

CALCULATIONS PACAKCES

BUILDER: KEN KAPPERMAN
CUSTOMER: KAPPERMAN, KEN
JOB NUMBER: 18-B-52164

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Original Design Completed thru Change Order # 0
Date: 4/22/2022

Revision History

Rev #	Update Reactions?	Reason for Revision	Pages Revised	Date Revised	Eng.

Project Engineer: Christian Mendoza (Fairview)
Checking Engineer: Sirene Chacon
Signing Engineer: Bejun Anklesaria, S.E., P.E.

April 22, 2022

EMPIRE STEEL BUILDINGS
5230 CARROLL CANYON RD # 300
SAN DIEGO, CA 92121

18-B-52164
KAPPERMAN, KEN
5496 YUKON DR.
SUN VALLEY, NV 89433
40'-0" x 80'-0" x 18'-0"

To Whom It May Concern:

This is to certify that materials for the subject structure have been designed in accordance with the order documents, specifically as shown per the attached Engineering Design Criteria Sheet.

Aspects of code compliance as related to use or occupancy, such as sprinkler requirements, are not addressed by these documents.

These materials, when properly erected on an adequate foundation in accordance with the erection drawings as supplied and using the components as furnished, will meet the attached loading requirements.

This certification does not cover field modifications, or the design of materials not furnished by Metallic Building Systems.

The attached design criteria information is to remain with and form part of this Letter of Certification.

The calculations and the metal building they represent are the product of Metallic Building Systems or a division of its affiliate Cornerstone Building Brands. The engineer whose seal appears hereon is contracted by either Metallic Building Systems or a division of its affiliate Cornerstone Building Brands and is not the engineer of record for this project.

Cordially,

This document has been
digitally signed.

BEJUN ANKLESARIA, S.E., P.E.
2918 CREEK TERRACE DR.
MISSOURI CITY, TX 77459
281-499-1472



Building Code IBC 18
Risk Category..... II - Normal

Roof Dead Load

Superimposed.....2.420 psf
Collateral.....1 psf (Total)
(0.00 psf Ceiling, 1 psf Other)
Roof Live Load..... 20.00 psf No reduction

Snow

Ground Snow Load (Pg)..... 43.00 psf
Snow Load Importance Factor (Is) 1.00
Snow Exposure Factor (Ce)..... 1.00
Thermal Factor (Ct)..... 1.00
Flat Roof Snow Load (Pf)..... 30.1 psf
Minimum Roof Snow Load (Pm)..... 30.10 psf

Wind

Ultimate Wind Speed (Vult)..... 100 mph
Nominal Wind Speed (Vasd)..... 77 mph (IBC Section 1609.3.1)
Serviceability Wind Speed 67 mph
Wind Exposure Category C
Internal Pressure Coef (GCpi) 0.18/-0.18
Loads for components not provided by building manufacturer
Wall Edge Zones 17.43 psf pressure -23.24 psf suction
Other Wall Zones 17.43 psf pressure -18.88 psf suction
These values are the maximum values required based on a 10 sq ft area.
Components with larger areas may have lower wind loads.

Seismic

Seismic Importance Factor (Ie) 1.00
Seismic Design Category..... D
Soil Site Class..... d
Ss..... 1.457 g Sds 1.166 g
S1..... 0.490 g Sd1 0.590 g
Analysis Procedure..... Equivalent Lateral Force
Location...Int RF Front SW Back SW Left EW Right EW
System..... C4 B3 B3 C4 B3
R..... 3.25 3.25 3.25 3.25 3.25
Cs..... 0.359 0.359 0.359 0.359 0.359
Design Base Shear in kips (V) Transverse 15.63 Longitudinal 15.50
Basic Structural System (from ASCE 7-16 Table 12.2-1)
System - Basic Force Resisting System
H - Steel System not Specifically Detailed for Seismic Resistance
C4 - Steel Ordinary Moment Frames
B3 - Steel Ordinary Concentric Braced Frames
G2 - Cantilevered Column System
R - Response Modification Coefficient
Cs - Seismic Response Coefficient

EMPIRE STEEL BUILDINGS
5230 CARROLL CANYON RD # 300
SAN DIEGO, CA 92121

STRUCTURAL DESIGN CALCULATIONS
FOR
KEN KAPPERMAN
5496 YUKON DR.
SUN VALLEY, NV 89433

KAPPERMAN, KEN
5496 YUKON DR.
SUN VALLEY, NV 89433
18-B-52164

BUILDING LAYOUT

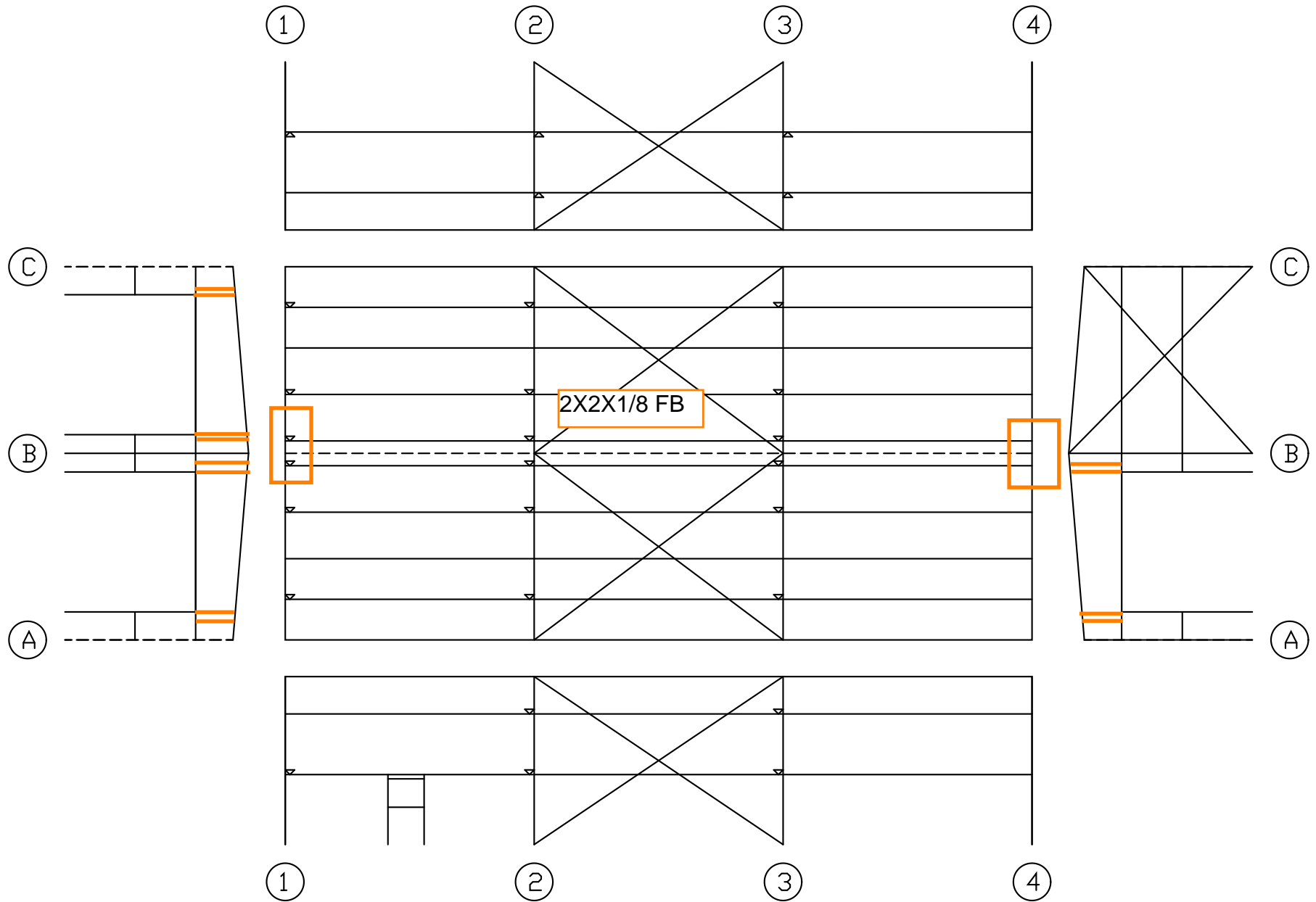
Width (ft)= 40.0
Length (ft)= 80.0
Eave Height (ft)= 18.0/ 18.0
Roof Slope (rise/12)= 1.00/ 1.00

BUILDING LOADS

Roof Dead Load (psf)= 2.4
Wall Dead Load
Left Endwall (psf)= 3.0
Right Endwall (psf)= 3.0
Front Sidewall (psf)= 3.0
Back Sidewall (psf)= 3.0
Live Load (psf)= 20.0
Collateral Load (psf)= 1.0
Snow Load (psf)= 30.1
Wind Speed (mph)= 100.0
Wind Code = IBC 18
Closed/Open = C
Exposure = C
Internal Wind Coeff = -0.18, +0.18
Importance - Wind = 1.00
Importance - Seismic = 1.00
Seismic Design Category= D
Seismic Coeff (Fa*Ss) = 1.75

Designer : CM
Detailer : X

4/22/22



PURLIN LAYOUT:

Surface Id	Purlin Type	Surface_Extend Left	Surface_Extend Right	Stub_Purlin Left	Stub_Purlin Right	Total Rows	Peak Space	--Set_Space-- Space	Row
2	ZB	0.0000	0.0000	N	N	4	1.3333	4.3680	2
								5.0000	2
3	ZB	0.0000	0.0000	N	N	4	1.3333	5.0000	2
								4.3680	2

EAVE LAYOUT:

Wall Id	Type	Flange Rotate	Web Orient	Offset
2	EO	I	V	0.00
4	EO	I	V	0.00

PURLIN LOCATION:

Surface Id	Purlin Id	Surface Offset	Space
2	1	4.3680	4.3680
	2	8.7360	4.3680
	3	13.7360	5.0000
	4	18.7360	5.0000
			20.0693
3	1	1.3333	1.3333
	2	6.3333	5.0000
	3	11.3333	5.0000
	4	15.7013	4.3680
			20.0693

