

ISOMETRIC BUILDING
Building Size: 60.04 x 100.04 x 24

JOB-2275
CANCHA ESCUELA VOCACIONAL
EDUARDO GARCIA
CANOVANAS, PUERTO RICO

Please return one copy
of these calculations to ESCO
approved or with comments

ESCO MANUFACTURING, INC.



STEEL BUILDING SYSTEM

PO BOX 2331 TOA BAJA, P.R. 00951 * TEL. 794-1024 FAX 794-3310



MARCH 11, 2020

WF CONSTRUCTION
VILLA DE CANEY, TRUJILLO ALTO

Attention: SR. WILFREDO FLORES

Reference: **CANCHA ESCUELA VOCACIONAL**
EDUARDO GARCIA, CANOVANAS, PUERTO RICO

Job Number: 2275

Dear Sir:

This letter is to certify that a 60.04 ft width by 100.04 ft length and 24 \ 24 ft eave height building as referenced above and supplied by ESCO STEEL BUILDING SYSTEMS, is designed in accordance with the following loads:

- Live Load.....20 psf (roof system)
 - Wind Speed.....164 mph
 - Dead Load.....2 psf (Purlins & Roof Panel)
 - Exposure.....B
 - Seismic Zone.....D
- Loads are applied in accordance with the building code PRC-18 (IBC-18) (ASCE-7).
Design is in accordance with the applicable sections of the AISC 360-16.

These ESCO components, when properly erected on an adequate foundation and in accordance with the erection drawings as components as furnished, will meet the above loading requirements. The design of this building for wind loads assumes that doors and windows not supplied by ESCO are designed to sustain the same wind pressures and suctions as the walls in which they are installed. This certification is limited to the steel framework, the metal roof and the metal wall covering, and fasteners required for their installation. This certification specifically excludes field modifications and design of the foundation and parts supplied by anyone other than ESCO STEEL BUILDING SYSTEMS.

In any event, the supplying of sealed engineering data and drawings for the metal building system does not imply or constitute an agreement that Esco or Esco's engineer is acting as the engineer of record or design professional for the construction project. (sect.3.3.2 MBMA manual 2006 ED.)

Sincerely,

ARQ. ELIEZER ESCOBAR APONTE
President Esco Manufacturing Inc.
Lic. 8661



Esco Steel Building System
P.O. Box 2331
Toa Baja, P.R. 00951

STRUCTURAL DESIGN CALCULATIONS
FOR
WF CONSTRUCTION
VILLA DE CANEY, TRUJILLO ALTO
SR. WILFREDO FLORES

CANCHA ESCUELA VOCACIONAL
EDUARDO GARCIA
CANOVANAS, PUERTO RICO
2275

BUILDING LAYOUT

Width (ft)= 60.0
Length (ft)= 100.0
Eave Height (ft)= 24.0/ 24.0
Roof Slope (rise/12)= 1.00/ 1.00

BUILDING LOADS

Roof Dead Load (psf)= 2.0
Wall Dead Load
Left Endwall (psf)= 2.0
Right Endwall (psf)= 2.0
Front Sidewall (psf)= 2.0
Back Sidewall (psf)= 2.0
Roof Live Load (psf)= 20.0
Frame Live Load (psf)= 12.0
Collateral Load (psf)= 0.0
Wind Speed (mph)= 164.0
Wind Code = PRC 18 (IBC 18)
Closed/Open = C
Exposure = B
Internal Wind Coeff = -0.18, +0.18
Importance - Wind = 1.00
Importance - Seismic = 1.00
Seismic Design Category= D
Seismic Coeff (Fa*Ss) = 1.15

Designer :
Detailer :

3/10/20

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2275                Design Loads For Building Components:    3/10/20    3:49am
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FRONT SIDEWALL:

BASIC LOADS:

Basic	Wind_Load_Ratio	
Wind	Deflect	Factor
37.9	0.18	0.60

EDGE ZONE:

--Left_Zone--		--Right_Zone--		-----Wind_Ratio-----		
Width	Base	Width	Base	Girt	Panel	Jamb/ Column
6.00	0.00	6.00	0.00	1.07	1.00	1.07

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
33.1	-36.5		.. Girt/Header
41.0	-54.6		.. Panel
33.1	-36.5		.. Jamb
0.0	0.0		.. Parapet

BACK SIDEWALL:

BASIC LOADS:

Basic	Wind_Load_Ratio	
Wind	Deflect	Factor
37.9	0.18	0.60

EDGE ZONE:

--Left_Zone--		--Right_Zone--		-----Wind_Ratio-----		
Width	Base	Width	Base	Girt	Panel	Jamb/ Column
6.00	0.00	6.00	0.00	1.07	1.00	1.07

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
33.1	-36.5		.. Girt/Header
41.0	-54.6		.. Panel
33.1	-36.5		.. 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
2.0	0.0	20.0	0.0	0.0	37.9	0.18	0.60

EDGE ZONE:

--Left_Zone--		--Right_Zone--		-----Wind_Ratio-----		
Width	Base	Width	Base	Girt	Panel	Jamb/ Column
6.00	0.00	6.00	0.00	1.07	1.00	1.07

BASIC LOADS AT EAVE:

Seis	Seis	Seis	---	Torsion---
Dead	Girt	Load	Wind	Seismic

55	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	0.00															
56	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	0.00															
57	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	0.00															
58	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	0.00															
59	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	0.00															
60	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	0.00															
61	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	0.00															
62	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	0.00															
63	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	0.00															
64	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	0.00															
65	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	0.00															
66	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	0.00															
67	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	0.00															
68	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	0.00															
69	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	0.00															
70	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	0.00															
71	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	0.00															
72	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	0.00															
73	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	0.00															
74	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	0.00															
75	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	0.00															
76	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	0.00															
77	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	0.00															
78	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	0.00															
79	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	0.00															

STEPPED LOAD COEFFICIENTS:

No.	Basic	Location		No.	-----		-----		-----	
	Load	Use	Id	Step	Locate	Coef	Locate	Coef	Locate	Coef
	WINDL1	-	2	2	30.02	1.00	30.12	0.58		
	WINDR1	-	3	2	0.10	0.58	30.12	1.00		
	WINDL2	-	2	2	30.02	1.00	30.12	0.39		
	WINDR2	-	3	2	0.10	0.39	30.12	1.00		

RIGHT ENDWALL:

BASIC LOADS:

Dead Load	Coll Load	Live Load	Snow Load	Rain Load	Basic Wind	Wind_Load_Ratio	Deflect Factor
2.0	0.0	20.0	0.0	0.0	37.9	0.18	0.60

50	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	0.00															
51	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	0.00															
52	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	0.00															
53	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	0.00															
54	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	0.00															
55	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	0.00															
56	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	0.00															
57	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	0.00															
58	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	0.00															
59	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	0.00															
60	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	0.00															
61	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	0.00															
62	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	0.00															
63	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	0.00															
64	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	0.00															
65	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	0.00															
66	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	0.00															
67	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	0.00															
68	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	0.00															
69	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	0.00															
70	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	0.00															
71	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	0.00															
72	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	0.00															
73	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	0.00															
74	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	0.00															
75	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	0.00															
76	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	0.00															
77	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	0.00															
78	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	0.00															
79	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	0.00															

STEPPED LOAD COEFFICIENTS:

No.	Basic Load	Location Use	No. Id	No. Step	Locate	Coef	Locate	Coef	Locate	Coef
	WINDL1	-	2	2	30.02	1.00	30.12	0.58		
	WINDR1	-	3	2	0.10	0.58	30.12	1.00		

0	0	46	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	0	0.00																
0	0	47	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	0	0.00																
0	0	48	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	0	0.00																
0	0	49	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	0	0.00																
0	0	50	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	0	0.00																
0	0	51	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	0	0.00																
0	0	52	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	0	0.00																
0	0	53	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	0	0.00																
0	0	54	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	0	0.00																
0	0	55	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	0	0.00																
0	0	56	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	0	0.00																
0	0	57	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	0	0.00																
0	0	58	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	0	0.00																
0	0	59	1.11	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00
0	0	0.00																
0	0	60	1.11	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0.00
0	0	0.00																
0	0	61	1.11	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00
0	0	0.00																
0	0	62	1.11	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0.00	0.00
0	0	0.00																
0	0	63	1.08	1.08	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00
0	0	0.00																
0	0	64	1.08	1.08	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.53	0.00
0	0	0.00																
0	0	65	1.08	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00
0	0	0.00																
0	0	66	1.08	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.53	0.00
0	0	0.00																
0	0	67	1.08	1.08	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00
0	0	0.00																
0	0	68	1.08	1.08	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.53	0.00	0.00
0	0	0.00																
0	0	69	1.08	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00
0	0	0.00																
0	0	70	1.08	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.53	0.00	0.00
0	0	0.00																
0	0	71	0.49	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	0.70	0.00
0	0	0.00																
0	0	72	0.49	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	-0.70	0.00
0	0	0.00																
0	0	73	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00
0	0	0.00																
0	0	74	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0.00	0.00
0	0	0.00																

STEPPED LOAD COEFFICIENTS:

No.	Basic Load	Surf Id	No. Step	Locate	Coef	Locate	Coef	Locate	Coef
4	WINDL1	2	2	30.02	1.00	30.12	0.57		
	WINDR1	3	2	0.10	0.57	30.12	1.00		
	WINDL2	2	2	30.02	1.00	30.12	0.39		
	WINDR2	3	2	0.10	0.39	30.12	1.00		

=====
 2275 Reactions, Anchor Bolts, & Base Plates: 3/10/20 3:49am
 =====

Frame Line	Col Line	-----Foundation_Loads(k)-----						-----				
		Max_Pos_Val			Max_Neg_Val			Anc._Bolt No.	Diam	Base_Plate		
		Id	Horz	Vert	Id	Horz	Vert			Width	Len	Thick
1*	A	1	3.1	7.5	2	-4.9	-11.2	4	1.000	8.00	13.50	0.500
		3	3.1	8.2								
1*	B	4	4.0	-17.7	5	-3.1	9.5	4	1.000	8.00	13.50	0.500
		3	-3.1	10.8	4	4.0	-17.7					
2*	A	3	3.6	9.4	2	-7.1	-15.9	4	1.000	8.00	13.50	0.625
2*	B	4	5.9	-24.6	3	-3.6	12.8	4	1.000	8.00	13.50	0.625
		3	-3.6	12.8	4	5.9	-24.6					

 1* Frame Lines:1 6
 2* Frame Lines:2 3 4 5

LOAD COMBINATIONS:

Id	Combination
1	1.08Dead+1.08Collateral+0.75Live+0.53Seismic_Right
2	0.6Dead+0.6Wind_Left1
3	Dead+Collateral+Live
4	0.6Dead+0.6Wind_Right1
5	1.08Dead+1.08Collateral+0.75Live+0.53Seismic_Left
6	0.6Dead+0.6Wind_Right2+0.6Wind_Suction
7	0.6Dead+0.6Wind_Pressure+0.6Wind_Long2L

=====
 2275 Bracing Reactions Report: 3/10/20 3:49am
 =====

BUILDING BRACING REACTIONS:

---Wall-- Loc	Col Line	Line	-----Reactions(k)-----				Panel_Shear(lb/ft)		Notes
			---Wind--- Horz	Vert	--Seismic-- Horz	Vert	Wind	Seismic	
L_EW		1						(h)	
F_SW	B	1 ,2						(a)	
F_SW	B	5 ,6						(a)	
R_EW		6						(h)	
B_SW	A	6 ,5						(a)	
B_SW	A	2 ,1						(a)	

 (a)Wind bent in bay
 (h)Rigid frame at endwall

WIND BENTS:

---Wall--	Col	-----Reaction(k)-----		Anc_Bolt	--Base_Plate(in)---
		---Wind---	--Seismic--		

Loc	Line	Line	Horz	Vert	Horz	Vert	No	Dia	Width	Length	Thick
F_SW	B	1 ,2	1.06	2.82	0.90	2.38	4	1.000	8.000	14.00	0.500
F_SW	B	5 ,6	1.06	2.82	0.90	2.38	4	1.000	8.000	14.00	0.500
B_SW	A	6 ,5	1.06	2.82	0.73	1.94	4	1.000	8.000	14.00	0.500
B_SW	A	2 ,1	1.06	2.82	0.73	1.94	4	1.000	8.000	14.00	0.500

Reaction values shown are unfactored. Maximum load combination factors are:
 Wind : 0.60
 Seismic: 0.70

=====
 2275 Additional Reactions Report: 3/10/20 3:49am
 =====

Rigid Frame Column Reactions(k)

Frame Line	Col Line	----Dead----		----Live---		Wind_Left1		Wind_Right1		Wind_Left2	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1*	A	1.0	3.0	2.0	5.2	-9.2	-21.7	-4.2	-13.0	-6.7	-15.1
1*	B	-1.0	3.4	-2.0	7.4	4.7	-17.2	7.6	-32.9	2.2	-10.6
2*	A	0.8	2.5	2.8	6.9	-12.6	-28.9	-6.0	-17.4	-9.2	-20.1
2*	B	-0.8	3.0	-2.8	9.9	6.6	-23.0	10.6	-43.9	3.2	-14.2

Frame Line	Col Line	Wind_Right2		Wind_Long1		Wind_Long2		-Seis_Left-		-Seis_Right	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1*	A	-1.8	-6.4	-4.7	-14.3	-5.2	-11.7	-0.9	-0.7	0.9	0.7
1*	B	5.2	-26.3	5.2	-11.7	4.7	-14.3	-0.9	0.7	0.9	-0.7
2*	A	-2.6	-8.6	-6.5	-19.1	-7.2	-15.6	-0.9	-0.7	0.9	0.7
2*	B	7.1	-35.1	7.2	-15.6	6.5	-19.1	-0.9	0.7	0.9	-0.7

1* Frame Lines:1 6
 2* Frame Lines:2 3 4 5

Endwall Column Reactions(k)

=====
 2275 Seismic Design Report: 3/10/20 3:49am
 =====

Building Data

Code = IBC 18
 Length = 100.04
 Width = 60.04
 Left Eave Height = 24.00
 Right Eave Height = 24.00

Seismic Formula

Base Shear, V = 0.667*Ie*Fa*Ss*W/R
 Vmin = 0.044*Sds*Ie*W

$$V_{max} = Sd1 * I_e * W / (T * R)$$

$$T(\text{Moment_Frame}) = 0.371$$

$$\text{Shear Force, E} = \Omega * \rho * V$$

$$T(\text{Braced_Frame}) = 0.225$$

Note: Applied load is seismic force multiplied by load combination

$$F_a * S_s = 1.151$$

$$\text{Zone/Design Category} = D$$

$$I_e = 1.000$$

$$S_1 = 0.371$$

$$S_{d1} = 0.477$$

$$S_{ds} = 0.767$$

Seismic Dead Load, W

Frame Dead	=	2.00 (psf)	
Roof Dead	=	2.00 (psf)	
Roof Total	=	4.00 (psf)	, Weight= 24.03 (k)
L_EW Dead	=	2.00 (psf)	, Weight= 1.52 (k)
F_SW Dead	=	2.00 (psf)	, Weight= 2.40 (k)
R_EW Dead	=	2.00 (psf)	, Weight= 1.52 (k)
B_SW Dead	=	2.00 (psf)	, Weight= 2.40 (k)
F_SW Extend Total	=	2.00 (psf)	, Weight= 3.00 (k)

			Total = 34.86 (k)

Seismic Forces

Roof Bracing

$$R = 3.25, \rho = 1.30, \Omega = 1.00$$

$$C_s = 0.2362$$

$$W = 27.06 (k)$$

$$\text{Force, V} = 6.39 (k)$$

$$\text{Force, E} = 8.31 (k)$$

Wind Bents

Front	R = 3.50, $\rho = 1.30$, $\Omega = 1.00$
	$C_s = 0.2193$
	$W = 16.38 (k)$
	Force, V = 3.59 (k)
	Force, E = 4.67 (k)
Back	R = 3.50, $\rho = 1.30$, $\Omega = 1.00$
	$C_s = 0.2193$
	$W = 13.37 (k)$
	Force, V = 2.93 (k)
	Force, E = 3.81 (k)

Rigid Frames

	R = 3.50, $\rho = 1.30$, $\Omega = 1.00$
	$C_s = 0.2193$
Frame 1	$W = 6.17 (k)$
	Force, V = 1.35 (k)
	Force, E = 1.76 (k)
Frame 2	$W = 6.17 (k)$
	Force, V = 1.35 (k)
	Force, E = 1.76 (k)

End Plates

Frame	R = 3.50, $\rho = 1.30$, $\Omega = 3.00$
Wind Bent	R = 3.50, $\rho = 1.30$, $\Omega = 3.00$

Total Base Shear

Longitudinal

Force, V = 6.52 (k)

Transverse

Force, V = 8.12 (k)

2275 Design Code 3/10/20 3:45am

STRUCTURAL CODE:

Design Basis : WS - Working Stress
 Hot Rolled Steel : AISC16
 Cold Formed Steel : NAUS16

BUILDING CODE:

Wind Code : PRC 18 (IBC 18)
 Seismic Zone : D

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi)
 Cold Formed Steel : 29500 (ksi)

2275 Purlin Layout(Surface= 2) 3/10/20 3:45am

SURFACE LAYOUT:

Surface Id	Length	No. Row	Peak Space
2	30.125	9	1.000

PURLIN LOCATION:

Purlin Id	Surf Offset	Space	Load Width	Dead Load	Show Report	-----Max_Load-----			Notes
						Id	UC	Report	
1	3.165	3.165	3.201	1.18	Y	9	0.96	Mom, Shr	
2	6.401	3.236	3.236	1.17		9	0.91	Mom+Shr	
3	9.637	3.236	3.236	1.17		9	0.91	Mom+Shr	
4	12.873	3.236	3.236	1.17		9	0.91	Mom+Shr	
5	16.109	3.236	3.236	1.17		9	0.87	Mom, Shr	
6	19.345	3.236	3.236	1.17		9	0.87	Mom, Shr	
7	22.581	3.236	3.236	1.17		9	0.87	Mom, Shr	
8	25.818	3.236	3.236	1.17		9	0.87	Mom, Shr	
9	29.054	3.236	2.689	1.41		9	0.73	Mom, Shr	
	30.125	1.071							
				Average=	1.19				

LAYOUT:

Bay Id	Part	Design Length	---Lap(ft)--		No. Strap	Unit Weight	Total Weight
			Left	Right			
LExt	10x25Z16	1.19			0	4.2	37.4
1	10x25Z16	18.83		1.00	0	69.4	624.7
2	10x25Z16	20.00	1.00	1.00	0	77.0	693.0
3	10x25Z16	20.00	1.00	1.00	0	77.0	693.0
4	10x25Z16	20.00	1.00	1.00	0	77.0	693.0
5	10x25Z16	18.83	1.00		0	69.4	624.7
RExt	10x25Z16	1.19			0	4.2	37.4
						Total(lb)=	3403.3

LOAD COMBINATIONS:

9 - 0.6Dead+0.6Wind_Suction1

2275 Purlin(Surface= 2, Id= 1) 3/10/20 3:45am

ROOF PURLIN
 Surface Id = 2
 Purlin Id = 1
 Offset = 3.23

LAYOUT: (Purlin Id= 1)

Bay Id	Part	Design Length (ft)	---Lap(ft)---		Load Width	No. Strap	Available Reduction Factor	
			Left	Right			Out	In
LExt	10x25Z16	1.19			3.23	0	0.00	0.70
1	10x25Z16	18.83		1.00	3.23	0	0.00	0.70
2	10x25Z16	20.00	1.00	1.00	3.23	0	0.00	0.70
3	10x25Z16	20.00	1.00	1.00	3.23	0	0.00	0.70
4	10x25Z16	20.00	1.00	1.00	3.23	0	0.00	0.70
5	10x25Z16	18.83	1.00		3.23	0	0.00	0.70
RExt	10x25Z16	1.19			3.23	0	0.00	0.70

LOAD ID 1 : Dead+Collateral+Live

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.08	0.00		0.01	0.59		0.05
1	0.52		-0.74	-0.81	0.05		-1.88	7.40	1.96	2.74
2	0.73	0.66	-0.61	-0.68	2.74	2.04	-1.03	10.33	1.63	2.27
3	0.71	0.63	-0.63	-0.71	2.27	1.60	-1.25	10.00	1.60	2.27
4	0.68	0.61	-0.66	-0.73	2.27	1.63	-1.03	9.67	2.04	2.74
5	0.81	0.74		-0.52	2.74	1.96	-1.88	11.44		0.05
RExt	0.08			0.00	0.05		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.08	2.02	0.04	RSup	0.05	5.02	0.01	LSup	0.00	0.06	
1	RLap	-0.74	2.02	0.36	MidS	-1.88	4.54	0.41	RLap	0.50	-0.23	
2	LLap	0.66	2.02	0.33	LLap	2.04	4.93	0.41	LLap	0.48	-0.09	
3	RLap	-0.63	2.02	0.31	LLap	1.60	5.00	0.32	LLap	0.42	-0.14	
4	RLap	-0.66	2.02	0.33	RLap	2.04	4.93	0.41	RLap	0.48	-0.09	
5	LLap	0.74	2.02	0.36	MidS	-1.88	4.54	0.41	LLap	0.50	-0.23	
RExt	LSup	0.08	2.02	0.04	LSup	0.05	5.02	0.01	LSup	0.00	0.06	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.68	2.65	1.93	0.35
2	0.68	2.65	1.93	0.35	0.57	2.65	1.93	0.29
3	0.57	2.65	1.93	0.29	0.57	2.65	1.93	0.29
4	0.57	2.65	1.93	0.29	0.68	2.65	1.93	0.35
5	0.68	2.65	1.93	0.35				

LOAD ID 2 : Dead+Collateral+Snow

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.01	0.00		0.00	0.59		0.00
1	0.05		-0.07	-0.07	0.00		-0.17	7.40	0.18	0.25
2	0.07	0.06	-0.06	-0.06	0.25	0.19	-0.09	10.33	0.15	0.21
3	0.06	0.06	-0.06	-0.06	0.21	0.15	-0.11	10.00	0.15	0.21
4	0.06	0.06	-0.06	-0.07	0.21	0.15	-0.09	9.67	0.19	0.25
5	0.07	0.07		-0.05	0.25	0.18	-0.17	11.44		0.00
RExt	0.01			0.00	0.00		0.00	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			UC	-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC		Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.01	2.02	0.00	RSup	0.00	5.02	0.00	LSup	0.00	0.01		
1	RLap	-0.07	2.02	0.03	MidS	-0.17	4.54	0.04	RLap	0.05	-0.02		
2	LLap	0.06	2.02	0.03	LLap	0.19	4.93	0.04	LLap	0.04	-0.01		
3	RLap	-0.06	2.02	0.03	RLap	0.15	5.00	0.03	RLap	0.04	-0.01		
4	RLap	-0.06	2.02	0.03	RLap	0.19	4.93	0.04	RLap	0.04	-0.01		
5	LLap	0.07	2.02	0.03	MidS	-0.17	4.54	0.04	LLap	0.05	-0.02		
RExt	LSup	0.01	2.02	0.00	LSup	0.00	5.02	0.00	LSup	0.00	0.01		

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.06	2.65	1.93	0.03
2	0.06	2.65	1.93	0.03	0.05	2.65	1.93	0.03
3	0.05	2.65	1.93	0.03	0.05	2.65	1.93	0.03
4	0.05	2.65	1.93	0.03	0.06	2.65	1.93	0.03
5	0.06	2.65	1.93	0.03				

LOAD ID 3 : Dead+Collateral+Snow+Snow_Drift

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.01	0.00		0.00	0.59		0.00
1	0.05		-0.07	-0.07	0.00		-0.17	7.40	0.18	0.25
2	0.07	0.06	-0.06	-0.06	0.25	0.19	-0.09	10.33	0.15	0.21
3	0.06	0.06	-0.06	-0.06	0.21	0.15	-0.11	10.00	0.15	0.21
4	0.06	0.06	-0.06	-0.07	0.21	0.15	-0.09	9.67	0.19	0.25
5	0.07	0.07		-0.05	0.25	0.18	-0.17	11.44		0.00
RExt	0.01			0.00	0.00		0.00	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			UC	-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC		Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.01	2.02	0.00	RSup	0.00	5.02	0.00	LSup	0.00	0.01		
1	RLap	-0.07	2.02	0.03	MidS	-0.17	4.54	0.04	RLap	0.05	-0.02		
2	LLap	0.06	2.02	0.03	LLap	0.19	4.93	0.04	LLap	0.04	-0.01		
3	RLap	-0.06	2.02	0.03	RLap	0.15	5.00	0.03	RLap	0.04	-0.01		
4	RLap	-0.06	2.02	0.03	RLap	0.19	4.93	0.04	RLap	0.04	-0.01		
5	LLap	0.07	2.02	0.03	MidS	-0.17	4.54	0.04	LLap	0.05	-0.02		
RExt	LSup	0.01	2.02	0.00	LSup	0.00	5.02	0.00	LSup	0.00	0.01		

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.06	2.65	1.93	0.03
2	0.06	2.65	1.93	0.03	0.05	2.65	1.93	0.03
3	0.05	2.65	1.93	0.03	0.05	2.65	1.93	0.03
4	0.05	2.65	1.93	0.03	0.06	2.65	1.93	0.03
5	0.06	2.65	1.93	0.03				

LOAD ID 4 : Dead+Collateral+Snow+Slide_Snow

REACTIONS:

Bay Id	-----Shear(k)-----					-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	UC	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00					0.00		0.00	0.59		0.00
1	0.05		-0.07	-0.07		0.00		-0.17	7.40	0.18	0.25
2	0.07	0.06	-0.06	-0.06		0.25	0.19	-0.09	10.33	0.15	0.21
3	0.06	0.06	-0.06	-0.06		0.21	0.15	-0.11	10.00	0.15	0.21
4	0.06	0.06	-0.06	-0.07		0.21	0.15	-0.09	9.67	0.19	0.25
5	0.07	0.07		-0.05		0.25	0.18	-0.17	11.44		0.00
RExt	0.01					0.00		0.00	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----					-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.01	2.02	0.00		RSup	0.00	5.02	0.00	LSup	0.00	0.01	
1	RLap	-0.07	2.02	0.03		MidS	-0.17	4.54	0.04	RLap	0.05	-0.02	
2	LLap	0.06	2.02	0.03		LLap	0.19	4.93	0.04	LLap	0.04	-0.01	
3	RLap	-0.06	2.02	0.03		RLap	0.15	5.00	0.03	RLap	0.04	-0.01	
4	RLap	-0.06	2.02	0.03		RLap	0.19	4.93	0.04	RLap	0.04	-0.01	
5	LLap	0.07	2.02	0.03		MidS	-0.17	4.54	0.04	LLap	0.05	-0.02	
RExt	LSup	0.01	2.02	0.00		LSup	0.00	5.02	0.00	LSup	0.00	0.01	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.06	2.65	1.93	0.03
2	0.06	2.65	1.93	0.03	0.05	2.65	1.93	0.03
3	0.05	2.65	1.93	0.03	0.05	2.65	1.93	0.03
4	0.05	2.65	1.93	0.03	0.06	2.65	1.93	0.03
5	0.06	2.65	1.93	0.03				

LOAD ID 5 : Dead+Collateral+0.75Live+0.45Wind_Pressure1

REACTIONS:

Bay Id	-----Shear(k)-----					-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	UC	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00					0.00		0.01	0.59		0.05
1	0.58		-0.81	-0.89		0.05		-2.07	7.40	2.17	3.02
2	0.80	0.73	-0.67	-0.75		3.02	2.25	-1.13	10.33	1.79	2.51
3	0.78	0.70	-0.70	-0.78		2.51	1.77	-1.38	10.00	1.77	2.51
4	0.75	0.67	-0.73	-0.80		2.51	1.79	-1.13	9.67	2.25	3.02
5	0.89	0.81		-0.58		3.02	2.17	-2.07	11.44		0.05

RExt 0.09 0.00 0.05 0.01 0.59 0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.09	2.02	0.05	RSup	0.05	5.02	0.01	RSup	0.05	0.06	
1	RLap	-0.81	2.02	0.40	MidS	-2.07	4.54	0.46	RLap	0.55	-0.26	
2	LLap	0.73	2.02	0.36	LLap	2.25	4.93	0.46	LLap	0.53	-0.10	
3	RLap	-0.70	2.02	0.35	RLap	1.77	5.00	0.35	RLap	0.46	-0.16	
4	RLap	-0.73	2.02	0.36	RLap	2.25	4.93	0.46	RLap	0.53	-0.10	
5	LLap	0.81	2.02	0.40	MidS	-2.07	4.54	0.46	LLap	0.55	-0.26	
RExt	LSup	0.09	2.02	0.05	LSup	0.05	5.02	0.01	LSup	0.05	0.06	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.75	2.65	1.93	0.39
2	0.75	2.65	1.93	0.39	0.63	2.65	1.93	0.32
3	0.63	2.65	1.93	0.32	0.63	2.65	1.93	0.32
4	0.63	2.65	1.93	0.32	0.75	2.65	1.93	0.39
5	0.75	2.65	1.93	0.39				

LOAD ID 6 : Dead+Collateral+0.75Snow+0.45Wind_Pressure1

REACTIONS:

Bay	-----Shear(k)-----					-----Moment(f-k)-----					
Id	Left Sup	Left Lap	Right Lap	Right Sup	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Lap	Right Sup	
LExt	0.00			-0.04	0.00			0.01	0.59	0.02	
1	0.22		-0.31	-0.34	0.02			-0.79	7.40	0.83	
2	0.31	0.28	-0.26	-0.29	1.15	0.86	-0.43	10.33	0.68	0.96	
3	0.30	0.27	-0.27	-0.30	0.96	0.67	-0.53	10.00	0.67	0.96	
4	0.29	0.26	-0.28	-0.31	0.96	0.68	-0.43	9.67	0.86	1.15	
5	0.34	0.31		-0.22	1.15	0.83	-0.79	11.44		0.02	
RExt	0.04			0.00	0.02			0.01	0.59	0.00	

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.02	0.02	RSup	0.02	5.02	0.00	LSup	0.00	0.02	
1	RLap	-0.31	2.02	0.15	MidS	-0.79	4.54	0.17	RLap	0.21	-0.10	
2	LLap	0.28	2.02	0.14	LLap	0.86	4.93	0.17	LLap	0.20	-0.04	
3	LLap	0.27	2.02	0.13	RLap	0.67	5.00	0.14	RLap	0.18	-0.06	
4	RLap	-0.28	2.02	0.14	RLap	0.86	4.93	0.17	RLap	0.20	-0.04	
5	LLap	0.31	2.02	0.15	MidS	-0.79	4.54	0.17	LLap	0.21	-0.10	
RExt	LSup	0.04	2.02	0.02	LSup	0.02	5.02	0.00	LSup	0.00	0.02	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.29	2.65	1.93	0.15
2	0.29	2.65	1.93	0.15	0.24	2.65	1.93	0.12
3	0.24	2.65	1.93	0.12	0.24	2.65	1.93	0.12
4	0.24	2.65	1.93	0.12	0.29	2.65	1.93	0.15
5	0.29	2.65	1.93	0.15				

LOAD ID 7 : Dead+Collateral+0.75Snow+0.45Wind_Pressure1+0.75Snow_Drift

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.01	0.59		0.02
1	0.22		-0.31	-0.34	0.02		-0.79	7.40	0.83	1.15
2	0.31	0.28	-0.26	-0.29	1.15	0.86	-0.43	10.33	0.68	0.96
3	0.30	0.27	-0.27	-0.30	0.96	0.67	-0.53	10.00	0.67	0.96
4	0.29	0.26	-0.28	-0.31	0.96	0.68	-0.43	9.67	0.86	1.15
5	0.34	0.31		-0.22	1.15	0.83	-0.79	11.44		0.02
RExt	0.04			0.00	0.02		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.02	0.02	RSup	0.02	5.02	0.00	LSup	0.00	0.02	
1	RLap	-0.31	2.02	0.15	MidS	-0.79	4.54	0.17	RLap	0.21	-0.10	
2	LLap	0.28	2.02	0.14	LLap	0.86	4.93	0.17	LLap	0.20	-0.04	
3	LLap	0.27	2.02	0.13	RLap	0.67	5.00	0.14	RLap	0.18	-0.06	
4	RLap	-0.28	2.02	0.14	RLap	0.86	4.93	0.17	RLap	0.20	-0.04	
5	LLap	0.31	2.02	0.15	MidS	-0.79	4.54	0.17	LLap	0.21	-0.10	
RExt	LSup	0.04	2.02	0.02	LSup	0.02	5.02	0.00	LSup	0.00	0.02	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.29	2.65	1.93	0.15
2	0.29	2.65	1.93	0.15	0.24	2.65	1.93	0.12
3	0.24	2.65	1.93	0.12	0.24	2.65	1.93	0.12
4	0.24	2.65	1.93	0.12	0.29	2.65	1.93	0.15
5	0.29	2.65	1.93	0.15				

LOAD ID 8 : Dead+Collateral+0.75Snow+0.45Wind_Pressure1+0.75Slide_Snow

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.01	0.59		0.02
1	0.22		-0.31	-0.34	0.02		-0.79	7.40	0.83	1.15
2	0.31	0.28	-0.26	-0.29	1.15	0.86	-0.43	10.33	0.68	0.96
3	0.30	0.27	-0.27	-0.30	0.96	0.67	-0.53	10.00	0.67	0.96
4	0.29	0.26	-0.28	-0.31	0.96	0.68	-0.43	9.67	0.86	1.15
5	0.34	0.31		-0.22	1.15	0.83	-0.79	11.44		0.02
RExt	0.04			0.00	0.02		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.02	0.02	RSup	0.02	5.02	0.00	LSup	0.00	0.02	
1	RLap	-0.31	2.02	0.15	MidS	-0.79	4.54	0.17	RLap	0.21	-0.10	
2	LLap	0.28	2.02	0.14	LLap	0.86	4.93	0.17	LLap	0.20	-0.04	
3	LLap	0.27	2.02	0.13	RLap	0.67	5.00	0.14	RLap	0.18	-0.06	
4	RLap	-0.28	2.02	0.14	RLap	0.86	4.93	0.17	RLap	0.20	-0.04	
5	LLap	0.31	2.02	0.15	MidS	-0.79	4.54	0.17	LLap	0.21	-0.10	

RExt LSup 0.04 2.02 0.02 LSup 0.02 5.02 0.00 LSup 0.00 0.02

LAP BOLT SHEAR/BEARING:
Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.29	2.65	1.93	0.15
2	0.29	2.65	1.93	0.15	0.24	2.65	1.93	0.12
3	0.24	2.65	1.93	0.12	0.24	2.65	1.93	0.12
4	0.24	2.65	1.93	0.12	0.29	2.65	1.93	0.15
5	0.29	2.65	1.93	0.15				

LOAD ID 9 : 0.6Dead+0.6Wind_Suction1

REACTIONS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----						
Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup	
LExt	0.00			0.17	0.00		-0.03	0.59		-0.10	
1	-1.06		1.42	1.54	-0.10		3.84	7.43	-3.73	-5.21	
2	-1.34	-1.21	1.09	1.22	-5.21	-3.94	1.77	10.44	-2.92	-4.08	
3	-1.28	-1.15	1.15	1.28	-4.08	-2.86	2.32	10.00	-2.86	-4.08	
4	-1.22	-1.09	1.21	1.34	-4.08	-2.92	1.77	9.56	-3.94	-5.21	
5	-1.54	-1.42		1.06	-5.21	-3.73	3.84	11.40		-0.10	
RExt	-0.17			0.00	-0.10		-0.03	0.59		0.00	

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	0.17	2.02	0.08	RSup	-0.10	4.54	0.02	RSup	0.09	-0.11	
1	RLap	1.42	2.02	0.70	MidS	3.84	4.01	0.96	RLap	0.96	0.48	
2	LLap	-1.21	2.02	0.60	LLap	-3.94	4.54	0.87	LLap	0.91	0.15	
3	LLap	-1.15	2.02	0.57	LLap	-2.86	4.54	0.63	LLap	0.76	0.27	
4	RLap	1.21	2.02	0.60	RLap	-3.94	4.54	0.87	RLap	0.91	0.15	
5	LLap	-1.42	2.02	0.70	MidS	3.84	4.01	0.96	LLap	0.96	0.48	
RExt	LSup	-0.17	2.02	0.08	LSup	-0.10	4.54	0.02	LSup	0.09	-0.11	

