	3.22	1.44	3.61	1.17	0.71
12	0.105	90	1.09	3.06	10.40	7.44	31.62	3.21	1.72	4.29	1.18	0.75
11	0.120	90	1.13	3.50	11.90	8.46	35.96	3.20	1.97	4.93	1.18	0.78

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

BRACE ROD DESIGN

JOB: 33439 1⊕
PAGE: 1
DATE: 3-22 ⁸8

SPAN = 85°-0
BACK SIDEWALL HEIGHT = 16°-0
FRONT SIDEWALL HEIGHT = 16°-0
BUILDING LENGTH = 110°-0

RIDGE FROM BACK BLDG LN= 42°-6
ELEVATION OF FRONT COL = 0°-0
BACK ROOF PITCH = 1.0000 : 12
FRONT ROOF PITCH = 1.0000 : 12

LOAD - WIND = 34.00 PSF STRESS FACTOR = 1.33
ROD YIELD = 65.00 KSI
WINDWARD COEFF = 0.76
LEEWARD COEFF = 0.22
TOTAL COEFF = 0.98

REF POST SPACES = RIGHT ENDWALL
11°-0 20°-0 23°-0 20°-0 11°-0

ROOF	2 BRACED BAYS	DSGN BAY SP = 22.00 FT	BRACED BAYS = 2 4
BACK SIDEWALL	2 BRACED BAYS	DSGN BAY SP = 22.00 FT	BRACED BAYS = 2 4
FRONT SIDEWALL	2 BRACED BAYS	DSGN BAY SP = 22.00 FT	BRACED BAYS = 2 4

ROOF BRACING

TOTAL APPLIED LOADS(KIPS)	WINDWARD LOADS	LEEWARD LOADS	STRUT FORCES BRACED BAY	STRUT FORCES UNBRACED BAY	PANEL SHEAR	ROD QTY	ROD DIAMETER
1.46(BK EAVE)	1.14	0.32	6.64	0.41	5.50	1.0	1/2" EAVE PANEL
4.36	3.39	0.97	6.72	1.21	3.32	1.0	1/2"
6.64	5.17	1.47	5.17	1.85	0.00	1.0	3/8" RIDGE PANEL
0.00(RIDGE)	0.00	0.00	0.00	0.00			
6.64	5.17	1.47	5.17	1.85	0.00	1.0	3/8" RIDGE PANEL
4.36	3.39	0.97	6.72	1.21	3.32	1.0	1/2"
1.46(FR EAVE)	1.14	0.32	6.64	0.41	5.50	1.0	1/2" EAVE PANEL

BACK SIDEWALL BRACING EAVE REACTION = 6.23 KIPS PER BAY

ROD QTY	ROD DIAMETER
1.0	5/8"

FRONT SIDEWALL BRACING EAVE REACTION = 6.23 KIPS PER BAY

ROD QTY	ROD DIAMETER
1.0	5/8"

No. _____
Page _____ of _____
Date _____
Prepared by _____
Reviewed by _____

VARCO-PRUDEN PANEL RIB ENGINEERING DATA

Total Layout = 43⅛"

Total Cover = 36"

	Fy	Total Tickness	Net Metal Thickness	Weight	Outside of Panel In Compression		Inside of Panel In Compression	
Gage	ksi	Inches	Inches	psf of Cover	In.³	In.⁴	In.³	In.⁴
26	50	0.0217	0.0200	1.06	0451	.0419	.0493	.0419
24	50	0.0279	0.0262	1.35	.0623	.0565	.0644	.0554
22	50	0.0339	0.0322	1.64	.0798	.7010	.0804	.0703

VARCO-PRUDEN VEE RIB ENGINEERING DATA

Total Layout = 42 7/16"

Total Cover = 36"

	Fy	Total Thickness	Net Metal Thickness	Weight	Outside of Panel In Compression		Inside of Panel In Compression	
Gage	ksi	Inches	Inches	psf of Cover	In.³	In.⁴	In.³	In.⁴
26	50	0.0217	0.0200	1.04	.0375	.0271	.0414	.0282
24	50	0.0279	0.0262	1.34	.0491	.0355	.0542	.0369
22	50	0.0339	0.0322	1.63	.0604	.0436	.0667	.0455

VARCO-PRUDEN SPAN LOC ENGINEERING DATA

Total Layout = 26½"

Total Cover = 16"

	Fy	Total Thickness	Net Metal Thickness	Weight	Outside of Panel In Compression		Inside of Panel In Compression	
Gage	ksi	Inches	Inches	psf of Cover	In.³	In.⁴	In.³	In.⁴
24	50	0.0276	0.0259	1.87	.1765	.2727	.2402	.4970
22	50	0.0336	0.0319	2.27	.2174	.3359	.2958	.6121
20	50	0.0396	0.0379	2.68	.2583	.3990	.3515	.7273

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION
JOB 33439 1*
BUILDER STRUCTURE & DESIGN, INC.
CUSTOMER FOX LUMBER STORAGE
JOB SITE CITY PORTLAND, ME.