PURLIN & EAVE STRUT:

Surface Id	Bay Id	Part	----Purlin_Lap----		IS_Flg Strap	Eave Strut
			Left	Right		
2	1	10X35Z13		3.0000	0	10ES1L14
	2	10X35Z13	3.0000	3.0000	0	10ES1L14
	3	10X35Z13	3.0000		0	10ES1L14
3	1	10X35Z13		3.0000	0	10ES1L14
	2	10X35Z13	3.0000	3.0000	0	10ES1L14
	3	10X35Z13	3.0000		0	10ES1L14

ROOF BRACING:

Bay Id	Attach_Start	Locate_End	Type	Part	Dia
2	0.00	20.00	Rod	WR1000	0.625
	20.00	40.00	Rod	WR1000	0.625

BOLT AT EAVE STRUT:

Wall Id	Frame Id	Line Type	Lap Plate	No.	Bolt Type	Size Dia	Washer
2	1	RF	-	2	A325	0.500	0
2	2	RF	Y	4	A325	0.500	0
2	3	RF	Y	4	A325	0.500	0
2	4	EW	-	2	A325	0.500	0
4	1	RF	-	2	A325	0.500	0
4	2	RF	Y	4	A325	0.500	0
4	3	RF	Y	4	A325	0.500	0
4	4	EW	-	2	A325	0.500	0

PURLIN ANTI-ROLL:

Surf Id	Line Id	AntiRoll Type	Ds_ARoll Id	No. Purlin	Purlin Id
2	RF	Clip w/gusset	@005	1	4
2	R_EW	Clip w/gusset	@002	1	4
3	RF	Clip w/gusset	@005	1	1
3	R_EW	Clip w/gusset	@002	1	1

18-B-52164 FRAMING SUMMARY: Left Endwall 4/22/22 11:33am

COLUMN:

Id	Offset	Grid Line	Part	Rot	Length	Base Elev
Col2	20.00	B	8f70D12	N	18.64	0.00

BASE PLATE:

Id	Plate Type	Width	Length	Thick	Anchor Bolt Type	Dia	Gage	Row	Base_Clip_Bolts No.	Type	Dia
Col2	S3	7.00	8.00	0.250	GR36	0.625	3.00	2	0		

CAP PLATE:

Id	No.	Bolts Type	Dia
Col2	2	A325	0.500

OPENING LAYOUT:

Open Id	Bay Id	Offset	Width	Height	Opening_Size Sill	Note
1	1	3.0000	15.0000	14.0000	0.0000	
2	2	2.0000	15.0000	14.0000	0.0000	

OPENING JAMB/HEADER/SILL:

Open Id	Bay Id	Member	Offset	Locate	Part	Length
1	1	Jamb-L	3.0000	0.0000	8X35C12	14.0000
		Jamb-R	18.0000	0.0000	8X35C12	14.0000
2	2	Jamb-L	2.0000	0.0000	8X35C12	14.0000

GIRT LAYOUT:

Bay Id	Locate	Type	Part	---Bay_Offset---		--Support--		-----Lap-----		Flg Rot
				Start	End	Left	Right	Left	Right	
1	7.5000	ZF	8X25Z16	0.0000	3.0000	Col	Jamb	0.0000	0.0000	D
	7.5000	ZF	8X25Z16	18.0000	20.0000	Jamb	Col	0.0000	0.0000	D
	14.0000	CF	8X25C16	0.0000	20.0000	Col	Col	0.0000	0.0000	U
2	7.5000	ZF	8X25Z16	0.0000	2.0000	Col	Jamb	0.0000	0.0000	D
	7.5000	ZF	8X25Z16	17.0000	20.0000	Jamb	Col	0.0000	0.0000	D
	14.0000	CF	8X25C16	0.0000	20.0000	Col	Col	0.0000	0.0000	U

GIRT INSIDE FLANGE BRACE:

No. Brace/Bay	
1	2
0	0

18-B-52164 FRAMING SUMMARY: Front Sidewall 4/22/22 11:33am

OPENING LAYOUT:

Open Id	-----Bay-----		-----Opening_Size-----			Note
	Id	Offset	Width	Height	Sill	
1	1	11.0000	3.8750	7.0417	4.0000	Field located

OPENING JAMB/HEADER/SILL:

Open Id	Bay Id	Member	Offset	Locate	Part	Length
		Jamb-R	14.8750	0.0000	8X25C16	7.5000
		Header	11.0417	11.0000	8X25C16	3.8750
		Sill	4.0000	11.0000	8X25C16	3.8750

GIRT LAYOUT:

Bay Id	Locate	Type	Part	---Bay_Offset---		--Support--		-----Lap-----		Flg Rot
				Start	End	Left	Right	Left	Right	
1	7.5000	ZB	8X25Z16	1.2500	26.6667	Col	Col	0.0000	1.3333	D
	14.0000	ZB	8X25Z16	1.2500	26.6667	Col	Col	0.0000	1.3333	D
2	7.5000	ZB	8X25Z16	0.0000	26.6667	Col	Col	1.3333	1.3333	D
	14.0000	ZB	8X25Z16	0.0000	26.6667	Col	Col	1.3333	1.3333	D
3	7.5000	ZB	8X25Z14	0.0000	26.6667	Col	Col	1.3333	0.0000	D
	14.0000	ZB	8X25Z16	0.0000	26.6667	Col	Col	1.3333	0.0000	D

GIRT INSIDE FLANGE BRACE:

No. Brace/Bay		
1	2	3
0	0	0

WALL BRACING:

Bay Id	Brace_Height Bot	Top	Type	Part	Dia
2	0.00	18.00	Rod	WR1200	0.750

18-B-52164 FRAMING SUMMARY: Right Endwall 4/22/22 11:33am

RAFTER:

Id	Surf Id	Part	Length
Raf1	2	W8X10	20.07
Raf2	3	W8X10	20.07

RAFTER SPLICE:

-Surface- Id	Locate	Type	---Plate--- Width	Thick	Bolt Type	Bolt Dia	Bolt Gage	---Top--- Row	Space	--Bottom-- Row	Space
3	0.00	M	6.00	0.500	A325	0.625	3.50	2	4.00	2	4.00

COLUMN:

Id	Offset	Grid Line	Part	Rot	Length	Base Elev
Col1	0.69	A	8F35C14	R	16.53	0.00
Col2	20.00	B	W8X10	N	18.14	0.00
Col3	39.31	C	8F35C12	Y	16.53	0.00

BASE PLATE:

Id	Type	Width	Length	Thick	---Anchor_Bolt--- Type	Dia	Gage	Row	Base_Clip_Bolts No.	Type	Dia
Col1	S3	7.00	8.00	0.250	GR36	0.625	3.00	1	0		
Col2	S3	6.00	8.00	0.375	GR36	0.625	3.00	2	0		
Col3	S3	7.00	8.00	0.250	GR36	0.625	3.00	1	0		

CAP PLATE:

Id	No.	---Bolts--- Type	Dia
Col1	4	A325	0.500
Col2	4	A325	0.500
Col3	4	A325	0.500

OPENING LAYOUT:

Open Id	---Bay--- Id	Offset	---Opening_Size--- Width	Height	Sill	Note
1	1	3.0000	15.0000	14.0000	0.0000	

OPENING JAMB/HEADER/SILL:

Open Id	Bay Id	Member	Offset	Locate	Part	Length
---------	--------	--------	--------	--------	------	--------

```

-----
1      1  Jamb-L  3.0000  0.0000  8X35C12  14.0000
          Jamb-R 18.0000  0.0000  8X35C12  14.0000

```

GIRT LAYOUT:

```

-----
Bay
Id  Locate  Type  Part      ---Bay_Offset---  --Support-  -----Lap-----  Flg
                                Start    End  Left Right  Left  Right  Rot
-----
1   7.5000  ZF    8X25Z16   0.0000  3.0000  Col  Jamb  0.0000  0.0000  D
      7.5000  ZF    8X25Z16   18.0000 20.0000  Jamb Col  0.0000  0.0000  D
      14.0000 CF    8X25C16   0.0000 20.0000  Col  Col  0.0000  0.0000  U
-----
2   7.5000  ZF    8X25Z16   0.0000 20.0000  Col  Col  0.0000  0.0000  D
      14.0000 ZF    8X25Z16   0.0000 20.0000  Col  Col  0.0000  0.0000  D
-----

```

GIRT INSIDE FLANGE BRACE:

```

-----
No.  Brace/Bay
1    2
---  ---
0    0

```

WALL BRACING:

```

-----
Bay  Brace_Height
Id   Bot    Top  Type  Part    Dia
-----
2    0.00  18.14 Rod   WR0800  0.500

```

```

=====
18-B-52164          FRAMING SUMMARY: Back Sidewall          4/22/22 11:33am
=====

```

GIRT LAYOUT:

```

-----
Bay
Id  Locate  Type  Part      ---Bay_Offset---  --Support-  -----Lap-----  Flg
                                Start    End  Left Right  Left  Right  Rot
-----
1   7.5000  ZB    8X25Z14   0.0000 26.6667  Col  Col  0.0000  1.3333  D
      14.0000 ZB    8X25Z16   0.0000 26.6667  Col  Col  0.0000  1.3333  D
-----
2   7.5000  ZB    8X25Z16   0.0000 26.6667  Col  Col  1.3333  1.3333  D
      14.0000 ZB    8X25Z16   0.0000 26.6667  Col  Col  1.3333  1.3333  D
-----
3   7.5000  ZB    8X25Z16   0.0000 25.4167  Col  Col  1.3333  0.0000  D
      14.0000 ZB    8X25Z16   0.0000 25.4167  Col  Col  1.3333  0.0000  D
-----

```

GIRT INSIDE FLANGE BRACE:

```

-----
No.  Brace/Bay
1    2    3
---  ---  ---
0    0    0