LAP BOLT SHEAR/BEARING:
Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					1.30	2.65	1.93	0.67
2	1.30	2.65	1.93	0.67	1.02	2.65	1.93	0.53
3	1.02	2.65	1.93	0.53	1.02	2.65	1.93	0.53
4	1.02	2.65	1.93	0.53	1.30	2.65	1.93	0.67
5	1.30	2.65	1.93	0.67				

DEFLECTION:

LOAD ID 10 : Dead+Collateral+Live

Bay	Offset (ft)	Deflect(in)		
Id		Calc	Limit	Ratio
LExt	0.00	0.06		
1	9.42	-0.23	1.26	0.19
2	10.00	-0.09	1.33	0.07
3	10.00	-0.14	1.33	0.11

4	10.00	-0.09	1.33	0.07
5	9.42	-0.23	1.26	0.19
RExt	1.19	0.06		

LOAD ID 11 : Dead+Collateral+Snow

Bay Id	Offset (ft)	Deflect(in)		Ratio
		Calc	Limit	
LExt	0.00	0.01		
1	9.42	-0.02	1.26	0.02
2	10.00	-0.01	1.33	0.01
3	10.00	-0.01	1.33	0.01
4	10.00	-0.01	1.33	0.01
5	9.42	-0.02	1.26	0.02
RExt	1.19	0.01		

LOAD ID 12 : Dead+Collateral+Snow+Snow_Drift

Bay Id	Offset (ft)	Deflect(in)		Ratio
		Calc	Limit	
LExt	0.00	0.01		
1	9.42	-0.02	1.26	0.02
2	10.00	-0.01	1.33	0.01
3	10.00	-0.01	1.33	0.01
4	10.00	-0.01	1.33	0.01
5	9.42	-0.02	1.26	0.02
RExt	1.19	0.01		

LOAD ID 13 : Dead+Collateral+Snow+Slide_Snow

Bay Id	Offset (ft)	Deflect(in)		Ratio
		Calc	Limit	
LExt	0.00	0.01		
1	9.42	-0.02	1.26	0.02
2	10.00	-0.01	1.33	0.01
3	10.00	-0.01	1.33	0.01
4	10.00	-0.01	1.33	0.01
5	9.42	-0.02	1.26	0.02
RExt	1.19	0.01		

LOAD ID 14 : Dead+Collateral+0.75Live+0.14Wind_Pressure1

Bay Id	Offset (ft)	Deflect(in)		Ratio
		Calc	Limit	
LExt	0.00	0.05		
1	9.42	-0.20	1.51	0.14
2	10.00	-0.08	1.60	0.05
3	10.00	-0.13	1.60	0.08
4	10.00	-0.08	1.60	0.05
5	9.42	-0.20	1.51	0.14
RExt	1.19	0.05		

LOAD ID 15 : Dead+Collateral+0.75Snow+0.14Wind_Pressure1

Bay Id	Offset (ft)	Deflect(in)		Ratio
		Calc	Limit	
LExt	0.00	0.01		
1	9.42	-0.04	1.51	0.03
2	10.00	-0.02	1.60	0.01
3	10.00	-0.03	1.60	0.02
4	10.00	-0.02	1.60	0.01

5 9.42 -0.04 1.51 0.03
 RExt 1.19 0.01

LOAD ID 16 : Dead+Collateral+0.75Snow+0.14Wind_Pressure1+0.75Sn

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.04	1.51	0.03
2	10.00	-0.02	1.60	0.01
3	10.00	-0.03	1.60	0.02
4	10.00	-0.02	1.60	0.01
5	9.42	-0.04	1.51	0.03
RExt	1.19	0.01		

LOAD ID 17 : Dead+Collateral+0.75Snow+0.14Wind_Pressure1+0.75Sl

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.04	1.51	0.03
2	10.00	-0.02	1.60	0.01
3	10.00	-0.03	1.60	0.02
4	10.00	-0.02	1.60	0.01
5	9.42	-0.04	1.51	0.03
RExt	1.19	0.01		

LOAD ID 18 : 0.6Dead+0.18Wind_Suction1

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
LExt	0.00	-0.02		
1	9.42	0.07	1.51	0.05
2	10.00	0.03	1.60	0.02
3	10.00	0.04	1.60	0.03
4	10.00	0.03	1.60	0.02
5	9.42	0.07	1.51	0.05
RExt	1.19	-0.02		

2275 Purlin Layout(Surface= 3) 3/10/20 3:45am

SURFACE LAYOUT:

Surface Id	Length	No. Row	Peak Space
3	30.125	9	1.000

PURLIN LOCATION:

Purlin Id	Surf Offset	Space	Load Width	Dead Load	Show Report	Max_Load Id	UC	Report	Notes
1	1.071	1.071	2.689	1.41		9	0.73	Mom, Shr	
2	4.307	3.236	3.236	1.17		9	0.87	Mom, Shr	
3	7.543	3.236	3.236	1.17		9	0.87	Mom, Shr	
4	10.779	3.236	3.236	1.17		9	0.87	Mom, Shr	
5	14.016	3.236	3.236	1.17		9	0.87	Mom, Shr	
6	17.252	3.236	3.236	1.17		9	0.91	Mom+Shr	
7	20.488	3.236	3.236	1.17		9	0.91	Mom+Shr	
8	23.724	3.236	3.236	1.17		9	0.91	Mom+Shr	
9	26.960	3.236	3.201	1.18	Y	9	0.96	Mom, Shr	
	30.125	3.165							

Average= 1.19

LAYOUT:

Bay Id	Part	Design Length	---Lap(ft)--		No. Strap	Unit Weight	Total Weight
			Left	Right			
LExt	10x25Z16	1.19			0	4.2	37.4
1	10x25Z16	18.83		1.00	0	69.4	624.7
2	10x25Z16	20.00	1.00	1.00	0	77.0	693.0
3	10x25Z16	20.00	1.00	1.00	0	77.0	693.0
4	10x25Z16	20.00	1.00	1.00	0	77.0	693.0
5	10x25Z16	18.83	1.00		0	69.4	624.7
RExt	10x25Z16	1.19			0	4.2	37.4
Total(lb)=						378.1	3403.3

LOAD COMBINATIONS:

9 - 0.6Dead+0.6Wind_Suction1

=====
 2275 Purlin(Surface= 3, Id= 9) 3/10/20 3:45am
 =====

ROOF PURLIN

Surface Id = 3
 Purlin Id = 9
 Offset = 26.90

LAYOUT: (Purlin Id= 9)

Bay Id	Part	Design Length (ft)	---Lap(ft)--		Load Width	No. Strap	Available Reduction Factor	
			Left	Right			Out	In
LExt	10x25Z16	1.19			3.23	0	0.00	0.70
1	10x25Z16	18.83		1.00	3.23	0	0.00	0.70
2	10x25Z16	20.00	1.00	1.00	3.23	0	0.00	0.70
3	10x25Z16	20.00	1.00	1.00	3.23	0	0.00	0.70
4	10x25Z16	20.00	1.00	1.00	3.23	0	0.00	0.70
5	10x25Z16	18.83	1.00		3.23	0	0.00	0.70
RExt	10x25Z16	1.19			3.23	0	0.00	0.70

LOAD ID 1 : Dead+Collateral+Live

REACTIONS:

Bay Id	---Shear(k)---				---Moment(f-k)---					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.08	0.00		0.01	0.59		0.05
1	0.52		-0.74	-0.81	0.05		-1.88	7.40	1.96	2.74
2	0.73	0.66	-0.61	-0.68	2.74	2.04	-1.03	10.33	1.63	2.27
3	0.71	0.63	-0.63	-0.71	2.27	1.60	-1.25	10.00	1.60	2.27
4	0.68	0.61	-0.66	-0.73	2.27	1.63	-1.03	9.67	2.04	2.74
5	0.81	0.74		-0.52	2.74	1.96	-1.88	11.44		0.05
RExt	0.08			0.00	0.05		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay -----Shear(k)----- -----Moment(f-k)----- -Mom+Shr- Deflect(in)

Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.08	2.02	0.04	RSup	0.05	5.02	0.01	LSup	0.00	0.06	
1	RLap	-0.74	2.02	0.36	MidS	-1.88	4.54	0.41	RLap	0.50	-0.23	
2	LLap	0.66	2.02	0.33	LLap	2.04	4.93	0.41	LLap	0.48	-0.09	
3	RLap	-0.63	2.02	0.31	RLap	1.60	5.00	0.32	RLap	0.42	-0.14	
4	RLap	-0.66	2.02	0.33	RLap	2.04	4.93	0.41	RLap	0.48	-0.09	
5	LLap	0.74	2.02	0.36	MidS	-1.88	4.54	0.41	LLap	0.50	-0.23	
RExt	LSup	0.08	2.02	0.04	LSup	0.05	5.02	0.01	LSup	0.00	0.06	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.68	2.65	1.93	0.35
2	0.68	2.65	1.93	0.35	0.57	2.65	1.93	0.29
3	0.57	2.65	1.93	0.29	0.57	2.65	1.93	0.29
4	0.57	2.65	1.93	0.29	0.68	2.65	1.93	0.35
5	0.68	2.65	1.93	0.35				

LOAD ID 2 : Dead+Collateral+Snow

REACTIONS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Loc	Right Lap	Right Sup
LExt	0.00			-0.01	0.00		0.00	0.59		0.00
1	0.05		-0.07	-0.07	0.00		-0.17	7.40	0.18	0.25
2	0.07	0.06	-0.06	-0.06	0.25	0.19	-0.09	10.33	0.15	0.21
3	0.06	0.06	-0.06	-0.06	0.21	0.15	-0.11	10.00	0.15	0.21
4	0.06	0.06	-0.06	-0.07	0.21	0.15	-0.09	9.67	0.19	0.25
5	0.07	0.07		-0.05	0.25	0.18	-0.17	11.44		0.00
RExt	0.01			0.00	0.00		0.00	0.59		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.01	2.02	0.00	RSup	0.00	5.02	0.00	LSup	0.00	0.01	
1	RLap	-0.07	2.02	0.03	MidS	-0.17	4.54	0.04	RLap	0.05	-0.02	
2	LLap	0.06	2.02	0.03	LLap	0.19	4.93	0.04	LLap	0.04	-0.01	
3	RLap	-0.06	2.02	0.03	RLap	0.15	5.00	0.03	RLap	0.04	-0.01	
4	RLap	-0.06	2.02	0.03	RLap	0.19	4.93	0.04	RLap	0.04	-0.01	
5	LLap	0.07	2.02	0.03	MidS	-0.17	4.54	0.04	LLap	0.05	-0.02	
RExt	LSup	0.01	2.02	0.00	LSup	0.00	5.02	0.00	LSup	0.00	0.01	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.06	2.65	1.93	0.03
2	0.06	2.65	1.93	0.03	0.05	2.65	1.93	0.03
3	0.05	2.65	1.93	0.03	0.05	2.65	1.93	0.03
4	0.05	2.65	1.93	0.03	0.06	2.65	1.93	0.03
5	0.06	2.65	1.93	0.03				

LOAD ID 3 : Dead+Collateral+Snow+Snow_Drift

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.01	0.00		0.00	0.59		0.00
1	0.05		-0.07	-0.07	0.00		-0.17	7.40	0.18	0.25
2	0.07	0.06	-0.06	-0.06	0.25	0.19	-0.09	10.33	0.15	0.21
3	0.06	0.06	-0.06	-0.06	0.21	0.15	-0.11	10.00	0.15	0.21
4	0.06	0.06	-0.06	-0.07	0.21	0.15	-0.09	9.67	0.19	0.25
5	0.07	0.07		-0.05	0.25	0.18	-0.17	11.44		0.00
RExt	0.01			0.00	0.00		0.00	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.01	2.02	0.00	RSup	0.00	5.02	0.00	LSup	0.00	0.01	
1	RLap	-0.07	2.02	0.03	MidS	-0.17	4.54	0.04	RLap	0.05	-0.02	
2	LLap	0.06	2.02	0.03	LLap	0.19	4.93	0.04	LLap	0.04	-0.01	
3	RLap	-0.06	2.02	0.03	RLap	0.15	5.00	0.03	RLap	0.04	-0.01	
4	RLap	-0.06	2.02	0.03	RLap	0.19	4.93	0.04	RLap	0.04	-0.01	
5	LLap	0.07	2.02	0.03	MidS	-0.17	4.54	0.04	LLap	0.05	-0.02	
RExt	LSup	0.01	2.02	0.00	LSup	0.00	5.02	0.00	LSup	0.00	0.01	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.06	2.65	1.93	0.03
2	0.06	2.65	1.93	0.03	0.05	2.65	1.93	0.03
3	0.05	2.65	1.93	0.03	0.05	2.65	1.93	0.03
4	0.05	2.65	1.93	0.03	0.06	2.65	1.93	0.03
5	0.06	2.65	1.93	0.03				

LOAD ID 4 : Dead+Collateral+Snow+Slide_Snow

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.01	0.00		0.00	0.59		0.00
1	0.05		-0.07	-0.07	0.00		-0.17	7.40	0.18	0.25
2	0.07	0.06	-0.06	-0.06	0.25	0.19	-0.09	10.33	0.15	0.21
3	0.06	0.06	-0.06	-0.06	0.21	0.15	-0.11	10.00	0.15	0.21
4	0.06	0.06	-0.06	-0.07	0.21	0.15	-0.09	9.67	0.19	0.25
5	0.07	0.07		-0.05	0.25	0.18	-0.17	11.44		0.00
RExt	0.01			0.00	0.00		0.00	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.01	2.02	0.00	RSup	0.00	5.02	0.00	LSup	0.00	0.01	
1	RLap	-0.07	2.02	0.03	MidS	-0.17	4.54	0.04	RLap	0.05	-0.02	
2	LLap	0.06	2.02	0.03	LLap	0.19	4.93	0.04	LLap	0.04	-0.01	
3	RLap	-0.06	2.02	0.03	RLap	0.15	5.00	0.03	RLap	0.04	-0.01	
4	RLap	-0.06	2.02	0.03	RLap	0.19	4.93	0.04	RLap	0.04	-0.01	
5	LLap	0.07	2.02	0.03	MidS	-0.17	4.54	0.04	LLap	0.05	-0.02	
RExt	LSup	0.01	2.02	0.00	LSup	0.00	5.02	0.00	LSup	0.00	0.01	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.06	2.65	1.93	0.03
2	0.06	2.65	1.93	0.03	0.05	2.65	1.93	0.03
3	0.05	2.65	1.93	0.03	0.05	2.65	1.93	0.03
4	0.05	2.65	1.93	0.03	0.06	2.65	1.93	0.03
5	0.06	2.65	1.93	0.03				

LOAD ID 5 : Dead+Collateral+0.75Live+0.45Wind_Pressure1

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.09	0.00		0.01	0.59		0.05
1	0.58		-0.81	-0.89	0.05		-2.07	7.40	2.17	3.02
2	0.80	0.73	-0.67	-0.75	3.02	2.25	-1.13	10.33	1.79	2.51
3	0.78	0.70	-0.70	-0.78	2.51	1.77	-1.38	10.00	1.77	2.51
4	0.75	0.67	-0.73	-0.80	2.51	1.79	-1.13	9.67	2.25	3.02
5	0.89	0.81		-0.58	3.02	2.17	-2.07	11.44		0.05
RExt	0.09			0.00	0.05		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.09	2.02	0.05	RSup	0.05	5.02	0.01	RSup	0.05	0.06	
1	RLap	-0.81	2.02	0.40	MidS	-2.07	4.54	0.46	RLap	0.55	-0.26	
2	LLap	0.73	2.02	0.36	LLap	2.25	4.93	0.46	LLap	0.53	-0.10	
3	LLap	0.70	2.02	0.35	LLap	1.77	5.00	0.35	LLap	0.46	-0.16	
4	RLap	-0.73	2.02	0.36	RLap	2.25	4.93	0.46	RLap	0.53	-0.10	
5	LLap	0.81	2.02	0.40	MidS	-2.07	4.54	0.46	LLap	0.55	-0.26	
RExt	LSup	0.09	2.02	0.05	LSup	0.05	5.02	0.01	LSup	0.05	0.06	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.75	2.65	1.93	0.39
2	0.75	2.65	1.93	0.39	0.63	2.65	1.93	0.32
3	0.63	2.65	1.93	0.32	0.63	2.65	1.93	0.32
4	0.63	2.65	1.93	0.32	0.75	2.65	1.93	0.39
5	0.75	2.65	1.93	0.39				

LOAD ID 6 : Dead+Collateral+0.75Snow+0.45Wind_Pressure1

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.01	0.59		0.02
1	0.22		-0.31	-0.34	0.02		-0.79	7.40	0.83	1.15
2	0.31	0.28	-0.26	-0.29	1.15	0.86	-0.43	10.33	0.68	0.96
3	0.30	0.27	-0.27	-0.30	0.96	0.67	-0.53	10.00	0.67	0.96
4	0.29	0.26	-0.28	-0.31	0.96	0.68	-0.43	9.67	0.86	1.15
5	0.34	0.31		-0.22	1.15	0.83	-0.79	11.44		0.02
RExt	0.04			0.00	0.02		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.02	0.02	RSup	0.02	5.02	0.00	LSup	0.00	0.02	
1	RLap	-0.31	2.02	0.15	MidS	-0.79	4.54	0.17	RLap	0.21	-0.10	
2	LLap	0.28	2.02	0.14	LLap	0.86	4.93	0.17	LLap	0.20	-0.04	
3	LLap	0.27	2.02	0.13	LLap	0.67	5.00	0.14	LLap	0.18	-0.06	
4	RLap	-0.28	2.02	0.14	RLap	0.86	4.93	0.17	RLap	0.20	-0.04	
5	LLap	0.31	2.02	0.15	MidS	-0.79	4.54	0.17	LLap	0.21	-0.10	
RExt	LSup	0.04	2.02	0.02	LSup	0.02	5.02	0.00	LSup	0.00	0.02	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.29	2.65	1.93	0.15
2	0.29	2.65	1.93	0.15	0.24	2.65	1.93	0.12
3	0.24	2.65	1.93	0.12	0.24	2.65	1.93	0.12
4	0.24	2.65	1.93	0.12	0.29	2.65	1.93	0.15
5	0.29	2.65	1.93	0.15				

LOAD ID 7 : Dead+Collateral+0.75Snow+0.45Wind_Pressure1+0.75Snow_Drift

REACTIONS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.01	0.59		0.02
1	0.22		-0.31	-0.34	0.02		-0.79	7.40	0.83	1.15
2	0.31	0.28	-0.26	-0.29	1.15	0.86	-0.43	10.33	0.68	0.96
3	0.30	0.27	-0.27	-0.30	0.96	0.67	-0.53	10.00	0.67	0.96
4	0.29	0.26	-0.28	-0.31	0.96	0.68	-0.43	9.67	0.86	1.15
5	0.34	0.31		-0.22	1.15	0.83	-0.79	11.44		0.02
RExt	0.04			0.00	0.02		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.02	0.02	RSup	0.02	5.02	0.00	LSup	0.00	0.02	
1	RLap	-0.31	2.02	0.15	MidS	-0.79	4.54	0.17	RLap	0.21	-0.10	
2	LLap	0.28	2.02	0.14	LLap	0.86	4.93	0.17	LLap	0.20	-0.04	
3	LLap	0.27	2.02	0.13	LLap	0.67	5.00	0.14	LLap	0.18	-0.06	
4	RLap	-0.28	2.02	0.14	RLap	0.86	4.93	0.17	RLap	0.20	-0.04	
5	LLap	0.31	2.02	0.15	MidS	-0.79	4.54	0.17	LLap	0.21	-0.10	
RExt	LSup	0.04	2.02	0.02	LSup	0.02	5.02	0.00	LSup	0.00	0.02	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.29	2.65	1.93	0.15
2	0.29	2.65	1.93	0.15	0.24	2.65	1.93	0.12
3	0.24	2.65	1.93	0.12	0.24	2.65	1.93	0.12
4	0.24	2.65	1.93	0.12	0.29	2.65	1.93	0.15
5	0.29	2.65	1.93	0.15				

LOAD ID 8 : Dead+Collateral+0.75Snow+0.45Wind_Pressure1+0.75Slide_Snow

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.01	0.59		0.02
1	0.22		-0.31	-0.34	0.02		-0.79	7.40	0.83	1.15
2	0.31	0.28	-0.26	-0.29	1.15	0.86	-0.43	10.33	0.68	0.96
3	0.30	0.27	-0.27	-0.30	0.96	0.67	-0.53	10.00	0.67	0.96
4	0.29	0.26	-0.28	-0.31	0.96	0.68	-0.43	9.67	0.86	1.15
5	0.34	0.31		-0.22	1.15	0.83	-0.79	11.44		0.02
RExt	0.04			0.00	0.02		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.02	0.02	RSup	0.02	5.02	0.00	LSup	0.00	0.02	
1	RLap	-0.31	2.02	0.15	MidS	-0.79	4.54	0.17	RLap	0.21	-0.10	
2	LLap	0.28	2.02	0.14	LLap	0.86	4.93	0.17	LLap	0.20	-0.04	
3	LLap	0.27	2.02	0.13	LLap	0.67	5.00	0.14	LLap	0.18	-0.06	
4	RLap	-0.28	2.02	0.14	RLap	0.86	4.93	0.17	RLap	0.20	-0.04	
5	LLap	0.31	2.02	0.15	MidS	-0.79	4.54	0.17	LLap	0.21	-0.10	
RExt	LSup	0.04	2.02	0.02	LSup	0.02	5.02	0.00	LSup	0.00	0.02	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.29	2.65	1.93	0.15
2	0.29	2.65	1.93	0.15	0.24	2.65	1.93	0.12
3	0.24	2.65	1.93	0.12	0.24	2.65	1.93	0.12
4	0.24	2.65	1.93	0.12	0.29	2.65	1.93	0.15
5	0.29	2.65	1.93	0.15				

LOAD ID 9 : 0.6Dead+0.6Wind_Suction1

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			0.17	0.00		-0.03	0.59		-0.10
1	-1.06		1.42	1.54	-0.10		3.84	7.43	-3.73	-5.21
2	-1.34	-1.21	1.09	1.22	-5.21	-3.94	1.77	10.44	-2.92	-4.08
3	-1.28	-1.15	1.15	1.28	-4.08	-2.86	2.32	10.00	-2.86	-4.08
4	-1.22	-1.09	1.21	1.34	-4.08	-2.92	1.77	9.56	-3.94	-5.21
5	-1.54	-1.42		1.06	-5.21	-3.73	3.84	11.40		-0.10
RExt	-0.17			0.00	-0.10		-0.03	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	0.17	2.02	0.08	RSup	-0.10	4.54	0.02	RSup	0.09	-0.11	
1	RLap	1.42	2.02	0.70	MidS	3.84	4.01	0.96	RLap	0.96	0.48	
2	LLap	-1.21	2.02	0.60	LLap	-3.94	4.54	0.87	LLap	0.91	0.15	
3	LLap	-1.15	2.02	0.57	LLap	-2.86	4.54	0.63	LLap	0.76	0.27	
4	RLap	1.21	2.02	0.60	RLap	-3.94	4.54	0.87	RLap	0.91	0.15	
5	LLap	-1.42	2.02	0.70	MidS	3.84	4.01	0.96	LLap	0.96	0.48	
RExt	LSup	-0.17	2.02	0.08	LSup	-0.10	4.54	0.02	LSup	0.09	-0.11	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					1.30	2.65	1.93	0.67
2	1.30	2.65	1.93	0.67	1.02	2.65	1.93	0.53
3	1.02	2.65	1.93	0.53	1.02	2.65	1.93	0.53
4	1.02	2.65	1.93	0.53	1.30	2.65	1.93	0.67
5	1.30	2.65	1.93	0.67				

DEFLECTION:

LOAD ID 10 : Dead+Collateral+Live

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.06		
1	9.42	-0.23	1.26	0.19
2	10.00	-0.09	1.33	0.07
3	10.00	-0.14	1.33	0.11
4	10.00	-0.09	1.33	0.07
5	9.42	-0.23	1.26	0.19
RExt	1.19	0.06		

LOAD ID 11 : Dead+Collateral+Snow

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.02	1.26	0.02
2	10.00	-0.01	1.33	0.01
3	10.00	-0.01	1.33	0.01
4	10.00	-0.01	1.33	0.01
5	9.42	-0.02	1.26	0.02
RExt	1.19	0.01		

LOAD ID 12 : Dead+Collateral+Snow+Snow_Drift

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.02	1.26	0.02
2	10.00	-0.01	1.33	0.01
3	10.00	-0.01	1.33	0.01
4	10.00	-0.01	1.33	0.01
5	9.42	-0.02	1.26	0.02
RExt	1.19	0.01		

LOAD ID 13 : Dead+Collateral+Snow+Slide_Snow

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.02	1.26	0.02
2	10.00	-0.01	1.33	0.01
3	10.00	-0.01	1.33	0.01
4	10.00	-0.01	1.33	0.01
5	9.42	-0.02	1.26	0.02
RExt	1.19	0.01		

LOAD ID 14 : Dead+Collateral+0.75Live+0.14Wind_Pressure1

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.05		
1	9.42	-0.20	1.51	0.14
2	10.00	-0.08	1.60	0.05
3	10.00	-0.13	1.60	0.08
4	10.00	-0.08	1.60	0.05
5	9.42	-0.20	1.51	0.14
RExt	1.19	0.05		

LOAD ID 15 : Dead+Collateral+0.75Snow+0.14Wind_Pressure1

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.04	1.51	0.03
2	10.00	-0.02	1.60	0.01
3	10.00	-0.03	1.60	0.02
4	10.00	-0.02	1.60	0.01
5	9.42	-0.04	1.51	0.03
RExt	1.19	0.01		

LOAD ID 16 : Dead+Collateral+0.75Snow+0.14Wind_Pressure1+0.75Sn

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.04	1.51	0.03
2	10.00	-0.02	1.60	0.01
3	10.00	-0.03	1.60	0.02
4	10.00	-0.02	1.60	0.01
5	9.42	-0.04	1.51	0.03
RExt	1.19	0.01		

LOAD ID 17 : Dead+Collateral+0.75Snow+0.14Wind_Pressure1+0.75Sl

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.42	-0.04	1.51	0.03
2	10.00	-0.02	1.60	0.01
3	10.00	-0.03	1.60	0.02
4	10.00	-0.02	1.60	0.01
5	9.42	-0.04	1.51	0.03
RExt	1.19	0.01		

LOAD ID 18 : 0.6Dead+0.18Wind_Suction1

Bay Id	Offset (ft)	Deflect(in)		
		Calc	Limit	Ratio
LExt	0.00	-0.02		
1	9.42	0.07	1.51	0.05
2	10.00	0.03	1.60	0.02
3	10.00	0.04	1.60	0.03
4	10.00	0.03	1.60	0.02
5	9.42	0.07	1.51	0.05
RExt	1.19	-0.02		

2275 Purlin(Extension= 1, Roof) 3/10/20 3:45am

 CANOPY ROOF PURLIN
 Wall Id = 2
 Extension Id = 1
 Bay Start = 1
 Bay End = 5
 Canopy Width = 15.00

LAYOUT:

Bay Id	Part	Design Length (ft)	--Lap(ft)--		Load Width	No. Strap	No. Row	Unit Weight	Total Weight	Available Reduction Factor	
			Left	Right						Out	In
LExt	10x25Z16	1.19			3.68	0	4	4.2	16.6	0.00	0.70
1	10x25Z16	18.83		1.00	3.68	0	4	69.4	277.7	0.00	0.70
2	10x25Z16	20.00	1.00	1.00	3.68	0	4	77.0	308.0	0.00	0.70
3	10x25Z16	20.00	1.00	1.00	3.68	0	4	77.0	308.0	0.00	0.70
4	10x25Z16	20.00	1.00	1.00	3.68	0	4	77.0	308.0	0.00	0.70
5	10x25Z16	18.83	1.00		3.68	0	4	69.4	277.7	0.00	0.70
RExt	10x25Z16	1.19			3.68	0	4	4.2	16.6	0.00	0.70
Total(lb)=									1512.6		

Purlin DL= 1.03 (psf)

LOAD ID 1 : Dead+Live

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	Right Loc	Right Lap	Right Sup
LExt	0.00			-0.10	0.00		0.01	0.59		0.06
1	0.59		-0.84	-0.92	0.06		-2.14	7.40	2.24	3.12
2	0.83	0.75	-0.70	-0.78	3.12	2.33	-1.17	10.33	1.86	2.59
3	0.80	0.72	-0.72	-0.80	2.59	1.83	-1.43	10.00	1.83	2.59
4	0.78	0.70	-0.75	-0.83	2.59	1.86	-1.17	9.67	2.33	3.12
5	0.92	0.84		-0.59	3.12	2.24	-2.14	11.44		0.06
RExt	0.10			0.00	0.06		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.10	2.02	0.05	RSup	0.06	5.02	0.01	RSup	0.05	0.06	
1	RLap	-0.84	2.02	0.42	MidS	-2.14	4.54	0.47	RLap	0.57	-0.27	
2	LLap	0.75	2.02	0.37	LLap	2.33	4.93	0.47	LLap	0.55	-0.11	
3	RLap	-0.72	2.02	0.36	RLap	1.83	5.00	0.37	RLap	0.48	-0.16	
4	RLap	-0.75	2.02	0.37	RLap	2.33	4.93	0.47	RLap	0.55	-0.11	
5	LLap	0.84	2.02	0.42	MidS	-2.14	4.54	0.47	LLap	0.57	-0.27	
RExt	LSup	0.10	2.02	0.05	LSup	0.06	5.02	0.01	LSup	0.05	0.06	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.78	2.65	1.93	0.40
2	0.78	2.65	1.93	0.40	0.65	2.65	1.93	0.34

3	0.65	2.65	1.93	0.34	0.65	2.65	1.93	0.34
4	0.65	2.65	1.93	0.34	0.78	2.65	1.93	0.40
5	0.78	2.65	1.93	0.40				

LOAD ID 2 : Dead+Snow

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.01	0.00		0.00	0.59		0.01
1	0.05		-0.08	-0.08	0.01		-0.20	7.40	0.20	0.28
2	0.08	0.07	-0.06	-0.07	0.28	0.21	-0.11	10.33	0.17	0.24
3	0.07	0.07	-0.07	-0.07	0.24	0.17	-0.13	10.00	0.17	0.24
4	0.07	0.06	-0.07	-0.08	0.24	0.17	-0.11	9.67	0.21	0.28
5	0.08	0.08		-0.05	0.28	0.20	-0.20	11.44		0.01
RExt	0.01			0.00	0.01		0.00	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			UC	-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC		Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.01	2.02	0.00	RSup	0.01	5.02	0.00	LSup	0.00	0.01		
1	RLap	-0.08	2.02	0.04	MidS	-0.20	4.54	0.04	RLap	0.05	-0.02		
2	LLap	0.07	2.02	0.03	LLap	0.21	4.93	0.04	LLap	0.05	-0.01		
3	LLap	0.07	2.02	0.03	LLap	0.17	5.00	0.03	LLap	0.04	-0.02		
4	RLap	-0.07	2.02	0.03	RLap	0.21	4.93	0.04	RLap	0.05	-0.01		
5	LLap	0.08	2.02	0.04	MidS	-0.20	4.54	0.04	LLap	0.05	-0.02		
RExt	LSup	0.01	2.02	0.00	LSup	0.01	5.02	0.00	LSup	0.00	0.01		

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.07	2.65	1.93	0.04
2	0.07	2.65	1.93	0.04	0.06	2.65	1.93	0.03
3	0.06	2.65	1.93	0.03	0.06	2.65	1.93	0.03
4	0.06	2.65	1.93	0.03	0.07	2.65	1.93	0.04
5	0.07	2.65	1.93	0.04				

LOAD ID 3 : Dead+0.75Live+0.45Wind_Pressure1

REACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.11	0.00		0.02	0.59		0.06
1	0.66		-0.93	-1.01	0.06		-2.36	7.40	2.47	3.44
2	0.92	0.83	-0.77	-0.86	3.44	2.57	-1.29	10.33	2.05	2.86
3	0.89	0.80	-0.80	-0.89	2.86	2.02	-1.57	10.00	2.02	2.86
4	0.86	0.77	-0.83	-0.92	2.86	2.05	-1.29	9.67	2.57	3.44
5	1.01	0.93		-0.66	3.44	2.47	-2.36	11.44		0.06
RExt	0.11			0.00	0.06		0.02	0.59		0.00

STRENGTH/DEFLECTION:

Bay Id	Loc	-----Shear(k)-----			UC	-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
		Calc	Limit	UC		Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.11	2.02	0.05	RSup	0.06	5.02	0.01	RSup	0.05	0.07		
1	RLap	-0.93	2.02	0.46	MidS	-2.36	4.54	0.52	RLap	0.63	-0.29		

2	LLap	0.83	2.02	0.41	LLap	2.57	4.93	0.52	LLap	0.61	-0.12
3	RLap	-0.80	2.02	0.39	RLap	2.02	5.00	0.40	RLap	0.53	-0.18
4	RLap	-0.83	2.02	0.41	RLap	2.57	4.93	0.52	RLap	0.61	-0.12
5	LLap	0.93	2.02	0.46	MidS	-2.36	4.54	0.52	LLap	0.63	-0.29
RExt	LSup	0.11	2.02	0.05	LSup	0.06	5.02	0.01	LSup	0.05	0.07

LAP BOLT SHEAR/BEARING:
Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.86	2.65	1.93	0.45
2	0.86	2.65	1.93	0.45	0.71	2.65	1.93	0.37
3	0.71	2.65	1.93	0.37	0.71	2.65	1.93	0.37
4	0.71	2.65	1.93	0.37	0.86	2.65	1.93	0.45
5	0.86	2.65	1.93	0.45				

LOAD ID 4 : Dead+0.75Snow+0.45Wind_Pressure1

REACTIONS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.01	0.59		0.02
1	0.25		-0.35	-0.39	0.02		-0.90	7.40	0.94	1.31
2	0.35	0.32	-0.29	-0.33	1.31	0.98	-0.49	10.33	0.78	1.09
3	0.34	0.30	-0.30	-0.34	1.09	0.77	-0.60	10.00	0.77	1.09
4	0.33	0.29	-0.32	-0.35	1.09	0.78	-0.49	9.67	0.98	1.31
5	0.39	0.35		-0.25	1.31	0.94	-0.90	11.44		0.02
RExt	0.04			0.00	0.02		0.01	0.59		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.02	0.02	RSup	0.02	5.02	0.00	LSup	0.00	0.03	
1	RLap	-0.35	2.02	0.17	MidS	-0.90	4.54	0.20	RLap	0.24	-0.11	
2	LLap	0.32	2.02	0.16	LLap	0.98	4.93	0.20	LLap	0.23	-0.05	
3	RLap	-0.30	2.02	0.15	LLap	0.77	5.00	0.15	LLap	0.20	-0.07	
4	RLap	-0.32	2.02	0.16	RLap	0.98	4.93	0.20	RLap	0.23	-0.05	
5	LLap	0.35	2.02	0.17	MidS	-0.90	4.54	0.20	LLap	0.24	-0.11	
RExt	LSup	0.04	2.02	0.02	LSup	0.02	5.02	0.00	LSup	0.00	0.03	

LAP BOLT SHEAR/BEARING:
Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.33	2.65	1.93	0.17
2	0.33	2.65	1.93	0.17	0.27	2.65	1.93	0.14
3	0.27	2.65	1.93	0.14	0.27	2.65	1.93	0.14
4	0.27	2.65	1.93	0.14	0.33	2.65	1.93	0.17
5	0.33	2.65	1.93	0.17				