FRAME DESIGN - INPUT CONDITIONS

JOB: 33439 1*
PAGE: 1
DATE: 3-28-88
PROFIT CENTER: WISCONSIN

BUILDING DESCRIPTION:

ITEM		FEET & INCHES	DEC. FT.	DEC. IN.	METERS
SPAN	=	85'- 0 0/16	85.0000	1020.0000	25.9080
BACK SIDEWALL HEIGHT	=	16'- 0 0/16	16.0000	192.0000	4.8768
FRONT SIDEWALL HEIGHT	=	16'- 0 0/16	16.0000	192.0000	4.8768
BUILDING LENGTH	=	110'- 0 0/16	110.0000	1320.0000	33.5280
RIDGE FROM BACK BLDG LN	=	42'- 6 0/16	42.5000	510.0000	12.9540
ELEVATION OF FRONT COL.	=	0'- 0 0/16	0.0000	0.0000	0.0000
BACK ROOF PITCH	=	1.0000 : 12			
FRONT ROOF PITCH	=	1.0000 : 12			

LOADING: ADD'L DEAD = 0.00 PSF (TOTAL DEAD LOAD = ADD'L DEAD + 2 PSF (PURLINS & SHEETING) + FRAME WEIGHT = 3.70 PSF)
LIVE = 50.00 PSF
WIND = 34.00 PSF
SNOW = 40.00 PSF

SPECIAL WIND LOAD APPLICATION: BACK WALL = 13.74 PSF - BACK ROOF = 12.00 PSF
FRONT ROOF = 12.00 PSF - FRONT WALL = 8.60 PSF

THE ABOVE LOADS COMBINED WITH ANY SPECIAL LOADS APPEAR IN 10 LOAD CASES AS DESCRIBED BELOW:

LOAD CODES <-- DESCRIPTION -->				STRESS FACTORS
1, 3, 0, 0, 0 DEAD LOAD	+ LIVE LOAD			1.00
1,25,41, 0, 0 DEAD LOAD	+ SPECIAL WIND BACK	+ MBMA EP SUCTION		1.00
1,27,41, 0, 0 DEAD LOAD	+ SPECIAL WIND FRONT	+ MBMA EP SUCTION		1.00
1, 3,25,41, 0 DEAD LOAD	+ LIVE LOAD	+ SPECIAL WIND BACK	+ MBMA EP SUCTION	1.00
1, 3,27,41, 0 DEAD LOAD	+ LIVE LOAD	+ SPECIAL WIND FRONT	+ MBMA EP SUCTION	1.00
1,15,18, 0, 0 DEAD LOAD	+ SNOW BACK TO RIDGE	+ 1/2 SNOW FRT TO RIDG		1.00
1,16,17, 0, 0 DEAD LOAD	+ 1/2 SNOW BK TO RIDGE	+ SNOW FRONT TO RIDGE		1.00
1, 3,13, 0, 0 DEAD LOAD	+ LIVE LOAD	+ SPECIAL LOADS		1.00
1,25,41,13, 0 DEAD LOAD	+ SPECIAL WIND BACK	+ MBMA EP SUCTION	+ SPECIAL LOADS	1.33
1, 3,13, 0, 0 DEAD LOAD	+ LIVE LOAD	+ SPECIAL LOADS		

BAY SPACINGS FOLLOW: (BACK SIDEWALL LEFT TO RIGHT)
5 BAYS AT 22' 0 0/16" BETWEEN FRAME LN. 1 AND FRAME LN. 6
BUILDING LENGTH IS 110' 0 0/16"

PURLIN AND GIRT DATA FOLLOWS:

BACK SIDEWALL GIRT DATA - DIMENSION FROM BLDG. LN. TO OUTSIDE COLUMN FACE IS 0' 1 5/ 8"
MAXIMUM GIRT SPACING IS 6' 9 3/ 4"
BACK SIDEWALL GIRT SPACINGS (BASE TO EAVE)
Z 0' 3 0/16", C 6' 11 1/ 4", Z 5" 0 0/16", Z 2' 6 3/ 4",
1' 3 0/16",

FRONT SIDEWALL GIRT DATA - DIMENSION FROM BLDG. LN. TO OUTSIDE COLUMN FACE IS 0' 1 5/ 8"
MAXIMUM GIRT SPACING IS 6' 9 3/ 4"
FRONT SIDEWALL GIRT SPACINGS (BASE TO EAVE)
Z 0' 3 0/16", C 6' 11 1/ 4", Z 5' 0 0/16", Z 2' 6 3/ 4",
1' 3 0/16",

BACK SLOPE PURLIN DATA - DIMENSION FROM BLDG. LN. TO EAVE PURLIN IS 0' 3 3/ 8"
DIMENSION FROM EAVE PURLIN TO FIRST INTERIOR PURLIN IS 2' 4 7/ 8"
SECOND PURLIN SPACE IS 2' 4 7/ 8"
8 PURLIN SPACES AT 4' 6 0/16"
RIDGE SPACE IS 1' 6 0/16"

FRONT SLOPE PURLIN DATA - DIMENSION FROM BLDG. LN. TO EAVE PURLIN IS 0' 3 3/ 8"
DIMENSION FROM EAVE PURLIN TO FIRST INTERIOR PURLIN IS 2' 4 7/ 8"
SECOND PURLIN SPACE IS 2' 4 7/ 8"
8 PURLIN SPACES AT 4' 6 0/16"
RIDGE SPACE IS 1' 6 0/16"