```

WALL BRACING:

```

-----
Bay  Brace_Height
Id   Bot    Top  Type  Part    Dia
-----
2    0.00  18.00 Rod   WR1200  0.750

```

```

=====
18-B-52164          FRAMING SUMMARY: Rigid Frame 1          4/22/22 11:33am
=====

```

LAYOUT:

```

Type           : RF
No. Line      : 1
Frame Line Id : 1
Grid Line Id  : 1
  
```

MEMBER:

Surf Id	Mem Id	Seg Id	Part	Flange Length	Flange Width	-Web_Depth- Start	-Web_Depth- End	-Plate_Thickness- Web	O-flg	I-flg
1	1	1		10.00	5.00	10.00	16.09	0.134	0.250	0.250
1	1	2		7.18	5.00	16.09	20.00	0.134	0.250	0.250
2	2	3		7.82	5.00	20.00	15.37	0.134	0.250	0.250
2	2	4		10.00	5.00	15.37	10.00	0.134	0.250	0.250
3	3	5		10.00	5.00	10.00	15.37	0.134	0.250	0.250
3	3	6		7.82	5.00	15.37	20.00	0.134	0.250	0.250
4	4	7		7.18	5.00	20.00	16.09	0.134	0.250	0.250
4	4	8		10.00	5.00	16.09	10.00	0.134	0.250	0.250

SPLICE:

-Surface- Id	Locate	Type	---Plate--- Width	Thick	Bolt Type	Bolt Dia	Bolt Gage	---Top--- Row	Space	--Bottom- Row	Space
2	0.00	VEE	6.00	0.500	A325	0.750	3.00	2	4.38	2	4.38
3	0.00	-EE	6.00	0.500	A325	0.750	3.00	2	4.38	2	4.38
4	0.00	VEE	6.00	0.500	A325	0.750	3.00	2	4.38	2	4.38

BASE PLATE:

Locate	Type	---Plate--- Width	Thick	-----Bolt----- Type	Dia	Gage	Row	Base Elev
Lt Column	P	6.00	0.375	GR36	0.750	4.00	2	0.00
Rt Column	P	6.00	0.375	GR36	0.750	4.00	2	0.00

FLANGE BRACE:

Surf Id	Locate	No. Side	Part	Clip
1	1	1	L2X2X14G	
2	1	1	L2X2X14G	
2	3	1	L2X2X14G	
2	4	1	L2X2X14G	
3	1	1	L2X2X14G	
3	2	1	L2X2X14G	
3	4	1	L2X2X14G	
4	1	1	L2X2X14G	

BEARING STIFFENER:

Locate	Width	Thick
Lt Column	2.50	0.250
Rt Column	2.50	0.250

LAYOUT:

Type : RF
 No. Line : 2
 Frame Line Id : 2 3
 Grid Line Id : 2 3

MEMBER:

Surf Id	Mem Id	Seg Id	Part	Flange Length	Flange Width	-Web_Depth- Start	-Web_Depth- End	-Plate_Thickness- Web	O-flg	I-flg
1	1	1		10.00	5.00	10.00	21.06	0.134	0.250	0.250
1	1	2		7.18	5.00	21.06	28.00	0.134	0.250	0.250
2	2	3		7.18	5.00	24.00	17.65	0.134	0.250	0.250
2	2	4		10.00	5.00	17.65	10.00	0.134	0.250	0.250
3	3	5		10.00	5.00	10.00	17.65	0.134	0.250	0.250
3	3	6		7.18	5.00	17.65	24.00	0.134	0.250	0.250
4	4	7		7.18	5.00	28.00	21.06	0.134	0.250	0.250
4	4	8		10.00	5.00	21.06	10.00	0.134	0.250	0.250

SPLICE:

-Surface- Id	Locate	Type	---Plate--- Width	Thick	Bolt Type	Bolt Dia	Bolt Gage	---Top--- Row	Space	--Bottom- Row	Space
2	0.00	VEE	6.00	0.500	A325	0.750	3.00	2	4.38	2	4.38
3	0.00	-EE	6.00	0.500	A325	0.750	3.00	2	4.38	2	4.38
4	0.00	VEE	6.00	0.500	A325	0.750	3.00	2	4.38	2	4.38

BASE PLATE:

Locate	Type	---Plate--- Width	Thick	-----Bolt----- Type	Dia	Gage	Row	Base Elev
Lt Column	P	6.00	0.375	GR36	0.750	4.00	2	0.00
Rt Column	P	6.00	0.375	GR36	0.750	4.00	2	0.00

FLANGE BRACE:

Surf Id	Locate	No. Side	Part	Clip
1	1	1	L2X2X14G	
1	2	1	L2X2X1/8	
2	1	1	L2X2X14G	
2	3	1	L2X2X14G	
2	4	1	L2X2X14G	
3	1	1	L2X2X14G	
3	2	1	L2X2X14G	
3	4	1	L2X2X14G	
4	1	1	L2X2X14G	
4	2	1	L2X2X1/8	

BEARING STIFFENER:

Locate	Width	Thick
Lt Column	2.50	0.250
Rt Column	2.50	0.250

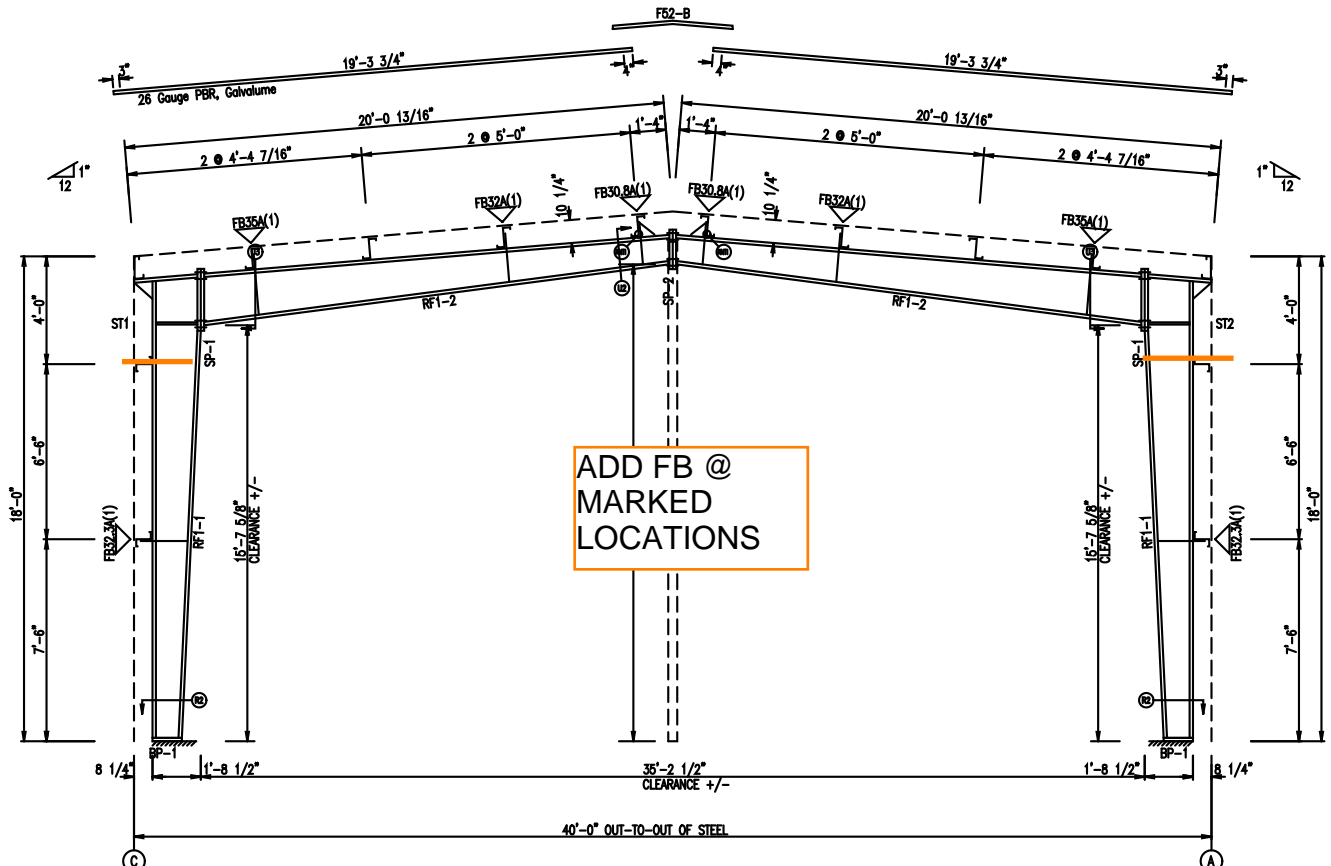
SPLICE PLATE & BOLT TABLE								
Mark	Qty	Top	Bot	Int	Type	Dia	Length	
SP-1	4	4	0	0	A325	3/4"	2"	6"
SP-2	4	4	0	0	A325	3/4"	2"	6"

STIFFENER TABLE				
Mark	Stiff Mark	Width	Plate Size	Length
RF1-1	ST1	2 1/2"	1/4"	20"

BASE PLATE TABLE			
Col Mark	Width	Plate Size	Length
BP-1	6"	3/8"	10 1/2"

FLANGE BRACES: FBbx (1 or 2)
 xxx=length(in)
 (1) One Side; (2) Two Sides
 A - L2X2X1/4

MEMBER TABLE					
Mark	Web Depth		Web Plate		Outside Flange
	Start/End	Thick	Length	Length	
RF1-1	10.0/20.0	0.134	207.5		5 x 1/4" x 205.8
RF1-2	20.0/10.0	0.134	212.4		5 x 1/4" x 210.7



ADD FB @ MARKED LOCATIONS

RIGID FRAME ELEVATION: FRAME LINE 1

GENERAL NOTES:
 1. BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING METHODS, INCLUDING TURN-OF-NUT, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.1) IS SUGGESTED.
 2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.
 3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.