LOAD ID 5 : 0.6Dead+0.6Wind_Suction1

REACTIONS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup

LExt	0.00			0.13	0.00		-0.02	0.59		-0.08
1	-0.82		1.16	1.27	-0.08		2.96	7.40	-3.10	-4.31
2	-1.15	-1.04	0.96	1.08	-4.31	-3.22	1.62	10.33	-2.57	-3.59
3	-1.11	-1.00	1.00	1.11	-3.59	-2.53	1.98	10.00	-2.53	-3.59
4	-1.08	-0.96	1.04	1.15	-3.59	-2.57	1.62	9.67	-3.22	-4.31
5	-1.27	-1.16		0.82	-4.31	-3.10	2.96	11.44		-0.08
RExt	-0.13			0.00	-0.08		-0.02	0.59		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	0.13	2.02	0.07	RSup	-0.08	4.54	0.02	RSup	0.07	-0.09	
1	RLap	1.16	2.02	0.57	MidS	2.96	4.01	0.74	RLap	0.79	0.37	
2	LLap	-1.04	2.02	0.51	LLap	-3.22	4.54	0.71	LLap	0.76	0.15	
3	RLap	1.00	2.02	0.50	RLap	-2.53	4.54	0.56	RLap	0.66	0.23	
4	RLap	1.04	2.02	0.51	RLap	-3.22	4.54	0.71	RLap	0.76	0.15	
5	LLap	-1.16	2.02	0.57	MidS	2.96	4.01	0.74	LLap	0.79	0.37	
RExt	LSup	-0.13	2.02	0.07	LSup	-0.08	4.54	0.02	LSup	0.07	-0.09	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307)

Bay	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					1.08	2.65	1.93	0.56
2	1.08	2.65	1.93	0.56	0.90	2.65	1.93	0.46
3	0.90	2.65	1.93	0.46	0.90	2.65	1.93	0.46
4	0.90	2.65	1.93	0.46	1.08	2.65	1.93	0.56
5	1.08	2.65	1.93	0.56				

DEFLECTION:

LOAD ID 6 : Dead+Live

Bay	Offset	Deflect(in)		Ratio
Id	(ft)	Calc	Limit	
LExt	0.00	0.06		
1	9.42	-0.27	0.75	0.35
2	10.00	-0.11	0.80	0.13
3	10.00	-0.16	0.80	0.21
4	10.00	-0.11	0.80	0.13
5	9.42	-0.27	0.75	0.35
RExt	1.19	0.06		

LOAD ID 7 : Dead+Snow

Bay	Offset	Deflect(in)		Ratio
Id	(ft)	Calc	Limit	
LExt	0.00	0.01		
1	9.42	-0.02	0.75	0.03
2	10.00	-0.01	0.80	0.01
3	10.00	-0.02	0.80	0.02
4	10.00	-0.01	0.80	0.01
5	9.42	-0.02	0.75	0.03
RExt	1.19	0.01		

LOAD ID 8 : Dead+0.75Live+0.14Wind_Pressure1

Bay	Offset	Deflect(in)		Ratio
Id	(ft)	Calc	Limit	

LExt	0.00	0.06		
1	9.42	-0.23	0.75	0.31
2	10.00	-0.09	0.80	0.12
3	10.00	-0.14	0.80	0.18
4	10.00	-0.09	0.80	0.12
5	9.42	-0.23	0.75	0.31
RExt	1.19	0.06		

LOAD ID 9 : Dead+0.75Snow+0.14Wind_Pressure1

Bay Id	Offset (ft)	Deflect(in)		Ratio
		Calc	Limit	
LExt	0.00	0.01		
1	9.42	-0.05	0.75	0.07
2	10.00	-0.02	0.80	0.03
3	10.00	-0.03	0.80	0.04
4	10.00	-0.02	0.80	0.03
5	9.42	-0.05	0.75	0.07
RExt	1.19	0.01		

LOAD ID 10 : 0.6Dead+0.18Wind_Suction1

Bay Id	Offset (ft)	Deflect(in)		Ratio
		Calc	Limit	
LExt	0.00	-0.02		
1	9.42	0.10	0.75	0.13
2	10.00	0.04	0.80	0.05
3	10.00	0.06	0.80	0.08
4	10.00	0.04	0.80	0.05
5	9.42	0.10	0.75	0.13
RExt	1.19	-0.02		

=====
 2275 Eave Strut(Extension= 1) 3/10/20 3:45am
 =====

 CANOPY EAVE STRUT
 Wall Id = 2
 Extension Id = 1
 Bay Start = 1
 Bay End = 5
 Canopy Width = 15.00

EAVE STRUT LAYOUT:

Bay Id	Part	Design Length	Load Width	No. Brace	Weight
LExt	10x25C14	1.19	2.21	0	5.1
1	10x25C14	18.67	2.21	0	80.3
2	10x25C14	19.67	2.21	0	84.6
3	10x25C14	19.67	2.21	0	84.6
4	10x25C14	19.67	2.21	0	84.6
5	10x25C14	18.67	2.21	0	80.3
RExt	10x25C14	1.19	2.21	0	5.1
Total(lb)=					424.4

STRENGTH/DEFLECTION:

Bay Id	Load Id	---Shear(k)---			--Moment(f-k)--			---Deflect(in)--		
		Calc	Limit	UC	Calc	Limit	UC	Calc	Limit	UC
LExt	1	-0.06	3.92	0.01	0.03	7.04	0.00	0.05		
	2	-0.01	3.92	0.00	0.00	7.04	0.00	0.00		
	3	-0.06	3.92	0.02	0.04	7.04	0.01	0.06		

	4	-0.02	3.92	0.01	0.01	7.04	0.00	0.02
	5	0.08	3.92	0.02	-0.05	6.55	0.01	-0.08
1	1	0.45	3.92	0.12	-2.09	6.55	0.32	-0.27
	2	0.04	3.92	0.01	-0.19	6.55	0.03	-0.02
	3	0.50	3.92	0.13	-2.31	6.55	0.35	-0.30
	4	0.19	3.92	0.05	-0.88	6.55	0.13	-0.11
	5	-0.63	3.92	0.16	2.89	3.33	0.87	0.37
2	1	0.48	3.92	0.12	-2.34	6.55	0.36	-0.34
	2	0.04	3.92	0.01	-0.21	6.55	0.03	-0.03
	3	0.52	3.92	0.13	-2.58	6.55	0.39	-0.37
	4	-0.20	3.92	0.05	-0.98	6.55	0.15	-0.14
	5	-0.66	3.92	0.17	3.24	3.33	0.97	0.47
3	1	0.48	3.92	0.12	-2.34	6.55	0.36	-0.34
	2	0.04	3.92	0.01	-0.21	6.55	0.03	-0.03
	3	0.52	3.92	0.13	-2.58	6.55	0.39	-0.37
	4	-0.20	3.92	0.05	-0.98	6.55	0.15	-0.14
	5	-0.66	3.92	0.17	3.24	3.33	0.97	0.47
4	1	0.48	3.92	0.12	-2.34	6.55	0.36	-0.34
	2	0.04	3.92	0.01	-0.21	6.55	0.03	-0.03
	3	0.52	3.92	0.13	-2.58	6.55	0.39	-0.37
	4	0.20	3.92	0.05	-0.98	6.55	0.15	-0.14
	5	0.66	3.92	0.17	3.24	3.33	0.97	0.47
5	1	-0.45	3.92	0.12	-2.09	6.55	0.32	-0.27
	2	-0.04	3.92	0.01	-0.19	6.55	0.03	-0.02
	3	-0.50	3.92	0.13	-2.31	6.55	0.35	-0.30
	4	-0.19	3.92	0.05	-0.88	6.55	0.13	-0.11
	5	0.63	3.92	0.16	2.89	3.33	0.87	0.37
RExt	1	0.06	3.92	0.01	0.03	7.04	0.00	0.05
	2	0.01	3.92	0.00	0.00	7.04	0.00	0.00
	3	0.06	3.92	0.02	0.04	7.04	0.01	0.06
	4	0.02	3.92	0.01	0.01	7.04	0.00	0.02
	5	-0.08	3.92	0.02	-0.05	6.55	0.01	-0.08

DEFLECTION:

LOAD ID 6 : Dead+Live

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
LExt	0.00	0.05		
1	9.33	-0.27	0.75	0.36
2	9.83	-0.34	0.79	0.43
3	9.83	-0.34	0.79	0.43
4	9.83	-0.34	0.79	0.43
5	9.33	-0.27	0.75	0.36
RExt	1.19	0.05		

LOAD ID 7 : Dead+Snow

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
LExt	0.00	0.00		
1	9.33	-0.02	0.75	0.03
2	9.83	-0.03	0.79	0.04
3	9.83	-0.03	0.79	0.04
4	9.83	-0.03	0.79	0.04
5	9.33	-0.02	0.75	0.03
RExt	1.19	0.00		

LOAD ID 8 : Dead+0.75Live+0.14Wind_Pressure1

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
--------	-------------	------------------	-------	-------

LExt	0.00	0.05		
1	9.33	-0.24	0.75	0.32
2	9.83	-0.29	0.79	0.37
3	9.83	-0.29	0.79	0.37
4	9.83	-0.29	0.79	0.37
5	9.33	-0.24	0.75	0.32
RExt	1.19	0.05		

LOAD ID 9 : Dead+0.75Snow+0.14Wind_Pressure1

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
LExt	0.00	0.01		
1	9.33	-0.05	0.75	0.07
2	9.83	-0.06	0.79	0.08
3	9.83	-0.06	0.79	0.08
4	9.83	-0.06	0.79	0.08
5	9.33	-0.05	0.75	0.07
RExt	1.19	0.01		

LOAD ID 10 : 0.6Dead+0.18Wind_Suction1

Bay Id	Offset (ft)	Deflect(in) Calc	Limit	Ratio
LExt	0.00	-0.02		
1	9.33	0.10	0.75	0.14
2	9.83	0.13	0.79	0.16
3	9.83	0.13	0.79	0.16
4	9.83	0.13	0.79	0.16
5	9.33	0.10	0.75	0.14
RExt	1.19	-0.02		

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 2275 Roof Panel Design 3/10/20 3:45am
 =====

PANEL LAYOUT:

Surf Id	Part	Type	Gage	Yield	Surface Length	No. Purlin	Max Space	---Stiffness---	Rotation	Shear
2	24 E	E	24.00	50.0	30.12	9	3.228	0.00	0.10	
3	24 E	E	24.00	50.0	30.12	9	3.228	0.00	0.10	

PANEL STRENGTH:

Surf Id	Area	Load Id	-----Support-----				-----Midspan-----			
			Offset	Calc	Limit	Ratio	Offset	Calc	Limit	Ratio
2	Left	1	3.2	24.1	150.0	0.16	1.3	-17.7	150.0	0.12
		2	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		3	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		4	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		5	3.2	27.6	150.0	0.18	1.3	-20.3	150.0	0.14
		6	3.2	11.2	150.0	0.07	1.3	-8.3	150.0	0.06
		7	3.2	-83.4	150.0	0.56	1.3	61.3	150.0	0.41
2	Center	1	3.2	24.1	150.0	0.16	1.3	-17.7	150.0	0.12
		2	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		3	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		4	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		5	3.2	27.6	150.0	0.18	1.3	-20.3	150.0	0.14
		6	3.2	11.2	150.0	0.07	1.3	-8.3	150.0	0.06
		7	3.2	-61.0	150.0	0.41	1.3	44.8	150.0	0.30
2	Right	1	3.2	24.1	150.0	0.16	1.3	-17.7	150.0	0.12
		2	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01

		3	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		4	3.2	2.2	150.0	0.01	1.3	-1.6	150.0	0.01
		5	3.2	27.6	150.0	0.18	1.3	-20.3	150.0	0.14
		6	3.2	11.2	150.0	0.07	1.3	-8.3	150.0	0.06
		7	3.2	-83.4	150.0	0.56	1.3	61.3	150.0	0.41
---	-----	---	-----	-----	-----	-----	-----	-----	-----	-----
3	Left	1	26.9	24.1	150.0	0.16	28.9	-17.7	150.0	0.12
		2	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		3	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		4	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		5	26.9	27.6	150.0	0.18	28.9	-20.3	150.0	0.14
		6	26.9	11.2	150.0	0.07	28.9	-8.3	150.0	0.06
		7	26.9	-83.4	150.0	0.56	28.9	61.3	150.0	0.41
3	Center	1	26.9	24.1	150.0	0.16	28.9	-17.7	150.0	0.12
		2	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		3	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		4	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		5	26.9	27.6	150.0	0.18	28.9	-20.3	150.0	0.14
		6	26.9	11.2	150.0	0.07	28.9	-8.3	150.0	0.06
		7	26.9	-61.0	150.0	0.41	28.9	44.8	150.0	0.30
3	Right	1	26.9	24.1	150.0	0.16	28.9	-17.7	150.0	0.12
		2	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		3	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		4	26.9	2.2	150.0	0.01	28.9	-1.6	150.0	0.01
		5	26.9	27.6	150.0	0.18	28.9	-20.3	150.0	0.14
		6	26.9	11.2	150.0	0.07	28.9	-8.3	150.0	0.06
		7	26.9	-83.4	150.0	0.56	28.9	61.3	150.0	0.41

PANEL DEFLECTION:

Surf	Area	Load	-----Deflection(in)-----			
Id		Id	Offset	Calc	Limit	Ratio
-----	-----	-----	-----	-----	-----	-----
2	Left	8	1.6	-0.01	0.65	0.02
		9	27.4	0.00	0.65	0.00
		10	27.4	0.00	0.65	0.00
		11	27.4	0.00	0.65	0.00
		12	1.6	-0.01	0.65	0.02
		13	1.6	0.04	0.65	0.06
2	Center	8	1.6	-0.01	0.65	0.02
		9	27.4	0.00	0.65	0.00
		10	27.4	0.00	0.65	0.00
		11	27.4	0.00	0.65	0.00
		12	1.6	-0.01	0.65	0.02
		13	1.6	0.03	0.65	0.05
2	Right	8	1.6	-0.01	0.65	0.02
		9	27.4	0.00	0.65	0.00
		10	27.4	0.00	0.65	0.00
		11	27.4	0.00	0.65	0.00
		12	1.6	-0.01	0.65	0.02
		13	1.6	0.04	0.65	0.06
---	-----	---	-----	-----	-----	-----
3	Left	8	28.5	-0.01	0.65	0.02
		9	28.5	0.00	0.65	0.00
		10	28.5	0.00	0.65	0.00
		11	28.5	0.00	0.65	0.00
		12	28.5	-0.01	0.65	0.02
		13	28.5	0.04	0.65	0.06
3	Center	8	28.5	-0.01	0.65	0.02
		9	28.5	0.00	0.65	0.00
		10	28.5	0.00	0.65	0.00
		11	28.5	0.00	0.65	0.00
		12	28.5	-0.01	0.65	0.02
		13	28.5	0.03	0.65	0.05
3	Right	8	28.5	-0.01	0.65	0.02
		9	28.5	0.00	0.65	0.00
		10	28.5	0.00	0.65	0.00

- 8 Live
- 9 Snow
- 10 Snow+Snow_Drift
- 11 Snow+Slide_Snow
- 12 Wind_Pressure1
- 13 Wind_Suction1

=====
 2275 Roof Diagonal Bracing 3/10/20 3:45am
 =====

PANEL SHEAR:
 Limit = 0.0
 Calc
 Wind = 16.3
 Seismic = 27.1

DIAGONAL BRACING:

Bay Id	Brace_Locate		-----Diag_Brace-----			Brace_Tension(k)		----Wind----		---Seismic--		Max UC	KL/R
	Start	End	Type	Size	Part	Calc	Limit	Calc	Limit				
1	0.00	20.02	R	0.500	ROD-1/2"	1.16	3.78	1.28	3.78	0.34			
	20.02	30.02	R	0.500	ROD-1/2"	0.00	3.78	0.24	3.78	0.06			
	30.02	40.02	R	0.500	ROD-1/2"	0.00	3.78	0.24	3.78	0.06			
	40.02	60.04	R	0.500	ROD-1/2"	1.16	3.78	1.28	3.78	0.34			
5	0.00	20.02	R	0.500	ROD-1/2"	1.16	3.78	1.28	3.78	0.34			
	20.02	30.02	R	0.500	ROD-1/2"	0.00	3.78	0.24	3.78	0.06			
	30.02	40.02	R	0.500	ROD-1/2"	0.00	3.78	0.24	3.78	0.06			
	40.02	60.04	R	0.500	ROD-1/2"	1.16	3.78	1.28	3.78	0.34			

=====
 2275 Sidewall Diagonal Bracing 3/10/20 3:45am
 =====

PANEL SHEAR:

Wall Id	Base Length	Wind Calc	Seismic Calc	Limit
2	0.0	750.0	750.0	75.0
4	0.0	750.0	750.0	75.0

LOAD COMBINATIONS:
 1(Wind) - Dead+Collateral+Snow+0.6Wind_Long1
 9(Seismic) - 1.11Dead+1.11Collateral+0.7Seismic_Long

=====
 2275 Extension Diagonal Bracing 3/10/20 3:45am
 =====

PANEL SHEAR

Ext Id	Panel_Shear_Calc	Limit
1	0.01	100.00

WIND BRACING:

Ext Id	Wall Id	Bay Id	-----Diag_Brace-----			Brace_Tension(k)		----Wind----		---Seismic--		Max UC
			Type	Size	Part	Calc	Limit	Calc	Limit			
1	2	1	R	0.500	ROD-1/2"	0.00	3.78	0.58	3.78	0.15		
		5	R	0.500	ROD-1/2"	0.00	3.78	0.58	3.78	0.15		

=====
 2275 Wind Bents 3/10/20 3:45am
 =====

DESIGN CONSTANTS:

Bolt Shear Stress
 A325 = 27.00 (ksi)
 A307 = 13.50 (ksi)
 Bolt Tension Stress
 A325 = 45.00 (ksi)
 A307 = 22.50 (ksi)

DESIGN FOR WIND BENT #: 1

LOCATION:

Wall Id	Bay Id	Width	Height	Base Elev	Top Clear	--Design_Load--		Deflect_Limit	
						Wind	Seismic	Wind	Seismic
2	1	17.83	22.67	0.00	1.33	1.28	1.63	60.0	50.0

MEMBER SELECTED:

Member	Type	Part	-Web_Depth-		Web Thick	--Flange---		Length	Weight	Yield
			Start	End		Width	Thick			
Column	W	W14541	13.5	13.5	0.13	6.0	0.25	22.7	738.1	36.0
Rafter	W	W14541	13.5	13.5	0.13	6.0	0.25	15.5	267.8	36.0

STRENGTH:

Member	Load	--Axial(k)--		Moment(f-k)		Axl+Mom UC
		Calc	Limit	Calc	Limit	
Column	Wind	1.69	81.04	13.72	54.77	0.26
	Seis	2.17	81.04	17.57	54.77	0.33
Rafter	Wind	0.64	23.26	13.11	54.77	0.25
	Seis	0.82	23.26	16.78	54.77	0.32

DEFLECTION & REACTIONS:

Member	Load	Deflection(in)		Reactions(k)	
		Calc	Limit	Horz	Vert
Column	Wind	0.39	4.42	0.64	1.69
	Seis	1.65	5.30	0.82	2.17

UNBRACED LENGTH:

Member	---Major---		----Minor----		Max	
	K	KL	Moment	Axial	KL/r	Cb
Column	1.50	34.00	2.00	2.00	70	1.04
Rafter	1.00	15.50	7.75	15.50	169	1.67

CONNECTIONS:

Plate	Type	-Plate_Size-		-----Bolts-----					----Moment-----		Req	Req
		Thick	Width	Type	Row	Dia	Gage	Space	Wind	Seismic	Dia	Thick
Base		0.500	8.00	A307	2	1.000	4.00					
Splice	EE	0.625	8.00	A325	4	0.750	5.00	3.50	13.11	50.35	0.598	0.544

STIFFENERS:

Stiff Location	Design Length	-Plate_Size-		--Wind(k)--		--Seis(k)--		Max UC
		Width	Thick	Calc	Limit	Calc	Limit	
Bearing	13.50	2.50	0.25	15.12	26.63	19.36	26.63	0.73

COLUMN WEB SHEARCHECK AT RAFTER CONNECTION:

Web Thick Thick

Thick	Required	Provided
0.125	0.075	0.125

DESIGN FOR WIND BENT #: 2

LOCATION:

Wall Id	Bay Id	Width	Height	Base Elev	Top Clear	--Design_Load-- Wind Seismic		Deflect_Limit Wind Seismic	
2	5	17.83	22.67	0.00	1.33	1.28	1.63	60.0	50.0

MEMBER SELECTED:

Member	Type	Part	-Web_Depth-		Web Thick	--Flange---		Length	Weight	Yield
			Start	End		Width	Thick			
Column	W	W14541	13.5	13.5	0.13	6.0	0.25	22.7	738.1	36.0
Rafter	W	W14541	13.5	13.5	0.13	6.0	0.25	15.5	267.8	36.0

STRENGTH:

Member	Load	--Axial(k)--		Moment(f-k)		Axl+Mom UC
		Calc	Limit	Calc	Limit	
Column	Wind	1.69	81.04	13.72	54.77	0.26
	Seis	2.17	81.04	17.57	54.77	0.33
Rafter	Wind	0.64	23.26	13.11	54.77	0.25
	Seis	0.82	23.26	16.78	54.77	0.32

DEFLECTION & REACTIONS:

Member	Load	Deflection(in)		Reactions(k)	
		Calc	Limit	Horz	Vert
Column	Wind	0.39	4.42	0.64	1.69
	Seis	1.65	5.30	0.82	2.17

UNBRACED LENGTH:

Member	---Major---		----Minor----		Max	
	K	KL	Moment	Axial	KL/r	Cb
Column	1.50	34.00	2.00	2.00	70	1.04
Rafter	1.00	15.50	7.75	15.50	169	1.67

CONNECTIONS:

Plate	Type	-Plate_Size-		-----Bolts-----					----Moment-----		Req Dia	Req Thick
		Thick	Width	Type	Row	Dia	Gage	Space	Wind	Seismic		
Base		0.500	8.00	A307	2	1.000	4.00					
Splice	EE	0.625	8.00	A325	4	0.750	5.00	3.50	13.11	50.35	0.598	0.544

STIFFENERS:

Stiff Location	Design Length	-Plate_Size-		--Wind(k)--		--Seis(k)--		Max UC
		Width	Thick	Calc	Limit	Calc	Limit	
Bearing	13.50	2.50	0.25	15.12	26.63	19.36	26.63	0.73

COLUMN WEB SHEAR CHECK AT RAFTER CONNECTION:

Web Thick	Required	Thick Provided
0.125	0.075	0.125

DESIGN FOR WIND BENT #: 3

LOCATION:

Wall Id	Bay Id	Width	Height	Base Elev	Top Clear	--Design_Load--		Deflect_Limit	
						Wind	Seismic	Wind	Seismic
4	1	17.83	22.67	0.00	1.33	1.28	1.33	60.0	50.0

MEMBER SELECTED:

Member	Type	Part	-Web_Depth-		Web Thick	--Flange---		Length	Weight	Yield
			Start	End		Width	Thick			
Column	W	W14541	13.5	13.5	0.13	6.0	0.25	22.7	724.1	36.0
Rafter	W	W14541	13.5	13.5	0.13	6.0	0.25	15.5	253.8	36.0

STRENGTH:

Member	Load	--Axial(k)--		Moment(f-k)		Axl+Mom UC
		Calc	Limit	Calc	Limit	
Column	Wind	1.69	81.04	13.72	54.77	0.26
	Seis	1.77	81.04	14.34	54.77	0.27
Rafter	Wind	0.64	23.26	13.11	54.77	0.25
	Seis	0.67	23.26	13.70	54.77	0.26

DEFLECTION & REACTIONS:

Member	Load	Deflection(in)		Reactions(k)	
		Calc	Limit	Horz	Vert
Column	Wind	0.39	4.42	0.64	1.69
	Seis	1.35	5.30	0.67	1.77

UNBRACED LENGTH:

Member	---Major---		----Minor----		Max KL/r	Cb
	K	KL	Moment	Axial		
Column	1.50	34.00	2.00	2.00	70	1.04
Rafter	1.00	15.50	7.75	15.50	169	1.67

CONNECTIONS:

Plate	Type	-Plate_Size-		-----Bolts-----					----Moment-----		Req Dia	Req Thick	
		Thick	Width	Type	Row	Dia	Gage	Space	Wind	Seismic			
Base		0.500	8.00	A307	2	1.000	4.00						
Splice	EE	0.500	6.50	A325	4	0.750	3.50	3.50	13.11	41.10	0.540	0.482	

STIFFENERS:

Stiff Location	Design Length	-Plate_Size-		--Wind(k)--		--Seis(k)--		Max UC
		Width	Thick	Calc	Limit	Calc	Limit	
Bearing	13.50	2.50	0.25	15.12	26.63	15.80	26.63	0.59

COLUMN WEB SHEAR CHECK AT RAFTER CONNECTION:

Web Thick	Thick Required	Thick Provided
0.125	0.061	0.125

DESIGN FOR WIND BENT #: 4

LOCATION:

Wall Id	Bay Id	Width	Height	Base Elev	Top Clear	--Design_Load--		Deflect_Limit	
						Wind	Seismic	Wind	Seismic

 4 5 17.83 22.67 0.00 1.33 1.28 1.33 60.0 50.0

MEMBER SELECTED:

Member	Type	Part	-Web_Depth-		Web	--Flange---		Length	Weight	Yield
			Start	End	Thick	Width	Thick			
Column	W	W14541	13.5	13.5	0.13	6.0	0.25	22.7	724.1	36.0
Rafter	W	W14541	13.5	13.5	0.13	6.0	0.25	15.5	253.8	36.0

STRENGTH:

Member	Load	--Axial(k)--		Moment(f-k)		Axl+Mom
		Calc	Limit	Calc	Limit	UC
Column	Wind	1.69	81.04	13.72	54.77	0.26
	Seis	1.77	81.04	14.34	54.77	0.27
Rafter	Wind	0.64	23.26	13.11	54.77	0.25
	Seis	0.67	23.26	13.70	54.77	0.26

DEFLECTION & REACTIONS:

Member	Load	Deflection(in)		Reactions(k)	
		Calc	Limit	Horz	Vert
Column	Wind	0.39	4.42	0.64	1.69
	Seis	1.35	5.30	0.67	1.77

UNBRACED LENGTH:

Member	---Major---		----Minor----		Max	
	K	KL	Moment	Axial	KL/r	Cb
Column	1.50	34.00	2.00	2.00	70	1.04
Rafter	1.00	15.50	7.75	15.50	169	1.67

CONNECTIONS:

Plate	Type	-Plate_Size-		-----Bolts-----					----Moment----		Req	Req
		Thick	Width	Type	Row	Dia	Gage	Space	Wind	Seismic	Dia	Thick
Base		0.500	8.00	A307	2	1.000	4.00					
Splice	EE	0.500	6.50	A325	4	0.750	3.50	3.50	13.11	41.10	0.540	0.482

STIFFENERS:

Stiff	Design	-Plate_Size-		--Wind(k)--		--Seis(k)--		Max
Location	Length	Width	Thick	Calc	Limit	Calc	Limit	UC
Bearing	13.50	2.50	0.25	15.12	26.63	15.80	26.63	0.59

COLUMN WEB SHEAR CHECK AT RAFTER CONNECTION:

Web	Thick	Thick
Thick	Required	Provided
0.125	0.061	0.125

LOAD COMBINATIONS:

1(Wind) - Dead+Collateral+Snow+0.6Wind_Long1
 9(Seismic) - 1.11Dead+1.11Collateral+0.7Seismic_Long

=====
 2275 Bracing Deflection 3/10/20 3:45am
 =====

ROOF ATTACHMENT DEFLECTION:

Wall	Attach	Deflection(in)		Span/Deflect			
		Wind	Seismic	Calc	Limit	Calc	Limit
1	0.0	0.39	1.35	744	60	213	50

1	20.0	0.44	1.58	707	60	195	50
1	30.0	0.44	1.59	729	60	199	50
1	40.0	0.44	1.58	707	60	195	50
1	60.0	0.39	1.65	744	60	174	50

WALL DEFLECTION AT EAVE:

Wall Id	Wall Height	Deflection(in)		Span/Deflect			
		Wind	Seismic	----Wind---		--Seismic--	
				Calc	Limit	Calc	Limit
2	24.0	0.39	1.65	744	60	174	50
4	24.0	0.39	1.35	744	60	213	50

=====
 2275 Purlin Strut, Longitudinal Load 3/10/20 3:45am
 =====

Surf Id	Brace Locate	Purl Id	Bay Id	Purlin Part	Load Id	-Axial(k)-		Moment(f-k)		-Axl+Mom-		Max UC	Max KL/R	
						Calc	Limit	Calc	Limit	Loc	UC			
2	20.0	6	1	10x25Z16	1	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59	
						2	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
						3	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
						4	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
						5	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
						6	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
						7	0.76	11.21	1.35	4.01	MidS	0.40	0.40	59
						8	0.10	11.21	1.35	4.01	MidS	0.35	0.35	59
						9	0.69	11.21	-0.19	4.54	MidS	0.10	0.10	59
						10	0.51	11.21	-1.47	4.54	MidS	0.37	0.37	59
						11	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
						12	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
						13	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
						14	0.69	11.21	0.09	4.54	RLap	0.08	0.08	59
2	20.0	6	2	10x25Z16	1	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63	
						2	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
						3	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
						4	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
						5	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
						6	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
						7	0.10	10.94	-1.46	4.54	LLap	0.33	0.33	63
						8	0.10	10.94	-1.46	4.54	LLap	0.33	0.33	63
						9	0.31	10.94	0.21	4.93	LLap	0.07	0.07	63
						10	0.23	10.94	1.59	4.93	LLap	0.34	0.34	63
						11	0.23	10.94	0.20	4.93	LLap	0.06	0.06	63
						12	0.23	10.94	0.20	4.93	LLap	0.06	0.06	63
						13	0.23	10.94	0.20	4.93	LLap	0.06	0.06	63
						14	0.31	10.94	0.09	4.54	LLap	0.05	0.05	63
2	20.0	6	3	10x25Z16	1	0.10	10.94	-1.09	4.54	LLap	0.25	0.25	63	
						2	0.10	10.94	-1.09	4.54	LLap	0.25	0.25	63
						3	0.10	10.94	-1.09	4.54	LLap	0.25	0.25	63
						4	0.10	10.94	-1.09	4.54	LLap	0.25	0.25	63
						5	0.10	10.94	-1.09	4.54	LLap	0.25	0.25	63
						6	0.10	10.94	-1.09	4.54	LLap	0.25	0.25	63
						7	0.10	10.94	-1.15	4.54	RLap	0.26	0.26	63
						8	0.10	10.94	-1.15	4.54	RLap	0.26	0.26	63
						9	0.10	10.94	0.16	5.00	LLap	0.04	0.04	63
						10	0.08	10.94	1.25	5.00	RLap	0.26	0.26	63
						11	0.08	10.94	0.16	5.00	RLap	0.04	0.04	63
						12	0.08	10.94	0.16	5.00	RLap	0.04	0.04	63
						13	0.08	10.94	0.16	5.00	RLap	0.04	0.04	63
						14	0.10	10.94	0.07	4.54	RLap	0.03	0.03	63
2	20.0	6	4	10x25Z16	1	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63	

				2	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63	
				3	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63	
				4	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63	
				5	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63	
				6	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63	
				7	0.10	10.94	-1.46	4.54	RLap	0.33	0.33	63	
				8	0.10	10.94	-1.46	4.54	RLap	0.33	0.33	63	
				9	0.31	10.94	0.21	4.93	RLap	0.07	0.07	63	
				10	0.23	10.94	1.59	4.93	RLap	0.34	0.34	63	
				11	0.23	10.94	0.20	4.93	RLap	0.06	0.06	63	
				12	0.23	10.94	0.20	4.93	RLap	0.06	0.06	63	
				13	0.23	10.94	0.20	4.93	RLap	0.06	0.06	63	
				14	0.31	10.94	0.09	4.54	RLap	0.05	0.05	63	
2	20.0	6	5	10x25Z16	1	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					2	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					3	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					4	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					5	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					6	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					7	0.10	11.21	1.35	4.01	MidS	0.35	0.35	59
					8	0.76	11.21	1.35	4.01	MidS	0.40	0.40	59
					9	0.69	11.21	-0.19	4.54	MidS	0.10	0.10	59
					10	0.51	11.21	-1.47	4.54	MidS	0.37	0.37	59
					11	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					12	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					13	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					14	0.69	11.21	0.09	4.54	LLap	0.08	0.08	59
2	30.0	9	1	10x25Z16	1	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					2	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					3	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					4	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					5	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					6	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					7	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					8	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					9	0.17	11.21	-0.16	4.54	MidS	0.05	0.05	59
					10	0.13	11.21	-1.22	4.54	MidS	0.28	0.28	59
					11	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					12	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					13	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					14	0.17	11.21	0.07	4.54	RLap	0.03	0.03	59
2	30.0	9	2	10x25Z16	1	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					2	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					3	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					4	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					5	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					6	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					7	0.00	10.94	-1.22	4.54	LLap	0.27	0.27	63
					8	0.00	10.94	-1.22	4.54	LLap	0.27	0.27	63
					9	0.10	10.94	0.17	4.93	LLap	0.04	0.04	63
					10	0.08	10.94	1.33	4.93	LLap	0.28	0.28	63
					11	0.08	10.94	0.17	4.93	LLap	0.04	0.04	63
					12	0.08	10.94	0.17	4.93	LLap	0.04	0.04	63
					13	0.08	10.94	0.17	4.93	LLap	0.04	0.04	63
					14	0.10	10.94	0.08	4.54	LLap	0.03	0.03	63
2	30.0	9	3	10x25Z16	1	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					2	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					3	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					4	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					5	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					6	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					7	0.00	10.94	-0.96	4.54	LLap	0.21	0.21	63
					8	0.00	10.94	-0.96	4.54	LLap	0.21	0.21	63
					9	0.03	10.94	0.14	5.00	RLap	0.03	0.03	63
					10	0.03	10.94	1.04	5.00	RLap	0.21	0.21	63
					11	0.03	10.94	0.13	5.00	RLap	0.03	0.03	63

Surf Id	Brace Locate	Purl Id	Bay Id	Purlin Part	Load Id	-Axial(k) Calc	-Limit	Moment(f-k) Calc	Limit	-Axl+Mom- Loc UC	Max UC	Max KL/R	
2	30.0	9	4	10x25Z16	12	0.03	10.94	0.13	5.00	RLap	0.03	0.03	63
					13	0.03	10.94	0.13	5.00	RLap	0.03	0.03	63
					14	0.03	10.94	0.06	4.54	LLap	0.02	0.02	63
					1	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					2	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					3	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					4	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					5	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					6	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					7	0.00	10.94	-1.22	4.54	RLap	0.27	0.27	63
					8	0.00	10.94	-1.22	4.54	RLap	0.27	0.27	63
					9	0.10	10.94	0.17	4.93	RLap	0.04	0.04	63
					10	0.08	10.94	1.33	4.93	RLap	0.28	0.28	63
					11	0.08	10.94	0.17	4.93	RLap	0.04	0.04	63
2	30.0	9	5	10x25Z16	12	0.08	10.94	0.17	4.93	RLap	0.04	0.04	63
					13	0.08	10.94	0.17	4.93	RLap	0.04	0.04	63
					14	0.10	10.94	0.08	4.54	RLap	0.03	0.03	63
					1	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					2	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					3	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					4	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					5	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					6	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					7	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					8	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					9	0.17	11.21	-0.16	4.54	MidS	0.05	0.05	59
					10	0.13	11.21	-1.22	4.54	MidS	0.28	0.28	59
					11	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
12	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59					
13	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59					
14	0.17	11.21	0.07	4.54	LLap	0.03	0.03	59					
3	30.0	1	1	10x25Z16	1	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					2	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					3	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					4	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					5	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					6	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					7	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					8	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					9	0.17	11.21	-0.16	4.54	MidS	0.05	0.05	59
					10	0.13	11.21	-1.22	4.54	MidS	0.28	0.28	59
					11	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					12	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					13	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					14	0.17	11.21	0.07	4.54	RLap	0.03	0.03	59
3	30.0	1	2	10x25Z16	1	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					2	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					3	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					4	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					5	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					6	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					7	0.00	10.94	-1.16	4.54	LLap	0.25	0.25	63
					8	0.00	10.94	-1.22	4.54	LLap	0.27	0.27	63
					9	0.00	10.94	-1.22	4.54	LLap	0.27	0.27	63
					9	0.10	10.94	0.17	4.93	LLap	0.04	0.04	63
					10	0.08	10.94	1.33	4.93	LLap	0.28	0.28	63
					11	0.08	10.94	0.17	4.93	LLap	0.04	0.04	63
					12	0.08	10.94	0.17	4.93	LLap	0.04	0.04	63
					13	0.08	10.94	0.17	4.93	LLap	0.04	0.04	63
14	0.10	10.94	0.08	4.54	LLap	0.03	0.03	63					
3	30.0	1	3	10x25Z16	1	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					2	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63
					3	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63