NUMBER OF FRAMES FOR THIS JOB DESIGN IS 1
FRAME NUMBER ASSIGNMENT BY FRAME LN.: 0, 1, 1, 1, 1, 0,
POST AND BEAM ASSUMED AT FRAME LINE 1
POST AND BEAM ASSUMED AT LAST FRAME LINE 6
BACK SIDEWALL COLUMNS ARE STANDARD (OUTSIDE FLANGE IS VERTICAL)
FRONT SIDEWALL COLUMNS ARE STANDARD (OUTSIDE FLANGE IS VERTICAL)
THE TOPS OF THE INTERIOR COLUMNS ARE RELEASED
FRAME DESIGNED UTILIZING WEB STIFFENERS AS REQUIRED
MAXIMUM ALLOWABLE SUM PERCENT = 1.030
NORMAL TAPERED MEMBER DESIGN FOR BACK COLUMN
NORMAL TAPERED MEMBER DESIGN FOR FRONT COLUMN
BACK COLUMN BOLTED AT FACE OF COLUMN
FRONT COLUMN BOLTED AT FACE OF COLUMN
FRAME IS DESIGNED AND DETAILED FOR SYMMETRY ABOUT THE RIDGE

SPECIAL FRAME DATA FOR THE 1 FRAME FOLLOWS:

SYMMETRY = YES

DEF CODE = 0 1=MIN. 2=MAX. 3=INT.

AVG BAY SPACE 22.00'

SHAPE CODE = SP SPECIAL FRAMEINPUT

NUMBER OF SUPPORTED POINTS	4
NUMBER OF SPECIAL MEMBER RELEASES	0
NUMBER OF INTERIOR COLUMNS	2
NUMBER OF MEMBERS	10
NUMBER OF CENTER LINE JOINT POINTS	11

DESIGN CODE = SC STRESS CHECK FRAME

LOADING:

0.00	ADDITIONAL DEAD LOAD
2.00	PURLINS & SHEETING
1.70	FRAME DEAD LOAD
TOTAL DEAD 3.70	PSF
LIVE 50.00	PSF
WIND 34.00	PSF
SNOW 40.00	PSF

THIS FRAME REQUIRED ON FRAME LINES : 2, 3, 4, 5,

6 SPECIAL LOADS APPLIED TO THE ABOVE FRAME FOLLOW

	FRAME NO.	SIDE CODE	TYPE CODE	SUPP CODE	DIST MEAS	HORZ. DIST (FEET)	VERT. DIST (FEET)	HORZ LOAD (KIPS)	VERT LOAD (KIPS)	MOMENT (K-IN)	THIS SPECIAL LOAD W/CASE COND 1	COND 2	COND 3	COND 4
1	1	2	2	1	1	-6.0000	0.0000	-1.200	-1.200	0.0	8	0	0	0
2	1	2	2	1	1	-6.0000	0.0000	0.660	0.660	0.0	9	10	0	0
3	1	3	2	1	1	-6.0000	0.0000	-1.200	-1.200	0.0	8	0	0	0
4	1	3	2	1	1	-6.0000	0.0000	0.660	0.660	0.0	9	10	0	0
5	1	2	1	1	2	0.0000	0.0000	2.260	0.000	0.0	10	0	0	0
6	1	3	1	1	2	0.0000	0.0000	2.260	0.000	0.0	10	0	0	0

BOUNDARY DATA:

POINT	X-SUP	Y-SUP	M-SUP	X-DISP	Y-DISP	ROTATION
1	1	1	0	0.0000IN.	0.0000IN.	0.0000IN/IN OR RADIANS
11	1	1	0	0.0000IN.	0.0000IN.	0.0000IN/IN OR RADIANS
5	1	1	0	0.0000IN.	0.0000IN.	0.0000IN/IN OR RADIANS
8	1	1	0	0.0000IN.	0.0000IN.	0.0000IN/IN OR RADIANS

INTERIOR COLUMN SPACING AND LOCATION FROM BACK BUILDING LINE

SPACING	LOCATION	ELEVATION
28' 4 0/16"	28' 4 0/16"	0' 0 0/16"
28' 4 0/16"	56' 8 0/16"	0' 0 0/16"
28' 4 0/16"	85' 0 0/16" = SPAN	

THE FOLLOWING CLEARANCE DATA APPLIES TO FRAME NUMBER 1

VERTICAL CLEARANCE AT BACK HAUNCH 13' 4 3/16"
HORIZONTAL CLEARANCE BETWEEN EXTERIOR COLUMNS 81' 0 3/ 4"
VERTICAL CLEARANCE UNDER FRAME AT RIDGE 18' 0 15/16"
VERTICAL CLEARANCE AT FRONT HAUNCH 13' 4 0/16"

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION

FRAME DESIGN - INPUT CONDITIONS

JOB: 33439 1*
PAGE: 4
DATE: 3-28-88

MEMBER DATA:

MEM	FLANGE TK	FLANGE WIDTH	WEB TK	DEPTHS 1	DEPTHS 2	LENGTH (FT)	ANGLE (DEG)	WEIGHT (POUNDS)	JOINT NOS 1	JOINT NOS 2	FLANGE WEB YIELDS	KL XX (FT)	K LYY (FT)	LB (FT)	SPLICE CODES J1	SPLICE CODES J2
FRAME SIDE 1																
1	3/ 8	11.5	3/16	12.00	22.00	15.300	270.000	579.4	1	2	50.0 50.0	20.05	SET BY P&G SPACE		BP	KN
FRAME SIDE 2																
2	3/16	6.0	1/ 8	25.00	9.00	18.340	184.764	273.5	2	3	50.0 50.0	26.60	SET BY P&G SPACE		KN	SP
3	3/ 8	6.0	3/16	9.00	13.00	10.158	184.764	225.2	3	4	50.0 50.0	26.60	SET BY P&G SPACE		SP	SS
LOCATION OF INTERIOR COLUMN MEMBER NO. 9 LOCATED AT 28' 4 0/16"																
4	3/ 8	6.0	3/16	13.00	9.00	14.012	184.764	314.0	4	6	50.0 50.0	14.23	SET BY P&G SPACE		SS	SP
FRAME SIDE 3																
5	3/ 8	6.0	3/16	13.00	9.00	14.015	175.236	314.0	7	6	50.0 50.0	14.23	SET BY P&G SPACE		SS	SP
LOCATION OF INTERIOR COLUMN MEMBER NO. 10 LOCATED AT 56' 8 0/16"																
6	3/ 8	6.0	3/16	9.00	13.00	10.155	175.236	225.1	9	7	50.0 50.0	26.60	SET BY P&G SPACE		SP	SS
7	3/16	6.0	1/ 8	25.00	9.00	18.341	175.236	273.5	10	9	50.0 50.0	26.60	SET BY P&G SPACE		KN	SP
FRAME SIDE 4																
8	3/ 8	11.5	3/16	12.00	22.00	15.300	90.000	579.4	11	10	50.0 50.0	20.05	SET BY P&G SPACE		BP	KN
INTERIOR COLUMNS FRAME SIDES 5, 6 AND 7 FOLLOW:																
FRAME SIDE 5																
9	3/16	7.0	1/ 8	7.00	7.00	16.572	90.000	201.1	5	4	50.0 50.0	16.57	SET BY P&G SPACE		BP	SP
FRAME SIDE 7																
10	3/16	7.0	1/ 8	7.00	7.00	16.572	90.000	201.1	8	7	50.0 50.0	16.57	SET BY P&G SPACE		BP	SP

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION
FRAME NO. 1

REACTION SUMMARY / BASE PLATE SUMMARY

JOB: 33439 1#
PAGE: 5
DATE: 3-28-88

SUMMARY OF REACTIONS:

SIDE	LOAD COMBINATION	HORIZONTAL	VERTICAL	MOMENT
BACK	1, 3, 0, 0, 0	6.43	18.56	0.00
FRONT	1, 3, 0, 0, 0	-6.43	18.56	0.00
INTERIOR COLUMN # 1	1, 3, 0, 0, 0	0.00	31.65	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1, 3, 0, 0, 0	0.00	31.65	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1,25,41, 0, 0	-5.41	-3.84	0.00
FRONT	1,25,41, 0, 0	-2.46	-0.80	0.00
INTERIOR COLUMN # 1	1,25,41, 0, 0	0.00	-3.15	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1,25,41, 0, 0	0.00	-7.73	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1,27,41, 0, 0	2.46	-0.80	0.00
FRONT	1,27,41, 0, 0	5.41	-3.84	0.00
INTERIOR COLUMN # 1	1,27,41, 0, 0	0.00	-7.73	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1,27,41, 0, 0	0.00	-3.15	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1, 3,25,41, 0	0.66	13.17	0.00
FRONT	1, 3,25,41, 0	-8.32	16.21	0.00
INTERIOR COLUMN # 1	1, 3,25,41, 0	0.00	26.59	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1, 3,25,41, 0	0.00	22.02	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1, 3,27,41, 0	8.52	16.20	0.00
FRONT	1, 3,27,41, 0	-0.66	13.17	0.00
INTERIOR COLUMN # 1	1, 3,27,41, 0	0.00	22.02	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1, 3,27,41, 0	0.00	26.59	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1,15,18, 0, 0	4.01	14.29	0.00
FRONT	1,15,18, 0, 0	-4.00	9.23	0.00
INTERIOR COLUMN # 1	1,15,18, 0, 0	0.00	26.30	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1,15,18, 0, 0	0.00	13.20	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1,16,17, 0, 0	4.00	9.23	0.00
FRONT	1,16,17, 0, 0	-4.00	14.29	0.00
INTERIOR COLUMN # 1	1,16,17, 0, 0	0.00	13.20	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1,16,17, 0, 0	0.00	26.30	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1, 3,13, 0, 0	4.88	25.75	0.00
FRONT	1, 3,13, 0, 0	-4.88	25.75	0.00
INTERIOR COLUMN # 1	1, 3,13, 0, 0	0.00	31.67	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1, 3,13, 0, 0	0.00	31.67	0.00 AT 56.67 FT FROM BACK BLDG. LN.
BACK	1,25,41,13, 0	-4.55	-7.79	0.00
FRONT	1,25,41,13, 0	-3.31	-4.75	0.00
INTERIOR COLUMN # 1	1,25,41,13, 0	0.00	-3.16	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1,25,41,13, 0	0.00	-7.74	0.00 AT 56.67 FT FROM BACK BLDG. LN.