ISSUE	DATE	DESCRIPTION	BY	CHK'D	DSN
A	4/22/22	FOR CONSTRUCTION PERMIT	X	X	CM

EMPIRE STEEL BUILDINGS
 5230 CARROLL CANYON RD # 300
 SAN DIEGO, CA 92121

PROJECT: KAPPERMAN, KEN
 CUSTOMER: KEN KAPPERMAN
 OWNER: KEN KAPPERMAN
 LOCATION: SUN VALLEY, NV 89433

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/22/22	N.T.S.	1	A	18-B-52164	E7	A

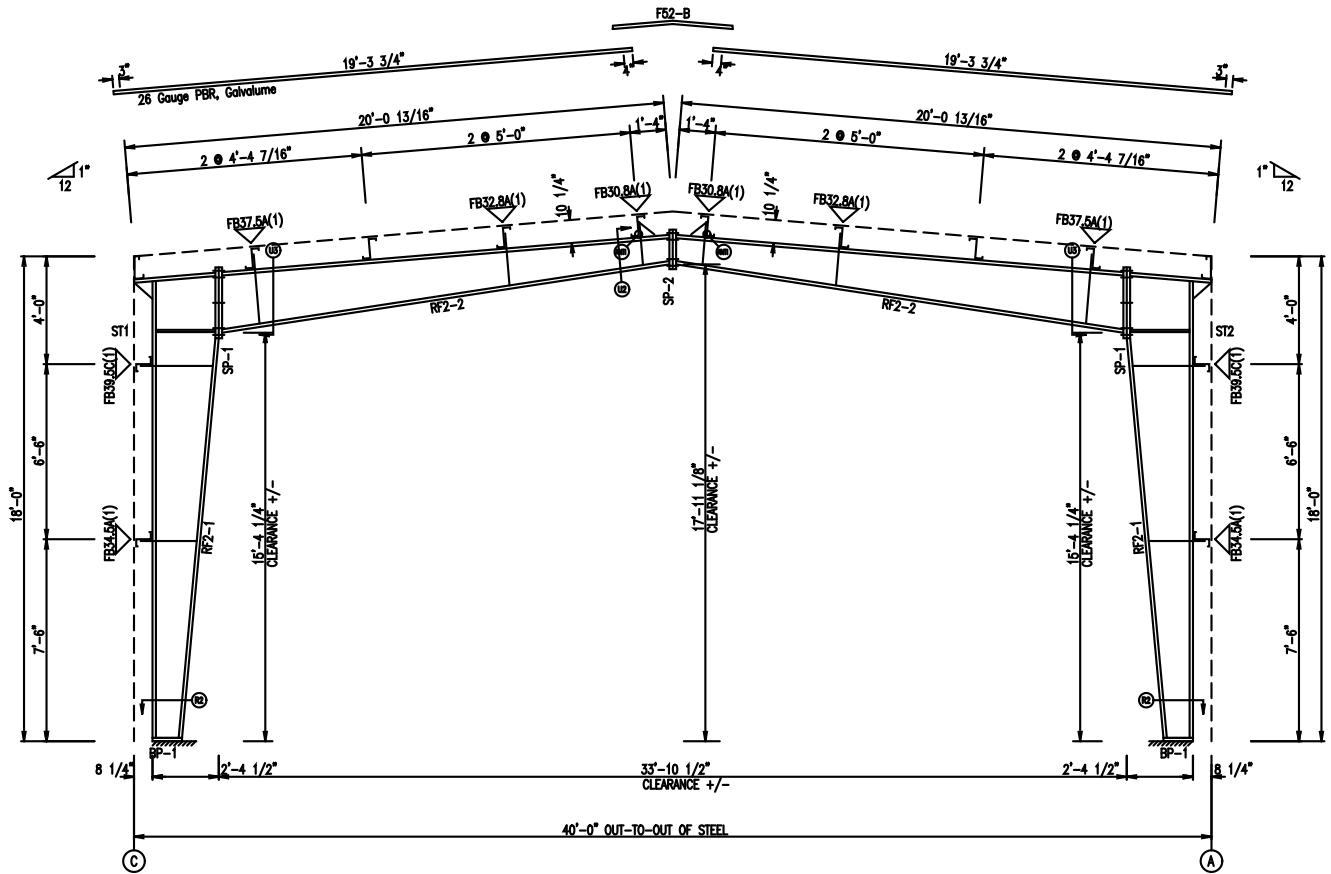
SPLICE PLATE & BOLT TABLE										
Mark	Qty	Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	2		A325	3/4"	2"	6"	1/2"	2'-6 7/8"
SP-2	4	4	0		A325	3/4"	2"	6"	1/2"	1'-4 3/4"

STIFFENER TABLE				
Mark	Stiff Mark	Width	Plate Size	Length
RF2-1	ST1	2 1/2"	1/4"	28"

BASE PLATE TABLE			
Col Mark	Width	Plate Size	Length
BP-1	6"	3/8"	10 1/2"

FLANGE BRACES: FBxx (1 or 2)
 xxx=length(in)
 (1) One Side; (2) Two Sides
 A - L2X2X1/4
 C - L2X2X1/8

MEMBER TABLE						
Mark	Web Depth	Start/End	Web Plate		Outside Flange	Inside Flange
			Thick	Length		
RF2-1	10.0/28.0	0.134	208.1		6 x 1/4" x 208.8 6 x 1/4" x 58.6	5 x 1/4" x 181.5
RF2-2	24.0/10.0	0.134	204.7		6 x 1/4" x 202.7	5 x 1/4" x 204.3



RIGID FRAME ELEVATION: FRAME LINE 2 3

GENERAL NOTES:
 1. BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE RISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING METHODS, INCLUDING TURN-OF-NUT, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.1) IS SUGGESTED.
 2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.
 3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.

ISSUE	DATE	DESCRIPTION	BY	CHK'D	DSN
A	4/22/22	FOR CONSTRUCTION PERMIT	X	X	CM

EMPIRE STEEL BUILDINGS
 5230 CARROLL CANYON RD # 300
 SAN DIEGO, CA 92121

PROJECT: KAPPERMAN, KEN
 CUSTOMER: KEN KAPPERMAN
 OWNER: KEN KAPPERMAN
 LOCATION: SUN VALLEY, NV 89433

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/22/22	N.T.S.	1	A	18-B-52164	E8	A

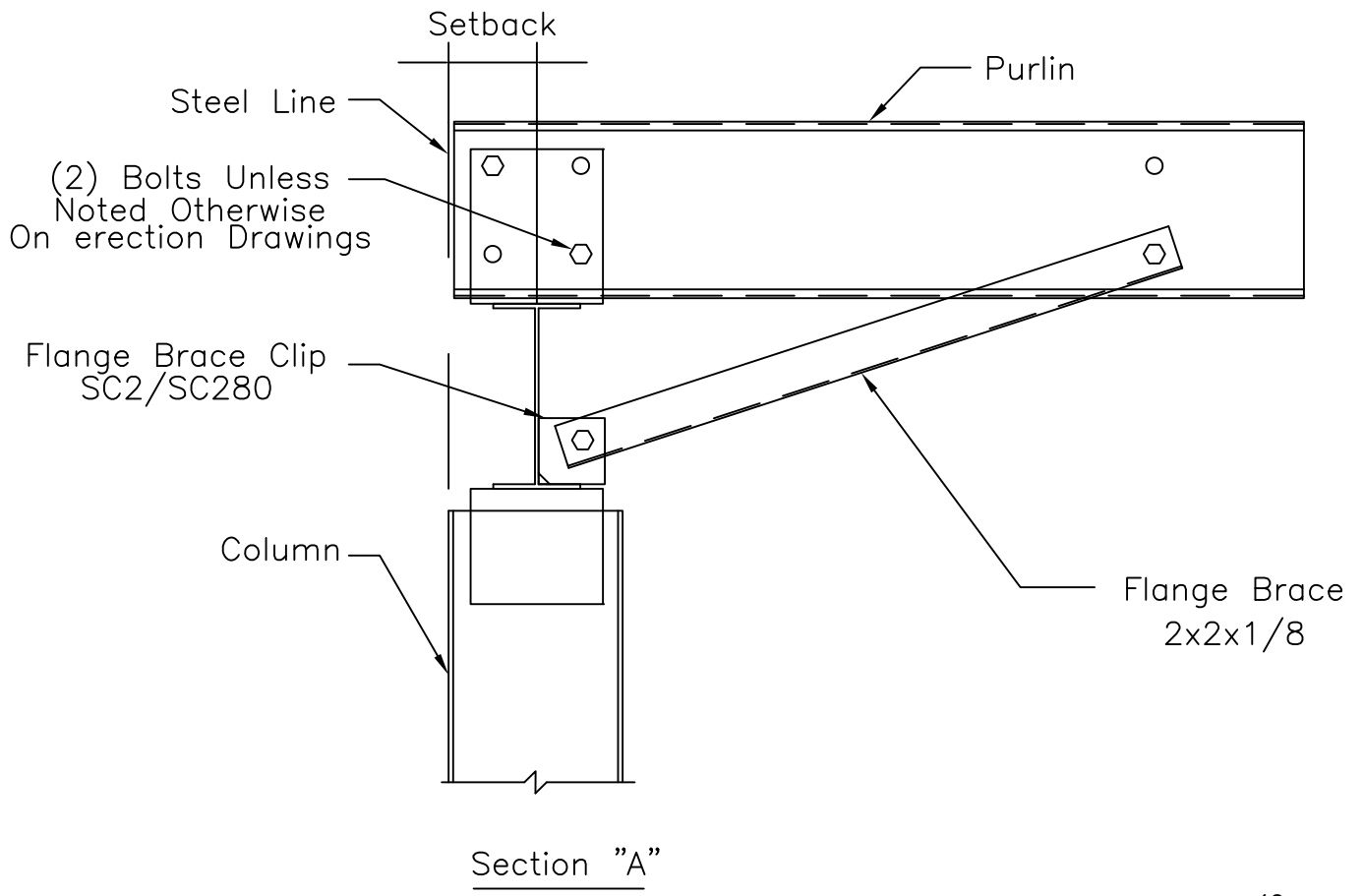
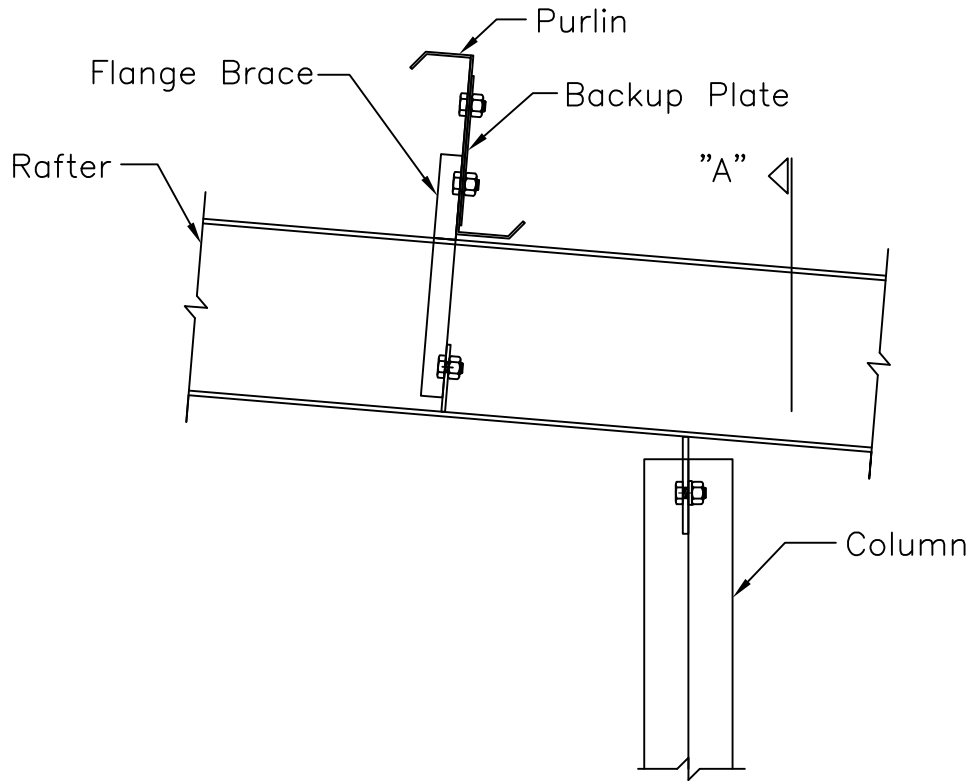
Ref #
ED00001X