				4	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63	
				5	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63	
				6	0.00	10.94	-0.91	4.54	LLap	0.20	0.20	63	
				7	0.00	10.94	-0.96	4.54	LLap	0.21	0.21	63	
				8	0.00	10.94	-0.96	4.54	LLap	0.21	0.21	63	
				9	0.03	10.94	0.14	5.00	RLap	0.03	0.03	63	
				10	0.03	10.94	1.04	5.00	RLap	0.21	0.21	63	
				11	0.03	10.94	0.13	5.00	LLap	0.03	0.03	63	
				12	0.03	10.94	0.13	5.00	LLap	0.03	0.03	63	
				13	0.03	10.94	0.13	5.00	LLap	0.03	0.03	63	
				14	0.03	10.94	0.06	4.54	RLap	0.02	0.02	63	
3	30.0	1	4	10x25Z16	1	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					2	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					3	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					4	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					5	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					6	0.00	10.94	-1.16	4.54	RLap	0.25	0.25	63
					7	0.00	10.94	-1.22	4.54	RLap	0.27	0.27	63
					8	0.00	10.94	-1.22	4.54	RLap	0.27	0.27	63
					9	0.10	10.94	0.17	4.93	RLap	0.04	0.04	63
					10	0.08	10.94	1.33	4.93	RLap	0.28	0.28	63
					11	0.08	10.94	0.17	4.93	RLap	0.04	0.04	63
					12	0.08	10.94	0.17	4.93	RLap	0.04	0.04	63
					13	0.08	10.94	0.17	4.93	RLap	0.04	0.04	63
					14	0.10	10.94	0.08	4.54	RLap	0.03	0.03	63
3	30.0	1	5	10x25Z16	1	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					2	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					3	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					4	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					5	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					6	0.00	11.21	1.06	4.01	MidS	0.27	0.27	59
					7	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					8	0.00	11.21	1.12	4.01	MidS	0.28	0.28	59
					9	0.17	11.21	-0.16	4.54	MidS	0.05	0.05	59
					10	0.13	11.21	-1.22	4.54	MidS	0.28	0.28	59
					11	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					12	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					13	0.13	11.21	-0.15	4.54	MidS	0.05	0.05	59
					14	0.17	11.21	0.07	4.54	LLap	0.03	0.03	59
3	40.0	4	1	10x25Z16	1	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					2	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					3	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					4	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					5	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					6	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					7	0.76	11.21	1.35	4.01	MidS	0.40	0.40	59
					8	0.10	11.21	1.35	4.01	MidS	0.35	0.35	59
					9	0.69	11.21	-0.19	4.54	MidS	0.10	0.10	59
					10	0.51	11.21	-1.47	4.54	MidS	0.37	0.37	59
					11	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					12	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					13	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					14	0.69	11.21	0.09	4.54	RLap	0.08	0.08	59
3	40.0	4	2	10x25Z16	1	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
					2	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
					3	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
					4	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
					5	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
					6	0.10	10.94	-1.39	4.54	LLap	0.32	0.32	63
					7	0.10	10.94	-1.46	4.54	LLap	0.33	0.33	63
					8	0.10	10.94	-1.46	4.54	LLap	0.33	0.33	63
					9	0.31	10.94	0.21	4.93	LLap	0.07	0.07	63
					10	0.23	10.94	1.59	4.93	LLap	0.34	0.34	63
					11	0.23	10.94	0.20	4.93	LLap	0.06	0.06	63
					12	0.23	10.94	0.20	4.93	LLap	0.06	0.06	63
					13	0.23	10.94	0.20	4.93	LLap	0.06	0.06	63

3	40.0	4	3	10x25Z16	14	0.31	10.94	0.09	4.54	LLap	0.05	0.05	63
					1	0.10	10.94	-1.09	4.54	RLap	0.25	0.25	63
					2	0.10	10.94	-1.09	4.54	RLap	0.25	0.25	63
					3	0.10	10.94	-1.09	4.54	RLap	0.25	0.25	63
					4	0.10	10.94	-1.09	4.54	RLap	0.25	0.25	63
					5	0.10	10.94	-1.09	4.54	RLap	0.25	0.25	63
					6	0.10	10.94	-1.09	4.54	RLap	0.25	0.25	63
					7	0.10	10.94	-1.15	4.54	LLap	0.26	0.26	63
					8	0.10	10.94	-1.15	4.54	LLap	0.26	0.26	63
					9	0.10	10.94	0.16	5.00	RLap	0.04	0.04	63
					10	0.08	10.94	1.25	5.00	RLap	0.26	0.26	63
					11	0.08	10.94	0.16	5.00	LLap	0.04	0.04	63
					12	0.08	10.94	0.16	5.00	LLap	0.04	0.04	63
					13	0.08	10.94	0.16	5.00	LLap	0.04	0.04	63
3	40.0	4	4	10x25Z16	14	0.10	10.94	0.07	4.54	LLap	0.03	0.03	63
					1	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63
					2	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63
					3	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63
					4	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63
					5	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63
					6	0.10	10.94	-1.39	4.54	RLap	0.32	0.32	63
					7	0.10	10.94	-1.46	4.54	RLap	0.33	0.33	63
					8	0.10	10.94	-1.46	4.54	RLap	0.33	0.33	63
					9	0.31	10.94	0.21	4.93	RLap	0.07	0.07	63
					10	0.23	10.94	1.59	4.93	RLap	0.34	0.34	63
					11	0.23	10.94	0.20	4.93	RLap	0.06	0.06	63
					12	0.23	10.94	0.20	4.93	RLap	0.06	0.06	63
					13	0.23	10.94	0.20	4.93	RLap	0.06	0.06	63
3	40.0	4	5	10x25Z16	14	0.31	10.94	0.09	4.54	RLap	0.05	0.05	63
					1	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					2	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					3	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					4	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					5	0.10	11.21	1.28	4.01	MidS	0.33	0.33	59
					6	0.76	11.21	1.28	4.01	MidS	0.39	0.39	59
					7	0.10	11.21	1.35	4.01	MidS	0.35	0.35	59
					8	0.76	11.21	1.35	4.01	MidS	0.40	0.40	59
					9	0.69	11.21	-0.19	4.54	MidS	0.10	0.10	59
					10	0.51	11.21	-1.47	4.54	MidS	0.37	0.37	59
					11	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					12	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
					13	0.51	11.21	-0.19	4.54	MidS	0.09	0.09	59
14	0.69	11.21	0.09	4.54	LLap	0.08	0.08	59					

=====
 2275 Eave Strut, Longitudinal Load(Wall= 2) 3/10/20 3:45am
 =====

Wall Id	Bay Id	Eave Part	Bay Width (ft)	Load Id	-Axial_Calc- Wind (k)	Seis (k)	Axial Limit (k)	Max UC	Max KL/r
2	1	10x25C16	20.02	1	0.00	0.00	11.42	0.00	59
2	2	10x25C16	20.00	9	0.08	0.47	11.21	0.04	62
2	3	10x25C16	20.00	9	0.08	0.16	11.21	0.01	62
2	4	10x25C16	20.00	9	0.08	0.47	11.21	0.04	62
2	5	10x25C16	20.02	1	0.00	0.00	11.42	0.00	59

=====
 2275 Eave Strut, Longitudinal Load(Wall= 4) 3/10/20 3:45am
 =====

Wall Id	Bay Id	Eave Part	Bay Width (ft)	Load Id	-Axial_Calc- Wind (k)	Seis (k)	Axial Limit (k)	Max UC	Max KL/r
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2275 Roof Panel Zones 3/10/20 3:45am

PANEL:

Part	Thick (in)	Yield (ksi)	Tensile Strength (ksi)
24 E	0.024	50.00	65.00

PURLIN SCREWS:

Part	Dia (in)	Washer (in)	Limit (k)
1"-TEK (	0.250	0.50	1.00

PANEL ZONE LAYOUT:

Surf Id	Zone Id	Description	Locate(ft) Start	Locate(ft) End	Surface(ft) Offset1	Surface(ft) Offset2	Bay Id	Purlin(ft,in) Id	Load Width	Min Thick	Panel Zone (ft)
2	1	Interior	28.80	71.24	28.80	30.12	2	9	2.15	0.060	3.23
2	2	Middle	14.40	85.64	14.40	30.12	1	8	3.23	0.060	3.23
2	7	Lt top corner	0.00	14.40	0.00	4.80	1	1	3.23	0.060	3.23
2	8	Rt top corner	85.64	100.04	0.00	4.80	5	1	3.23	0.060	3.23
2	11	Lt top cor gabl	0.00	4.80	4.80	14.40	1	2	3.23	0.060	3.23
2	12	Rt top cor gabl	95.24	100.04	4.80	14.40	5	2	3.23	0.060	3.23
2	15	Exterior	0.00	100.04	0.00	30.12	1	8	3.23	0.060	3.23
3	1	Interior	28.80	71.24	0.00	1.32	2	1	2.15	0.060	3.23
3	2	Middle	14.40	85.64	0.00	15.72	1	2	3.23	0.060	3.23
3	9	Rt bot corner	85.64	100.04	25.32	30.12	5	9	3.23	0.060	3.23
3	10	Lt bot corner	0.00	14.40	25.32	30.12	1	9	3.23	0.060	3.23
3	13	Rt bot cor gabl	95.24	100.04	15.72	25.32	5	6	3.23	0.060	3.23
3	14	Lt bot cor gabl	0.00	4.80	15.72	25.32	1	6	3.23	0.060	3.23
3	15	Exterior	0.00	100.04	0.00	30.12	1	2	3.23	0.060	3.23

PURLIN SCREW CHECK:

Surf Id	Zone Id	Screw Space	Wind Suction (psf)	Load (k)	Limit(k) Purlin Pullout	Limit(k) Panel Pullover	Screw Tension	Max UC
2	1	1.00	24.58	0.05	0.30	0.40	0.27	0.20
2	2	1.00	42.76	0.14	0.30	0.40	0.27	0.52
2	7	1.00	76.92	0.25	0.30	0.40	0.27	0.93
2	8	1.00	76.92	0.25	0.30	0.40	0.27	0.93
2	11	1.00	76.92	0.25	0.30	0.40	0.27	0.93
2	12	1.00	76.92	0.25	0.30	0.40	0.27	0.93
2	15	1.00	56.52	0.18	0.30	0.40	0.27	0.68
3	1	1.00	24.58	0.05	0.30	0.40	0.27	0.20
3	2	1.00	42.76	0.14	0.30	0.40	0.27	0.52
3	9	1.00	76.92	0.25	0.30	0.40	0.27	0.93
3	10	1.00	76.92	0.25	0.30	0.40	0.27	0.93
3	13	1.00	76.92	0.25	0.30	0.40	0.27	0.93
3	14	1.00	76.92	0.25	0.30	0.40	0.27	0.93
3	15	1.00	56.52	0.18	0.30	0.40	0.27	0.68

BASE SCREWS:

Part	Dia (in)	Washer (in)	Limit (k)
1"-TEK (	0.25	0.50	1.00

BASE SCREW CHECK:

2275 Wall 1 - Design Code 3/10/20 3:49am

STRUCTURAL CODE:

Design Basis : WS - Working Stress
 Hot Rolled Steel : AISC16
 Cold Formed Steel : NAUS16

BUILDING CODE:

Wind Code : PRC 18 (IBC 18)
 Seismic Zone : D

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi)
 Cold Formed Steel : 29500 (ksi)

2275 Wall 1 - Column & Rafter Design 3/10/20 3:49am

MEMBER LAYOUT:

Id	Locate (ft)	Part	---Web(in)--- Depth	-Flange(in)- Thick	Length (ft)	Weight (lb)	---Max_Load--- Id UC Report
Col1	0.0						
Col2	20.0	W10X12	9.45	0.190	3.96	0.210	8.6 103.7 36 0.13 Mom+Axl
Col3	40.0	W10X12	9.45	0.190	3.96	0.210	8.6 103.7 36 0.13 Mom+Axl
Col4	60.0						
Total=						207.5	

DESIGN ACTIONS/STRENGTH:

Id	Load Id	---Axial(k)--- Calc Limit	---Shear(k)--- Calc Limit	-Moment(f-k)- Calc Limit
Col2	1	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	2	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	3	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	4	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	5	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	6	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	7	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	8	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	9	-0.10 105.99	0.00 37.51	0.00 29.00
Col2	10	-0.10 105.99	1.72 37.51	-3.71 30.41
Col2	11	-0.10 105.99	1.72 37.51	-3.71 30.41
Col2	12	-0.10 105.99	-1.89 37.51	4.09 30.41
Col2	13	-0.10 105.99	-1.89 37.51	4.09 30.41
Col2	14	-0.10 105.99	-1.89 37.51	4.09 30.41
Col2	15	-0.10 105.99	-1.89 37.51	4.09 30.41
Col2	16	-0.10 105.99	-1.89 37.51	4.09 30.41
Col2	17	-0.10 105.99	-1.89 37.51	4.09 30.41
Col2	18	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	19	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	20	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	21	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	22	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	23	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	24	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	25	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	26	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	27	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	28	-0.10 105.99	-1.42 37.51	3.07 30.41
Col2	29	-0.10 105.99	-1.42 37.51	3.07 30.41

Col2	30	-0.10	105.99	-1.42	37.51	3.07	30.41
Col2	31	-0.10	105.99	-1.42	37.51	3.07	30.41
Col2	32	-0.10	105.99	-1.42	37.51	3.07	30.41
Col2	33	-0.10	105.99	-1.42	37.51	3.07	30.41
Col2	34	-0.06	105.99	1.72	37.51	-3.71	30.41
Col2	35	-0.06	105.99	1.72	37.51	-3.71	30.41
Col2	36	-0.06	105.99	-1.89	37.51	4.09	30.41
Col2	37	-0.06	105.99	-1.89	37.51	4.09	30.41
Col2	38	-0.06	105.99	-1.89	37.51	4.09	30.41
Col2	39	-0.06	105.99	-1.89	37.51	4.09	30.41
Col2	40	-0.06	105.99	-1.89	37.51	4.09	30.41
Col2	41	-0.06	105.99	-1.89	37.51	4.09	30.41
Col2	42	-0.12	105.99	0.00	37.51	0.00	29.00
Col2	43	-0.12	105.99	0.00	37.51	0.00	29.00
Col2	44	-0.11	105.99	0.00	37.51	0.00	29.00
Col2	45	-0.11	105.99	0.00	37.51	0.00	29.00
Col2	46	-0.11	105.99	0.00	37.51	0.00	29.00
Col2	47	-0.11	105.99	0.00	37.51	0.00	29.00
Col2	48	-0.05	105.99	0.00	37.51	0.00	29.00
Col2	49	-0.05	105.99	0.00	37.51	0.00	29.00
Col2	50	-0.06	105.99	0.00	37.51	0.00	29.00
Col2	51	-0.06	105.99	0.00	37.51	0.00	29.00
Col2	52	-0.06	105.99	0.00	37.51	0.00	29.00
Col2	53	-0.06	105.99	0.00	37.51	0.00	29.00
Col2	54	-0.06	105.99	0.00	37.51	0.00	29.00
Col2	55	-0.06	105.99	0.00	37.51	0.00	29.00
Col2	56	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	57	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	58	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	59	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	60	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	61	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	62	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	63	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	64	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	65	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	66	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	67	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	68	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	69	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	70	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	71	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	72	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	73	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	74	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	75	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	76	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	77	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	78	-0.10	105.99	0.00	37.51	0.00	29.00
Col2	79	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	1	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	2	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	3	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	4	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	5	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	6	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	7	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	8	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	9	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	10	-0.10	105.99	1.72	37.51	-3.71	30.41
Col3	11	-0.10	105.99	1.72	37.51	-3.71	30.41
Col3	12	-0.10	105.99	-1.89	37.51	4.09	30.41
Col3	13	-0.10	105.99	-1.89	37.51	4.09	30.41
Col3	14	-0.10	105.99	-1.89	37.51	4.09	30.41
Col3	15	-0.10	105.99	-1.89	37.51	4.09	30.41
Col3	16	-0.10	105.99	-1.89	37.51	4.09	30.41

Col3	17	-0.10	105.99	-1.89	37.51	4.09	30.41
Col3	18	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	19	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	20	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	21	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	22	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	23	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	24	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	25	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	26	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	27	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	28	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	29	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	30	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	31	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	32	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	33	-0.10	105.99	-1.42	37.51	3.07	30.41
Col3	34	-0.06	105.99	1.72	37.51	-3.71	30.41
Col3	35	-0.06	105.99	1.72	37.51	-3.71	30.41
Col3	36	-0.06	105.99	-1.89	37.51	4.09	30.41
Col3	37	-0.06	105.99	-1.89	37.51	4.09	30.41
Col3	38	-0.06	105.99	-1.89	37.51	4.09	30.41
Col3	39	-0.06	105.99	-1.89	37.51	4.09	30.41
Col3	40	-0.06	105.99	-1.89	37.51	4.09	30.41
Col3	41	-0.06	105.99	-1.89	37.51	4.09	30.41
Col3	42	-0.12	105.99	0.00	37.51	0.00	29.00
Col3	43	-0.12	105.99	0.00	37.51	0.00	29.00
Col3	44	-0.11	105.99	0.00	37.51	0.00	29.00
Col3	45	-0.11	105.99	0.00	37.51	0.00	29.00
Col3	46	-0.11	105.99	0.00	37.51	0.00	29.00
Col3	47	-0.11	105.99	0.00	37.51	0.00	29.00
Col3	48	-0.05	105.99	0.00	37.51	0.00	29.00
Col3	49	-0.05	105.99	0.00	37.51	0.00	29.00
Col3	50	-0.06	105.99	0.00	37.51	0.00	29.00
Col3	51	-0.06	105.99	0.00	37.51	0.00	29.00
Col3	52	-0.06	105.99	0.00	37.51	0.00	29.00
Col3	53	-0.06	105.99	0.00	37.51	0.00	29.00
Col3	54	-0.06	105.99	0.00	37.51	0.00	29.00
Col3	55	-0.06	105.99	0.00	37.51	0.00	29.00
Col3	56	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	57	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	58	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	59	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	60	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	61	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	62	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	63	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	64	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	65	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	66	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	67	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	68	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	69	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	70	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	71	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	72	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	73	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	74	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	75	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	76	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	77	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	78	-0.10	105.99	0.00	37.51	0.00	29.00
Col3	79	-0.10	105.99	0.00	37.51	0.00	29.00

STRENGTH RATIO:

Load

Axial+

Shear+

Max

Id	Id	Axial	Shear	Moment	Moment	Moment	UC
Col2	1	0.00	0.00	0.00	0.00		0.00
Col2	2	0.00	0.00	0.00	0.00		0.00
Col2	3	0.00	0.00	0.00	0.00		0.00
Col2	4	0.00	0.00	0.00	0.00		0.00
Col2	5	0.00	0.00	0.00	0.00		0.00
Col2	6	0.00	0.00	0.00	0.00		0.00
Col2	7	0.00	0.00	0.00	0.00		0.00
Col2	8	0.00	0.00	0.00	0.00		0.00
Col2	9	0.00	0.00	0.00	0.00		0.00
Col2	10	0.00	0.05	0.12	0.12		0.12
Col2	11	0.00	0.05	0.12	0.12		0.12
Col2	12	0.00	0.05	0.13	0.13		0.13
Col2	13	0.00	0.05	0.13	0.13		0.13
Col2	14	0.00	0.05	0.13	0.13		0.13
Col2	15	0.00	0.05	0.13	0.13		0.13
Col2	16	0.00	0.05	0.13	0.13		0.13
Col2	17	0.00	0.05	0.13	0.13		0.13
Col2	18	0.00	0.04	0.10	0.10		0.10
Col2	19	0.00	0.04	0.10	0.10		0.10
Col2	20	0.00	0.04	0.10	0.10		0.10
Col2	21	0.00	0.04	0.10	0.10		0.10
Col2	22	0.00	0.04	0.10	0.10		0.10
Col2	23	0.00	0.04	0.10	0.10		0.10
Col2	24	0.00	0.04	0.10	0.10		0.10
Col2	25	0.00	0.04	0.10	0.10		0.10
Col2	26	0.00	0.04	0.10	0.10		0.10
Col2	27	0.00	0.04	0.10	0.10		0.10
Col2	28	0.00	0.04	0.10	0.10		0.10
Col2	29	0.00	0.04	0.10	0.10		0.10
Col2	30	0.00	0.04	0.10	0.10		0.10
Col2	31	0.00	0.04	0.10	0.10		0.10
Col2	32	0.00	0.04	0.10	0.10		0.10
Col2	33	0.00	0.04	0.10	0.10		0.10
Col2	34	0.00	0.05	0.12	0.12		0.12
Col2	35	0.00	0.05	0.12	0.12		0.12
Col2	36	0.00	0.05	0.13	0.13		0.13
Col2	37	0.00	0.05	0.13	0.13		0.13
Col2	38	0.00	0.05	0.13	0.13		0.13
Col2	39	0.00	0.05	0.13	0.13		0.13
Col2	40	0.00	0.05	0.13	0.13		0.13
Col2	41	0.00	0.05	0.13	0.13		0.13
Col2	42	0.00	0.00	0.00	0.00		0.00
Col2	43	0.00	0.00	0.00	0.00		0.00
Col2	44	0.00	0.00	0.00	0.00		0.00
Col2	45	0.00	0.00	0.00	0.00		0.00
Col2	46	0.00	0.00	0.00	0.00		0.00
Col2	47	0.00	0.00	0.00	0.00		0.00
Col2	48	0.00	0.00	0.00	0.00		0.00
Col2	49	0.00	0.00	0.00	0.00		0.00
Col2	50	0.00	0.00	0.00	0.00		0.00
Col2	51	0.00	0.00	0.00	0.00		0.00
Col2	52	0.00	0.00	0.00	0.00		0.00
Col2	53	0.00	0.00	0.00	0.00		0.00
Col2	54	0.00	0.00	0.00	0.00		0.00
Col2	55	0.00	0.00	0.00	0.00		0.00
Col2	56	0.00	0.00	0.00	0.00		0.00
Col2	57	0.00	0.00	0.00	0.00		0.00
Col2	58	0.00	0.00	0.00	0.00		0.00
Col2	59	0.00	0.00	0.00	0.00		0.00
Col2	60	0.00	0.00	0.00	0.00		0.00
Col2	61	0.00	0.00	0.00	0.00		0.00
Col2	62	0.00	0.00	0.00	0.00		0.00
Col2	63	0.00	0.00	0.00	0.00		0.00
Col2	64	0.00	0.00	0.00	0.00		0.00

Col2	65	0.00	0.00	0.00	0.00	0.00
Col2	66	0.00	0.00	0.00	0.00	0.00
Col2	67	0.00	0.00	0.00	0.00	0.00
Col2	68	0.00	0.00	0.00	0.00	0.00
Col2	69	0.00	0.00	0.00	0.00	0.00
Col2	70	0.00	0.00	0.00	0.00	0.00
Col2	71	0.00	0.00	0.00	0.00	0.00
Col2	72	0.00	0.00	0.00	0.00	0.00
Col2	73	0.00	0.00	0.00	0.00	0.00
Col2	74	0.00	0.00	0.00	0.00	0.00
Col2	75	0.00	0.00	0.00	0.00	0.00
Col2	76	0.00	0.00	0.00	0.00	0.00
Col2	77	0.00	0.00	0.00	0.00	0.00
Col2	78	0.00	0.00	0.00	0.00	0.00
Col2	79	0.00	0.00	0.00	0.00	0.00
Col3	1	0.00	0.00	0.00	0.00	0.00
Col3	2	0.00	0.00	0.00	0.00	0.00
Col3	3	0.00	0.00	0.00	0.00	0.00
Col3	4	0.00	0.00	0.00	0.00	0.00
Col3	5	0.00	0.00	0.00	0.00	0.00
Col3	6	0.00	0.00	0.00	0.00	0.00
Col3	7	0.00	0.00	0.00	0.00	0.00
Col3	8	0.00	0.00	0.00	0.00	0.00
Col3	9	0.00	0.00	0.00	0.00	0.00
Col3	10	0.00	0.05	0.12	0.12	0.12
Col3	11	0.00	0.05	0.12	0.12	0.12
Col3	12	0.00	0.05	0.13	0.13	0.13
Col3	13	0.00	0.05	0.13	0.13	0.13
Col3	14	0.00	0.05	0.13	0.13	0.13
Col3	15	0.00	0.05	0.13	0.13	0.13
Col3	16	0.00	0.05	0.13	0.13	0.13
Col3	17	0.00	0.05	0.13	0.13	0.13
Col3	18	0.00	0.04	0.10	0.10	0.10
Col3	19	0.00	0.04	0.10	0.10	0.10
Col3	20	0.00	0.04	0.10	0.10	0.10
Col3	21	0.00	0.04	0.10	0.10	0.10
Col3	22	0.00	0.04	0.10	0.10	0.10
Col3	23	0.00	0.04	0.10	0.10	0.10
Col3	24	0.00	0.04	0.10	0.10	0.10
Col3	25	0.00	0.04	0.10	0.10	0.10
Col3	26	0.00	0.04	0.10	0.10	0.10
Col3	27	0.00	0.04	0.10	0.10	0.10
Col3	28	0.00	0.04	0.10	0.10	0.10
Col3	29	0.00	0.04	0.10	0.10	0.10
Col3	30	0.00	0.04	0.10	0.10	0.10
Col3	31	0.00	0.04	0.10	0.10	0.10
Col3	32	0.00	0.04	0.10	0.10	0.10
Col3	33	0.00	0.04	0.10	0.10	0.10
Col3	34	0.00	0.05	0.12	0.12	0.12
Col3	35	0.00	0.05	0.12	0.12	0.12
Col3	36	0.00	0.05	0.13	0.13	0.13
Col3	37	0.00	0.05	0.13	0.13	0.13
Col3	38	0.00	0.05	0.13	0.13	0.13
Col3	39	0.00	0.05	0.13	0.13	0.13
Col3	40	0.00	0.05	0.13	0.13	0.13
Col3	41	0.00	0.05	0.13	0.13	0.13
Col3	42	0.00	0.00	0.00	0.00	0.00
Col3	43	0.00	0.00	0.00	0.00	0.00
Col3	44	0.00	0.00	0.00	0.00	0.00
Col3	45	0.00	0.00	0.00	0.00	0.00
Col3	46	0.00	0.00	0.00	0.00	0.00
Col3	47	0.00	0.00	0.00	0.00	0.00
Col3	48	0.00	0.00	0.00	0.00	0.00
Col3	49	0.00	0.00	0.00	0.00	0.00
Col3	50	0.00	0.00	0.00	0.00	0.00
Col3	51	0.00	0.00	0.00	0.00	0.00

Col3	52	0.00	0.00	0.00	0.00	0.00
Col3	53	0.00	0.00	0.00	0.00	0.00
Col3	54	0.00	0.00	0.00	0.00	0.00
Col3	55	0.00	0.00	0.00	0.00	0.00
Col3	56	0.00	0.00	0.00	0.00	0.00
Col3	57	0.00	0.00	0.00	0.00	0.00
Col3	58	0.00	0.00	0.00	0.00	0.00
Col3	59	0.00	0.00	0.00	0.00	0.00
Col3	60	0.00	0.00	0.00	0.00	0.00
Col3	61	0.00	0.00	0.00	0.00	0.00
Col3	62	0.00	0.00	0.00	0.00	0.00
Col3	63	0.00	0.00	0.00	0.00	0.00
Col3	64	0.00	0.00	0.00	0.00	0.00
Col3	65	0.00	0.00	0.00	0.00	0.00
Col3	66	0.00	0.00	0.00	0.00	0.00
Col3	67	0.00	0.00	0.00	0.00	0.00
Col3	68	0.00	0.00	0.00	0.00	0.00
Col3	69	0.00	0.00	0.00	0.00	0.00
Col3	70	0.00	0.00	0.00	0.00	0.00
Col3	71	0.00	0.00	0.00	0.00	0.00
Col3	72	0.00	0.00	0.00	0.00	0.00
Col3	73	0.00	0.00	0.00	0.00	0.00
Col3	74	0.00	0.00	0.00	0.00	0.00
Col3	75	0.00	0.00	0.00	0.00	0.00
Col3	76	0.00	0.00	0.00	0.00	0.00
Col3	77	0.00	0.00	0.00	0.00	0.00
Col3	78	0.00	0.00	0.00	0.00	0.00
Col3	79	0.00	0.00	0.00	0.00	0.00

COLUMN REACTIONS:

Id	Load		In_Plane		--Out_Plane_Horz--	
	Id	Vert(k)	Horz(k)	Base(k)	Roof(k)	
Col2	1	0.00	0.00	0.00	0.00	0.00
Col2	2	0.00	0.00	0.00	0.00	0.00
Col2	3	0.00	0.00	0.00	0.00	0.00
Col2	4	0.00	0.00	0.00	0.00	0.00
Col2	5	0.00	0.00	0.00	0.00	0.00
Col2	6	0.00	0.00	0.00	0.00	0.00
Col2	7	0.00	0.00	0.00	0.00	0.00
Col2	8	0.00	0.00	0.00	0.00	0.00
Col2	9	0.00	0.00	0.00	0.00	0.00
Col2	10	0.00	0.00	-1.72	-1.72	
Col2	11	0.00	0.00	-1.72	-1.72	
Col2	12	0.00	0.00	1.89	1.89	
Col2	13	0.00	0.00	1.89	1.89	
Col2	14	0.00	0.00	1.89	1.89	
Col2	15	0.00	0.00	1.89	1.89	
Col2	16	0.00	0.00	1.89	1.89	
Col2	17	0.00	0.00	1.89	1.89	
Col2	18	0.00	0.00	1.42	1.42	
Col2	19	0.00	0.00	1.42	1.42	
Col2	20	0.00	0.00	1.42	1.42	
Col2	21	0.00	0.00	1.42	1.42	
Col2	22	0.00	0.00	1.42	1.42	
Col2	23	0.00	0.00	1.42	1.42	
Col2	24	0.00	0.00	1.42	1.42	
Col2	25	0.00	0.00	1.42	1.42	
Col2	26	0.00	0.00	1.42	1.42	
Col2	27	0.00	0.00	1.42	1.42	
Col2	28	0.00	0.00	1.42	1.42	
Col2	29	0.00	0.00	1.42	1.42	
Col2	30	0.00	0.00	1.42	1.42	
Col2	31	0.00	0.00	1.42	1.42	
Col2	32	0.00	0.00	1.42	1.42	

Col2	33	0.00	0.00	1.42	1.42
Col2	34	0.00	0.00	-1.72	-1.72
Col2	35	0.00	0.00	-1.72	-1.72
Col2	36	0.00	0.00	1.89	1.89
Col2	37	0.00	0.00	1.89	1.89
Col2	38	0.00	0.00	1.89	1.89
Col2	39	0.00	0.00	1.89	1.89
Col2	40	0.00	0.00	1.89	1.89
Col2	41	0.00	0.00	1.89	1.89
Col2	42	0.00	0.00	0.00	0.00
Col2	43	0.00	0.00	0.00	0.00
Col2	44	0.00	0.00	0.00	0.00
Col2	45	0.00	0.00	0.00	0.00
Col2	46	0.00	0.00	0.00	0.00
Col2	47	0.00	0.00	0.00	0.00
Col2	48	0.00	0.00	0.00	0.00
Col2	49	0.00	0.00	0.00	0.00
Col2	50	0.00	0.00	0.00	0.00
Col2	51	0.00	0.00	0.00	0.00
Col2	52	0.00	0.00	0.00	0.00
Col2	53	0.00	0.00	0.00	0.00
Col2	54	0.00	0.00	0.00	0.00
Col2	55	0.00	0.00	0.00	0.00
Col2	56	0.00	0.00	0.00	0.00
Col2	57	0.00	0.00	0.00	0.00
Col2	58	0.00	0.00	0.00	0.00
Col2	59	0.00	0.00	0.00	0.00
Col2	60	0.00	0.00	0.00	0.00
Col2	61	0.00	0.00	0.00	0.00
Col2	62	0.00	0.00	0.00	0.00
Col2	63	0.00	0.00	0.00	0.00
Col2	64	0.00	0.00	0.00	0.00
Col2	65	0.00	0.00	0.00	0.00
Col2	66	0.00	0.00	0.00	0.00
Col2	67	0.00	0.00	0.00	0.00
Col2	68	0.00	0.00	0.00	0.00
Col2	69	0.00	0.00	0.00	0.00
Col2	70	0.00	0.00	0.00	0.00
Col2	71	0.00	0.00	0.00	0.00
Col2	72	0.00	0.00	0.00	0.00
Col2	73	0.00	0.00	0.00	0.00
Col2	74	0.00	0.00	0.00	0.00
Col2	75	0.00	0.00	0.00	0.00
Col2	76	0.00	0.00	0.00	0.00
Col2	77	0.00	0.00	0.00	0.00
Col2	78	0.00	0.00	0.00	0.00
Col2	79	0.00	0.00	0.00	0.00
Col3	1	0.00	0.00	0.00	0.00
Col3	2	0.00	0.00	0.00	0.00
Col3	3	0.00	0.00	0.00	0.00
Col3	4	0.00	0.00	0.00	0.00
Col3	5	0.00	0.00	0.00	0.00
Col3	6	0.00	0.00	0.00	0.00
Col3	7	0.00	0.00	0.00	0.00
Col3	8	0.00	0.00	0.00	0.00
Col3	9	0.00	0.00	0.00	0.00
Col3	10	0.00	0.00	-1.72	-1.72
Col3	11	0.00	0.00	-1.72	-1.72
Col3	12	0.00	0.00	1.89	1.89
Col3	13	0.00	0.00	1.89	1.89
Col3	14	0.00	0.00	1.89	1.89
Col3	15	0.00	0.00	1.89	1.89
Col3	16	0.00	0.00	1.89	1.89
Col3	17	0.00	0.00	1.89	1.89
Col3	18	0.00	0.00	1.42	1.42
Col3	19	0.00	0.00	1.42	1.42

Col3	20	0.00	0.00	1.42	1.42
Col3	21	0.00	0.00	1.42	1.42
Col3	22	0.00	0.00	1.42	1.42
Col3	23	0.00	0.00	1.42	1.42
Col3	24	0.00	0.00	1.42	1.42
Col3	25	0.00	0.00	1.42	1.42
Col3	26	0.00	0.00	1.42	1.42
Col3	27	0.00	0.00	1.42	1.42
Col3	28	0.00	0.00	1.42	1.42
Col3	29	0.00	0.00	1.42	1.42
Col3	30	0.00	0.00	1.42	1.42
Col3	31	0.00	0.00	1.42	1.42
Col3	32	0.00	0.00	1.42	1.42
Col3	33	0.00	0.00	1.42	1.42
Col3	34	0.00	0.00	-1.72	-1.72
Col3	35	0.00	0.00	-1.72	-1.72
Col3	36	0.00	0.00	1.89	1.89
Col3	37	0.00	0.00	1.89	1.89
Col3	38	0.00	0.00	1.89	1.89
Col3	39	0.00	0.00	1.89	1.89
Col3	40	0.00	0.00	1.89	1.89
Col3	41	0.00	0.00	1.89	1.89
Col3	42	0.00	0.00	0.00	0.00
Col3	43	0.00	0.00	0.00	0.00
Col3	44	0.00	0.00	0.00	0.00
Col3	45	0.00	0.00	0.00	0.00
Col3	46	0.00	0.00	0.00	0.00
Col3	47	0.00	0.00	0.00	0.00
Col3	48	0.00	0.00	0.00	0.00
Col3	49	0.00	0.00	0.00	0.00
Col3	50	0.00	0.00	0.00	0.00
Col3	51	0.00	0.00	0.00	0.00
Col3	52	0.00	0.00	0.00	0.00
Col3	53	0.00	0.00	0.00	0.00
Col3	54	0.00	0.00	0.00	0.00
Col3	55	0.00	0.00	0.00	0.00
Col3	56	0.00	0.00	0.00	0.00
Col3	57	0.00	0.00	0.00	0.00
Col3	58	0.00	0.00	0.00	0.00
Col3	59	0.00	0.00	0.00	0.00
Col3	60	0.00	0.00	0.00	0.00
Col3	61	0.00	0.00	0.00	0.00
Col3	62	0.00	0.00	0.00	0.00
Col3	63	0.00	0.00	0.00	0.00
Col3	64	0.00	0.00	0.00	0.00
Col3	65	0.00	0.00	0.00	0.00
Col3	66	0.00	0.00	0.00	0.00
Col3	67	0.00	0.00	0.00	0.00
Col3	68	0.00	0.00	0.00	0.00
Col3	69	0.00	0.00	0.00	0.00
Col3	70	0.00	0.00	0.00	0.00
Col3	71	0.00	0.00	0.00	0.00
Col3	72	0.00	0.00	0.00	0.00
Col3	73	0.00	0.00	0.00	0.00
Col3	74	0.00	0.00	0.00	0.00
Col3	75	0.00	0.00	0.00	0.00
Col3	76	0.00	0.00	0.00	0.00
Col3	77	0.00	0.00	0.00	0.00
Col3	78	0.00	0.00	0.00	0.00
Col3	79	0.00	0.00	0.00	0.00