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION
FRAME NO. 1

REACTION SUMMARY / BASE PLATE SUMMARY

JOB: 33439 1*
PAGE: 6
DATE: 3-28-88

SUMMARY OF REACTIONS:

SIDE	LOAD COMBINATION	HORIZONTAL	VERTICAL	MOMENT
BACK	1, 3,13, 0, 0	5.03	12.93	0.00
FRONT	1, 3,13, 0, 0	-9.55	16.30	0.00
INTERIOR COLUMN # 1	1, 3,13, 0, 0	0.00	34.18	0.00 AT 28.33 FT FROM BACK BLDG. LN.
INTERIOR COLUMN # 2	1, 3,13, 0, 0	0.00	29.10	0.00 AT 56.67 FT FROM BACK BLDG. LN.

SUMMARY OF BASE PLATES:

SIDE	<------ BASE PLATE DATA ------> MARK NO.	WIDTH	TK	LENGTH	<------ ANCHOR BOLT DATA ------> NUMBER	SIZE	BLR	WELDING PATTERN
BACK	BP-B13313	13.00 X	3/8 X	13.00	(4)	3/4 DIA. A36	5.16	OS-3
FRONT	BP-B13313	13.00 X	3/8 X	13.00	(4)	3/4 DIA. A36	5.16	OS-3
INTERIOR COLUMN # 1	BP-J08308	8.00 X	3/8 X	8.00	(2)	3/4 DIA. A36	10.26	OS-3
INTERIOR COLUMN # 2	BP-J08308	8.00 X	3/8 X	8.00	(2)	3/4 DIA. A36	10.26	OS-3

* NOTE MODIFICATION OF WELD *

WEB STIFFENER REQUIREMENTS:

MEMBER	STIFFENER NUMBER	DESCRIPTION	LOCATION (FT)	WEB DEPTH (IN)	H/T RATIO	A/H RATIO	A (IN)	STIFFENER SIZE TK	WIDTH	SIDES	WELDING L - S	DETAIL ?
1, 8	1	COL./HAUNCH FLG EX	13.37	21.250				7/16 X	5 5/ 8	BOTH	STD. CK-OK	YES
2, 7	2	INTERMEDIATE SHEAR	6.16	19.491	144.92	3.00	58.47	1/ 4 X	2 1/ 2	ONE	STD. CK-OK	YES
3, 6	2	BEARING (INT. COL)	9.87	12.135				3/16 X	2 3/ 4	BOTH	OS-3	YES

BOLTED CONNECTION DATA:

MEMBER	J T #	PLATE DATA TK	WD	LENGTH	BOLT DATA SIZE	OUTSIDE #ROWS	OUTSIDE 4-BOLT	INSIDE #ROWS	INSIDE 4-BOLT	TYPE	MARK #	CONNECTION CAPACITY OUTSIDE	INSIDE
1, 8	2	4/ 8 X	12.0 X	2'- 1 0/16	3/4" DIA A325	3	NO	2	NO	FLUSH	3A12425032	1207.9 *K	970.4 *K
2, 7	1	4/ 8 X	6.0 X	2'- 2 0/16	3/4" DIA A325	3	NO	2	NO	EXT	3B06426032	1207.9 *K	970.4 *K
2, 7	2	4/ 8 X	6.0 X	0'-10 0/16	3/4" DIA A325	1	NO	2	NO	EXT	3B06410012	208.9 *K	266.4 *K
3, 6	1	4/ 8 X	6.0 X	0'-10 0/16	3/4" DIA A325	1	NO	2	NO	EXT	3B06410012	208.9 *K	266.4 *K
4, 5	2	7/ 8 X	6.0 X	0'-10 1/16	3/4" DIA A325	1	NO	2	NO	EXT	3B0671001.2	233.1 *K	378.0 *K
INTERIOR	COLUMN CONNECTION PLATES												
9, 10	2	3/ 8 X	7.0 X	0'- 8 0/16	1/2" DIA A325	1	NO	1	NO	EXT	1B07308.	70.2 *K	70.2 *K

FLANGE BRACING REQUIREMENTS:

VARCO-PRUDEN
A UNIT OF AMCA INTERNATIONAL CORPORATION
FRAME NO. 1

FRAME FLANGE BRACE DATA

JOB: 33439 1#
PAGE: 7
DATE: 3-28-88

FLANGE BRACING REQUIREMENTS:

BACK SIDE OF FRAME RIDGE TO EAVE:

MEMBER #	4	4	4	3	3	3	2
LOCATION	1'- 6 0/16	6'- 0 0/16	10'- 6 0/16	15'- 0 0/16	19'- 6 0/16	24'- 0 0/16	28'- 6 0/16
DEPTH @ FB	9.4279	10.7125	11.9972	12.6115	10.8395	0.0000	13.2018
FB MARK #	FB2050	NOT REQ'D	FB2064	FB2064	NOT REQ'D	NOT REQ'D	FB2070

BACK SIDE OF FRAME RIDGE TO EAVE:

MEMBER #	2	2	2	2
LOCATION	33'- 0 0/16	37'- 6 0/16	39'-10 13/16	42'- 3 11/16
DEPTH @ FB	17.5700	21.9382	24.2721	0.0000
FB MARK #	NOT REQ'D	NOT REQ'D	FB3024	NOT REQ'D