Date
May '17

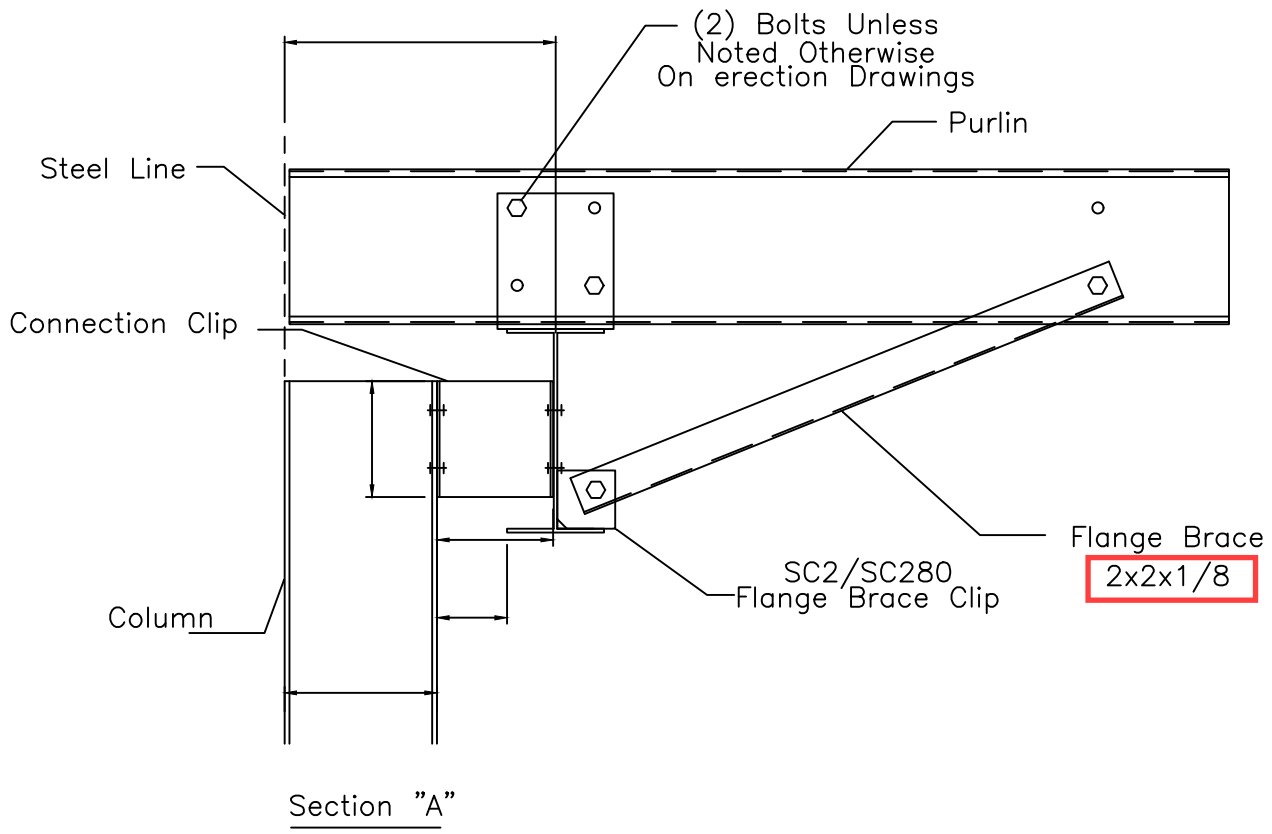
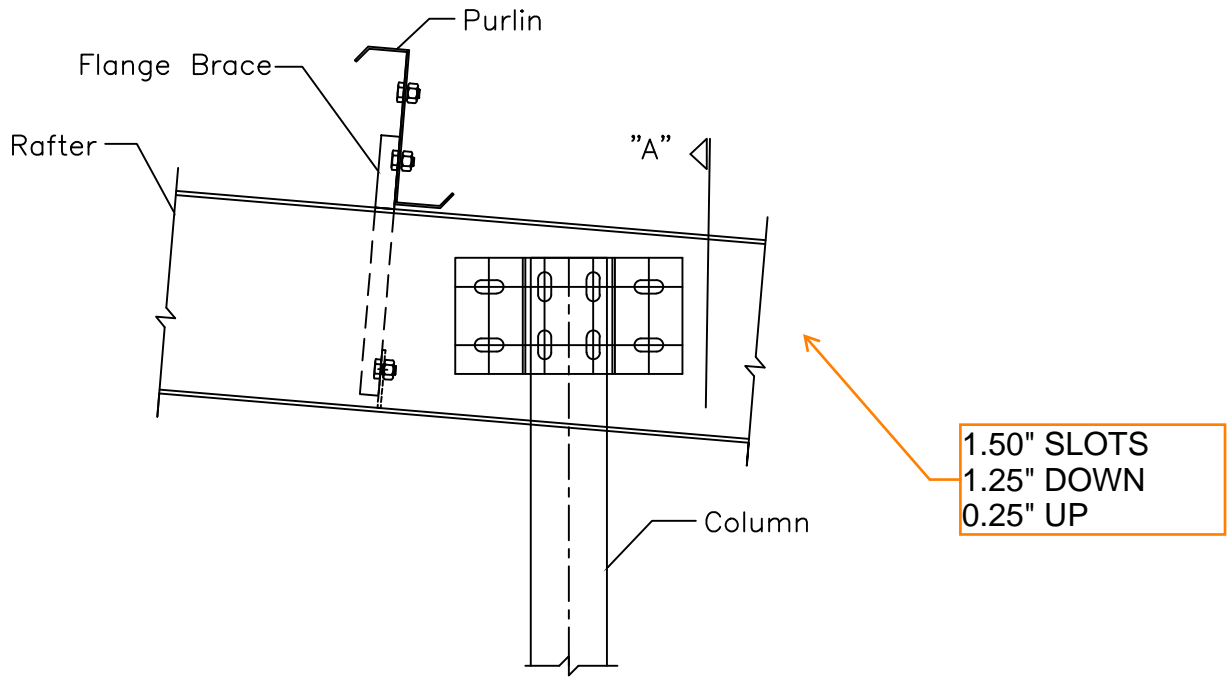
Rev
00

Flange Brace W/O Backup Plate SC-1

Job Number



FLUSH COLUMN TO MAIN FRAME RAFTER WITH 1'-3" SET BACK W/O SC1



FRONT SIDEWALL:

BASIC LOADS:

Basic	Wind_Load_Ratio		
Wind	Deflect	Factor	
16.1	0.45	0.60	

EDGE ZONE:

				-----Wind_Ratio-----		
--Left_Zone--	--Right_Zone-		Jamb/			
Width	Base	Width	Base	Girt	Panel	Column
4.00	0.00	4.00	0.00	1.09	1.23	1.07

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
16.0	-16.0		.. Girt/Header
17.4	-18.9		.. Panel
16.0	-16.0		.. Jamb
0.0	0.0		.. Parapet

BACK SIDEWALL:

BASIC LOADS:

Basic	Wind_Load_Ratio		
Wind	Deflect	Factor	
16.1	0.45	0.60	

EDGE ZONE:

				-----Wind_Ratio-----		
--Left_Zone--	--Right_Zone-		Jamb/			
Width	Base	Width	Base	Girt	Panel	Column
4.00	0.00	4.00	0.00	1.09	1.23	1.07