COLUMN DEFLECTIONS:

Id	Load		Deflection(in)	
	Id	Calc	Limit	
Col2	80	0.00	0.58	

Col2	81	0.00	0.58
Col2	82	0.00	0.58
Col2	83	0.00	0.58
Col2	84	0.00	0.58
Col2	85	0.00	0.58
Col2	86	0.00	0.58
Col2	87	0.00	0.58
Col2	88	0.00	0.58
Col2	89	-0.01	0.58
Col2	90	-0.01	0.58
Col2	91	0.01	0.58
Col2	92	0.01	0.58
Col2	93	0.01	0.58
Col2	94	0.01	0.58
Col2	95	0.01	0.58
Col2	96	0.01	0.58
Col2	97	0.01	0.58
Col2	98	0.01	0.58
Col2	99	0.01	0.58
Col2	100	0.01	0.58
Col2	101	0.01	0.58
Col2	102	0.01	0.58
Col2	103	0.01	0.58
Col2	104	0.01	0.58
Col2	105	0.01	0.58
Col2	106	0.01	0.58
Col2	107	0.01	0.58
Col2	108	0.01	0.58
Col2	109	0.01	0.58
Col2	110	0.01	0.58
Col2	111	0.01	0.58
Col2	112	0.01	0.58
Col2	113	-0.01	0.58
Col2	114	-0.01	0.58
Col2	115	0.01	0.58
Col2	116	0.01	0.58
Col2	117	0.01	0.58
Col2	118	0.01	0.58
Col2	119	0.01	0.58
Col2	120	0.01	0.58
Col2	121	0.00	0.58
Col2	122	0.00	0.58
Col2	123	0.00	0.58
Col2	124	0.00	0.58
Col2	125	0.00	0.58
Col2	126	0.00	0.58
Col2	127	0.00	0.58
Col2	128	0.00	0.58
Col2	129	0.00	0.58
Col2	130	0.00	0.58
Col2	131	0.00	0.58
Col2	132	0.00	0.58
Col2	133	0.00	0.58
Col2	134	0.00	0.58
Col2	135	0.00	0.58
Col2	136	0.00	0.58
Col2	137	0.00	0.58
Col2	138	0.00	0.58
Col2	139	0.00	0.58
Col2	140	0.00	0.58
Col2	141	0.00	0.58
Col2	142	0.00	0.58
Col2	143	0.00	0.58
Col2	144	0.00	0.58
Col2	145	0.00	0.58
Col2	146	0.00	0.58

Col2	147	0.00	0.58
Col2	148	0.00	0.58
Col2	149	0.00	0.58
Col2	150	0.00	0.58
Col2	151	0.00	0.58
Col2	152	0.00	0.58
Col2	153	0.00	0.58
Col3	80	0.00	0.58
Col3	81	0.00	0.58
Col3	82	0.00	0.58
Col3	83	0.00	0.58
Col3	84	0.00	0.58
Col3	85	0.00	0.58
Col3	86	0.00	0.58
Col3	87	0.00	0.58
Col3	88	0.00	0.58
Col3	89	-0.01	0.58
Col3	90	-0.01	0.58
Col3	91	0.01	0.58
Col3	92	0.01	0.58
Col3	93	0.01	0.58
Col3	94	0.01	0.58
Col3	95	0.01	0.58
Col3	96	0.01	0.58
Col3	97	0.01	0.58
Col3	98	0.01	0.58
Col3	99	0.01	0.58
Col3	100	0.01	0.58
Col3	101	0.01	0.58
Col3	102	0.01	0.58
Col3	103	0.01	0.58
Col3	104	0.01	0.58
Col3	105	0.01	0.58
Col3	106	0.01	0.58
Col3	107	0.01	0.58
Col3	108	0.01	0.58
Col3	109	0.01	0.58
Col3	110	0.01	0.58
Col3	111	0.01	0.58
Col3	112	0.01	0.58
Col3	113	-0.01	0.58
Col3	114	-0.01	0.58
Col3	115	0.01	0.58
Col3	116	0.01	0.58
Col3	117	0.01	0.58
Col3	118	0.01	0.58
Col3	119	0.01	0.58
Col3	120	0.01	0.58
Col3	121	0.00	0.58
Col3	122	0.00	0.58
Col3	123	0.00	0.58
Col3	124	0.00	0.58
Col3	125	0.00	0.58
Col3	126	0.00	0.58
Col3	127	0.00	0.58
Col3	128	0.00	0.58
Col3	129	0.00	0.58
Col3	130	0.00	0.58
Col3	131	0.00	0.58
Col3	132	0.00	0.58
Col3	133	0.00	0.58
Col3	134	0.00	0.58
Col3	135	0.00	0.58
Col3	136	0.00	0.58
Col3	137	0.00	0.58
Col3	138	0.00	0.58

Col3	139	0.00	0.58
Col3	140	0.00	0.58
Col3	141	0.00	0.58
Col3	142	0.00	0.58
Col3	143	0.00	0.58
Col3	144	0.00	0.58
Col3	145	0.00	0.58
Col3	146	0.00	0.58
Col3	147	0.00	0.58
Col3	148	0.00	0.58
Col3	149	0.00	0.58
Col3	150	0.00	0.58
Col3	151	0.00	0.58
Col3	152	0.00	0.58
Col3	153	0.00	0.58

UNBRACED LENGTH:

Id	Major	Minor	----KL/R----	
	(ft)	(ft)	Major	Minor
Col2	8.6	3.5	27	54
Col3	8.6	3.5	27	54

LOAD COMBINATIONS:

Strength Combinations

- 1 - Dead+Collateral+Live
- 2 - Dead+Collateral
- 3 - Dead+Collateral+Snow
- 4 - Dead+Collateral+Snow+Snow_Drift
- 5 - Dead+Collateral+Snow+Slide_Snow
- 6 - Dead+Collateral+0.75Live
- 7 - Dead+Collateral+0.75Snow
- 8 - Dead+Collateral+0.75Snow+0.75Snow_Drift
- 9 - Dead+Collateral+0.75Snow+0.75Slide_Snow
- 10 - Dead+0.6Wind_Pressure+0.6Wind_Long1
- 11 - Dead+0.6Wind_Pressure+0.6Wind_Long2
- 12 - Dead+0.6Wind_Suction+0.6Wind_Long1
- 13 - Dead+0.6Wind_Suction+0.6Wind_Long2
- 14 - Dead+0.6Wind_Left1+0.6Wind_Suction
- 15 - Dead+0.6Wind_Right1+0.6Wind_Suction
- 16 - Dead+0.6Wind_Left2+0.6Wind_Suction
- 17 - Dead+0.6Wind_Right2+0.6Wind_Suction
- 18 - Dead+Collateral+0.75Live+0.45Wind_Left2+0.45Wind_Suction
- 19 - Dead+Collateral+0.75Live+0.45Wind_Right2+0.45Wind_Suction
- 20 - Dead+Collateral+0.75Live+0.45Wind_Suction+0.45Wind_Long1
- 21 - Dead+Collateral+0.75Live+0.45Wind_Suction+0.45Wind_Long2
- 22 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.45Wind_Suction
- 23 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.45Wind_Suction
- 24 - Dead+Collateral+0.75Snow+0.45Wind_Suction+0.45Wind_Long1
- 25 - Dead+Collateral+0.75Snow+0.45Wind_Suction+0.45Wind_Long2
- 26 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.45Wind_Suction+0.75Snow_Drif
- 27 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.45Wind_Suction+0.75Snow_Dri
- 28 - Dead+Collateral+0.75Snow+0.45Wind_Suction+0.45Wind_Long1+0.75Snow_Drif
- 29 - Dead+Collateral+0.75Snow+0.45Wind_Suction+0.45Wind_Long2+0.75Snow_Drif
- 30 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.45Wind_Suction+0.75Slide_Sno
- 31 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.45Wind_Suction+0.75Slide_Sn
- 32 - Dead+Collateral+0.75Snow+0.45Wind_Suction+0.45Wind_Long1+0.75Slide_Sno
- 33 - Dead+Collateral+0.75Snow+0.45Wind_Suction+0.45Wind_Long2+0.75Slide_Sno
- 34 - 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1
- 35 - 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2
- 36 - 0.6Dead+0.6Wind_Suction+0.6Wind_Long1
- 37 - 0.6Dead+0.6Wind_Suction+0.6Wind_Long2
- 38 - 0.6Dead+0.6Wind_Left1+0.6Wind_Suction

39 - 0.6Dead+0.6Wind_Right1+0.6Wind_Suction
40 - 0.6Dead+0.6Wind_Left2+0.6Wind_Suction
41 - 0.6Dead+0.6Wind_Right2+0.6Wind_Suction
42 - 1.11Dead+1.11Collateral+0.7Seismic_L
43 - 1.11Dead+1.11Collateral+0.7Seismic_R
44 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_L
45 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R
46 - 1.08Dead+1.08Collateral+0.53Seismic_L
47 - 1.08Dead+1.08Collateral+0.53Seismic_R
48 - 0.49Dead+0.7Seismic_L
49 - 0.49Dead+0.7Seismic_R
50 - 0.6Dead+0.6Wind_Left1
51 - 0.6Dead+0.6Wind_Right1
52 - 0.6Dead+0.6Wind_Left2
53 - 0.6Dead+0.6Wind_Right2
54 - 0.6Dead+0.6Wind_Long1
55 - 0.6Dead+0.6Wind_Long2
56 - Dead+Collateral+0.75Live+0.45Wind_Left1
57 - Dead+Collateral+0.75Live+0.45Wind_Right1
58 - Dead+Collateral+0.75Live+0.45Wind_Left2
59 - Dead+Collateral+0.75Live+0.45Wind_Right2
60 - Dead+Collateral+0.75Live+0.45Wind_Long1
61 - Dead+Collateral+0.75Live+0.45Wind_Long2
62 - Dead+Collateral+0.75Snow+0.45Wind_Left1
63 - Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Snow_Drift
64 - Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Slide_Snow
65 - Dead+Collateral+0.75Snow+0.45Wind_Right1
66 - Dead+Collateral+0.75Snow+0.45Wind_Right1+0.75Snow_Drift
67 - Dead+Collateral+0.75Snow+0.45Wind_Right1+0.75Slide_Snow
68 - Dead+Collateral+0.75Snow+0.45Wind_Left2
69 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.75Snow_Drift
70 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.75Slide_Snow
71 - Dead+Collateral+0.75Snow+0.45Wind_Right2
72 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.75Snow_Drift
73 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.75Slide_Snow
74 - Dead+Collateral+0.75Snow+0.45Wind_Long1
75 - Dead+Collateral+0.75Snow+0.45Wind_Long2
76 - Dead+Collateral+0.75Snow+0.45Wind_Long1+0.75Snow_Drift
77 - Dead+Collateral+0.75Snow+0.45Wind_Long2+0.75Snow_Drift
78 - Dead+Collateral+0.75Snow+0.45Wind_Long1+0.75Slide_Snow
79 - Dead+Collateral+0.75Snow+0.45Wind_Long2+0.75Slide_Snow

Deflection Combinations

80 - Dead+Collateral+Live
81 - Dead+Collateral
82 - Dead+Collateral+Snow
83 - Dead+Collateral+Snow+Snow_Drift
84 - Dead+Collateral+Snow+Slide_Snow
85 - Dead+Collateral+0.75Live
86 - Dead+Collateral+0.75Snow
87 - Dead+Collateral+0.75Snow+0.75Snow_Drift
88 - Dead+Collateral+0.75Snow+0.75Slide_Snow
89 - Dead+0.18Wind_Pressure+0.18Wind_Long1
90 - Dead+0.18Wind_Pressure+0.18Wind_Long2
91 - Dead+0.18Wind_Suction+0.18Wind_Long1
92 - Dead+0.18Wind_Suction+0.18Wind_Long2
93 - Dead+0.18Wind_Left1+0.18Wind_Suction
94 - Dead+0.18Wind_Right1+0.18Wind_Suction
95 - Dead+0.18Wind_Left2+0.18Wind_Suction
96 - Dead+0.18Wind_Right2+0.18Wind_Suction
97 - Dead+Collateral+0.75Live+0.14Wind_Left2+0.14Wind_Suction
98 - Dead+Collateral+0.75Live+0.14Wind_Right2+0.14Wind_Suction
99 - Dead+Collateral+0.75Live+0.14Wind_Suction+0.14Wind_Long1
100 - Dead+Collateral+0.75Live+0.14Wind_Suction+0.14Wind_Long2
101 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.14Wind_Suction
102 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.14Wind_Suction
103 - Dead+Collateral+0.75Snow+0.14Wind_Suction+0.14Wind_Long1

- 104 - Dead+Collateral+0.75Snow+0.14Wind_Suction+0.14Wind_Long2
- 105 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.14Wind_Suction+0.75Snow_Drif
- 106 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.14Wind_Suction+0.75Snow_Dri
- 107 - Dead+Collateral+0.75Snow+0.14Wind_Suction+0.14Wind_Long1+0.75Snow_Drif
- 108 - Dead+Collateral+0.75Snow+0.14Wind_Suction+0.14Wind_Long2+0.75Snow_Drif
- 109 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.14Wind_Suction+0.75Slide_Sno
- 110 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.14Wind_Suction+0.75Slide_Sn
- 111 - Dead+Collateral+0.75Snow+0.14Wind_Suction+0.14Wind_Long1+0.75Slide_Sno
- 112 - Dead+Collateral+0.75Snow+0.14Wind_Suction+0.14Wind_Long2+0.75Slide_Sno
- 113 - 0.6Dead+0.18Wind_Pressure+0.18Wind_Long1
- 114 - 0.6Dead+0.18Wind_Pressure+0.18Wind_Long2
- 115 - 0.6Dead+0.18Wind_Suction+0.18Wind_Long1
- 116 - 0.6Dead+0.18Wind_Suction+0.18Wind_Long2
- 117 - 0.6Dead+0.18Wind_Left1+0.18Wind_Suction
- 118 - 0.6Dead+0.18Wind_Right1+0.18Wind_Suction
- 119 - 0.6Dead+0.18Wind_Left2+0.18Wind_Suction
- 120 - 0.6Dead+0.18Wind_Right2+0.18Wind_Suction
- 121 - 1.11Dead+1.11Collateral+0.7Seismic_L
- 122 - 1.11Dead+1.11Collateral+0.7Seismic_R
- 123 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_L
- 124 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R
- 125 - 1.08Dead+1.08Collateral+0.75Snow+0.53Seismic_L
- 126 - 1.08Dead+1.08Collateral+0.75Snow+0.53Seismic_R
- 127 - 1.08Dead+1.08Collateral+0.75Snow+0.53Seismic_L+0.75Snow_Drift
- 128 - 1.08Dead+1.08Collateral+0.75Snow+0.53Seismic_R+0.75Snow_Drift
- 129 - 1.08Dead+1.08Collateral+0.75Snow+0.53Seismic_L+0.75Slide_Snow
- 130 - 1.08Dead+1.08Collateral+0.75Snow+0.53Seismic_R+0.75Slide_Snow
- 131 - 0.49Dead+0.7Seismic_L
- 132 - 0.49Dead+0.7Seismic_R
- 133 - 0.6Dead+0.18Wind_Left1
- 134 - 0.6Dead+0.18Wind_Right1
- 135 - 0.6Dead+0.18Wind_Left2
- 136 - 0.6Dead+0.18Wind_Right2
- 137 - 0.6Dead
- 138 - Dead+Collateral+0.75Live+0.14Wind_Left1
- 139 - Dead+Collateral+0.75Live+0.14Wind_Right1
- 140 - Dead+Collateral+0.75Live+0.14Wind_Left2
- 141 - Dead+Collateral+0.75Live+0.14Wind_Right2
- 142 - Dead+Collateral+0.75Snow+0.14Wind_Left1
- 143 - Dead+Collateral+0.75Snow+0.14Wind_Left1+0.75Snow_Drift
- 144 - Dead+Collateral+0.75Snow+0.14Wind_Left1+0.75Slide_Snow
- 145 - Dead+Collateral+0.75Snow+0.14Wind_Right1
- 146 - Dead+Collateral+0.75Snow+0.14Wind_Right1+0.75Snow_Drift
- 147 - Dead+Collateral+0.75Snow+0.14Wind_Right1+0.75Slide_Snow
- 148 - Dead+Collateral+0.75Snow+0.14Wind_Left2
- 149 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.75Snow_Drift
- 150 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.75Slide_Snow
- 151 - Dead+Collateral+0.75Snow+0.14Wind_Right2
- 152 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.75Snow_Drift
- 153 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.75Slide_Snow

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2275 Wall 1 - Wide Opening Framing 3/10/20 3:49am

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LAYOUT:

Open				-Bay_Id				Attach	No.
Id	Use	Member	Locate	St	End	Part	Length	Offset	Brace
1	Open	Strut1	20.0			W6X15	18.83	10.00	0
1	Open	Strut2	40.0			W6X15	18.83	10.00	0
1	Open	Brace1	20.0			T3x188	12.98	10.00	
1	Open	Brace2	40.0			T3x188	12.98	10.00	
1	Open	Header1	16.0	1	1		20.02		
1	Open	Header2	16.0	2	2		20.00		
1	Open	Header3	16.0	3	3		20.02		

DESIGN ACTIONS:

Member	Load Id	-Axial(k)-		-Shear(k)-		Moment(f-k)	
		Calc	Limit	Calc	Limit	Calc	Limit
Strut1	12	2.66	27.60	1.39	27.55	12.12	13.76
	10	-2.41	131.7	-1.26	27.55	-11.0	13.76
Strut2	12	2.66	27.60	1.39	27.55	12.12	13.76
	10	-2.41	131.7	-1.26	27.55	-11.0	13.76
Brace1	10	3.29	15.23	0.00	13.03		
	12	-3.62	47.60	0.00	13.03		
Brace2	10	3.29	15.23	0.00	13.03		
	12	-3.62	47.60	0.00	13.03		
Header1	12			0.00	0.00	0.00	0.00
	10			0.00	0.00	0.00	0.00
Header2	12			0.00	0.00	0.00	0.00
	10			0.00	0.00	0.00	0.00
Header3	12			0.00	0.00	0.00	0.00
	10			0.00	0.00	0.00	0.00

UNITY CHECKS:

Member	Load Id	Axial	Shear	Moment	Axl+Mom	Shr+Mom
Strut1	12	0.10	0.05	0.88	0.93	0.00
	10	0.02	0.05	0.80	0.74	0.00
Strut2	12	0.10	0.05	0.88	0.93	0.00
	10	0.02	0.05	0.80	0.74	0.00
Brace1	10	0.22	0.00			
	12	0.08	0.00			
Brace2	10	0.22	0.00			
	12	0.08	0.00			
Header1	12		0.00	0.00		0.00
	10		0.00	0.00		0.00
Header2	12		0.00	0.00		0.00
	10		0.00	0.00		0.00
Header3	12		0.00	0.00		0.00
	10		0.00	0.00		0.00

DEFLECTION:

Member	Load Id	Calc	Limit
Header1	91	0.0	0.0
Header2	91	0.0	0.0
Header3	91	0.0	0.0

CONNECTIONS:

Member	Type	-----Bolt_Selected-----					--Bolt_Capacity--			----Plate----	
		Type	Dia	Gage	Wash	Quan	Calc	Allow	UC	Width	Thick
Strut1	S3	A325	0.750	3.50	1	2	3.6	23.9	0.15	6.50	0.375
Strut2	S3	A325	0.750	3.50	1	2	3.6	23.9	0.15	6.50	0.375
Brace1	S0	A325	0.750		1	1	3.6	10.7	0.34		0.000
Brace2	S0	A325	0.750		1	1	3.6	10.7	0.34		0.000

UNBRACED LENGTH:

Member	--Unbrace_Length(ft)--			Max KL/r
	Major	MinorO	MinorI	
Strut1	18.8	18.8	18.8	155
Strut2	18.8	18.8	18.8	155
Brace1	13.0	13.0	13.0	137
Brace2	13.0	13.0	13.0	137

LOAD COMBINATIONS:

Strength Combinations

10 - Dead+0.6Wind_Pressure+0.6Wind_Long1

12 - Dead+0.6Wind_Suction+0.6Wind_Long1

Deflection Combinations

91 - Dead+0.18Wind_Suction+0.18Wind_Long1

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2275	Wall 1 - Bypass Girt Layout	3/10/20	3:49am
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GIRT LAYOUT:

Locate	Des Id	Bay Id Part	Bay_Offset		Design Length	---Extend---		Weight	----Max_Load----			Rot	
			Start	End		Left	Right		Id	UC	Report		
16.00	1	1	10x25Z16	0.00	20.02	20.02	0.00	1.00	73.6	WS	0.31	Moment	D
		2	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.27	Mom+Shr	D
		3	10x25Z16	0.00	20.02	20.02	1.00	0.00	73.6	WS	0.31	Moment	D
19.50	2	1	10x25Z16	0.00	20.02	20.02	0.00	1.00	73.6	WS	0.63	Moment	D
		2	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.54	Mom+Shr	D
		3	10x25Z16	0.00	20.02	20.02	1.00	0.00	73.6	WS	0.63	Moment	D
23.00	3	1	10x25Z16	0.00	20.02	20.02	0.00	1.00	73.6	WS	0.53	Moment	D
		2	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.51	Mom+Shr	D
		3	10x25Z16	0.00	20.02	20.02	1.00	0.00	73.6	WS	0.53	Moment	D

WS - 0.6Wind_Suction

GIRT INSIDE FLANGE BRACE:

No._Brace/Bay		
1	2	3
0	0	0

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2275	Wall 1 - Girt Design 1 (Locate 16.00)	3/10/20	3:49am
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GIRT LAYOUT:

Bay Id	Part	Locate	Design Length	--Lap(ft)--		Load Width	No. Brace	Weight	Available Reduction Factor	
				Left	Right				Out	In
1	10x25Z16	16.0000	20.02		1.00	1.75	0	73.6	0.00	0.70
2	10x25Z16	16.0000	20.00	1.00	1.00	1.75	0	77.0	0.00	0.70
3	10x25Z16	16.0000	20.02	1.00		1.75	0	73.6	0.00	0.70
									----- 224.1	

LOAD ID : 0.6Wind_Pressure

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Right Loc	Right Lap	Right Sup
1	0.28		-0.38	-0.42	0.00		-1.11	8.01	0.99	1.39
2	0.35	0.31	-0.31	-0.35	1.39	1.06	-0.35	10.00	1.06	1.39
3	0.42	0.38		-0.28	1.39	0.99	-1.11	12.01		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	-0.38	2.0	0.19	MidS	-1.11	4.54	0.25	RLap	0.26	-0.16	
2	LLap	0.31	2.0	0.15	RLap	1.06	4.89	0.22	LLap	0.24	-0.01	
3	LLap	0.38	2.0	0.19	MidS	-1.11	4.54	0.25	LLap	0.26	-0.16	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay	-----Left_Lap-----				-----Right_Lap-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.35	2.65	1.93	0.18
2	0.35	2.65	1.93	0.18	0.35	2.65	1.93	0.18
3	0.35	2.65	1.93	0.18				

LOAD ID : 0.6Wind_Suction

GIRT ACTIONS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----						
Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup	
1	-0.32		0.42	0.46	0.00		1.25	8.18	-1.10	-1.54	
2	-0.38	-0.34	0.34	0.38	-1.54	-1.18	0.37	10.00	-1.18	-1.54	
3	-0.46	-0.42		0.32	-1.54	-1.10	1.25	11.84		0.00	

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	0.42	2.0	0.21	MidS	1.25	4.01	0.31	RLap	0.28	0.19	
2	LLap	-0.34	2.0	0.17	LLap	-1.18	4.54	0.26	LLap	0.27	0.01	
3	LLap	-0.42	2.0	0.21	MidS	1.25	4.01	0.31	LLap	0.28	0.19	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay	-----Left_Lap-----				-----Right_Lap-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.39	2.65	1.93	0.20
2	0.39	2.65	1.93	0.20	0.39	2.65	1.93	0.20
3	0.39	2.65	1.93	0.20				

DEFLECTION: (Working Load)

Span Id	Wind_Pressure		Wind_Suction		Seis_Pressure		Seis_Suction	
	Calc	Allow	Calc	Allow	Calc	Allow	Calc	Allow
1	-0.05	2.67	0.05	2.67				
2	0.00	2.67	0.00	2.67				
3	-0.05	2.67	0.05	2.67				

2275 Wall 1 - Girt Design 2 (Locate 19.50) 3/10/20 3:49am

GIRT LAYOUT:

Bay Id	Part	Locate	Design Length	--Lap(ft)--		Load Width	No. Brace	Weight	Available Reduction Factor	
				Left	Right				Out	In
1	10x25Z16	19.5000	20.02		1.00	3.50	0	73.6	0.00	0.70
2	10x25Z16	19.5000	20.00	1.00	1.00	3.50	0	77.0	0.00	0.70
3	10x25Z16	19.5000	20.02	1.00		3.50	0	73.6	0.00	0.70

								224.1		

LOAD ID : 0.6Wind_Pressure

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----						
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup	
1	0.56		-0.77	-0.83	0.00		-2.23	8.01	1.98	2.78	
2	0.70	0.63	-0.63	-0.70	2.78	2.12	-0.69	10.00	2.12	2.78	
3	0.83	0.77		-0.56	2.78	1.98	-2.23	12.01		0.00	

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	-0.77	2.0	0.38	MidS	-2.23	4.54	0.49	RLap	0.51	-0.33	
2	LLap	0.63	2.0	0.31	RLap	2.12	4.89	0.43	LLap	0.48	-0.02	
3	LLap	0.77	2.0	0.38	MidS	-2.23	4.54	0.49	LLap	0.51	-0.33	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap-----				-----Right_Lap-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.70	2.65	1.93	0.36
2	0.70	2.65	1.93	0.36	0.70	2.65	1.93	0.36
3	0.70	2.65	1.93	0.36				

LOAD ID : 0.6Wind_Suction

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----						
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup	
1	-0.64		0.85	0.93	0.00		2.51	8.18	-2.20	-3.09	
2	-0.77	-0.69	0.69	0.77	-3.09	-2.36	0.74	10.00	-2.36	-3.09	
3	-0.93	-0.85		0.64	-3.09	-2.20	2.51	11.84		0.00	

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit

1	RLap	0.85	2.0	0.42	MidS	2.51	4.01	0.63	RLap	0.57	0.37
2	LLap	-0.69	2.0	0.34	LLap	-2.36	4.54	0.52	LLap	0.54	0.02
3	LLap	-0.85	2.0	0.42	MidS	2.51	4.01	0.63	LLap	0.57	0.37

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap-----				-----Right_Lap-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.77	2.65	1.93	0.40
2	0.77	2.65	1.93	0.40	0.77	2.65	1.93	0.40
3	0.77	2.65	1.93	0.40				

DEFLECTION: (Working Load)

Span Id	Wind_Pressure		Wind_Suction		Seis_Pressure		Seis_Suction	
	Calc	Allow	Calc	Allow	Calc	Allow	Calc	Allow
1	-0.10	2.67	0.11	2.67				
2	-0.01	2.67	0.01	2.67				
3	-0.10	2.67	0.11	2.67				

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 2275 Wall 1 - Girt Design 3 (Locate 23.00) 3/10/20 3:49am
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GIRT LAYOUT:

Bay Id	Part	Locate	Design Length	--Lap(ft)--		Load Width	No. Brace	Weight	Available Reduction Factor	
				Left	Right				Out	In
1	10x25Z16	23.0000	20.02		1.00	3.08	0	73.6	0.00	0.70
2	10x25Z16	23.0000	20.00	1.00	1.00	3.50	0	77.0	0.00	0.70
3	10x25Z16	23.0000	20.02	1.00		3.08	0	73.6	0.00	0.70
								224.1		

LOAD ID : 0.6Wind_Pressure

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Right Loc	Right Lap	Right Sup
1	0.48		-0.68	-0.74	0.00		-1.89	7.87	1.90	2.61
2	0.70	0.63	-0.63	-0.70	2.61	1.95	-0.86	10.00	1.95	2.61
3	0.74	0.68		-0.48	2.61	1.90	-1.89	12.15		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	-0.68	2.0	0.34	MidS	-1.89	4.54	0.42	RLap	0.47	-0.27	
2	RLap	-0.63	2.0	0.31	RLap	1.95	4.92	0.40	RLap	0.46	-0.06	
3	LLap	0.68	2.0	0.34	MidS	-1.89	4.54	0.42	LLap	0.47	-0.27	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap-----				-----Right_Lap-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.65	2.65	1.93	0.34
2	0.65	2.65	1.93	0.34	0.65	2.65	1.93	0.34
3	0.65	2.65	1.93	0.34				

LOAD ID : 0.6Wind_Suction

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup
1	-0.55		0.76	0.82	0.00		2.13	8.05	-2.11	-2.90
2	-0.77	-0.69	0.69	0.77	-2.90	-2.17	0.93	10.00	-2.17	-2.90
3	-0.82	-0.76		0.55	-2.90	-2.11	2.13	11.97		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	0.76	2.0	0.37	MidS	2.13	4.01	0.53	RLap	0.53	0.31	
2	LLap	-0.69	2.0	0.34	LLap	-2.17	4.54	0.48	LLap	0.51	0.06	
3	LLap	-0.76	2.0	0.37	MidS	2.13	4.01	0.53	LLap	0.53	0.31	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap-----				-----Right_Lap-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.72	2.65	1.93	0.38
2	0.72	2.65	1.93	0.38	0.72	2.65	1.93	0.38
3	0.72	2.65	1.93	0.38				

DEFLECTION: (Working Load)

Span Id	Wind_Pressure		Wind_Suction		Seis_Pressure		Seis_Suction	
	Calc	Allow	Calc	Allow	Calc	Allow	Calc	Allow
1	-0.08	2.67	0.09	2.67				
2	-0.02	2.67	0.02	2.67				
3	-0.08	2.67	0.09	2.67				

2275 Wall 1 - Wall Panel Design 3/10/20 3:49am

PANEL DATA:

Bay Id	Part	Type	Gage	Yield	Rotation Stiffness	Panel Height
1	24 A	A	24.00	50.0	0.00	25.65

MOMENTS & DEFLECTION:

Span Id	Locate(ft)		Load	-----Moment (ft-lb/ft)-----						Deflect(in)		
	Start	End		Start Calc	Limit	Midspan Calc	Limit	End Calc	Limit	Max UC	Calc	Limit
1	16.00	19.50	WP	0.0	150.0	-23.3	150.0	32.3	150.0	0.22	0.00	0.70
			WS	0.0	150.0	31.0	150.0	-43.0	150.0	0.29	0.00	0.70
2	19.50	23.00	WP	32.3	150.0	-10.9	150.0	21.6	150.0	0.22	0.00	0.70
			WS	-43.0	150.0	14.6	150.0	-28.7	150.0	0.29	0.00	0.70
3	23.00	25.65	WP	21.6	150.0	-12.2	150.0	0.0	150.0	0.14	0.00	0.53
			WS	-28.7	150.0	16.2	150.0	0.0	150.0	0.19	0.00	0.53

WP - 0.6Wind_Pressure
WS - 0.6Wind_Suction

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2275 Wall 1 - Panel Zones 3/10/20 3:49am
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PANEL:

Part	Thick (in)	Yield (ksi)	Tensile Strength (ksi)
24 A	0.024	50.00	65.00

GIRT SCREWS:

Part	Dia (in)	Washer (in)	Limit (k)
1"-TEK (	0.25	0.50	1.00

PANEL ZONE LAYOUT:

Zone Id	Description	---Wall(ft)---		Bay Id	--Girt(ft,ft,in)--			Panel Span (ft)
		Offset1	Offset2		Locate	Width	Min Thick	
1	Interior	6.00	54.04	2	19.50	3.50	0.060	3.50
2	Lt Edge	0.00	6.00	1	19.50	3.50	0.060	3.50
3	Rt Edge	54.04	60.04	3	19.50	3.50	0.060	3.50

GIRT SCREW CHECK:

Zone Id	Screw Space (ft)	Wind Suction (psf)	Load (k)	-----Limit(k)-----			Max UC
				Girt Pullout	Panel Pullover	Screw Tension	
1	0.50	32.76	0.06	0.30	0.40	0.27	0.22
2	0.50	32.76	0.06	0.30	0.40	0.27	0.21
3	0.50	32.76	0.06	0.30	0.40	0.27	0.21

BASE SCREWS:

Part	Dia (in)	Washer (in)	Limit (k)
1"-TEK (	0.25	0.50	1.00

BASE SCREW CHECK:

Base Length	Screw Space (ft)	Force/Wind (k)	Screw Seis (k)	Shear Limit (k)	Max UC

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2275 Wall 1 - Weight Summary 3/10/20 3:49am
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Columns	=	207.46
Girts	=	672.44
Struts	=	739.58
Clips	=	29.70

Total Weight	=	1649.17

```
=====
2275          Wall 1 - Warning Summary          3/10/20  3:49am
=====
```

.. No Warnings

2275 Wall 2 - Design Code 3/10/20 3:49am

STRUCTURAL CODE:

Design Basis : WS - Working Stress
 Hot Rolled Steel : AISC16
 Cold Formed Steel : NAUS16

BUILDING CODE:

Wind Code : PRC 18 (IBC 18)
 Seismic Zone : D

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi)
 Cold Formed Steel : 29500 (ksi)

2275 Wall 2 - Bypass Girt Layout 3/10/20 3:49am

GIRT LAYOUT:

Locate	Des Id	Bay Id	Part	Bay_Offset		Design Length	---Extend---		Weight	----Max_Load----			Rot
				Start	End		Left	Right		Id	UC	Report	
16.00	1	1	10x25Z16	1.19	20.02	18.83	0.00	1.00	69.4	WS	0.28	Mom+Shr	D
		2	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.27	Mom+Shr	D
		3	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.23	Mom+Shr	D
		4	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.27	Mom+Shr	D
		5	10x25Z16	0.00	18.83	18.83	1.00	0.00	69.4	WS	0.28	Mom+Shr	D
19.58	2	1	10x25Z16	1.19	20.02	18.83	0.00	1.00	69.4	WS	0.56	Mom+Shr	D
		2	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.54	Mom+Shr	D
		3	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.47	Mom+Shr	D
		4	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.54	Mom+Shr	D
		5	10x25Z16	0.00	18.83	18.83	1.00	0.00	69.4	WS	0.56	Mom+Shr	D

WS - 0.6Wind_Suction

GIRT INSIDE FLANGE BRACE:

No._Brace/Bay					
1	2	3	4	5	
0	0	0	0	0	

2275 Wall 2 - Girt Design 1 (Locate 16.00) 3/10/20 3:49am

GIRT LAYOUT:

Bay Id	Part	Locate	Design Length	--Lap(ft)--		Load Width	No. Brace	Weight	Available Reduction Factor	
				Left	Right				Out	In
1	10x25Z16	16.0000	18.83		1.00	1.79	0	69.4	0.00	0.70
2	10x25Z16	16.0000	20.00	1.00	1.00	1.79	0	77.0	0.00	0.70
3	10x25Z16	16.0000	20.00	1.00	1.00	1.79	0	77.0	0.00	0.70
4	10x25Z16	16.0000	20.00	1.00	1.00	1.79	0	77.0	0.00	0.70
5	10x25Z16	16.0000	18.83	1.00		1.79	0	69.4	0.00	0.70