BACK SIDE OF FRAME BASE TO EAVE:

MEMBER #	1	1	1	1
LOCATION	0'- 3 0/16	7'- 2 1/4	12'- 2 1/4	14'- 9 0/16
DEPTH @ FB	12.1883	17.4127	21.4781	0.0000
FB MARK #	NOT REQ'D	NOT REQ'D	NOT REQ'D	NOT REQ'D

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FRAME DETAIL DESIGN SUMMARY

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LOCATION	MEM #	LOAD CASE	DEPTH	ACTUAL FORCES AXIAL (KIPS)	SHEAR (KIPS)	MOMENT (KIP-IN)	ACTUAL STRESS AXIAL	SHEAR	BENDING	ALLOWABLE STRESS AXIAL	SHEAR	BENDING	STRESS CONDITIONS SUM % COMBINED	% SHEAR
FRAME SIDE 1														
AT 13.37 FT	1	5	22.0	-16.4	-5.5	-1082.4	1.3	1.33	10.28	26.19	6.47	28.24	0.407	0.205
FRAME SIDE 2														
AT 0.81 FT	2	5	25.0	-7.2	13.0	-1022.0	1.3	3.87	24.87	24.18	6.56	26.05	0.998	0.590
AT 9.17 FT	3	8	12.7	-3.9	-14.4	-811.4	0.6	6.06	26.07	22.90	16.85	28.05	0.949	0.359
AT 0.00 FT	4	1	13.0	-8.0	15.8	-941.4	1.2	6.48	29.41	26.07	16.44	33.00	0.930	0.394
FRAME SIDE 3														
AT 0.00 FT	5	1	13.0	-8.0	-15.8	-941.3	1.2	6.48	29.40	26.07	16.44	33.00	0.930	0.394
AT 9.17 FT	6	8	12.7	-3.9	14.4	-811.2	0.6	6.06	26.06	22.90	16.85	28.05	0.949	0.359
AT 0.81 FT	7	4	25.0	-7.2	-13.0	-1022.1	1.3	3.87	24.87	24.18	6.56	26.05	0.998	0.590
FRAME SIDE 4														
AT 13.37 FT	8	4	22.0	-16.4	5.5	-1082.5	1.3	1.33	10.28	26.19	6.47	28.24	0.407	0.205
FRAME SIDE 5														
AT 0.00 FT	9	8	7.0	-31.7	0.0	0.0	9.0	0.00	0.00	11.48	20.00	25.15	0.784	0.000
FRAME SIDE 7														
AT 0.00 FT	10	8	7.0	-31.7	0.0	0.0	9.0	0.00	0.00	11.48	20.00	25.15	0.784	0.000

LOCATION MN DIST	X-COR (FEET)	Y-COR	DEP (IN)	AREA (IN2)	RX (IN)	RY (IN)	LX (IN)	LY 1 (IN)	LY 2 (IN)	KLX RX	KLY1 RY	KLY2 RY	SX (IN3)	LB 1 (IN)	RT 1 (IN)	LB 2 (IN)	RT 2 (IN)	QS	QA	CB 1	CB 2
FRAME SIDE 1																					
1 13.37	1.05	13.36	22.00	12.61	9.58	2.75	160.4	14.1	21.0	25.1	5.1	7.6	105.31	160.4	3.18	21.0	3.15	0.94	1.00	1.75	1.03
FRAME SIDE 2																					
2 0.81	1.95	14.41	24.94	5.55	9.59	1.10	319.2	11.3		33.3	10.2		40.95	11.3	1.43			0.92	0.98	1.07	
3 9.17	27.60	17.06	12.70	6.74	5.42	1.42	319.2	54.0	54.0	58.9	38.2	38.2	31.12	162.1	1.82	54.0	1.68	1.00	1.00	2.14	1.38
4 0.00	28.33	17.11	13.00	6.80	5.53	1.41	170.8	54.0		30.9	38.3		32.01	54.0	1.69			1.00	1.00	1.00	
FRAME SIDE 3																					
5 0.00	28.33	17.11	13.00	6.80	5.53	1.41	170.8	54.0		30.9	38.3		32.01	54.0	1.68			1.00	1.00	1.00	
6 9.17	27.59	17.06	12.70	6.74	5.42	1.42	319.2	54.0	54.0	58.9	38.2	38.2	31.12	162.1	1.82	54.0	1.68	1.00	1.00	2.14	1.38
7 0.81	1.95	14.41	24.94	5.55	9.59	1.10	319.2	11.3		33.3	10.2		40.95	11.3	1.43			0.92	0.98	1.07	
FRAME SIDE 4																					
8 13.37	1.05	13.36	22.00	12.61	9.58	2.75	160.4	14.1	21.0	25.1	5.1	7.6	105.31	160.4	3.18	21.0	3.15	0.94	1.00	1.75	1.03
FRAME SIDE 5																					
9 0.00	28.33	0.00	7.00	3.52	3.10	1.75	198.9	198.9	198.9	64.2	113.9	113.9	9.64	198.9	2.16	198.9	2.16	0.84	1.00	1.75	1.75
FRAME SIDE 7																					
10 0.00	28.33	0.00	7.00	3.52	3.10	1.75	198.9	198.9	198.9	64.2	113.9	113.9	9.64	198.9	2.16	198.9	2.16	0.84	1.00	1.75	1.75