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
16.0	-16.0		.. Girt/Header
17.4	-18.9		.. Panel
16.0	-16.0		.. Jamb
0.0	0.0		.. Parapet

LEFT ENDWALL:

BASIC LOADS:

Dead	Coll	Live	Snow	Rain	Basic	Wind_Load_Ratio		
Load	Load	Load	Load	Load	Wind	Deflect	Factor	
2.4	1.0	20.0	30.1	0.0	16.1	0.45	0.60	

EDGE ZONE:

				-----Wind_Ratio-----		
--Left_Zone--	--Right_Zone-		Jamb/			
Width	Base	Width	Base	Girt	Panel	Column

4.00 0.00 4.00 0.00 1.09 1.23 1.07

BASIC LOADS AT EAVE:

Seis	Seis	Seis	---Torsion---		
Dead	Girt	Load	Wind	Seismic	
3.00	0.47	0.00	0.00	0.00	

WIND PRESSURE/SUCTION:

Wind	Wind	
Press	Suct	
16.0	-16.0	.. Column
16.0	-16.0	.. Girt/Header
16.0	-16.0	.. Jamb
17.4	-18.9	.. Panel
39.2	-24.7	.. Parapet
24.2	-16.1	.. Transverse bracing, Facia/Parapet

WIND COEFFICIENTS:

Surf	---Wind_1--		---Wind_2--		-Long_Wind-		Surface
Id	Left	Right	Left	Right	1	2	Friction
1	0.44	-0.73	0.92	-0.24	-0.65	-0.65	0.00
2	-1.06	-0.63	-0.70	-0.27	-1.06	-0.63	0.00
3	-0.63	-1.06	-0.27	-0.70	-0.63	-1.06	0.00
4	-0.73	0.44	-0.24	0.92	-0.65	-0.65	0.00

COLUMN, RAFTER & BRACING DESIGN LOADS:

Load	---Live---						--Add_Snow-			Wind_1		Wind_2		Long_Wind		Column_Wind		Long	Tran
No.	Id	Dead	Coll	Roof	Floor	Snow	Drift	Slide	Rain	Left	Right	Left	Right	1	2	Press	Suct	Seis	Seis
97	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.60	0.00	0.00	0.00
	11	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.00	0.00	0.00
	12	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.60	0.00	0.00
	13	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.60	0.00	0.00
	14	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00
	15	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00
	16	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.60	0.00	0.00
	17	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.60	0.00	0.00
	18	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.00
	19	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.45	0.00	0.00
	20	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.45	0.00	0.00
	21	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.45	0.00	0.00
	22	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.00
	23	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.45	0.00	0.00
	24	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.45	0.00	0.00
	25	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.45	0.00	0.00
	26	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.00
	27	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.45	0.00	0.00
	28	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.45	0.00	0.00
	29	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.45	0.00	0.00
	30	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.00
	31	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.45	0.00	0.00
	32	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.45	0.00	0.00
	33	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.45	0.00	0.00
	34	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.60	0.00	0.00	0.00
	35	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.00	0.00	0.00
	36	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.60	0.00	0.00

Aux	Id	Name	Load	Id	Coeff
3	1	MIN_SNOW	2	1	1.00
				2	1.00
	2	E1UNB_SL_L	3	2	0.30
				1	1.00
				3	0.31
	3	E1UNB_SL_R	3	1	0.30
				2	1.00
				4	0.31

ADDITIONAL LOADS:

No.	Add	Loc	Basic	Load	Fx	Fy	Mom	X	Y	.. Conc
Add	Id	Id	Load	Type	W1	W2	Co	D11	D12	.. Dist
4	1	2	U_SNOW	D	-0.42	-0.42	0.08	0.00	20.07	
	2	3	U_SNOW	D	-0.42	-0.42	-0.08	0.00	20.07	
	3	2	U_SNOW	D	-0.42	-0.42	0.08	4.84	20.07	
	4	3	U_SNOW	D	-0.42	-0.42	-0.08	0.00	15.23	

STEPPED LOAD COEFFICIENTS:

No.	Basic	Location	No.	-----	-----	-----				
No.	Load	Use	Id	Step	Locate	Coef	Locate	Coef	Locate	Coef
	WINDL1	-	2	2	20.00	1.00	20.07	0.59		
	WINDR1	-	3	2	0.07	0.59	20.07	1.00		
	WINDL2	-	2	2	20.00	1.00	20.07	0.39		
	WINDR2	-	3	2	0.07	0.39	20.07	1.00		

RIGHT ENDWALL:

BASIC LOADS:

Dead	Coll	Live	Snow	Rain	Basic	Wind_Load_Ratio
Load	Load	Load	Load	Load	Wind	Deflect Factor
2.4	1.0	20.0	30.1	0.0	16.1	0.45 0.60

EDGE ZONE:

--Left_Zone--		--Right_Zone--		-----Wind_Ratio----		
Width	Base	Width	Base	Girt	Panel	Jamb/Column
4.00	0.00	4.00	0.00	1.09	1.23	1.07

BASIC LOADS AT EAVE:

Seis	Seis	Seis	---Torsion---	
Dead	Girt	Load	Wind	Seismic
3.00	0.47	3.74	0.00	0.00

WIND PRESSURE/SUCTION:

Wind	Wind	
Press	Suct	.. Column
16.0	-16.0	.. Girt/Header
16.0	-16.0	.. Jamb
17.4	-18.9	.. Panel
39.2	-24.7	.. Parapet
24.2	-16.1	.. Transverse bracing, Facia/Parapet

WIND COEFFICIENTS:

Surf	---Wind_1--		---Wind_2--		-Long_Wind-		Surface
Id	Left	Right	Left	Right	1	2	Friction
1	0.44	-0.73	0.92	-0.24	-0.65	-0.65	0.00
2	-1.06	-0.63	-0.70	-0.27	-1.06	-0.63	0.00
3	-0.63	-1.06	-0.27	-0.70	-0.63	-1.06	0.00
4	-0.73	0.44	-0.24	0.92	-0.65	-0.65	0.00

COLUMN, RAFTER & BRACING DESIGN LOADS:

63	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00
65	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00
66	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00
67	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.45	0.00	0.00	0.00
68	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00
73	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00
74	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
79	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
80	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
93	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
94	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
95	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
96	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
97	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00

AUXILIARY LOADS:

No.	Aux	Aux	No.	Add_Load
Aux	Id	Name	Load	Id Coeff
3	1	MIN_SNOW	2	1 1.00
				2 1.00
	2	E2UNB_SL_L	3	2 0.30
				1 1.00
				3 0.31
	3	E2UNB_SL_R	3	1 0.30
				2 1.00
				4 0.31

ADDITIONAL LOADS:

No.	Add	Loc	Basic	Load	Fx	Fy	Mom	X	Y	.. Conc
Add	Id	Id	Load	Type	W1	W2	Co	D11	D12	.. Dist
4	1	2	U_SNOW	D	-0.40	-0.40	0.08	0.00	20.07	
	2	3	U_SNOW	D	-0.40	-0.40	-0.08	0.00	20.07	
	3	2	U_SNOW	D	-0.40	-0.40	0.08	4.84	20.07	
	4	3	U_SNOW	D	-0.40	-0.40	-0.08	0.00	15.23	

STEPPED LOAD COEFFICIENTS:

No.	Basic	Location	No.	-----	-----	-----
No.	Load	Use Id	Step	Locate	Coef	Locate Coef
	WINDL1	- 2	2	20.00	1.00	20.07 0.59
	WINDR1	- 3	2	0.07	0.59	20.07 1.00
	WINDL2	- 2	2	20.00	1.00	20.07 0.39
	WINDR2	- 3	2	0.07	0.39	20.07 1.00

ROOFDES:

BASIC LOADS:

Dead Load	Coll Load	Live Load	Snow Load	Rain Load	Basic Wind	Wind_Load_Ratio Deflect	Surface Friction	Seis Factor	% Snow
2.4	1.0	20.0	30.1	0.0	16.1	0.45	0.00	0.00	1.000 0.20

WIND PRESSURE/SUCTION:

Wind Press	Wind Suct	Wind Suct_Roof	
16.0	-16.4		.. Purlins
16.0	-17.4		.. Panels
12.3	-2.3	-11.1	.. Long Bracing, Building
16.7	-5.3		.. Long Bracing, Wall Edge Zone
24.2	-16.1	12.9	.. Long Bracing, Facia/Parapet

EDGE & CORNER ZONE WIND:

Wind Id	Surf Id	No. Zone	Id	Width	Length	--Purlin--		---Panel---	
Id	Id	Zone	Id	Width	Length	Press	Suct	Press	Suct
1	2	6	1	0.00	0.00	1.00	1.39	1.00	1.74
			7	3.60	10.80	1.00	2.15	1.00	3.13
			8	3.60	10.80	1.00	2.15	1.00	3.13
			11	7.20	3.60	1.00	2.15	1.00	3.13
			12	7.20	3.60	1.00	2.15	1.00	3.13
			15	10.80	10.80	1.00	1.85	1.00	2.30
	3	6	1	0.00	0.00	1.00	1.39	1.00	1.74
			9	3.60	10.80	1.00	2.15	1.00	3.13
			10	3.60	10.80	1.00	2.15	1.00	3.13
			13	7.20	3.60	1.00	2.15	1.00	3.13
			14	7.20	3.60	1.00	2.15	1.00	3.13
			15	10.80	10.80	1.00	1.85	1.00	2.30

EDGE & CORNER ZONE WIND: LONGITUDINAL

Wind Id	Surf Id	No. Zone	Id	Width	Length	Purlin Suct
1	2	1	1	0.00	0.00	1.39
			3	0.00	0.00	1.39
2	2	1	1	0.00	0.00	1.00
			3	0.00	0.00	1.00

PURLIN DESIGN LOADS:

Surf Id	--Load- No.	Id	Dead	Coll	Live	Snow	--Add_Snow-			Wind Press	Wind Suct	Aux_Load		
Id	No.	Id	Dead	Coll	Live	Snow	Drift	Slide	Rain	Press	Suct	Id	Coef	
2	18	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	
		2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
		3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00
		4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0	0.00
		5	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0	0.00
		6	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0	0.00
		7	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.00	0.45	0.00	0	0.00
		8	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.00	0.45	0.00	0	0.00
		9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0	0.00
		10	1.00	1.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1	1.00
		11	1.00	1.00	0.00	0.01	0.00	0.00	0.00	0.00	0.45	0.00	1	0.75
		12	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	4	1.00
		13	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	5	1.00
		14	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	2	1.00
		15	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	3	1.00
		16	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	2	-1.00
		17	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	3	-1.00
		18	1.00	1.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	6	1.00
3	18	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	
		2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00	

3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0	0.00
4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0	0.00
5	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0	0.00
6	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0	0.00
7	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.45	0.00	0	0.00
8	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.45	0.00	0	0.00
9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0	0.00
10	1.00	1.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1	1.00
11	1.00	1.00	0.00	0.01	0.00	0.00	0.00	0.45	0.00	1	0.75
12	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	4	1.00
13	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	5	1.00
14	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	2	1.00
15	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	3	1.00
16	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	2	-1.00
17	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	3	-1.00
18	1.00	1.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	6	1.00

BRACING DESIGN LOADS:

--Load-				--Add_Snow-				Wind	Wind	Seis	Aux_Load		
No.	Id	Dead	Coll	Live	Snow	Drift	Slide	Rain	Press	Suct	Load	Id	Coef
13	1	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	4	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	5	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.60	0.00	0	0.00
	6	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0	0.00
	7	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	8	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	9	1.16	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00
	10	1.12	1.12	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	11	1.12	1.12	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.52	0	0.00
	12	1.12	1.12	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.52	0	0.00
	13	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00

AUXILIARY LOADS:

No.	Aux	Aux	No.	Add_Load	
Aux	Id	Name	Load	Id	Coef
6	1	MIN_SNOW	2	1	1.00
				2	1.00
	2	PAT_SL_1	1	3	0.50
	3	PAT_SL_2	1	5	0.50
	4	PAT_SL_3	2	3	0.50
				4	0.50
	5	PAT_SL_4	2	4	0.50
				5	0.50
	6	UNB_SL	4	1	1.00
				6	0.31
				2	1.00
				7	0.31

ADDITIONAL LOADS:

No.	Add	Surf	Basic	Load	Fy	Dx		.. Conc	
Add	Id	Id	Load	Type	W1	W2	Dx1	Dx2	.. Dist
7	1	2	U_SNOW	D	-30.1	-30.1	0.0	20.1	
	2	3	U_SNOW	D	-30.1	-30.1	0.0	20.1	
	3	0	U_SNOW	D	-30.1	-30.1	0.0	26.7	
	4	0	U_SNOW	D	-30.1	-30.1	26.7	53.3	
	5	0	U_SNOW	D	-30.1	-30.1	53.3	80.0	
	6	2	U_SNOW	D	-30.1	-30.1	4.8	20.1	
	7	3	U_SNOW	D	-30.1	-30.1	0.0	15.2	

RIGID FRAME - 1:

BASIC LOADS:

Dead	Coll	Live	Snow	Rain	Basic Wind	Defl Ratio	Temperature Change
2.4	1.0	20.0	30.1	0.0	16.1	0.45	0

BASIC LOADS AT EAVE:

Seismic Load	--Torsion-- Wind	--EW_Brace-- Seis	Wind	Seis
1.93	0.00	0.00	0.00	0.00

WIND COEFFICIENTS:

Surf Id	---Wind_1---		---Wind_2---		---Wind_3---		---Wind_4---		Long_Wind		Surface Friction
	Left	Right	Left	Right	Left	Right	Left	Right	1	2	
1	0.41	-0.67	0.85	-0.22	0.00	0.00	0.00	0.00	-0.65	-0.65	0.00
2	-1.06	-0.63	-0.70	-0.27	0.00	0.00	0.00	0.00	-1.06	-0.63	0.00
3	-0.63	-1.06	-0.27	-0.70	0.00	0.00	0.00	0.00	-0.63	-1.06	0.00
4	-0.67	0.41	-0.22	0.85	0.00	0.00	0.00	0.00	-0.65	-0.65	0.00

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*No.

-----Load_Coefficients-----

Id	---Live---		-Add_Snow-			--Wind_1--		--Wind_2--		--Wind_3--		--Wind_4--		
	Roof	Floor	Snow	Drift	Slide	Rain	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
108 1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00
22	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
23	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00
24	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00
25	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
30	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
31	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00
32	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00
33	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00
34	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
35	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
38	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
39	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.45	0.00	0.00	0.00	0.00	0.00
40	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
41	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
42	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.45	0.00	0.00	0.00	0.00
43	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00

108 1.00 1.00 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.00

AUXILIARY LOADS:

No.	Aux	Aux	No.	Add_Load
Aux	Id	Name	Load	Id Coeff
3	1	MIN_SNOW	2	1 1.00
				2 1.00
	2	FLUNB_SL_L	3	2 0.30
				1 1.00
				3 0.31
	3	FLUNB_SL_R	3	1 0.30
				2 1.00
				4 0.31

ADDITIONAL LOADS:

No.	Add	Surf	Basic	Load	Fx	Fy	Mom	Dx	Dy	.. Conc
Add	Id	Id	Type	Type	W1	W2	Co	Dl1	Dl2	.. Dist
4	1	2	U_SNOW	D	-0.42	-0.42	0.083	0.00	20.07	
	2	3	U_SNOW	D	-0.42	-0.42	-0.083	0.00	20.07	
	3	2	U_SNOW	D	-0.42	-0.42	0.083	4.84	20.07	
	4	3	U_SNOW	D	-0.42	-0.42	-0.083	0.00	15.23	

STEPPED LOAD COEFFICIENTS:

No.	Basic	Surf	No.	Locate	Coef	Locate	Coef	Locate	Coef
4	WINDL1	2	2	20.00	1.00	20.07	0.59		
	WINDR1	3	2	0.07	0.59	20.07	1.00		
	WINDL2	2	2	20.00	1.00	20.07	0.39		
	WINDR2	3	2	0.07	0.39	20.07	1.00		

RIGID FRAME - 2:

BASIC LOADS:

Dead	Coll	Live	Snow	Rain	Basic	Defl	Temperature
					Wind	Ratio	Change
2.4	1.0	20.0	30.1	0.0	16.1	0.45	0

BASIC LOADS AT EAVE:

Seismic	--Torsion--	--EW_Brace-
Load	Wind	Seis
3.18	0.00	0.00

WIND COEFFICIENTS:

Surf	---Wind_1--	---Wind_2--	---Wind_3--	---Wind_4--	Long_Wind	Surface
Id	Left	Right	Left	Right	1	2
1	0.34	-0.73	0.90	-0.17	0.00	0.00
2	-0.87	-0.55	-0.51	-0.19	0.00	0.00
3	-0.55	-0.87	-0.19	-0.51	0.00	0.00
4	-0.73	0.34	-0.17	0.90	0.00	0.00

*(

-----Load_Coefficients-----																	
*No.	Id	Dead	Coll	---Live---	---Live---	-Add_Snow-	-Add_Snow-	-Add_Snow-	Rain	--Wind_1--	--Wind_2--	--Wind_3--	--Wind_4--	--Wind_4--	--Wind_4--	--Wind_4--	--Wind_4--
				Roof	Floor	Snow	Drift	Slide		Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
108	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

75	1.12	1.12	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	1.12	1.12	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	1.12	1.12	0.00	0.00	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	1.12	1.12	0.00	0.00	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	1.12	1.12	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	1.12	1.12	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	1.12	1.12	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	1.12	1.12	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	1.12	1.12	0.00	0.00	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	1.12	1.12	0.00	0.00	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
101	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
103	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	1.00	1.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00

AUXILIARY LOADS:

No.	Aux	Aux	No.	Add_Load
Aux	Id	Name	Load	Id Coeff
3	1	MIN_SNOW	2	1 1.00
				2 1.00
	2	F2UNB_SL_L	3	2 0.30
				1 1.00
				3 0.31
	3	F2UNB_SL_R	3	1 0.30
				2 1.00
				4 0.31

ADDITIONAL LOADS:

No.	Add	Surf	Basic	Load	Fx	Fy	Mom	Dx	Dy	.. Conc
Add	Id	Id	Type	Type	W1	W2	Co	Dl1	Dl2	.. Dist
4	1	2	U_SNOW	D	-0.80	-0.80	0.083	0.00	20.07	
	2	3	U_SNOW	D	-0.80	-0.80	-0.083	0.00	20.07	
	3	2	U_SNOW	D	-0.80	-0.80	0.083	4.84	20.07	
	4	3	U_SNOW	D	-0.80	-0.80	-0.083	0.00	15.23	

STEPPED LOAD COEFFICIENTS:

No.	Basic	Surf	No.	-----	-----	-----			
No.	Load	Id	Step	Locate	Coef	Locate	Coef	Locate	Coef
4	WINDL1	2	2	20.00	1.00	20.07	0.63		
	WINDR1	3	2	0.07	0.63	20.07	1.00		
	WINDL2	2	2	20.00	1.00	20.07	0.37		
	WINDR2	3	2	0.07	0.37	20.07	1.00		