369.8

LOAD ID:0.6Wind_Pressure

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup
1	0.26		-0.37	-0.41	0.00		-0.96	7.35	1.00	1.39
2	0.37	0.33	-0.31	-0.34	1.39	1.04	-0.51	10.34	0.82	1.15
3	0.36	0.32	-0.32	-0.36	1.15	0.81	-0.63	10.00	0.81	1.15
4	0.34	0.31	-0.33	-0.37	1.15	0.82	-0.51	9.66	1.04	1.39
5	0.41	0.37		-0.26	1.39	1.00	-0.96	11.49		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	-0.37	2.02	0.18	MidS	-0.96	4.54	0.21	RLap	0.25	-0.12	
2	LLap	0.33	2.02	0.16	LLap	1.04	4.93	0.21	LLap	0.24	-0.05	
3	LLap	0.32	2.02	0.16	LLap	0.81	5.00	0.16	LLap	0.21	-0.07	
4	RLap	-0.33	2.02	0.16	RLap	1.04	4.93	0.21	RLap	0.24	-0.05	
5	LLap	0.37	2.02	0.18	MidS	-0.96	4.54	0.21	LLap	0.25	-0.12	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.35	2.65	1.93	0.18
2	0.35	2.65	1.93	0.18	0.29	2.65	1.93	0.15
3	0.29	2.65	1.93	0.15	0.29	2.65	1.93	0.15
4	0.29	2.65	1.93	0.15	0.35	2.65	1.93	0.18
5	0.35	2.65	1.93	0.18				

LOAD ID:0.6Wind_Suction

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup
1	-0.30		0.41	0.45	0.00		1.07	7.50	-1.10	-1.54
2	-0.41	-0.37	0.34	0.38	-1.54	-1.15	0.56	10.35	-0.90	-1.26
3	-0.39	-0.35	0.35	0.39	-1.26	-0.89	0.70	10.00	-0.89	-1.26
4	-0.38	-0.34	0.37	0.41	-1.26	-0.90	0.56	9.65	-1.15	-1.54
5	-0.45	-0.41		0.30	-1.54	-1.10	1.07	11.34		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	0.41	2.02	0.20	MidS	1.07	4.01	0.27	RLap	0.28	0.13	
2	LLap	-0.37	2.02	0.18	LLap	-1.15	4.54	0.25	LLap	0.27	0.05	
3	LLap	-0.35	2.02	0.17	LLap	-0.89	4.54	0.20	LLap	0.23	0.08	
4	RLap	0.37	2.02	0.18	RLap	-1.15	4.54	0.25	RLap	0.27	0.05	
5	LLap	-0.41	2.02	0.20	MidS	1.07	4.01	0.27	LLap	0.28	0.13	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.38	2.65	1.93	0.20
2	0.38	2.65	1.93	0.20	0.32	2.65	1.93	0.16
3	0.32	2.65	1.93	0.16	0.32	2.65	1.93	0.16
4	0.32	2.65	1.93	0.16	0.38	2.65	1.93	0.20
5	0.38	2.65	1.93	0.20				

DEFLECTION: (Working Load)

Span Id	Wind_Pressure		Wind_Suction	
	Calc	Limit	Calc	Limit
1	-0.04	2.51	0.04	2.51
2	-0.01	2.67	0.02	2.67
3	-0.02	2.67	0.02	2.67
4	-0.01	2.67	0.02	2.67
5	-0.04	2.51	0.04	2.51

=====
 2275 Wall 2 - Girt Design 2 (Locate 19.58) 3/10/20 3:49am
 =====

GIRT LAYOUT:

Bay Id	Part	Locate	Design Length	--Lap(ft)--		Load Width	No. Brace	Weight	Available Reduction Factor	
				Left	Right				Out	In
1	10x25Z16	19.5833	18.83		1.00	3.57	0	69.4	0.00	0.70
2	10x25Z16	19.5833	20.00	1.00	1.00	3.57	0	77.0	0.00	0.70
3	10x25Z16	19.5833	20.00	1.00	1.00	3.57	0	77.0	0.00	0.70
4	10x25Z16	19.5833	20.00	1.00	1.00	3.57	0	77.0	0.00	0.70
5	10x25Z16	19.5833	18.83	1.00		3.57	0	69.4	0.00	0.70

								369.8		

LOAD ID:0.6Wind_Pressure

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Right Loc	Right Lap	Right Sup
1	0.52		-0.74	-0.81	0.00		-1.91	7.35	1.98	2.76
2	0.73	0.66	-0.61	-0.69	2.76	2.07	-1.03	10.34	1.63	2.28
3	0.71	0.64	-0.64	-0.71	2.28	1.61	-1.26	10.00	1.61	2.28
4	0.69	0.61	-0.66	-0.73	2.28	1.63	-1.03	9.66	2.07	2.76
5	0.81	0.74		-0.52	2.76	1.98	-1.91	11.49		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	-0.74	2.02	0.37	MidS	-1.91	4.54	0.42	RLap	0.51	-0.24	
2	LLap	0.66	2.02	0.33	LLap	2.07	4.93	0.42	LLap	0.49	-0.09	
3	LLap	0.64	2.02	0.32	LLap	1.61	5.00	0.32	LLap	0.42	-0.15	
4	RLap	-0.66	2.02	0.33	RLap	2.07	4.93	0.42	RLap	0.49	-0.09	

5 LLap 0.74 2.02 0.37 MidS -1.91 4.54 0.42 LLap 0.51 -0.24

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.69	2.65	1.93	0.36
2	0.69	2.65	1.93	0.36	0.57	2.65	1.93	0.30
3	0.57	2.65	1.93	0.30	0.57	2.65	1.93	0.30
4	0.57	2.65	1.93	0.30	0.69	2.65	1.93	0.36
5	0.69	2.65	1.93	0.36				

LOAD ID:0.6Wind_Suction

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup
1	-0.60		0.82	0.90	0.00		2.14	7.50	-2.20	-3.06
2	-0.81	-0.73	0.68	0.75	-3.06	-2.29	1.13	10.35	-1.80	-2.52
3	-0.78	-0.70	0.70	0.78	-2.52	-1.77	1.39	10.00	-1.77	-2.52
4	-0.75	-0.68	0.73	0.81	-2.52	-1.80	1.13	9.65	-2.29	-3.06
5	-0.90	-0.82		0.60	-3.06	-2.20	2.14	11.34		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	0.82	2.02	0.41	MidS	2.14	4.01	0.53	RLap	0.56	0.27	
2	LLap	-0.73	2.02	0.36	LLap	-2.29	4.54	0.51	LLap	0.54	0.10	
3	LLap	-0.70	2.02	0.35	LLap	-1.77	4.54	0.39	LLap	0.47	0.16	
4	RLap	0.73	2.02	0.36	RLap	-2.29	4.54	0.51	RLap	0.54	0.10	
5	LLap	-0.82	2.02	0.41	MidS	2.14	4.01	0.53	LLap	0.56	0.27	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.77	2.65	1.93	0.40
2	0.77	2.65	1.93	0.40	0.63	2.65	1.93	0.33
3	0.63	2.65	1.93	0.33	0.63	2.65	1.93	0.33
4	0.63	2.65	1.93	0.33	0.77	2.65	1.93	0.40
5	0.77	2.65	1.93	0.40				

DEFLECTION: (Working Load)

Span Id	Wind Pressure		Wind Suction	
	Calc	Limit	Calc	Limit
1	-0.07	2.51	0.08	2.51
2	-0.03	2.67	0.03	2.67
3	-0.04	2.67	0.05	2.67
4	-0.03	2.67	0.03	2.67

5 -0.07 2.51 0.08 2.51

=====

2275 Wall 2 - Panel Design (Bay 1) 3/10/20 3:49am

=====

PANEL DATA:

Bay Id	Part	Type	Gage	Yield	Rotation Stiffness	Panel Height
1	24 A	A	24.00	50.0	0.00	23.14

MOMENTS & DEFLECTION:

Span Id	Locate(ft)		Load	-----Moment(ft-lb/ft)-----						Deflect(in)		
	Start	End		Start Calc	Start Limit	Midspan Calc	Midspan Limit	End Calc	End Limit	Max UC	Calc	Limit
1	16.00	19.58	WP	0.0	150.0	-22.3	150.0	39.2	150.0	0.26	0.00	0.72
			WS	0.0	150.0	29.7	150.0	-52.2	150.0	0.35	0.00	0.72
2	19.58	23.14	WP	39.2	150.0	-21.8	150.0	0.0	150.0	0.26	0.00	0.71
			WS	-52.2	150.0	29.1	150.0	0.0	150.0	0.35	0.00	0.71

WP - 0.6Wind_Pressure
WS - 0.6Wind_Suction

=====

2275 Wall 2 - Panel Zones 3/10/20 3:49am

=====

PANEL:

Part	Thick (in)	Yield (ksi)	Tensile Strength (ksi)
24 A	0.024	50.00	65.00

GIRT SCREWS:

Part	Dia (in)	Washer (in)	Limit (k)
1"-TEK (	0.25	0.50	1.00

PANEL ZONE LAYOUT:

Zone Id	Description	---Wall(ft)---		Bay Id	--Girt(ft,ft,in)--			Panel Span (ft)
		Offset1	Offset2		Locate	Load Width	Min Thick	
1	Interior	6.00	94.04	1	19.58	3.57	0.060	3.58
2	Lt Edge	0.00	6.00	1	19.58	3.57	0.060	3.58
3	Rt Edge	94.04	100.04	5	19.58	3.57	0.060	3.58

GIRT SCREW CHECK:

Zone Id	Screw Space (ft)	Wind Suction (psf)	Load (k)	-----Limit(k)-----			
				Girt Pullout	Panel Pullover	Screw Tension	Max UC
1	0.50	32.76	0.06	0.30	0.40	0.27	0.22
2	0.50	32.76	0.06	0.30	0.40	0.27	0.22
3	0.50	32.76	0.06	0.30	0.40	0.27	0.22

=====

2275 Wall 2 - Weight Summary 3/10/20 3:49am

=====

Girts	=	739.67
Jambs/Headers	=	0.00

		739.67

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=====
2275          Wall 2 - Warning Summary          3/10/20  3:49am
=====
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.. No Warnings

2275 Wall 4 - Design Code 3/10/20 3:49am

STRUCTURAL CODE:

Design Basis : WS - Working Stress
 Hot Rolled Steel : AISC16
 Cold Formed Steel : NAUS16

BUILDING CODE:

Wind Code : PRC 18 (IBC 18)
 Seismic Zone : D

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi)
 Cold Formed Steel : 29500 (ksi)

2275 Wall 4 - Bypass Girt Layout 3/10/20 3:49am

GIRT LAYOUT:

Locate	Des Id	Bay Id	Part	Bay_Offset		Design Length	---Extend---		Weight	----Max_Load----			Rot
				Start	End		Left	Right		Id	UC	Report	
16.00	1	1	10x25Z16	1.19	20.02	18.83	0.00	1.00	69.4	WS	0.28	Mom+Shr	D
		2	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.27	Mom+Shr	D
		3	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.23	Mom+Shr	D
		4	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.27	Mom+Shr	D
		5	10x25Z16	0.00	18.83	18.83	1.00	0.00	69.4	WS	0.28	Mom+Shr	D
19.58	2	1	10x25Z16	1.19	20.02	18.83	0.00	1.00	69.4	WS	0.56	Mom+Shr	D
		2	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.54	Mom+Shr	D
		3	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.47	Mom+Shr	D
		4	10x25Z16	0.00	20.00	20.00	1.00	1.00	77.0	WS	0.54	Mom+Shr	D
		5	10x25Z16	0.00	18.83	18.83	1.00	0.00	69.4	WS	0.56	Mom+Shr	D

WS - 0.6Wind_Suction

GIRT INSIDE FLANGE BRACE:

No._Brace/Bay

1	2	3	4	5
0	0	0	0	0

2275 Wall 4 - Girt Design 1 (Locate 16.00) 3/10/20 3:49am

GIRT LAYOUT:

Bay Id	Part	Locate	Design Length	--Lap(ft)--		Load Width	No. Brace	Weight	Available Reduction Factor	
				Left	Right				Out	In
1	10x25Z16	16.0000	18.83		1.00	1.79	0	69.4	0.00	0.70
2	10x25Z16	16.0000	20.00	1.00	1.00	1.79	0	77.0	0.00	0.70
3	10x25Z16	16.0000	20.00	1.00	1.00	1.79	0	77.0	0.00	0.70
4	10x25Z16	16.0000	20.00	1.00	1.00	1.79	0	77.0	0.00	0.70
5	10x25Z16	16.0000	18.83	1.00		1.79	0	69.4	0.00	0.70

369.8

LOAD ID:0.6Wind_Pressure

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Right Loc	Right Lap	Right Sup
1	0.26		-0.37	-0.41	0.00		-0.96	7.35	1.00	1.39
2	0.37	0.33	-0.31	-0.34	1.39	1.04	-0.51	10.34	0.82	1.15
3	0.36	0.32	-0.32	-0.36	1.15	0.81	-0.63	10.00	0.81	1.15
4	0.34	0.31	-0.33	-0.37	1.15	0.82	-0.51	9.66	1.04	1.39
5	0.41	0.37		-0.26	1.39	1.00	-0.96	11.49		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	-0.37	2.02	0.18	MidS	-0.96	4.54	0.21	RLap	0.25	-0.12	
2	LLap	0.33	2.02	0.16	LLap	1.04	4.93	0.21	LLap	0.24	-0.05	
3	LLap	0.32	2.02	0.16	LLap	0.81	5.00	0.16	LLap	0.21	-0.07	
4	RLap	-0.33	2.02	0.16	RLap	1.04	4.93	0.21	RLap	0.24	-0.05	
5	LLap	0.37	2.02	0.18	MidS	-0.96	4.54	0.21	LLap	0.25	-0.12	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.35	2.65	1.93	0.18
2	0.35	2.65	1.93	0.18	0.29	2.65	1.93	0.15
3	0.29	2.65	1.93	0.15	0.29	2.65	1.93	0.15
4	0.29	2.65	1.93	0.15	0.35	2.65	1.93	0.18
5	0.35	2.65	1.93	0.18				

LOAD ID:0.6Wind_Suction

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Right Loc	Right Lap	Right Sup
1	-0.30		0.41	0.45	0.00		1.07	7.50	-1.10	-1.54
2	-0.41	-0.37	0.34	0.38	-1.54	-1.15	0.56	10.35	-0.90	-1.26
3	-0.39	-0.35	0.35	0.39	-1.26	-0.89	0.70	10.00	-0.89	-1.26
4	-0.38	-0.34	0.37	0.41	-1.26	-0.90	0.56	9.65	-1.15	-1.54
5	-0.45	-0.41		0.30	-1.54	-1.10	1.07	11.34		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	0.41	2.02	0.20	MidS	1.07	4.01	0.27	RLap	0.28	0.13	
2	LLap	-0.37	2.02	0.18	LLap	-1.15	4.54	0.25	LLap	0.27	0.05	
3	LLap	-0.35	2.02	0.17	LLap	-0.89	4.54	0.20	LLap	0.23	0.08	
4	RLap	0.37	2.02	0.18	RLap	-1.15	4.54	0.25	RLap	0.27	0.05	
5	LLap	-0.41	2.02	0.20	MidS	1.07	4.01	0.27	LLap	0.28	0.13	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.38	2.65	1.93	0.20
2	0.38	2.65	1.93	0.20	0.32	2.65	1.93	0.16
3	0.32	2.65	1.93	0.16	0.32	2.65	1.93	0.16
4	0.32	2.65	1.93	0.16	0.38	2.65	1.93	0.20
5	0.38	2.65	1.93	0.20				

DEFLECTION: (Working Load)

Span Id	Wind_Pressure		Wind_Suction	
	Calc	Limit	Calc	Limit
1	-0.04	2.51	0.04	2.51
2	-0.01	2.67	0.02	2.67
3	-0.02	2.67	0.02	2.67
4	-0.01	2.67	0.02	2.67
5	-0.04	2.51	0.04	2.51

=====
 2275 Wall 4 - Girt Design 2 (Locate 19.58) 3/10/20 3:49am
 =====

GIRT LAYOUT:

Bay Id	Part	Locate	Design Length	--Lap(ft)--		Load Width	No. Brace	Weight	Available Reduction Factor	
				Left	Right				Out	In
1	10x25Z16	19.5833	18.83		1.00	3.57	0	69.4	0.00	0.70
2	10x25Z16	19.5833	20.00	1.00	1.00	3.57	0	77.0	0.00	0.70
3	10x25Z16	19.5833	20.00	1.00	1.00	3.57	0	77.0	0.00	0.70
4	10x25Z16	19.5833	20.00	1.00	1.00	3.57	0	77.0	0.00	0.70
5	10x25Z16	19.5833	18.83	1.00		3.57	0	69.4	0.00	0.70

								369.8		

LOAD ID:0.6Wind_Pressure

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Right Loc	Right Lap	Right Sup
1	0.52		-0.74	-0.81	0.00		-1.91	7.35	1.98	2.76
2	0.73	0.66	-0.61	-0.69	2.76	2.07	-1.03	10.34	1.63	2.28
3	0.71	0.64	-0.64	-0.71	2.28	1.61	-1.26	10.00	1.61	2.28
4	0.69	0.61	-0.66	-0.73	2.28	1.63	-1.03	9.66	2.07	2.76
5	0.81	0.74		-0.52	2.76	1.98	-1.91	11.49		0.00

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	-0.74	2.02	0.37	MidS	-1.91	4.54	0.42	RLap	0.51	-0.24	
2	LLap	0.66	2.02	0.33	LLap	2.07	4.93	0.42	LLap	0.49	-0.09	
3	LLap	0.64	2.02	0.32	LLap	1.61	5.00	0.32	LLap	0.42	-0.15	
4	RLap	-0.66	2.02	0.33	RLap	2.07	4.93	0.42	RLap	0.49	-0.09	

5 LLap 0.74 2.02 0.37 MidS -1.91 4.54 0.42 LLap 0.51 -0.24

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.69	2.65	1.93	0.36
2	0.69	2.65	1.93	0.36	0.57	2.65	1.93	0.30
3	0.57	2.65	1.93	0.30	0.57	2.65	1.93	0.30
4	0.57	2.65	1.93	0.30	0.69	2.65	1.93	0.36
5	0.69	2.65	1.93	0.36				

LOAD ID:0.6Wind_Suction

GIRT ACTIONS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----						
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup	
1	-0.60		0.82	0.90	0.00		2.14	7.50	-2.20	-3.06	
2	-0.81	-0.73	0.68	0.75	-3.06	-2.29	1.13	10.35	-1.80	-2.52	
3	-0.78	-0.70	0.70	0.78	-2.52	-1.77	1.39	10.00	-1.77	-2.52	
4	-0.75	-0.68	0.73	0.81	-2.52	-1.80	1.13	9.65	-2.29	-3.06	
5	-0.90	-0.82		0.60	-3.06	-2.20	2.14	11.34		0.00	

STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
1	RLap	0.82	2.02	0.41	MidS	2.14	4.01	0.53	RLap	0.56	0.27	
2	LLap	-0.73	2.02	0.36	LLap	-2.29	4.54	0.51	LLap	0.54	0.10	
3	LLap	-0.70	2.02	0.35	LLap	-1.77	4.54	0.39	LLap	0.47	0.16	
4	RLap	0.73	2.02	0.36	RLap	-2.29	4.54	0.51	RLap	0.54	0.10	
5	LLap	-0.82	2.02	0.41	MidS	2.14	4.01	0.53	LLap	0.56	0.27	

LAP BOLT SHEAR/BEARING:

Bolt Size =0.500 (A307)

Bay Id	-----Left_Lap(k)-----				-----Right_Lap(k)-----			
	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.77	2.65	1.93	0.40
2	0.77	2.65	1.93	0.40	0.63	2.65	1.93	0.33
3	0.63	2.65	1.93	0.33	0.63	2.65	1.93	0.33
4	0.63	2.65	1.93	0.33	0.77	2.65	1.93	0.40
5	0.77	2.65	1.93	0.40				

DEFLECTION: (Working Load)

Span Id	Wind Pressure		Wind Suction	
	Calc	Limit	Calc	Limit
1	-0.07	2.51	0.08	2.51
2	-0.03	2.67	0.03	2.67
3	-0.04	2.67	0.05	2.67
4	-0.03	2.67	0.03	2.67

5 -0.07 2.51 0.08 2.51

=====

2275 Wall 4 - Panel Design (Bay 1) 3/10/20 3:49am

=====

PANEL DATA:

Bay Id	Part	Type	Gage	Yield	Rotation Stiffness	Panel Height
1	24 A	A	24.00	50.0	0.00	23.14

MOMENTS & DEFLECTION:

Span Id	Locate(ft)		Load	-----Moment(ft-lb/ft)-----						Deflect(in)		
	Start	End		Start Calc	Start Limit	Midspan Calc	Midspan Limit	End Calc	End Limit	Max UC	Calc	Limit
1	16.00	19.58	WP	0.0	150.0	-22.3	150.0	39.2	150.0	0.26	0.00	0.72
			WS	0.0	150.0	29.7	150.0	-52.2	150.0	0.35	0.00	0.72
2	19.58	23.14	WP	39.2	150.0	-21.8	150.0	0.0	150.0	0.26	0.00	0.71
			WS	-52.2	150.0	29.1	150.0	0.0	150.0	0.35	0.00	0.71

WP - 0.6Wind_Pressure
WS - 0.6Wind_Suction

=====

2275 Wall 4 - Panel Zones 3/10/20 3:49am

=====

PANEL:

Part	Thick (in)	Yield (ksi)	Tensile Strength (ksi)
24 A	0.024	50.00	65.00

GIRT SCREWS:

Part	Dia (in)	Washer (in)	Limit (k)
1"-TEK (	0.25	0.50	1.00

PANEL ZONE LAYOUT:

Zone Id	Description	---Wall(ft)---		Bay Id	--Girt(ft,ft,in)--			Panel Span (ft)
		Offset1	Offset2		Load Width	Min Thick		
1	Interior	6.00	94.04	1	19.58	3.57	0.060	3.58
2	Lt Edge	0.00	6.00	1	19.58	3.57	0.060	3.58
3	Rt Edge	94.04	100.04	5	19.58	3.57	0.060	3.58

GIRT SCREW CHECK:

Zone Id	Screw Space (ft)	Wind Suction (psf)	Load (k)	-----Limit(k)-----			
				Girt Pullout	Panel Pullover	Screw Tension	Max UC
1	0.50	32.76	0.06	0.30	0.40	0.27	0.22
2	0.50	32.76	0.06	0.30	0.40	0.27	0.22
3	0.50	32.76	0.06	0.30	0.40	0.27	0.22

=====

2275 Wall 4 - Weight Summary 3/10/20 3:49am

=====

Girts	=	739.67
Jambs/Headers	=	0.00

		739.67

```
=====
2275          Wall 4 - Warning Summary          3/10/20  3:49am
=====
```

.. No Warnings

2275 Frame 1 - Design Code 3/10/20 3:45am

STRUCTURAL CODE:

Design Basis : WS - Working Stress
 Hot Rolled Steel : AISC16
 Cold Formed Steel : NAUS16

BUILDING CODE:

Wind Code : PRC 18 (IBC 18)
 Seismic Zone : D

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi)
 Cold Formed Steel : 29500 (ksi)

2275 Frame 1 - Base Plates and Anchor Bolt 3/10/20 3:45am

DESIGN CONSTANTS:

Base Plate Yield = 36.00 (ksi)
 Concrete Bearing = 1.05 (ksi)
 Bolt Shear Stress = 13.50 (ksi)
 Bolt Tension Stress = 22.50 (ksi)

BASE PLATE & BOLT SIZE:

---Column_Base(in)---		--Plate_Size(in)--			--Bolts(A307)-			-Shear(k)-		Req		
Id	Typ	Depth	Elev	Width	Length	Thick	Row	Dia	Gage	Limit	UC	Thick
Left	P	12.5	0.0	8.0	13.50	0.500	2	1.000	4.00	32.7	0.15	0.350
Right	P	12.5	0.0	8.0	13.50	0.500	2	1.000	4.00	32.7	0.12	0.440

BASE REACTIONS:

Column Id	-Max_Comp-Ld	Fy(k)	Max_Tension+Shear			-Max_Shear			Max_Shear+Tension		
			Ld	Fy(k)	Fx(k)	Ld	Fx(k)	Ld	Fx(k)	Fy(k)	
Left	1	8.2	51	-11.2	4.9	51	4.9	51	4.9	-11.2	
Right	1	10.8	52	-17.7	4.0	52	4.0	52	4.0	-17.7	

WELDS:

Base Id	Outside Flange To Base				Inside Flange To Base				-----Web To Base-----			
	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit
Left	0.188	F2	0.47	2.78	0.188	F2	0.47	2.78	0.188	F2	0.20	2.78
Right	0.188	F2	0.74	2.78	0.188	F2	0.74	2.78	0.188	F2	0.16	2.78

LOAD COMBINATIONS:

- 1 - Dead+Collateral+Live
- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1

=====
 2275 Frame 1 - Bolted-End-Plates 3/10/20 3:45am
 =====

DESIGN CONSTANTS:

Splice Yield = 36.00 (ksi)
 Bolt Type = A325 Snug-Tightened
 Bolt Shear Stress = 27.00 (ksi)
 Bolt Tension Stress = 45.00 (ksi)

PLATE SIZE:

Splice Id	Member Typ	Locate	Web Depth	Splice(in)		-----Bolts(A325)-----							
				Width	Thick	Dia	Gage	Gage2	RowT	SpaceT	RowB	SpaceB	RowI
1	PEE	1- 2	27.00	8.0	0.625	0.750	5.00	5.00	2	3.50	2	3.50	1
2	-EE	2- 3	14.05	6.5	0.500	0.750	3.50	3.50	2	3.50	2	3.50	0
3	PEE	3- 4	27.00	8.0	0.625	0.750	5.00	5.00	2	3.50	2	3.50	1

PLATE DESIGN:

Splice Id	Ten Typ	Load Loc	-----Max_Moment-----			-----Max_Shear-----				Req Thick	Req Dia	Bolt UC
			Axial (k)	Shear (k)	Moment (f-k)	Load Id	Axial (k)	Shear (k)	Moment (f-k)			
1	PEE	Top 152	3.2	6.7	74.3	152	3.2	6.7	74.3	0.452	0.514	0.47
		Bot 51	-4.6	-9.8	-84.3	51	-4.6	-9.8	-84.3	0.481	0.548	0.53
2	-EE	Top 51	-4.8	0.7	29.8	18	-4.4	-1.0	14.7	0.401	0.449	0.36
		Bot 1	3.1	-0.3	-27.0	25	-1.5	-0.9	-4.8	0.382	0.428	0.33
3	PEE	Top 151	3.2	-7.1	84.2	151	3.2	-7.1	84.2	0.491	0.547	0.53
		Bot 52	-4.2	10.5	-103.3	52	-4.2	10.5	-103.3	0.543	0.606	0.65

WELDS:

Splice Id	Side	Outside_Flange_To_Bep				Inside_Flange_To_Bep				-----Web_To_Bep-----			
		Size	Typ	Calc	Limit	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit
1	L	0.188	F2	1.91	2.78	0.250	F2	2.28	2.78	0.188	F2	0.18	2.78
1	R	0.188	F2	2.01	2.78	0.250	F2	2.28	2.78	0.188	F2	0.18	2.78
2	L	0.188	F2	1.78	2.78	0.188	F2	1.62	2.78	0.188	F2	0.03	2.78
2	R	0.188	F2	1.78	2.78	0.188	F2	1.62	2.78	0.188	F2	0.03	2.78
3	L	0.188	F2	2.28	2.78	0.250	F2	2.79	3.71	0.188	F2	0.19	2.78
3	R	0.188	F2	2.16	2.78	0.250	F2	2.79	3.71	0.188	F2	0.19	2.78

LOAD COMBINATIONS:

- 1 - Dead+Collateral+Live
- 18 - Dead-0.6Wind_Long2
- 25 - Dead+Collateral+0.75Live+0.45Wind_Long2
- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1
- 151 - 1.08Dead+1.08Collateral+0.75Live+1.57Seismic_L
- 152 - 1.08Dead+1.08Collateral+0.75Live+1.57Seismic_R

=====
 2275 Frame 1 - Bearing Stiffeners 3/10/20 3:45am
 =====

Stiffener Yield = 36.0 (ksi)

STIFFENER SIZE:

----Stiffener----		--Web(in)--		-----Stiffener_Size(in)----			
Location	Offset	Depth	Thick	Width	Thick	Length	No.
Lt Col	0.0	32.00	0.250	2.50	0.375	32.00	1
Rt Col	60.0	32.00	0.250	2.50	0.375	32.00	1

STIFFENER DESIGN:

Location	----Tension(k)---			--Compression(k)--			Max UC
	Load	Calc	Limit	Load	Calc	Limit	
Lt Col	51	28.5	40.4	64	18.8	74.1	0.71
Rt Col	52	34.6	40.4	1	22.2	74.1	0.86

WELDS:

Stiffener Location	---Stiff_To_Flg/EP---				-----Stiff_To_Web-----			
	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit
Lt Col	0.250	F2	2.85	3.71	0.188	F1	0.29	2.78
Rt Col	0.250	F2	3.46	3.71	0.188	F1	0.35	2.78

LOAD COMBINATIONS:

- 1 - Dead+Collateral+Live
- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1
- 64 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R

=====
 2275 Frame 1 - Flange Braces 3/10/20 3:45am
 =====

DESIGN CONSTANTS:

Flange Brace Yield = 50.00 ksi
 Girt/Purlin Yield = 55.00 ksi
 Flange Brace Bolt = A307 (1 Washers)
 Bolt Shear Stress = 13.50 ksi

Flange Brace Force
 Inside flange, max of bending compression

LAYOUT:

Surf Id	Loc	Side	Part	Seg Id	Web Depth	Brace Offset	Angle Deg	Design Length	-----Bolt_Dia-----			--Attachment--		
									Frame	Purlin	Clip	Frame	Purlin	Ref
2	2	1	L2X2X1/8	3	25.45	24.00	45.7	33.55	0.500	0.500		Web	Web	
		5	L2X2X1/8	4	20.72	12.00	32.7	22.24	0.500	0.500		Web	Web	
		6	L2X2X1/8	4	19.14	12.00	35.0	20.92	0.500	0.500		Web	Web	
		9	L2X2X1/8	5	14.40	12.00	44.1	17.26	0.500	0.500		Web	Web	
3	1	1	L2X2X1/8	6	14.40	12.00	44.1	17.26	0.500	0.500		Web	Web	
		4	L2X2X1/8	7	19.14	12.00	35.0	20.92	0.500	0.500		Web	Web	
		5	L2X2X1/8	7	20.72	12.00	32.7	22.24	0.500	0.500		Web	Web	
		8	L2X2X1/8	8	25.45	24.00	45.7	33.55	0.500	0.500		Web	Web	

DESIGN:

Surf Id	Loc	Load Id	Force (k)	-Brace_UC-		---Connection_UC---		
				Comp	Tens	Frame	Purlin	Clip
2	2	64	0.37	0.08	0.07	0.14	0.19	
		5	0.25	0.04	0.05	0.09	0.13	

	6	52	0.38	0.07	0.07	0.14	0.20
	9	51	0.62	0.10	0.12	0.23	0.32
3	1	52	0.60	0.10	0.12	0.23	0.31
	4	57	0.32	0.06	0.06	0.12	0.17
	5	57	0.21	0.04	0.04	0.08	0.11
	8	63	0.46	0.10	0.09	0.17	0.24

LOAD COMBINATIONS:

- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1
- 57 - 0.6Dead+0.6Wind_Long2
- 63 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_L
- 64 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R

=====
 2275 Frame 1 - Web To Flange Weld 3/10/20 3:45am
 =====

---Web_Flange_Weld---											
Surf Id	Mem Id	Seg Id	Sec Id	Load Id	Shear (k)	Q (in3)	Ixx (in4)	Size	Typ	Calc	Limit
1	1	1	1	51	4.4	9.2	131	0.188	F1	0.31	2.78
1	1	2	4	51	4.4	21.4	530	0.188	F1	0.18	2.78
2	2	3	8	51	9.7	20.4	762	0.188	F1	0.26	2.78
2	2	4	11	51	6.9	17.9	565	0.188	F1	0.22	2.78
2	2	5	14	51	2.8	14.3	341	0.188	F1	0.12	2.78
3	3	6	19	52	3.5	14.3	341	0.188	F1	0.15	2.78
3	3	7	22	52	7.6	17.9	565	0.188	F1	0.24	2.78
3	3	8	25	52	10.4	20.4	762	0.188	F1	0.28	2.78
4	4	9	29	52	3.2	21.4	530	0.188	F1	0.13	2.78
4	4	10	32	52	3.2	9.2	131	0.188	F1	0.23	2.78

LOAD COMBINATIONS:

- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1

=====
 2275 Frame 1 - Special Segments 3/10/20 3:45am
 =====

FLANGE PLATE:

		--Initial--		---Final---	
Locate		Width (in)	Thick (in)	Width (in)	Thick (in)
Lt Col		6.0	0.250	6.0	0.250
Rt Col		6.0	0.250	6.0	0.250

WEB PLATE:

		-----Actions-----		Calc Web Shear (k)	---Initial-- Web Thick (in) Shear Limit (k)		-----Final----- Web Thick (in) Shear Limit (k)		UC	Note
Lt Col	51	-4.8	-84.3	35.1	0.125	12.2	0.250	41.1	0.85	AISC G2-1
Rt Col	52	-4.4	-103.3	43.7	0.125	12.2	0.250	88.3	0.49	AISC G2-1

REQUIRED WEB DESIGN:

```

-----
Locate      h      av      Kv      Cv
-----
Lt Col     30.88  25.67  12.24   0.55
Rt Col     30.88  25.67  12.24   0.88

```

LOAD COMBINATIONS:

```

-----
51 - 0.6Dead+0.6Wind_Left1
52 - 0.6Dead+0.6Wind_Right1

```

```

=====
2275                Frame 1 - Design Summary                3/10/20  3:45am
=====

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FRAME:

```

-----
Id          = 1
Type        = RF
Line Id     = 1 6
Load Width= 15.00
UC Limit=   1.00
KL/R Limit= 200.00

```

MEMBERS:

```

-----
Srf Mem Seg --Flange- Web_Depth -Plate_Thickness- --Max_Shear- -----Max_Axial+Moment-----
Id Id Id Len Wid Strt End Web O-flg I-flg Id Ld Ucv Id Ld Uco Id Ld Uci Max
-----
1 1 1 9.9 6.0 12.0 21.4 0.125 0.250 0.250 3 51 0.30 3 51 0.42 3 64 0.85 70
1 1 2 13.3 6.0 21.4 32.0 0.125 0.250 0.370 5 51 0.30 7 51 0.65 7 64 0.89 70
2 2 3 6.9 6.0 27.0 23.6 0.125 0.250 0.250 8 51 0.65 8 51 0.73 8 51 0.55 51
2 2 4 9.9 6.0 23.6 18.8 0.125 0.250 0.250 11 51 0.46 13 63 0.27 13 52 0.28 51
2 2 5 9.9 6.0 18.8 14.0 0.125 0.250 0.250 14 51 0.19 16 1 0.47 16 51 0.47 51
3 3 6 9.9 6.0 14.0 18.8 0.125 0.250 0.250 19 52 0.24 17 1 0.47 17 51 0.47 51
3 3 7 9.9 6.0 18.8 23.6 0.125 0.250 0.250 22 52 0.51 22 52 0.39 22 52 0.32 51
3 3 8 6.9 6.0 23.6 27.0 0.125 0.250 0.250 25 52 0.70 25 52 0.91 25 52 0.66 51
4 4 9 13.3 6.0 32.0 21.4 0.125 0.250 0.370 27 52 0.25 26 52 0.80 26 1 1.00 70
4 4 10 9.9 6.0 21.4 12.0 0.125 0.250 0.250 30 52 0.22 30 52 0.24 30 63 0.80 70

```

No. Cycles For Plate Optimization= 14

LOAD COMBINATIONS:

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#- Controlling Load Combination In Design Summary