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DESIGN LOADS AND FRAME FOUNDATION LOADS

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DLR-A
RW

SPAN = 85'-0
BACK SIDEWALL HEIGHT = 16'-0
FRONT SIDEWALL HEIGHT = 16'-0
BUILDING LENGTH = 110'-0

RIDGE FROM BACK BLDG LN= 42'-6
ELEVATION OF FRONT COL =
BACK ROOF PITCH = 1.0000 : 12
FRONT ROOF PITCH = 1.0000 : 12

THIS FRAME REQUIRED ON FRAME LINES : 2, 3, 4, 5,

BAY SPACING = 22.00 FT.

LOADING: ADD'L DEAD = 0.00 PSF (TOTAL DEAD LOAD = ADD'L DEAD + 2 PSF (PURLINS & SHEETING) + FRAME WEIGHT = 3.70 PSF)
LIVE = 50.00 PSF
WIND = 34.00 PSF
SNOW = 40.00 PSF

SPECIAL WIND LOAD APPLICATION: BACK WALL = 13.74 PSF - BACK ROOF = 12.00 PSF
FRONT ROOF = 12.00 PSF - FRONT WALL = 8.60 PSF

THE ABOVE LOADS COMBINED WITH ANY SPECIAL LOADS APPEAR IN 10 LOAD CASES AS DESCRIBED BELOW:

LOAD CODES	DESCRIPTION				STRESS FACTORS
1, 3, 0, 0, 0 DEAD LOAD	+ LIVE LOAD +	+	+	+	1.00
1,25,41, 0, 0 DEAD LOAD	+ SPECIAL WIND BACK +	MBMA EP SUCTION +	+	+	1.00
1,27,41, 0, 0 DEAD LOAD	+ SPECIAL WIND FRONT +	MBMA EP SUCTION +	+	+	1.00
1, 3,25,41, 0 DEAD LOAD	+ LIVE LOAD +	SPECIAL WIND BACK +	MBMA EP SUCTION +	+	1.00
1, 3,27,41, 0 DEAD LOAD	+ LIVE LOAD +	SPECIAL WIND FRONT +	MBMA EP SUCTION +	+	1.00
1,15,18, 0, 0 DEAD LOAD	+ SNOW BACK TO RIDGE +	1/2 SNOW FRT TO RIDG +		+	1.00
1,16,17, 0, 0 DEAD LOAD	+ 1/2 SNOW BK TO RIDGE +	SNOW FRONT TO RIDGE +		+	1.00
1, 3,13, 0, 0 DEAD LOAD	+ LIVE LOAD +	SPECIAL LOADS +		+	1.00
1,25,41,13, 0 DEAD LOAD	+ SPECIAL WIND BACK +	MBMA EP SUCTION +	SPECIAL LOADS +		1.00
1, 3,13, 0, 0 DEAD LOAD	+ LIVE LOAD +	SPECIAL LOADS +		+	1.33

6 SPECIAL LOADS APPLIED TO THE ABOVE FRAME FOLLOW

	FRAME NO.	SIDE CODE	TYPE CODE	SUPP CODE	DIST MEAS	HORZ. DIST (FEET)	VERT. DIST (FEET)	HORZ LOAD (KIPS)	VERT LOAD (KIPS)	MOMENT (K-IN)	THIS SPECIAL LOAD W/CASE COND 1	COND 2	COND 3	COND 4
1	1	2	2	1	1	-6.0000	0.0000	-1.200	-1.200	0.0	8	0	0	0
2	1	2	2	1	1	-6.0000	0.0000	0.660	0.660	0.0	9	10	0	0
3	1	3	2	1	1	-6.0000	0.0000	1.200	-1.200	0.0	8	0	0	0
4	1	3	2	1	1	-6.0000	0.0000	0.660	0.660	0.0	9	10	0	0
5	1	2	1	1	2	0.0000	0.0000	2.260	0.000	0.0	10	0	0	0
6	1	3	1	1	2	0.0000	0.0000	2.260	0.000	0.0	10	0	0	0

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DESIGN L ..DS AND FRAME FOUNDATION LOADS

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OLR-5
BW

BAY SPACING = 22.00 FT.