-----Foundation_Loads(k)-----												
Frame	Col	Max_Pos_Val			Max_Neg_Val			Anc_Bolt		Base_Plate		
Line	Line	Id	Horz	Vert	Id	Horz	Vert	No.	Diam	Width	Len	Thick
1	B	8	1.8	0.1	9	-1.8	0.1	4	0.625	7.00	8.00	0.250
		10	0.0	0.2								
4	A	11	0.0	-1.0	11	0.0	-1.0	2	0.625	7.00	8.00	0.250
		12	0.0	4.7								
4	B	13	1.7	-3.2	9	-1.7	-1.9	4	0.625	6.00	8.00	0.375
		1	0.0	11.4	13	1.7	-3.2					
4	C	14	0.0	-2.2	14	0.0	-2.2	2	0.625	7.00	8.00	0.250
		15	0.0	4.7								
1	C	1	3.4	9.9	2	-1.9	-1.5	4	0.750	6.00	10.50	0.375
		3	3.4	9.9	4	-1.7	-2.4					
1	A	5	1.9	-1.5	1	-3.4	9.9	4	0.750	6.00	10.50	0.375
		3	-3.4	9.9	6	1.7	-2.4					
2*	C	1	7.0	18.5	2	-3.5	-2.2	4	0.750	6.00	10.50	0.375
		3	7.0	18.5	4	-3.0	-4.1					
2*	A	5	3.5	-2.2	1	-7.0	18.5	4	0.750	6.00	10.50	0.375
		3	-7.0	18.5	6	3.0	-4.1					

2* Frame Lines:2 3

LOAD COMBINATIONS:

Id	Combination
1	Dead+Collateral+MIN_SNOW
2	0.6Dead+0.6Wind_Left2
3	Dead+Collateral+Snow+Slide_Snow
4	0.6Dead+0.6Wind_Left1
5	0.6Dead+0.6Wind_Right2
6	0.6Dead+0.6Wind_Right1
7	Dead+Collateral+0.75Snow+0.45Wind_Long2L+0.75Slide_Snow
8	0.6Dead+0.6Wind_Right2+0.6Wind_Suction
9	0.6Dead+0.6Wind_Pressure+0.6Wind_Long2L
10	1.16Dead+1.16Collateral+0.7Seismic_Right
11	0.6Dead+0.6Wind_Long1L
12	Dead+Collateral+E2UNB_SL_L
13	0.6Dead+0.6Wind_Left1+0.6Wind_Suction
14	0.44Dead+0.7Seismic_Right
15	Dead+Collateral+E2UNB_SL_R

BUILDING BRACING REACTIONS:

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-----Reactions(k )-----
---Wall-- Col      ----Wind---- --Seismic--- Panel_Shear(lb/ft)
Loc Line  Line      Horz  Vert  Horz  Vert  Wind  Seismic  Notes
-----
L_EW 1
      (h)

F_SW A    2 ,3    3.01  1.81  7.75  4.65
R_EW 4    B ,C    2.14  2.01  2.88  2.71
B_SW C    3 ,2    3.01  1.81  7.75  4.65

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(h)Rigid frame at endwall

Reaction values shown are unfactored. Maximum load combination factors are:

Wind : 0.60
Seismic: 0.70

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18-B-52164      Additional Reactions Report:      4/22/22      11:33am
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Rigid Frame Column Reactions(k)

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-----
Frame Col  ----Dead---  Collateral  ----Live---  ----Snow---  Wind_Left1
Line Line  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert
-----
1      C      0.3  1.2   0.1  0.3   2.0  5.6   3.0  8.4   -3.2 -5.3
1      A     -0.3  1.2  -0.1  0.3  -2.0  5.6  -3.0  8.4   -1.0 -2.3

Frame Col  Wind_Right1  Wind_Left2  Wind_Right2  Wind_Long1  Wind_Long2
Line Line  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert
-----
1      C      1.0 -2.3  -3.5 -3.6   0.7 -0.7   0.0 -4.2  -0.2 -3.4
1      A      3.2 -5.3  -0.7 -0.7   3.5 -3.6   0.2 -3.4   0.0 -4.2

Frame Col  -Seis_Left-  -Seis_Right  -MIN_SNOW-  F1UNB_SL_L  F1UNB_SL_R
Line Line  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert
-----
1      C     -1.9 -1.7   1.9  1.7   3.0  8.4   2.4  8.4   2.4  4.5
1      A     -1.9  1.7   1.9 -1.7  -3.0  8.4  -2.4  4.5  -2.4  8.4

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-----
Frame Col  ----Dead---  Collateral  ----Live---  ----Snow---  Wind_Left1
Line Line  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert
-----
2*     C      0.6  1.9   0.2  0.5   4.1 10.7   6.2 16.1  -5.7 -8.7
2*     A     -0.6  1.9  -0.2  0.5  -4.1 10.7  -6.2 16.1  -2.4 -3.5

Frame Col  Wind_Right1  Wind_Left2  Wind_Right2  Wind_Long1  Wind_Long2
Line Line  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert
-----
2*     C      2.4 -3.5  -6.5 -5.6   1.5 -0.4   0.1 -8.5  -0.2 -7.3
2*     A      5.7 -8.7  -1.5 -0.4   6.5 -5.6   0.2 -7.3  -0.1 -8.5

Frame Col  -Seis_Left-  -Seis_Right  -Seis_Long-  -MIN_SNOW-  F2UNB_SL_L
Line Line  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert  Horz  Vert
-----

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2*	C	-3.2	-2.7	3.2	2.7	0.0	-6.0	6.2	16.1	5.0	16.0
2*	A	-3.2	2.7	3.2	-2.7	0.0	-6.0	-6.2	16.1	-5.0	8.6

Frame Line	Col Line	F2UNB_SL_R	
		Horz	Vert
2*	C	5.0	8.6
2*	A	-5.0	16.0

2* Frame Lines:2 3

Endwall Column Reactions(k)

Frame Line	Col Line	Dead Vert	Wind Press Horz	Wind Suct Horz
1	B	0.2	-3.0	3.0

Frame Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert
4	A	0.4	0.1	2.1	3.2	0.0	-1.9	0.0	-1.1
4	B	1.2	0.3	6.5	9.9	-2.1	-6.6	0.0	-2.4
4	C	0.4	0.1	2.1	3.2	0.0	1.1	2.1	-3.9

Frame Line	Col Line	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind Press Horz	Wind Suct Horz	Wind_Long1 Horz	Wind_Long1 Vert
4	A	0.0	-1.2	0.0	-0.4	0.0	0.0	0.0	-2.1
4	B	-2.1	-4.8	0.0	-0.7	-2.8	2.8	0.0	-4.1
4	C	0.0	1.8	2.1	-3.2	0.0	0.0	0.2	-1.2

Frame Line	Col Line	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert	Seismic_Right Horz	Seismic_Right Vert	--MIN_SNOW-- Horz	--MIN_SNOW-- Vert
4	A	0.0	-1.1	0.0	0.1	0.0	-0.1	0.0	3.2
4	B	-0.2	-4.4	-3.7	-3.8	0.0	3.5	0.0	9.9
4	C	0.0	-1.9	0.0	3.7	3.7	-3.4	0.0	3.2

Frame Line	Col Line	-E2UNB_SL_L- Horz	-E2UNB_SL_L- Vert	-E2UNB_SL_R- Horz	-E2UNB_SL_R- Vert
4	A	0.0	4.2	0.0	0.5
4	B	0.0	7.9	0.0	7.9
4	C	0.0	0.5	0.0	4.2

18-B-52164 Seismic Design Report: 4/22/22 11:33am

Building Data

Code = IBC 18
 Length = 80.00
 Width = 40.00
 Left Eave Height = 18.00
 Right Eave Height = 18.00

Seismic Formula

 Base Shear, V = $0.667 \cdot I_e \cdot F_a \cdot S_s \cdot W/R$
 Vmin = $0.044 \cdot S_d \cdot I_e \cdot W$
 Vmax = $S_d \cdot I_e \cdot W / (T \cdot R)$
 T(Moment_Frame) = 0.293
 Shear Force, E = $\rho \cdot V$
 (Rigid frame, endwall frame, wind bent, wind column & base reactions)
 T(Braced_Frame) = 0.181
 Shear Force, Em = $\Omega \cdot V$
 (Wall diagonal bracing, splice at rigid frame & wind bent knee)

Note: Applied load is seismic force multiplied by load combination

Fa*Ss = 1.748
 Zone/Design Category= D
 Ie = 1.000
 S1 = 0.490
 Sd1 = 0.590
 Sds = 1.166

Seismic Dead Load, W

 Frame Dead = 2.00 (psf)
 Roof Dead = 2.42 (psf)
 Collateral = 1.00 (psf)
 Snow (20%) = 6.02 (psf)
 Roof Total = 11.44 (psf) , Weight= 36.61 (k)
 Left EW Dead = 3.00 (psf) , Weight= 1.13 (k)
 Front SW Dead = 3.00 (psf) , Weight= 2.16 (k)
 Right EW Dead = 3.00 (psf) , Weight= 1.13 (k)
 Back SW Dead = 3.00 (psf) , Weight= 2.16 (k)

 Total = 43.19 (k)

Seismic Forces

 Roof Bracing
 R = 3.25, Rho= 2.00
 Cs = 0.3588
 W = 38.87 (k)
 Force, V = 13.95 (k)
 Force, E = 27.90 (k)
 Sidewall Bracing
 Front R = 3.25, Rho= 1.30, Omega= 2.00
 Cs = 0.3588
 W = 21.59 (k)
 Force, V = 7.75 (k)
 Force, Em = 15.50 (k)
 Force, E = 10.07 (k)
 Back R = 3.25, Rho= 1.30, Omega= 2.00
 Cs = 0.3588

W = 21.59 (k)
Force, V = 7.75 (k)
Force, Em = 15.50 (k)
Force, E = 10.07 (k)

Endwall Bracing

Right R = 3.25, Rho= 1.30, Omega= 2.00
Cs = 0.3588
W = 8.03 (k)
Force, V = 2.88 (k)
Force, Em = 5.76 (k)
Force, E = 3.74 (k)

Rigid Frames

R = 3.25, Rho= 1.30
Cs = 0.3588
Frame 1 W = 8.27 (k)
Force, V = 2.97 (k)
Force, E = 3.86 (k)
Frame 2 W = 13.63 (k)
Force, V = 4.89 (k)
Force, E = 6.36 (k)

End Plates

Frame R = 3.25, Rho= 1.00, Omega= 2.50

Total Base Shear

Longitudinal
Force, V = 15.50 (k)
Transverse
Force, V = 15.63 (k)