```

```

1#- Dead+Collateral+Live
2 - Dead+Collateral
3 - Dead+Collateral+Snow
4 - Dead+Collateral+Snow+Snow_Drift
5 - Dead+Collateral+Snow+Slide_Snow
6 - Dead
7 - Dead+Collateral+0.75Live
8 - Dead+Collateral+0.75Snow
9 - Dead+Collateral+0.75Snow+0.75Snow_Drift
10 - Dead+Collateral+0.75Snow+0.75Slide_Snow
11 - Dead+0.6Wind_Left1
12 - Dead+0.6Wind_Right1
13 - Dead+0.6Wind_Left2
14 - Dead+0.6Wind_Right2
15 - Dead+0.6Wind_Long1
16 - Dead+0.6Wind_Long2
17 - Dead+0.6Wind_Long1

```

18 - Dead-0.6Wind_Long2
19 - Dead+Collateral+0.75Live+0.45Wind_Left1
20 - Dead+Collateral+0.75Live+0.45Wind_Right1
21 - Dead+Collateral+0.75Live+0.45Wind_Left2
22 - Dead+Collateral+0.75Live+0.45Wind_Right2
23 - Dead+Collateral+0.75Live+0.45Wind_Long1
24 - Dead+Collateral+0.75Live-0.45Wind_Long1
25 - Dead+Collateral+0.75Live+0.45Wind_Long2
26 - Dead+Collateral+0.75Live-0.45Wind_Long2
27 - Dead+Collateral+0.75Snow+0.45Wind_Left1
28 - Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Snow_Drift
29 - Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Slide_Snow
30 - Dead+Collateral+0.75Snow+0.45Wind_Right1
31 - Dead+Collateral+0.75Snow+0.45Wind_Right1+0.75Snow_Drift
32 - Dead+Collateral+0.75Snow+0.45Wind_Right1+0.75Slide_Snow
33 - Dead+Collateral+0.75Snow+0.45Wind_Left2
34 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.75Snow_Drift
35 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.75Slide_Snow
36 - Dead+Collateral+0.75Snow+0.45Wind_Right2
37 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.75Snow_Drift
38 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.75Slide_Snow
39 - Dead+Collateral+0.75Snow+0.45Wind_Long1
40 - Dead+Collateral+0.75Snow-0.45Wind_Long1
41 - Dead+Collateral+0.75Snow+0.45Wind_Long1+0.75Snow_Drift
42 - Dead+Collateral+0.75Snow-0.45Wind_Long1+0.75Snow_Drift
43 - Dead+Collateral+0.75Snow+0.45Wind_Long1+0.75Slide_Snow
44 - Dead+Collateral+0.75Snow-0.45Wind_Long1+0.75Slide_Snow
45 - Dead+Collateral+0.75Snow+0.45Wind_Long2
46 - Dead+Collateral+0.75Snow-0.45Wind_Long2
47 - Dead+Collateral+0.75Snow+0.45Wind_Long2+0.75Snow_Drift
48 - Dead+Collateral+0.75Snow-0.45Wind_Long2+0.75Snow_Drift
49 - Dead+Collateral+0.75Snow+0.45Wind_Long2+0.75Slide_Snow
50 - Dead+Collateral+0.75Snow-0.45Wind_Long2+0.75Slide_Snow
51#- 0.6Dead+0.6Wind_Left1
52#- 0.6Dead+0.6Wind_Right1
53 - 0.6Dead+0.6Wind_Left2
54 - 0.6Dead+0.6Wind_Right2
55 - 0.6Dead+0.6Wind_Long1
56 - 0.6Dead-0.6Wind_Long1
57 - 0.6Dead+0.6Wind_Long2
58 - 0.6Dead-0.6Wind_Long2
59 - 1.11Dead+1.11Collateral+0.7Seismic_L
60 - 1.11Dead+1.11Collateral+0.7Seismic_R
61 - 1.11Dead+1.11Collateral+0.7Seismic_Long
62 - 1.11Dead+1.11Collateral-0.7Seismic_Long
63#- 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_L
64#- 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R
65 - 1.08Dead+1.08Collateral+0.53Seismic_L
66 - 1.08Dead+1.08Collateral+0.53Seismic_R
67 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_Long
68 - 1.08Dead+1.08Collateral+0.75Live-0.53Seismic_Long
69 - 1.08Dead+1.08Collateral+0.53Seismic_Long
70 - 1.08Dead+1.08Collateral-0.53Seismic_Long
71 - 0.49Dead+0.7Seismic_L
72 - 0.49Dead+0.7Seismic_R
73 - 0.49Dead+0.7Seismic_Long
74 - 0.49Dead-0.7Seismic_Long
75 - Dead+Collateral+Live
76 - Dead+Collateral
77 - Dead+Collateral+Snow
78 - Dead+Collateral+Snow+Snow_Drift
79 - Dead+Collateral+Snow+Slide_Snow
80 - Dead
81 - Dead+Collateral+0.75Live
82 - Dead+Collateral+0.75Snow
83 - Dead+Collateral+0.75Snow+0.75Snow_Drift

84 - Dead+Collateral+0.75Snow+0.75Slide_Snow
85 - Dead+0.18Wind_Left1
86 - Dead+0.18Wind_Right1
87 - Dead+0.18Wind_Left2
88 - Dead+0.18Wind_Right2
89 - Dead+0.18Wind_Long1
90 - Dead-0.18Wind_Long1
91 - Dead+0.18Wind_Long2
92 - Dead-0.18Wind_Long2
93 - Dead+Collateral+0.75Live+0.14Wind_Left1
94 - Dead+Collateral+0.75Live+0.14Wind_Right1
95 - Dead+Collateral+0.75Live+0.14Wind_Left2
96 - Dead+Collateral+0.75Live+0.14Wind_Right2
97 - Dead+Collateral+0.75Live+0.14Wind_Long1
98 - Dead+Collateral+0.75Live-0.14Wind_Long1
99 - Dead+Collateral+0.75Live+0.14Wind_Long2
100 - Dead+Collateral+0.75Live-0.14Wind_Long2
101 - Dead+Collateral+0.75Snow+0.14Wind_Left1
102 - Dead+Collateral+0.75Snow+0.14Wind_Left1+0.75Snow_Drift
103 - Dead+Collateral+0.75Snow+0.14Wind_Left1+0.75Slide_Snow
104 - Dead+Collateral+0.75Snow+0.14Wind_Right1
105 - Dead+Collateral+0.75Snow+0.14Wind_Right1+0.75Snow_Drift
106 - Dead+Collateral+0.75Snow+0.14Wind_Right1+0.75Slide_Snow
107 - Dead+Collateral+0.75Snow+0.14Wind_Left2
108 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.75Snow_Drift
109 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.75Slide_Snow
110 - Dead+Collateral+0.75Snow+0.14Wind_Right2
111 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.75Snow_Drift
112 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.75Slide_Snow
113 - Dead+Collateral+0.75Snow+0.14Wind_Long1
114 - Dead+Collateral+0.75Snow-0.14Wind_Long1
115 - Dead+Collateral+0.75Snow+0.14Wind_Long1+0.75Snow_Drift
116 - Dead+Collateral+0.75Snow-0.14Wind_Long1+0.75Snow_Drift
117 - Dead+Collateral+0.75Snow+0.14Wind_Long1+0.75Slide_Snow
118 - Dead+Collateral+0.75Snow-0.14Wind_Long1+0.75Slide_Snow
119 - Dead+Collateral+0.75Snow+0.14Wind_Long2
120 - Dead+Collateral+0.75Snow-0.14Wind_Long2
121 - Dead+Collateral+0.75Snow+0.14Wind_Long2+0.75Snow_Drift
122 - Dead+Collateral+0.75Snow-0.14Wind_Long2+0.75Snow_Drift
123 - Dead+Collateral+0.75Snow+0.14Wind_Long2+0.75Slide_Snow
124 - Dead+Collateral+0.75Snow-0.14Wind_Long2+0.75Slide_Snow
125 - 0.6Dead+0.18Wind_Left1
126 - 0.6Dead+0.18Wind_Right1
127 - 0.6Dead+0.18Wind_Left2
128 - 0.6Dead+0.18Wind_Right2
129 - 0.6Dead+0.18Wind_Long1
130 - 0.6Dead-0.18Wind_Long1
131 - 0.6Dead+0.18Wind_Long2
132 - 0.6Dead-0.18Wind_Long2
133 - 1.11Dead+1.11Collateral+0.7Seismic_L
134 - 1.11Dead+1.11Collateral+0.7Seismic_R
135 - 1.11Dead+1.11Collateral+0.7Seismic_Long
136 - 1.11Dead+1.11Collateral-0.7Seismic_Long
137 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_L
138 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R
139 - 1.08Dead+1.08Collateral+0.53Seismic_L
140 - 1.08Dead+1.08Collateral+0.53Seismic_R
141 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_Long
142 - 1.08Dead+1.08Collateral+0.75Live-0.53Seismic_Long
143 - 1.08Dead+1.08Collateral+0.53Seismic_Long
144 - 1.08Dead+1.08Collateral-0.53Seismic_Long
145 - 0.49Dead+0.7Seismic_L
146 - 0.49Dead+0.7Seismic_R
147 - 0.49Dead+0.7Seismic_Long
148 - 0.49Dead-0.7Seismic_Long

PLATE LIMITS:

Seg Id	-----Web-----		-----Flange-----		---Flange---		Web_Area/ Flange_Area	
	Depth/Thick Calc	Limit	Width/(2xThick) Calc	Limit	Thick	Min	Calc	Limit
1	167.7	260.0	12.0		0.250	0.125	1.7	10.0
2	256.0	260.0	12.0		0.250	0.125	2.7	10.0
3	216.0	260.0	12.0		0.250	0.125	2.2	10.0
4	185.7	260.0	12.0		0.250	0.125	1.9	10.0
5	148.8	260.0	12.0		0.250	0.125	1.5	10.0
6	148.8	260.0	12.0		0.250	0.125	1.5	10.0
7	185.7	260.0	12.0		0.250	0.125	1.9	10.0
8	216.0	260.0	12.0		0.250	0.125	2.2	10.0
9	256.0	260.0	12.0		0.250	0.125	2.7	10.0
10	167.7	260.0	12.0		0.250	0.125	1.7	10.0

FRAME AREA:

```

-----
Frame      Area=  184.45
Building Area= 1516.10
Ratio=     0.12

```

WEIGHTS:

```

-----
Member      1      2      3      4
-----
Weight (lb) 498    506    506    498

```

```

Total Weight (lb)
Frame           = 2006
Splice Plate   = 203
Base Plate     = 31
-----
2240

```

REACTIONS: (Sidewall Columns)

Load Id	-----Left_Column-----				-----Right_Column-----			
	Fx(k)	Fy(k)	Fz(k)	M(f-k)	Fx(k)	Fy(k)	Fz(k)	M(f-k)
1	3.06	8.19	0.00	0.00	-3.06	10.76	0.00	0.00
2	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
3	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
4	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
5	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
6	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
7	2.56	6.89	0.00	0.00	-2.56	8.91	0.00	0.00
8	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
9	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
10	1.04	2.99	0.00	0.00	-1.04	3.36	0.00	0.00
11	-4.47	-10.02	0.00	0.00	1.76	-6.98	0.00	0.00
12	-1.49	-4.84	0.00	0.00	3.54	-16.40	0.00	0.00
13	-2.99	-6.06	0.00	0.00	0.28	-3.02	0.00	0.00
14	-0.01	-0.88	0.00	0.00	2.06	-12.43	0.00	0.00
15	-1.76	-5.61	0.00	0.00	2.05	-3.66	0.00	0.00
16	-1.76	-5.61	0.00	0.00	2.05	-3.66	0.00	0.00
17	-2.05	-4.03	0.00	0.00	1.76	-5.24	0.00	0.00
18	-2.05	-4.03	0.00	0.00	1.76	-5.24	0.00	0.00
19	-1.58	-2.87	0.00	0.00	-0.45	1.16	0.00	0.00
20	0.66	1.02	0.00	0.00	0.88	-5.90	0.00	0.00

21	-0.47	0.10	0.00	0.00	-1.56	4.13	0.00	0.00
22	1.76	3.99	0.00	0.00	-0.23	-2.93	0.00	0.00
23	0.45	0.44	0.00	0.00	-0.23	3.65	0.00	0.00
24	0.45	0.44	0.00	0.00	-0.23	3.65	0.00	0.00
25	0.23	1.63	0.00	0.00	-0.45	2.46	0.00	0.00
26	0.23	1.63	0.00	0.00	-0.45	2.46	0.00	0.00
27	-3.09	-6.77	0.00	0.00	1.06	-4.39	0.00	0.00
28	-3.09	-6.77	0.00	0.00	1.06	-4.39	0.00	0.00
29	-3.09	-6.77	0.00	0.00	1.06	-4.39	0.00	0.00
30	-0.86	-2.88	0.00	0.00	2.40	-11.46	0.00	0.00
31	-0.86	-2.88	0.00	0.00	2.40	-11.46	0.00	0.00
32	-0.86	-2.88	0.00	0.00	2.40	-11.46	0.00	0.00
33	-1.98	-3.80	0.00	0.00	-0.05	-1.42	0.00	0.00
34	-1.98	-3.80	0.00	0.00	-0.05	-1.42	0.00	0.00
35	-1.98	-3.80	0.00	0.00	-0.05	-1.42	0.00	0.00
36	0.25	0.09	0.00	0.00	1.29	-8.49	0.00	0.00
37	0.25	0.09	0.00	0.00	1.29	-8.49	0.00	0.00
38	0.25	0.09	0.00	0.00	1.29	-8.49	0.00	0.00
39	-1.06	-3.46	0.00	0.00	1.28	-1.90	0.00	0.00
40	-1.06	-3.46	0.00	0.00	1.28	-1.90	0.00	0.00
41	-1.06	-3.46	0.00	0.00	1.28	-1.90	0.00	0.00
42	-1.06	-3.46	0.00	0.00	1.28	-1.90	0.00	0.00
43	-1.06	-3.46	0.00	0.00	1.28	-1.90	0.00	0.00
44	-1.06	-3.46	0.00	0.00	1.28	-1.90	0.00	0.00
45	-1.28	-2.27	0.00	0.00	1.06	-3.09	0.00	0.00
46	-1.28	-2.27	0.00	0.00	1.06	-3.09	0.00	0.00
47	-1.28	-2.27	0.00	0.00	1.06	-3.09	0.00	0.00
48	-1.28	-2.27	0.00	0.00	1.06	-3.09	0.00	0.00
49	-1.28	-2.27	0.00	0.00	1.06	-3.09	0.00	0.00
50	-1.28	-2.27	0.00	0.00	1.06	-3.09	0.00	0.00
51	-4.88	-11.22	0.00	0.00	2.18	-8.32	0.00	0.00
52	-1.91	-6.04	0.00	0.00	3.96	-17.74	0.00	0.00
53	-3.40	-7.26	0.00	0.00	0.70	-4.36	0.00	0.00
54	-0.43	-2.07	0.00	0.00	2.48	-13.78	0.00	0.00
55	-2.18	-6.81	0.00	0.00	2.47	-5.00	0.00	0.00
56	-2.18	-6.81	0.00	0.00	2.47	-5.00	0.00	0.00
57	-2.47	-5.22	0.00	0.00	2.18	-6.59	0.00	0.00
58	-2.47	-5.22	0.00	0.00	2.18	-6.59	0.00	0.00
59	0.54	2.84	0.00	0.00	-1.77	4.21	0.00	0.00
60	1.77	3.80	0.00	0.00	-0.54	3.25	0.00	0.00
61	1.16	3.32	0.00	0.00	-1.16	3.73	0.00	0.00
62	1.16	3.32	0.00	0.00	-1.16	3.73	0.00	0.00
63	2.17	6.77	0.00	0.00	-3.10	9.54	0.00	0.00
64	3.10	7.49	0.00	0.00	-2.17	8.82	0.00	0.00
65	0.66	2.87	0.00	0.00	-1.59	3.99	0.00	0.00
66	1.59	3.59	0.00	0.00	-0.66	3.27	0.00	0.00
67	2.64	7.13	0.00	0.00	-2.64	9.18	0.00	0.00
68	2.64	7.13	0.00	0.00	-2.64	9.18	0.00	0.00
69	1.13	3.23	0.00	0.00	-1.13	3.63	0.00	0.00
70	1.13	3.23	0.00	0.00	-1.13	3.63	0.00	0.00
71	-0.11	0.99	0.00	0.00	-1.13	2.12	0.00	0.00
72	1.13	1.94	0.00	0.00	0.11	1.17	0.00	0.00
73	0.51	1.47	0.00	0.00	-0.51	1.65	0.00	0.00
74	0.51	1.47	0.00	0.00	-0.51	1.65	0.00	0.00

DEFLECTIONS :

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```

Load Id	Lateral Defl @ Top Of Col		Vert Defl @ Midspan
	Left	Right	
75	0.05	0.31	-1.35
76	-0.02	0.07	-0.44
77	-0.02	0.07	-0.44

78	-0.02	0.07	-0.44
79	-0.02	0.07	-0.44
80	-0.02	0.07	-0.44
81	0.03	0.25	-1.12
82	-0.02	0.07	-0.44
83	-0.02	0.07	-0.44
84	-0.02	0.07	-0.44
85	0.17	0.15	0.10
86	-0.25	-0.26	0.08
87	0.15	0.17	-0.09
88	-0.27	-0.25	-0.10
89	-0.07	-0.05	-0.07
90	-0.07	-0.05	-0.07
91	0.10	0.12	-0.07
92	0.10	0.12	-0.07
93	0.17	0.32	-0.72
94	-0.14	0.00	-0.73
95	0.16	0.33	-0.86
96	-0.16	0.02	-0.87
97	-0.01	0.16	-0.84
98	-0.01	0.16	-0.84
99	0.12	0.29	-0.84
100	0.12	0.29	-0.84
101	0.12	0.13	-0.04
102	0.12	0.13	-0.04
103	0.12	0.13	-0.04
104	-0.19	-0.18	-0.05
105	-0.19	-0.18	-0.05
106	-0.19	-0.18	-0.05
107	0.11	0.14	-0.18
108	0.11	0.14	-0.18
109	0.11	0.14	-0.18
110	-0.20	-0.17	-0.19
111	-0.20	-0.17	-0.19
112	-0.20	-0.17	-0.19
113	-0.05	-0.02	-0.16
114	-0.05	-0.02	-0.16
115	-0.05	-0.02	-0.16
116	-0.05	-0.02	-0.16
117	-0.05	-0.02	-0.16
118	-0.05	-0.02	-0.16
119	0.07	0.11	-0.16
120	0.07	0.11	-0.16
121	0.07	0.11	-0.16
122	0.07	0.11	-0.16
123	0.07	0.11	-0.16
124	0.07	0.11	-0.16
125	0.18	0.12	0.27
126	-0.24	-0.29	0.26
127	0.16	0.14	0.09
128	-0.26	-0.28	0.07
129	-0.06	-0.08	0.11
130	-0.06	-0.08	0.11
131	0.11	0.09	0.11
132	0.11	0.09	0.11
133	0.43	0.53	-0.49
134	-0.47	-0.37	-0.49
135	-0.02	0.08	-0.49
136	-0.02	0.08	-0.49
137	0.37	0.60	-1.16
138	-0.31	-0.08	-1.16
139	0.32	0.42	-0.47
140	-0.36	-0.27	-0.47
141	0.03	0.26	-1.16
142	0.03	0.26	-1.16
143	-0.02	0.07	-0.47

144	-0.02	0.07	-0.47
145	0.44	0.48	-0.22
146	-0.46	-0.42	-0.22
147	-0.01	0.03	-0.22
148	-0.01	0.03	-0.22

DEFLECTIONS RATIO:

Load Id	Lateral Defl @ Top Of Col		Vert Defl @ Midspan
	Left	Right	
75	5795	886	534
76	16080	4021	1638
77	16080	4021	1638
78	16080	4021	1638
79	16080	4021	1638
80	16080	4021	1638
81	8782	1100	642
82	16080	4021	1638
83	16080	4021	1638
84	16080	4021	1638
85	1633	1829	7399
86	1117	1050	8521
87	1821	1640	8099
88	1044	1124	7079
89	4157	5500	10462
90	4157	5500	10462
91	2715	2341	10462
92	2715	2341	10462
93	1613	883	1002
94	1958	99999	989
95	1747	848	839
96	1792	18083	829
97	50268	1707	854
98	50268	1707	854
99	2289	959	854
100	2289	959	854
101	2254	2118	19541
102	2254	2118	19541
103	2254	2118	19541
104	1456	1534	15499
105	1456	1534	15499
106	1456	1534	15499
107	2523	1925	4079
108	2523	1925	4079
109	2523	1925	4079
110	1362	1654	3868
111	1362	1654	3868
112	1362	1654	3868
113	5103	13478	4459
114	5103	13478	4459
115	5103	13478	4459
116	5103	13478	4459
117	5103	13478	4459
118	5103	13478	4459
119	3836	2615	4459
120	3836	2615	4459
121	3836	2615	4459
122	3836	2615	4459
123	3836	2615	4459
124	3836	2615	4459
125	1569	2236	2637
126	1149	951	2766

127	1742	1960	8292
128	1071	1011	9726
129	4637	3555	6735
130	4637	3555	6735
131	2543	3053	6735
132	2543	3053	6735
133	644	527	1476
134	592	743	1476
135	14487	3623	1476
136	14487	3623	1476
137	748	464	622
138	894	3352	622
139	862	668	1517
140	772	1043	1517
141	9183	1077	622
142	9183	1077	622
143	14889	3723	1517
144	14889	3723	1517
145	629	574	3344
146	605	667	3344
147	32817	8207	3344
148	32817	8207	3344

MAX DEFLECTION:

```

-----
Type                Load   Deflect   Span/Deflect
                   Id      (in)     Calc   Limit
-----
Live Vertical              -0.91   792.   180.
Horizontal Drift   137     0.60   464.   50.
Horizontal Total   137     0.60   464.   50.
    
```

Horizontal Spring Constant= 2.73 k/in

ENDWALL VERTICAL DEFLECTION:

```

Column              --Vertical_Down(in)--   ---Vertical_Up(in)---
Locate   Use        Load  Deflect  Limit  Load  Deflect  Limit
-----
20.02   Stub        75    1.06   0.00  126    0.23   0.00
40.02   Stub        75    0.97   0.00  125    0.21   0.00
20.02   Stub        75    1.06   0.00  126    0.23   0.00
40.02   Stub        75    0.97   0.00  125    0.21   0.00
    
```

```

=====
2275                Frame 1 - Rigid Frame Clearances                3/10/20  3:45am
=====
    
```

VERTICAL CLEARANCE:

```

-----
Location                Span      X_Coord      Y_Coord
-----
Left                    21'01-11"   3'06-13"   21'01-11"
Right                   21'01-11"   56'05-11"   21'01-11"
Midspan                 24'05-03"   30'00-04"   24'05-03"
    
```

HORIZONTAL CLEARANCE:

```

-----
Location                Span      X_CoordL     X_CoordR
-----
Left - Right            52'10-13"   3'06-14"   56'05-10"
    
```

```

=====
2275                Frame 1 - Weight Summary                3/10/20  3:45am
=====
    
```

```
Total Weight (lb)
  Frame           =      2006
  Splice Plate    =      203
  Base Plate      =       31
  -----
                   2240
```

```
=====
2275           Frame 1 - Warning Summary           3/10/20  3:45am
=====
```

.. No Warnings

2275 Frame 2 - Design Code 3/10/20 3:49am

STRUCTURAL CODE:

Design Basis : WS - Working Stress
 Hot Rolled Steel : AISC16
 Cold Formed Steel : NAUS16

BUILDING CODE:

Wind Code : PRC 18 (IBC 18)
 Seismic Zone : D

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi)
 Cold Formed Steel : 29500 (ksi)

2275 Frame 2 - Base Plates and Anchor Bolt 3/10/20 3:49am

DESIGN CONSTANTS:

Base Plate Yield = 36.00 (ksi)
 Concrete Bearing = 1.05 (ksi)
 Bolt Shear Stress = 13.50 (ksi)
 Bolt Tension Stress = 22.50 (ksi)

BASE PLATE & BOLT SIZE:

---Column_Base(in)---		--Plate_Size(in)--			--Bolts(A307)-			-Shear(k)-		Req		
Id	Typ	Depth	Elev	Width	Length	Thick	Row	Dia	Gage	Limit	UC	Thick
Left	P	12.5	0.0	8.0	13.50	0.625	2	1.000	4.00	32.7	0.22	0.416
Right	P	12.5	0.0	8.0	13.50	0.625	2	1.000	4.00	32.7	0.18	0.518

BASE REACTIONS:

Column Id	-Max_Comp-Ld	Fy(k)	Max_Tension+Shear			-Max_Shear			Max_Shear+Tension		
			Ld	Fy(k)	Fx(k)	Ld	Fx(k)	Ld	Fx(k)	Fy(k)	
Left	1	9.4	51	-15.9	7.1	51	7.1	51	7.1	-15.9	
Right	1	12.8	52	-24.6	5.9	52	5.9	52	5.9	-24.6	

WELDS:

Base Id	Outside Flange To Base				Inside Flange To Base				-----Web To Base-----			
	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit
Left	0.188	F2	0.66	2.78	0.188	F2	0.66	2.78	0.188	F2	0.30	2.78
Right	0.188	F2	1.02	2.78	0.188	F2	1.02	2.78	0.188	F2	0.24	2.78

LOAD COMBINATIONS:

- 1 - Dead+Collateral+Live
- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1

2275 Frame 2 - Bolted-End-Plates 3/10/20 3:49am

DESIGN CONSTANTS:

 Splice Yield = 36.00 (ksi)
 Bolt Type = A325 Snug-Tightened
 Bolt Shear Stress = 27.00 (ksi)
 Bolt Tension Stress = 45.00 (ksi)

PLATE SIZE:

Splice Id	Member Typ	Web Locate	Web			Bolts(A325)							
			Depth	Splice Width	Splice Thick	Dia	Gage	Gage2	RowT	SpaceT	RowB	SpaceB	RowI
1	PEE	1- 2	37.00	8.0	0.625	0.750	5.00	5.00	2	3.50	2	3.50	1
2	-EE	2- 3	18.06	6.5	0.500	0.750	3.50	3.50	2	3.50	2	3.50	0
3	PEE	3- 4	37.00	8.0	0.625	0.750	5.00	5.00	2	3.50	2	3.50	1

PLATE DESIGN:

Splice Id	Ten Typ	Load Loc	Max_Moment			Max_Shear				Req Thick	Req Dia	Bolt UC
			Axial (k)	Shear (k)	Moment (f-k)	Load Id	Axial (k)	Shear (k)	Moment (f-k)			
1	PEE	Top 152	3.5	6.9	72.2	1	4.2	7.2	55.1	0.379	0.433	0.33
		Bot 51	-6.8	-13.4	-110.0	51	-6.8	-13.4	-110.0	0.468	0.535	0.51
2	-EE	Top 51	-6.9	1.0	38.9	55	-7.0	1.3	24.8	0.402	0.454	0.37
		Bot 1	3.6	-0.4	-27.7	25	-2.7	-1.2	-1.0	0.339	0.383	0.26
3	PEE	Top 151	3.6	-7.4	85.0	1	4.2	-7.8	71.1	0.420	0.470	0.39
		Bot 52	-6.3	14.3	-134.9	52	-6.3	14.3	-134.9	0.529	0.592	0.62

WELDS:

Splice Id	Side	Outside_Flange_To_Bep				Inside_Flange_To_Bep				Web_To_Bep			
		Size	Typ	Calc	Limit	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit
1	L	0.188	F2	1.11	2.78	0.188	F2	1.69	2.78	0.188	F2	0.18	2.78
1	R	0.188	F2	1.11	2.78	0.188	F2	1.69	2.78	0.188	F2	0.18	2.78
2	L	0.188	F2	1.73	2.78	0.188	F2	1.23	2.78	0.188	F2	0.04	2.78
2	R	0.188	F2	1.73	2.78	0.188	F2	1.23	2.78	0.188	F2	0.04	2.78
3	L	0.188	F2	1.30	2.78	0.188	F2	2.07	2.78	0.188	F2	0.19	2.78
3	R	0.188	F2	1.30	2.78	0.188	F2	2.07	2.78	0.188	F2	0.19	2.78

LOAD COMBINATIONS:

- 1 - Dead+Collateral+Live
 25 - Dead+Collateral+0.75Live+0.45Wind_Long2
 51 - 0.6Dead+0.6Wind_Left1
 52 - 0.6Dead+0.6Wind_Right1
 55 - 0.6Dead+0.6Wind_Long1
 151 - 1.08Dead+1.08Collateral+0.75Live+1.57Seismic_L
 152 - 1.08Dead+1.08Collateral+0.75Live+1.57Seismic_R

2275 Frame 2 - Bearing Stiffeners 3/10/20 3:49am

Stiffener Yield = 36.0 (ksi)

STIFFENER SIZE:

----Stiffener----		--Web(in)--		----Stiffener_Size(in)----			
Location	Offset	Depth	Thick	Width	Thick	Length	No.
Lt Col	0.0	43.00	0.250	2.50	0.250	43.00	1
Rt Col	60.0	43.00	0.250	2.50	0.250	43.00	1

STIFFENER DESIGN:

Location	----Tension(k)----			--Compression(k)--			Max UC
	Load	Calc	Limit	Load	Calc	Limit	
Lt Col	51	21.3	26.9	1	10.8	57.6	0.79
Rt Col	52	25.9	26.9	1	13.8	57.6	0.96

WELDS:

Stiffener Location	---Stiff_To_Flg/EP---				-----Stiff_To_Web-----			
	Size	Typ	Calc	Limit	Size	Typ	Calc	Limit
Lt Col	0.313	F1	4.27	4.64	0.188	F1	0.13	2.78
Rt Col	0.375	F1	5.17	5.56	0.188	F1	0.16	2.78

LOAD COMBINATIONS:

- 1 - Dead+Collateral+Live
- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1

=====
 2275 Frame 2 - Flange Braces 3/10/20 3:49am
 =====

DESIGN CONSTANTS:

 Flange Brace Yield = 50.00 ksi
 Girt/Purlin Yield = 55.00 ksi
 Flange Brace Bolt = A307 (1 Washers)
 Bolt Shear Stress = 13.50 ksi

 Flange Brace Force
 Inside flange, max of bending compression

LAYOUT:

Surf Id	Loc	Side	Part	Seg Id	Web Depth	Brace Offset	Angle Deg	Design Length	-----Bolt_Dia-----			--Attachment--		Ref
									Frame	Purlin	Clip	Frame	Purlin	
1	2	1	L2X2X1/8	2	41.76	24.00	31.1	46.44	0.500	0.500		Web	Web	
2	2	2	L2X2X1/8	3	35.28	24.00	35.8	41.03	0.500	0.500		Web	Web	
	5	2	L2X2X1/8	4	28.13	24.00	42.6	35.48	0.500	0.500		Web	Web	
	8	2	L2X2X1/8	5	20.98	12.00	32.3	22.46	0.500	0.500		Web	Web	
	9	2	L2X2X1/8	5	18.59	12.00	35.9	20.48	0.500	0.500		Web	Web	
3	1	2	L2X2X1/8	6	18.59	12.00	35.9	20.48	0.500	0.500		Web	Web	
	2	2	L2X2X1/8	6	20.98	12.00	32.3	22.46	0.500	0.500		Web	Web	
	5	2	L2X2X1/8	7	28.13	24.00	42.6	35.48	0.500	0.500		Web	Web	
	8	2	L2X2X1/8	8	35.28	24.00	35.8	41.03	0.500	0.500		Web	Web	
4	2	1	L2X2X1/8	9	41.76	24.00	31.1	46.44	0.500	0.500		Web	Web	

DESIGN:

Surf Id	Loc	Load Id	Force (k)	-Brace_UC-		---Connection_UC---		
				Comp	Tens	Frame	Purlin	Clip
1	2	1	0.36	0.10	0.07	0.13	0.18	

2	2	64	0.14	0.03	0.03	0.05	0.07
	5	52	0.07	0.02	0.01	0.03	0.04
	8	51	0.34	0.06	0.07	0.13	0.13
3	9	51	0.35	0.06	0.07	0.13	0.13
	1	51	0.34	0.06	0.07	0.13	0.13
	2	52	0.30	0.05	0.06	0.11	0.11
4	5	57	0.06	0.01	0.01	0.02	0.03
	8	1	0.18	0.05	0.04	0.07	0.09
	2	1	0.46	0.13	0.09	0.17	0.24

LOAD COMBINATIONS:

- 1 - Dead+Collateral+Live
- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1
- 57 - 0.6Dead+0.6Wind_Long2
- 64 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R

=====
 2275 Frame 2 - Web To Flange Weld 3/10/20 3:49am
 =====

---Web_Flange_Weld---											
Surf Id	Mem Id	Seg Id	Sec Id	Load Id	Shear (k)	Q (in3)	Ixx (in4)	Size	Typ	Calc	Limit
1	1	1	1	51	6.1	9.2	131	0.188	F1	0.43	2.78
1	1	2	4	51	6.1	20.5	870	0.188	F1	0.14	2.78
2	2	3	8	51	13.2	27.9	1832	0.188	F1	0.20	2.78
2	2	4	11	51	9.7	24.6	1343	0.188	F1	0.18	2.78
2	2	5	14	51	4.0	19.1	653	0.188	F1	0.12	2.78
3	3	6	19	52	4.9	19.1	653	0.188	F1	0.14	2.78
3	3	7	22	52	10.6	24.6	1343	0.188	F1	0.19	2.78
3	3	8	25	52	14.1	27.9	1832	0.188	F1	0.22	2.78
4	4	9	29	52	4.4	20.5	870	0.188	F1	0.10	2.78
4	4	10	32	52	4.4	9.2	131	0.188	F1	0.31	2.78

LOAD COMBINATIONS:

- 51 - 0.6Dead+0.6Wind_Left1
- 52 - 0.6Dead+0.6Wind_Right1

=====
 2275 Frame 2 - Special Segments 3/10/20 3:49am
 =====

FLANGE PLATE:

Locate	--Initial--		---Final---	
	Width (in)	Thick (in)	Width (in)	Thick (in)
Lt Col	6.0	0.250	6.0	0.250
Rt Col	6.0	0.250	6.0	0.250

WEB PLATE:

Locate	Id	-----Actions-----		Calc	---Initial--		-----Final-----		UC	Note
		Axial (k)	Moment (f-k)	Web Shear (k)	Web Thick (in)	Web Shear Limit (k)	Web Thick (in)	Web Shear Limit (k)		
Lt Col	51	-7.1	-110.0	32.1	0.188	29.9	0.250	70.8	0.45	AISC G2-1
Rt Col	52	-6.7	-134.9	40.4	0.188	29.9	0.250	70.8	0.57	AISC G2-1

REQUIRED WEB DESIGN:

```

-----
Locate      h      av      Kv      Cv
-----
Lt Col     41.46  35.21  11.93   0.53
Rt Col     41.46  35.21  11.93   0.53

```

LOAD COMBINATIONS:

```

-----
51 - 0.6Dead+0.6Wind_Left1
52 - 0.6Dead+0.6Wind_Right1

```

```

=====
2275                               Frame 2 - Design Summary                               3/10/20  3:49am
=====

```

FRAME:

```

-----
Id          = 2
Type        = RF
Line Id     = 2 3 4 5
Load Width= 20.00
UC Limit= 1.00
KL/R Limit= 200.00