SUMMARY OF FOUNDATION LOADS:
1. FORCE=KIPS MOMENT=INCH-KIPS

SIDE	LOAD COMBINATION	HORIZONTAL IN	HORIZONTAL OUT	VERTICAL UPLIFT	VERTICAL DOWN	MOMENT (+ COUNTERCLOCKWISE)
BACK SW COL	1, 3, 0, 0, 0	-	6.43	-	18.56	0.00
	1,25,41, 0, 0	5.41	-	3.84	-	0.00
	1,27,41, 0, 0	-	2.46	0.80	-	0.00
	1, 3,25,41, 0	-	0.66	-	13.17	0.00
	1, 3,27,41, 0	-	8.52	-	16.20	0.00
	1,15,18, 0, 0	-	4.01	-	14.29	0.00
	1,16,17, 0, 0	-	4.00	-	9.23	0.00
	1, 3,13, 0, 0	-	4.88	-	25.75	0.00
	1,25,41,13, 0	4.55	-	7.79	-	0.00
	1, 3,13, 0, 0	-	5.03	-	12.93	0.00
FRONT SW COL	1, 3, 0, 0, 0	-	6.43	-	18.56	0.00
	1,25,41, 0, 0	-	2.46	0.80	-	0.00
	1,27,41, 0, 0	5.41	-	3.84	-	0.00
	1, 3,25,41, 0	-	8.52	-	16.21	0.00
	1, 3,27,41, 0	-	0.66	-	13.17	0.00
	1,15,18, 0, 0	-	4.00	-	9.23	0.00
	1,16,17, 0, 0	-	4.00	-	14.29	0.00
	1, 3,13, 0, 0	-	4.88	-	25.75	0.00
	1,25,41,13, 0	-	3.31	4.75	-	0.00
	1, 3,13, 0, 0	-	9.55	-	16.30	0.00
INT COL # 1	1, 3, 0, 0, 0	-	-	-	31.65	0.00 AT 28.33" FROM BACK BLDG LINE
	1,25,41, 0, 0	-	-	3.15	-	0.00
	1,27,41, 0, 0	-	-	7.73	-	0.00
	1, 3,25,41, 0	-	-	-	26.59	0.00
	1, 3,27,41, 0	-	-	-	22.02	0.00
	1,15,18, 0, 0	-	-	-	26.30	0.00
	1,16,17, 0, 0	-	-	-	13.20	0.00
	1, 3,13, 0, 0	-	-	-	31.67	0.00
	1,25,41,13, 0	-	-	3.16	-	0.00
	1, 3,13, 0, 0	-	-	-	34.18	0.00
INT COL # 2	1, 3, 0, 0, 0	-	-	-	31.65	0.00 AT 56.67" FROM BACK BLDG LINE
	1,25,41, 0, 0	-	-	7.73	-	0.00
	1,27,41, 0, 0	-	-	3.15	-	0.00
	1, 3,25,41, 0	-	-	-	22.02	0.00
	1, 3,27,41, 0	-	-	-	26.59	0.00
	1,15,18, 0, 0	-	-	-	13.20	0.00
	1,16,17, 0, 0	-	-	-	26.30	0.00
	1, 3,13, 0, 0	-	-	-	31.67	0.00
	1,25,41,13, 0	-	-	7.74	-	0.00
	1, 3,13, 0, 0	-	-	-	29.10	0.00

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DESIGN LOADS AND FRAME FOUNDATION LOADS

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BAY SPACING = 22.00 FT.

MAXIMUM FOUNDATION LOADS:
1. MAX FOUNDATION LOADS CAN BE FROM ANY LOAD CASE
2. MAX FOUNDATION LOADS ARE NOT FACTORED FOR ANY LOAD CASE

SIDE	HORIZONTAL IN	HORIZONTAL OUT	VERTICAL UPLIFT	VERTICAL DOWN	MOMENT (+ COUNTERCLOCKWISE)
BACK SW COL	5.41	9.55	7.79	25.75	0.00
FRONT SW COL	5.41	9.55	7.79	25.75	0.00
INT COL # 1	-	-	7.74	34.18	0.00 AT 28.33° FROM BACK BLDG LINE
INT COL # 2	-	-	7.74	34.18	0.00 AT 56.67° FROM BACK BLDG LINE

SUMMARY OF BASE PLATES:

SIDE	<------ BASE PLATE DATA -------> MARK NO.	WIDTH	TK	LENGTH	<------ ANCHOR BOLT DATA ------> NUMBER	SIZE
BACK	BP-813313	13.00 X	3/8 X	13.00	(4)	3/4 DIA. A36
FRONT	BP-813313	13.00 X	3/8 X	13.00	(4)	3/4 DIA. A36
INTERIOR COLUMN # 1	BP-J08308	8.00 X	3/8 X	8.00	(2)	3/4 DIA. A36
INTERIOR COLUMN # 2	BP-J08308	8.00 X	3/8 X	8.00	(2)	3/4 DIA. A36

VARCO-PRUDEN
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SPECIAL FRAME DATA FOR THE 7 FRAME FOLLOWS:

SYMMETRY = 1	1=YES 2=NO	SHAPE CODE = 2 1=RF SELECTED BY PROGRAM 2=CB SELECTED BY PROGRAM 3=SP SPECIAL FRAME INPUT
DEF CODE = 0	1=MIN. 2=MAX. 3=INT.	NUMBER OF SUPPORTED POINTS 7 NUMBER OF SPECIAL MEMBER RELEASES 0 NUMBER OF INTERIOR COLUMNS 4
AVG BAY SPACE 11.00'		NUMBER OF MEMBERS 18 NUMBER OF CENTER LINE JOINT POINTS 19

DESIGN CODE = 1	1=YS AUTO-DESIGN FRAME 2=HD HOLD DEPTHS & DESIGN 3=SC STRESS CHECK FRAME
LOADING:	0.00 ADDITIONAL DEAD LOAD 2.00 PURLINS & SHEETING 1.76 FRAME DEAD LOAD
TOTAL DEAD	3.76 PSF
LIVE	50.00 PSF
WIND	34.00 PSF
SNOW	40.00 PSF

THIS FRAME REQUIRED ON FRAME LINES : 6