```

MEMBERS:

```

-----
Srf Mem Seg  --Flange-  Web_Depth  -Plate_Thickness-  --Max_Shear-  -----Max_Axial+Moment-----
Id  Id  Id  Len  Wid  Strt  End  Web  O-flg  I-flg  Id  Ld  Ucv  Id  Ld  Uco  Id  Ld  Uci  Max
-----
1   1   1   9.9  6.0  12.0  27.1  0.125  0.250  0.250  3  51  0.41  3  51  0.59  3  1  0.92  192
1   1   2  13.3  6.0  27.1  43.0  0.188  0.250  0.250  5  51  0.18  5  51  0.68  5  1  0.95  192
2   2   3   6.1  6.0  37.0  32.5  0.188  0.250  0.250  8  51  0.40  8  51  0.54  8  51  0.38  40
2   2   4   9.9  6.0  32.5  25.2  0.188  0.250  0.250  11 51  0.29  11 51  0.21  13 52  0.19  40
2   2   5   9.9  6.0  25.2  18.0  0.125  0.250  0.250  14 51  0.27  16 51  0.44  16 51  0.47  40
3   3   6   9.9  6.0  18.0  25.2  0.125  0.250  0.250  19 52  0.33  17 51  0.44  17 51  0.47  40
3   3   7   9.9  6.0  25.2  32.5  0.188  0.250  0.250  22 52  0.32  22 52  0.33  22 52  0.26  40
3   3   8   6.1  6.0  32.5  37.0  0.188  0.250  0.250  25 52  0.42  25 52  0.68  25 52  0.46  40
4   4   9  13.3  6.0  43.0  27.1  0.188  0.250  0.250  27 52  0.16  26 52  0.61  28  1  0.92  192
4   4  10   9.9  6.0  27.1  12.0  0.125  0.250  0.250  30 52  0.30  32  1  0.38  30  1  0.92  192

```

No. Cycles For Plate Optimization= 4

LOAD COMBINATIONS:

```

-----
#- Controlling Load Combination In Design Summary

```

```

1#- Dead+Collateral+Live
2 - Dead+Collateral
3 - Dead+Collateral+Snow
4 - Dead+Collateral+Snow+Snow_Drift
5 - Dead+Collateral+Snow+Slide_Snow
6 - Dead
7 - Dead+Collateral+0.75Live
8 - Dead+Collateral+0.75Snow
9 - Dead+Collateral+0.75Snow+0.75Snow_Drift
10 - Dead+Collateral+0.75Snow+0.75Slide_Snow
11 - Dead+0.6Wind_Left1
12 - Dead+0.6Wind_Right1
13 - Dead+0.6Wind_Left2
14 - Dead+0.6Wind_Right2

```

15 - Dead+0.6Wind_Long1
16 - Dead-0.6Wind_Long1
17 - Dead+0.6Wind_Long2
18 - Dead-0.6Wind_Long2
19 - Dead+Collateral+0.75Live+0.45Wind_Left1
20 - Dead+Collateral+0.75Live+0.45Wind_Right1
21 - Dead+Collateral+0.75Live+0.45Wind_Left2
22 - Dead+Collateral+0.75Live+0.45Wind_Right2
23 - Dead+Collateral+0.75Live+0.45Wind_Long1
24 - Dead+Collateral+0.75Live-0.45Wind_Long1
25 - Dead+Collateral+0.75Live+0.45Wind_Long2
26 - Dead+Collateral+0.75Live-0.45Wind_Long2
27 - Dead+Collateral+0.75Snow+0.45Wind_Left1
28 - Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Snow_Drift
29 - Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Slide_Snow
30 - Dead+Collateral+0.75Snow+0.45Wind_Right1
31 - Dead+Collateral+0.75Snow+0.45Wind_Right1+0.75Snow_Drift
32 - Dead+Collateral+0.75Snow+0.45Wind_Right1+0.75Slide_Snow
33 - Dead+Collateral+0.75Snow+0.45Wind_Left2
34 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.75Snow_Drift
35 - Dead+Collateral+0.75Snow+0.45Wind_Left2+0.75Slide_Snow
36 - Dead+Collateral+0.75Snow+0.45Wind_Right2
37 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.75Snow_Drift
38 - Dead+Collateral+0.75Snow+0.45Wind_Right2+0.75Slide_Snow
39 - Dead+Collateral+0.75Snow+0.45Wind_Long1
40 - Dead+Collateral+0.75Snow-0.45Wind_Long1
41 - Dead+Collateral+0.75Snow+0.45Wind_Long1+0.75Snow_Drift
42 - Dead+Collateral+0.75Snow-0.45Wind_Long1+0.75Snow_Drift
43 - Dead+Collateral+0.75Snow+0.45Wind_Long1+0.75Slide_Snow
44 - Dead+Collateral+0.75Snow-0.45Wind_Long1+0.75Slide_Snow
45 - Dead+Collateral+0.75Snow+0.45Wind_Long2
46 - Dead+Collateral+0.75Snow-0.45Wind_Long2
47 - Dead+Collateral+0.75Snow+0.45Wind_Long2+0.75Snow_Drift
48 - Dead+Collateral+0.75Snow-0.45Wind_Long2+0.75Snow_Drift
49 - Dead+Collateral+0.75Snow+0.45Wind_Long2+0.75Slide_Snow
50 - Dead+Collateral+0.75Snow-0.45Wind_Long2+0.75Slide_Snow
51#- 0.6Dead+0.6Wind_Left1
52#- 0.6Dead+0.6Wind_Right1
53 - 0.6Dead+0.6Wind_Left2
54 - 0.6Dead+0.6Wind_Right2
55 - 0.6Dead+0.6Wind_Long1
56 - 0.6Dead-0.6Wind_Long1
57 - 0.6Dead+0.6Wind_Long2
58 - 0.6Dead-0.6Wind_Long2
59 - 1.11Dead+1.11Collateral+0.7Seismic_L
60 - 1.11Dead+1.11Collateral+0.7Seismic_R
61 - 1.11Dead+1.11Collateral+0.7Seismic_Long
62 - 1.11Dead+1.11Collateral-0.7Seismic_Long
63 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_L
64 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R
65 - 1.08Dead+1.08Collateral+0.53Seismic_L
66 - 1.08Dead+1.08Collateral+0.53Seismic_R
67 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_Long
68 - 1.08Dead+1.08Collateral+0.75Live-0.53Seismic_Long
69 - 1.08Dead+1.08Collateral+0.53Seismic_Long
70 - 1.08Dead+1.08Collateral-0.53Seismic_Long
71 - 0.49Dead+0.7Seismic_L
72 - 0.49Dead+0.7Seismic_R
73 - 0.49Dead+0.7Seismic_Long
74 - 0.49Dead-0.7Seismic_Long
75 - Dead+Collateral+Live
76 - Dead+Collateral
77 - Dead+Collateral+Snow
78 - Dead+Collateral+Snow+Snow_Drift
79 - Dead+Collateral+Snow+Slide_Snow
80 - Dead

81 - Dead+Collateral+0.75Live
82 - Dead+Collateral+0.75Snow
83 - Dead+Collateral+0.75Snow+0.75Snow_Drift
84 - Dead+Collateral+0.75Snow+0.75Slide_Snow
85 - Dead+0.18Wind_Left1
86 - Dead+0.18Wind_Right1
87 - Dead+0.18Wind_Left2
88 - Dead+0.18Wind_Right2
89 - Dead+0.18Wind_Long1
90 - Dead-0.18Wind_Long1
91 - Dead+0.18Wind_Long2
92 - Dead-0.18Wind_Long2
93 - Dead+Collateral+0.75Live+0.14Wind_Left1
94 - Dead+Collateral+0.75Live+0.14Wind_Right1
95 - Dead+Collateral+0.75Live+0.14Wind_Left2
96 - Dead+Collateral+0.75Live+0.14Wind_Right2
97 - Dead+Collateral+0.75Live+0.14Wind_Long1
98 - Dead+Collateral+0.75Live-0.14Wind_Long1
99 - Dead+Collateral+0.75Live+0.14Wind_Long2
100 - Dead+Collateral+0.75Live-0.14Wind_Long2
101 - Dead+Collateral+0.75Snow+0.14Wind_Left1
102 - Dead+Collateral+0.75Snow+0.14Wind_Left1+0.75Snow_Drift
103 - Dead+Collateral+0.75Snow+0.14Wind_Left1+0.75Slide_Snow
104 - Dead+Collateral+0.75Snow+0.14Wind_Right1
105 - Dead+Collateral+0.75Snow+0.14Wind_Right1+0.75Snow_Drift
106 - Dead+Collateral+0.75Snow+0.14Wind_Right1+0.75Slide_Snow
107 - Dead+Collateral+0.75Snow+0.14Wind_Left2
108 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.75Snow_Drift
109 - Dead+Collateral+0.75Snow+0.14Wind_Left2+0.75Slide_Snow
110 - Dead+Collateral+0.75Snow+0.14Wind_Right2
111 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.75Snow_Drift
112 - Dead+Collateral+0.75Snow+0.14Wind_Right2+0.75Slide_Snow
113 - Dead+Collateral+0.75Snow+0.14Wind_Long1
114 - Dead+Collateral+0.75Snow-0.14Wind_Long1
115 - Dead+Collateral+0.75Snow+0.14Wind_Long1+0.75Snow_Drift
116 - Dead+Collateral+0.75Snow-0.14Wind_Long1+0.75Snow_Drift
117 - Dead+Collateral+0.75Snow+0.14Wind_Long1+0.75Slide_Snow
118 - Dead+Collateral+0.75Snow-0.14Wind_Long1+0.75Slide_Snow
119 - Dead+Collateral+0.75Snow+0.14Wind_Long2
120 - Dead+Collateral+0.75Snow-0.14Wind_Long2
121 - Dead+Collateral+0.75Snow+0.14Wind_Long2+0.75Snow_Drift
122 - Dead+Collateral+0.75Snow-0.14Wind_Long2+0.75Snow_Drift
123 - Dead+Collateral+0.75Snow+0.14Wind_Long2+0.75Slide_Snow
124 - Dead+Collateral+0.75Snow-0.14Wind_Long2+0.75Slide_Snow
125 - 0.6Dead+0.18Wind_Left1
126 - 0.6Dead+0.18Wind_Right1
127 - 0.6Dead+0.18Wind_Left2
128 - 0.6Dead+0.18Wind_Right2
129 - 0.6Dead+0.18Wind_Long1
130 - 0.6Dead-0.18Wind_Long1
131 - 0.6Dead+0.18Wind_Long2
132 - 0.6Dead-0.18Wind_Long2
133 - 1.11Dead+1.11Collateral+0.7Seismic_L
134 - 1.11Dead+1.11Collateral+0.7Seismic_R
135 - 1.11Dead+1.11Collateral+0.7Seismic_Long
136 - 1.11Dead+1.11Collateral-0.7Seismic_Long
137 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_L
138 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_R
139 - 1.08Dead+1.08Collateral+0.53Seismic_L
140 - 1.08Dead+1.08Collateral+0.53Seismic_R
141 - 1.08Dead+1.08Collateral+0.75Live+0.53Seismic_Long
142 - 1.08Dead+1.08Collateral+0.75Live-0.53Seismic_Long
143 - 1.08Dead+1.08Collateral+0.53Seismic_Long
144 - 1.08Dead+1.08Collateral-0.53Seismic_Long
145 - 0.49Dead+0.7Seismic_L
146 - 0.49Dead+0.7Seismic_R

147 - 0.49Dead+0.7Seismic_Long

148 - 0.49Dead-0.7Seismic_Long

PLATE LIMITS:

Seg Id	-----Web-----		-----Flange-----		---Flange---		Web_Area/ Flange_Area	
	Depth/Thick Calc	Limit	Width/(2xThick) Calc	Limit	Thick	Min	Calc	Limit
1	208.8	260.0	12.0		0.250	0.125	2.2	10.0
2	229.3	260.0	12.0		0.250	0.188	5.4	10.0
3	197.3	260.0	12.0		0.250	0.188	4.6	10.0
4	168.8	260.0	12.0		0.250	0.188	4.0	10.0
5	198.4	260.0	12.0		0.250	0.125	2.1	10.0
6	198.4	260.0	12.0		0.250	0.125	2.1	10.0
7	168.8	260.0	12.0		0.250	0.188	4.0	10.0
8	197.3	260.0	12.0		0.250	0.188	4.6	10.0
9	229.3	260.0	12.0		0.250	0.188	5.4	10.0
10	208.8	260.0	12.0		0.250	0.125	2.2	10.0

FRAME AREA:

Frame Area= 236.54
 Building Area= 1516.10
 Ratio= 0.16

WEIGHTS:

Member	1	2	3	4
Weight (lb)	639	672	672	639

Total Weight (lb)
 Frame = 2622
 Splice Plate = 257
 Base Plate = 34

 2914

REACTIONS: (Sidewall Columns)

Load Id	-----Left_Column-----				-----Right_Column-----			
	Fx(k)	Fy(k)	Fz(k)	M(f-k)	Fx(k)	Fy(k)	Fz(k)	M(f-k)
1	3.59	9.41	0.00	0.00	-3.59	12.84	0.00	0.00
2	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
3	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
4	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
5	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
6	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
7	2.88	7.67	0.00	0.00	-2.88	10.37	0.00	0.00
8	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
9	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
10	0.78	2.47	0.00	0.00	-0.78	2.96	0.00	0.00
11	-6.79	-14.88	0.00	0.00	3.18	-10.82	0.00	0.00
12	-2.83	-7.97	0.00	0.00	5.57	-23.38	0.00	0.00
13	-4.73	-9.60	0.00	0.00	1.12	-5.54	0.00	0.00
14	-0.77	-2.69	0.00	0.00	3.51	-18.10	0.00	0.00
15	-3.13	-9.00	0.00	0.00	3.52	-6.40	0.00	0.00
16	-3.13	-9.00	0.00	0.00	3.52	-6.40	0.00	0.00
17	-3.52	-6.89	0.00	0.00	3.13	-8.51	0.00	0.00

18	-3.52	-6.89	0.00	0.00	3.13	-8.51	0.00	0.00
19	-2.79	-5.34	0.00	0.00	0.09	0.03	0.00	0.00
20	0.18	-0.15	0.00	0.00	1.88	-9.39	0.00	0.00
21	-1.25	-1.38	0.00	0.00	-1.46	3.99	0.00	0.00
22	1.72	3.81	0.00	0.00	0.33	-5.43	0.00	0.00
23	-0.05	-0.93	0.00	0.00	0.34	3.35	0.00	0.00
24	-0.05	-0.93	0.00	0.00	0.34	3.35	0.00	0.00
25	-0.34	0.66	0.00	0.00	0.05	1.76	0.00	0.00
26	-0.34	0.66	0.00	0.00	0.05	1.76	0.00	0.00
27	-4.90	-10.54	0.00	0.00	2.19	-7.38	0.00	0.00
28	-4.90	-10.54	0.00	0.00	2.19	-7.38	0.00	0.00
29	-4.90	-10.54	0.00	0.00	2.19	-7.38	0.00	0.00
30	-1.93	-5.36	0.00	0.00	3.98	-16.80	0.00	0.00
31	-1.93	-5.36	0.00	0.00	3.98	-16.80	0.00	0.00
32	-1.93	-5.36	0.00	0.00	3.98	-16.80	0.00	0.00
33	-3.35	-6.58	0.00	0.00	0.65	-3.42	0.00	0.00
34	-3.35	-6.58	0.00	0.00	0.65	-3.42	0.00	0.00
35	-3.35	-6.58	0.00	0.00	0.65	-3.42	0.00	0.00
36	-0.39	-1.40	0.00	0.00	2.44	-12.84	0.00	0.00
37	-0.39	-1.40	0.00	0.00	2.44	-12.84	0.00	0.00
38	-0.39	-1.40	0.00	0.00	2.44	-12.84	0.00	0.00
39	-2.15	-6.13	0.00	0.00	2.45	-4.06	0.00	0.00
40	-2.15	-6.13	0.00	0.00	2.45	-4.06	0.00	0.00
41	-2.15	-6.13	0.00	0.00	2.45	-4.06	0.00	0.00
42	-2.15	-6.13	0.00	0.00	2.45	-4.06	0.00	0.00
43	-2.15	-6.13	0.00	0.00	2.45	-4.06	0.00	0.00
44	-2.15	-6.13	0.00	0.00	2.45	-4.06	0.00	0.00
45	-2.45	-4.55	0.00	0.00	2.15	-5.64	0.00	0.00
46	-2.45	-4.55	0.00	0.00	2.15	-5.64	0.00	0.00
47	-2.45	-4.55	0.00	0.00	2.15	-5.64	0.00	0.00
48	-2.45	-4.55	0.00	0.00	2.15	-5.64	0.00	0.00
49	-2.45	-4.55	0.00	0.00	2.15	-5.64	0.00	0.00
50	-2.45	-4.55	0.00	0.00	2.15	-5.64	0.00	0.00
51	-7.10	-15.87	0.00	0.00	3.49	-12.01	0.00	0.00
52	-3.14	-8.96	0.00	0.00	5.88	-24.57	0.00	0.00
53	-5.04	-10.59	0.00	0.00	1.43	-6.73	0.00	0.00
54	-1.09	-3.68	0.00	0.00	3.82	-19.29	0.00	0.00
55	-3.44	-9.99	0.00	0.00	3.83	-7.58	0.00	0.00
56	-3.44	-9.99	0.00	0.00	3.83	-7.58	0.00	0.00
57	-3.83	-7.87	0.00	0.00	3.44	-9.70	0.00	0.00
58	-3.83	-7.87	0.00	0.00	3.44	-9.70	0.00	0.00
59	0.25	2.27	0.00	0.00	-1.48	3.76	0.00	0.00
60	1.48	3.21	0.00	0.00	-0.25	2.82	0.00	0.00
61	0.86	2.74	0.00	0.00	-0.86	3.29	0.00	0.00
62	0.86	2.74	0.00	0.00	-0.86	3.29	0.00	0.00
63	2.48	7.52	0.00	0.00	-3.41	10.96	0.00	0.00
64	3.41	8.23	0.00	0.00	-2.48	10.25	0.00	0.00
65	0.37	2.31	0.00	0.00	-1.31	3.55	0.00	0.00
66	1.31	3.02	0.00	0.00	-0.37	2.84	0.00	0.00
67	2.95	7.87	0.00	0.00	-2.95	10.60	0.00	0.00
68	2.95	7.87	0.00	0.00	-2.95	10.60	0.00	0.00
69	0.84	2.67	0.00	0.00	-0.84	3.20	0.00	0.00
70	0.84	2.67	0.00	0.00	-0.84	3.20	0.00	0.00
71	-0.23	0.74	0.00	0.00	-1.00	1.92	0.00	0.00
72	1.00	1.68	0.00	0.00	0.23	0.98	0.00	0.00
73	0.38	1.21	0.00	0.00	-0.38	1.45	0.00	0.00
74	0.38	1.21	0.00	0.00	-0.38	1.45	0.00	0.00

DEFLECTIONS :

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-----
Load      Lateral Defl
@ Top Of Col  Vert Defl
Id         Left   Right  @ Midspan
-----

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75	0.02	0.18	-0.75
76	0.00	0.03	-0.16
77	0.00	0.03	-0.16
78	0.00	0.03	-0.16
79	0.00	0.03	-0.16
80	0.00	0.03	-0.16
81	0.02	0.14	-0.60
82	0.00	0.03	-0.16
83	0.00	0.03	-0.16
84	0.00	0.03	-0.16
85	0.12	0.08	0.20
86	-0.13	-0.17	0.18
87	0.11	0.09	0.07
88	-0.14	-0.16	0.06
89	-0.03	-0.05	0.09
90	-0.03	-0.05	0.09
91	0.07	0.06	0.09
92	0.07	0.06	0.09
93	0.11	0.18	-0.34
94	-0.08	-0.01	-0.35
95	0.10	0.19	-0.43
96	-0.09	0.00	-0.44
97	0.00	0.08	-0.42
98	0.00	0.08	-0.42
99	0.07	0.16	-0.42
100	0.07	0.16	-0.42
101	0.09	0.07	0.11
102	0.09	0.07	0.11
103	0.09	0.07	0.11
104	-0.10	-0.12	0.10
105	-0.10	-0.12	0.10
106	-0.10	-0.12	0.10
107	0.08	0.08	0.02
108	0.08	0.08	0.02
109	0.08	0.08	0.02
110	-0.11	-0.11	0.01
111	-0.11	-0.11	0.01
112	-0.11	-0.11	0.01
113	-0.02	-0.03	0.03
114	-0.02	-0.03	0.03
115	-0.02	-0.03	0.03
116	-0.02	-0.03	0.03
117	-0.02	-0.03	0.03
118	-0.02	-0.03	0.03
119	0.06	0.05	0.03
120	0.06	0.05	0.03
121	0.06	0.05	0.03
122	0.06	0.05	0.03
123	0.06	0.05	0.03
124	0.06	0.05	0.03
125	0.12	0.07	0.26
126	-0.13	-0.18	0.25
127	0.11	0.08	0.14
128	-0.14	-0.17	0.12
129	-0.03	-0.06	0.15
130	-0.03	-0.06	0.15
131	0.08	0.05	0.15
132	0.08	0.05	0.15
133	0.21	0.24	-0.17
134	-0.21	-0.17	-0.17
135	0.00	0.03	-0.17
136	0.00	0.03	-0.17
137	0.17	0.30	-0.61
138	-0.14	-0.01	-0.61
139	0.16	0.19	-0.17
140	-0.16	-0.12	-0.17

141	0.02	0.14	-0.61
142	0.02	0.14	-0.61
143	0.00	0.03	-0.17
144	0.00	0.03	-0.17
145	0.21	0.22	-0.08
146	-0.21	-0.19	-0.08
147	0.00	0.01	-0.08
148	0.00	0.01	-0.08

DEFLECTIONS RATIO:

Load Id	Lateral Defl @ Top Of Col		Vert Defl @ Midspan
	Left	Right	
75	11686	1563	959
76	99999	9163	4623
77	99999	9163	4623
78	99999	9163	4623
79	99999	9163	4623
80	99999	9163	4623
81	15905	1972	1196
82	99999	9163	4623
83	99999	9163	4623
84	99999	9163	4623
85	2286	3383	3663
86	2098	1642	3920
87	2531	2960	9711
88	1927	1764	11753
89	9141	6083	8188
90	9141	6083	8188
91	3727	4688	8188
92	3727	4688	8188
93	2533	1546	2133
94	3440	31567	2074
95	2754	1474	1677
96	3102	99999	1640
97	65530	3313	1718
98	65530	3313	1718
99	3731	1709	1718
100	3731	1709	1718
101	3061	4016	6638
102	3061	4016	6638
103	3061	4016	6638
104	2787	2328	7286
105	2787	2328	7286
106	2787	2328	7286
107	3390	3563	43192
108	3390	3563	43192
109	3390	3563	43192
110	2561	2513	99999
111	2561	2513	99999
112	2561	2513	99999
113	11997	10416	26655
114	11997	10416	26655
115	11997	10416	26655
116	11997	10416	26655
117	11997	10416	26655
118	11997	10416	26655
119	5002	5340	26654
120	5002	5340	26654
121	5002	5340	26654
122	5002	5340	26654
123	5002	5340	26654

124	5002	5340	26654
125	2276	3969	2781
126	2107	1532	2927
127	2518	3399	5277
128	1935	1638	5827
129	9318	4807	4792
130	9318	4807	4792
131	3698	5894	4792
132	3698	5894	4792
133	1355	1156	4165
134	1334	1606	4165
135	99999	8255	4165
136	99999	8255	4165
137	1598	927	1172
138	1998	21139	1172
139	1794	1468	4280
140	1758	2246	4280
141	16011	1939	1172
142	16011	1939	1172
143	99999	8484	4280
144	99999	8484	4280
145	1349	1254	9435
146	1340	1449	9434
147	99999	18700	9435
148	99999	18700	9435

MAX DEFLECTION:

Type	Load Id	Deflect (in)	Span/Deflect Calc	Limit
Live Vertical		-0.59	1211.	180.
Horizontal Drift	137	0.30	927.	50.
Horizontal Total	137	0.30	927.	50.

Horizontal Spring Constant= 5.95 k/in

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=====
2275                Frame 2 - Rigid Frame Clearances                3/10/20  3:49am
=====
```

VERTICAL CLEARANCE:

Location	Span	X_Coord	Y_Coord
Left	20'04-09"	4'05-12"	20'04-09"
Right	20'04-09"	55'06-12"	20'04-09"
Midspan	24'01-03"	30'00-04"	24'01-03"

HORIZONTAL CLEARANCE:

Location	Span	X_CoordL	X_CoordR
Left - Right	51'01-01"	4'05-12"	55'06-12"

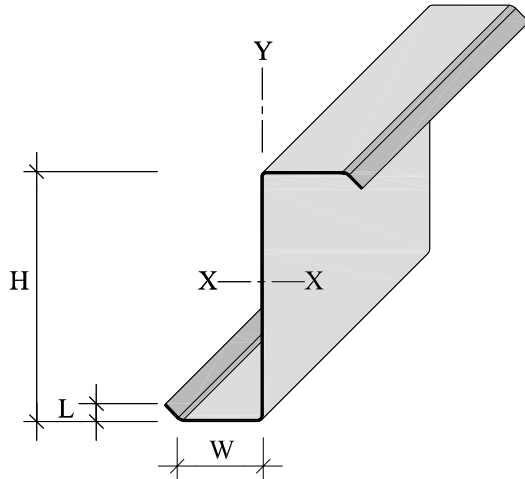
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=====
2275                Frame 2 - Weight Summary                3/10/20  3:49am
=====
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Total Weight (lb)			
Frame	=		2622
Splice Plate	=		257
Base Plate	=		34

			2914

=====
2275 Frame 2 - Warning Summary 3/10/20 3:49am
=====

.. No Warnings



BEAM PROPERTIES

"Z" PURLINS ARE ROLL FORMED FROM HIGH STRENGTH HOT DIPPED GALVANIZED STEEL, CONFORMING TO ASTM DESIGNATION A553, GRADE 50, FOR STRUCTURAL QUALITY STEEL WITH A MINIMUM YIELD STRENGTH OF 50 Ksi, AND COATING DESIGNATION G90.

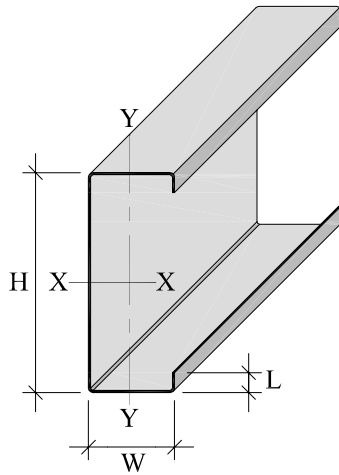
SECTIONAL PROPERTIES SHOWN BELOW WERE COMPUTED IN STRICT ACCORDANCE WITH THE PROVISIONS OF THE AISI, AMERICAN IRON & STEEL INSTITUTE'S "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.

SECTION	DIMENSIONS							PROPERTIES FOR BEAMS							
	GA	H in	W in	L in	T in	Area in ²	WT Lbs	I _x in ⁴	S _x in ³	F _y Ksi	F _b Ksi	R.M. ft-#	WEB in ²	F _v Ksi	V Kips
4 X 2 1/2"	16	4.0	2.5	0.63	0.061	0.60	2.2	1.60	0.79	50	30.00	1980	0.24	20	3.99
6 X 2 1/2"	16	6.0	2.5	0.63	0.061	0.72	2.6	4.08	1.35	50	30.00	3365	0.36	20	3.22
8 X 2 1/2"	16	8.0	2.5	0.63	0.061	0.84	3.1	8.05	2.01	50	30.00	5033	0.49	20	9.76
8 X 2 1/2"	14	8.0	2.5	0.63	0.075	1.03	3.7	9.83	2.46	50	30.00	6145	0.60	20	12.00
8 X 2 1/2"	12	8.0	2.5	0.63	0.105	1.43	5.1	13.54	3.39	50	30.00	8463	0.84	20	16.80
10 X 2 1/2"	16	10.0	2.5	0.63	0.061	0.96	3.5	13.68	2.74	50	30.00	6838	0.61	20	12.20
10 X 2 1/2"	14	10.0	2.5	0.63	0.075	1.18	4.33	16.71	3.34	50	30.00	8355	0.75	20	15.00
10 X 2 1/2"	12	10.0	2.5	0.63	0.105	1.64	6.0	23.05	4.61	50	30.00	11523	1.05	20	21.00
12 X 2 1/2"	12	12.0	2.5	0.63	0.105	2.12	6.4	44.37	7.39	50	30.00	18269	1.24	20	8.18

NOTES

BEAM STRENGTH: PROPERTIES SHOWN FOR BEAM STRENGTH HAVE BEEN REDUCED, WHERE REQUIRED, TO ALLOW THE USE OF THE FULL ALLOWABLE DESIGN STRESS IN ACCORDANCE WITH SECTION 2.3 OF THE SPECIFICATIONS. THE ALLOWABLE DESIGN STRESS F_b IS BASED ON THE BASIC DESIGN STRESS FOR FLEXURAL MEMBERS AND THE ALLOWABLE BENDING STRESS IN WEBS DETERMINED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3 OF THE SPECIFICATIONS. I_x IS THE MOMENT OF INERTIA FOR DEFLECTION DETERMINATION. S_x IS THE SECTION MODULUS REDUCED FOR LOAD DETERMINATION.

DIMENSIONS: THICKNESS AND AREA SHOWN ARE THOSE OF BARE STEEL EXCLUSIVE OF THE GALVANIZED COATING. WEIGHTS LISTED FOR PURLINS ARE BASED ON THE WEIGHT OF GALVANIZED STEEL.



BEAM PROPERTIES

"C" PURLINS ARE ROLL FORMED FROM HIGH STRENGTH HOT DIPPED GALVANIZED STEEL, CONFORMING TO ASTM DESIGNATION A553, GRADE 50, FOR STRUCTURAL QUALITY STEEL WITH A MINIMUM YIELD STRENGTH OF 50 Ksi, AND COATING DESIGNATION G90.

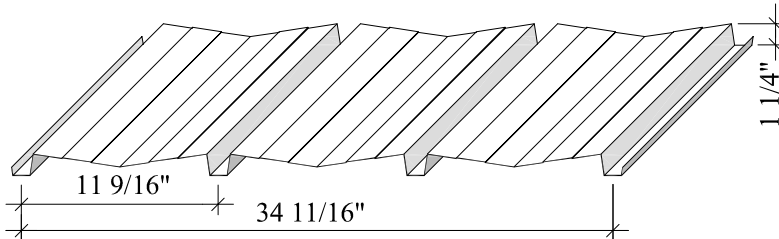
SECTIONAL PROPERTIES SHOWN BELOW WERE COMPUTED IN STRICT ACCORDANCE WITH THE PROVISIONS OF THE AISI, AMERICAN IRON & STEEL INSTITUTE'S "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.

SECTION	DIMENSIONS							PROPERTIES FOR BEAMS							
	GA	H in	W in	L in	T in	Area in ²	WT Lbs	I _x in ⁴	S _x in ³	F _y Ksi	F _b Ksi	R.M. ft-#	WEB in ²	F _v Ksi	V Kips
4 X 2 1/2"	16	4.0	2.5	0.63	0.061	0.60	2.2	1.60	0.79	50	30.00	1980	0.24	20	3.99
6 X 2 1/2"	16	6.0	2.5	0.63	0.061	0.72	2.6	4.08	1.35	50	30.00	3365	0.36	20	3.22
8 X 2 1/2"	16	8.0	2.5	0.63	0.061	0.84	3.1	8.05	2.01	50	30.00	5033	0.49	20	9.76
8 X 2 1/2"	14	8.0	2.5	0.63	0.075	1.03	3.7	9.83	2.46	50	30.00	6145	0.60	20	12.00
8 X 2 1/2"	12	8.0	2.5	0.63	0.105	1.43	5.1	13.54	3.39	50	30.00	8463	0.84	20	16.80
10 X 2 1/2"	16	10.0	2.5	0.63	0.061	0.96	3.5	13.68	2.74	50	30.00	6838	0.61	20	12.20
10 X 2 1/2"	14	10.0	2.5	0.63	0.075	1.18	4.33	16.71	3.34	50	30.00	8355	0.75	20	15.00
10 X 2 1/2"	12	10.0	2.5	0.63	0.105	1.64	6.0	23.05	4.61	50	30.00	11523	1.05	20	21.00
12 X 2 1/2"	12	12.0	2.5	0.63	0.105	2.12	6.4	44.37	7.39	50	30.00	18269	1.24	20	8.18

NOTES

BEAM STRENGTH: PROPERTIES SHOWN FOR BEAM STRENGTH HAVE BEEN REDUCED, WHERE REQUIRED, TO ALLOW THE USE OF THE FULL ALLOWABLE DESIGN STRESS IN ACCORDANCE WITH SECTION 2.3 OF THE SPECIFICATIONS. THE ALLOWABLE DESIGN STRESS F_b IS BASED ON THE BASIC DESIGN STRESS FOR FLEXURAL MEMBERS AND THE ALLOWABLE BENDING STRESS IN WEBS DETERMINED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3 OF THE SPECIFICATIONS. I_x IS THE MOMENT OF INERTIA FOR DEFLECTION DETERMINATION. S_x IS THE SECTION MODULUS REDUCED FOR LOAD DETERMINATION.

DIMENSIONS: THICKNESS AND AREA SHOWN ARE THOSE OF BARE STEEL EXCLUSIVE OF THE GALVANIZED COATING. WEIGHTS LISTED FOR PURLINS ARE BASED ON THE WEIGHT OF GALVANIZED STEEL.



TYPE A-ESCO GALVALUME- GALVACOLOR

THE TYPE A - ESCO PANEL IS IDEALLY SUITED FOR EXPOSED METAL SIDING APPLICATIONS. THIS PANEL IS A 34 11/16" WIDE, WITH 1 1/4" HIGH RIBS ON 11 9/16" CENTERS. IT IS AVAILABLE IN 24 & 26 GAUGE STEEL AND CUSTOM LENGTHS.

GALVACOLOR

TYPE A - ESCO IS ALSO AVAILABLE AS "GALVACOLOR" A PRE-PAINTED PANEL MADE OF ALU-ZINC COATED STEEL ACCORDING TO ASTM A792-99 AZ55, GRADE D. THE SHEET IS CHEMICALLY TREATED AND PAINTED WITH A FACTORY APPLIED AND BAKED - ON COAT OF REGULAR POLYESTER PAINT, HAVING ONE MIL THICKNESS ON THE UNDERSIDE.

GALVALUME

GALVALUME IS THE TRADE NAME FOR A PATENTED STEEL SHEET PRODUCT, HAVING A COATING OF CORROSION-RESISTANT ALUMINUM-ZINC ALLOY .

PHYSICAL PROPERTIES

SECTION-PROPERTIES	UNIT	GAGE	
		26	24
OVERALL WIDTH	IN.	38	38
NET COVER WIDTH	IN.	34 11/16"	34 11/16"
WEIGHT	P.S.F.	0.85	1.14
MIN. YIELD STRENGTH	K.S.I.	50	50
DESIGN STRESS	K.S.I.	30	30
MOMENT OF INERTIA *	IN. ⁴	0.034	0.045
Sx TOP *	IN. ³	0.066	0.088
Sx BOTTOM *	IN. ³	0.045	0.060
AREA *	IN. ²	0.263	0.350
RESISTING MOMENT *	FT.-LBS.	111	148
ALLOWABLE SHEAR *	KIPS	5.26	7.0

* FIGURES SHOWN ARE MINIMUM VALUES FOR 12 IN. COVER WIDTH, REDUCED FOR USE OF THE FULL DESIGN STRESS OF 30 K.S.I. FOR POSITIVE OR NEGATIVE BENDING.

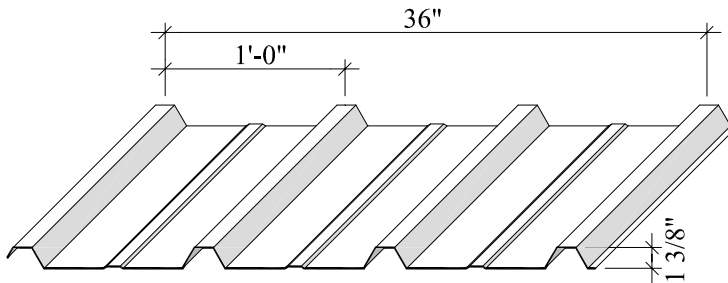
ALLOWABLE UNIFORM TOTAL LOADS (LBS./FT.²)

LOAD CONDITION	GA	SPAN IN FEET				
		3'	3'-6"	4'	4'-6"	5'
TWO SPANS	26	98	72	55	43	35
	24	131	96	74	58	47
THREE OR MORE SPANS	26	122	90	69	54	44
	24	163	120	92	73	59

	MOMENT	DEFLECTION
DOUBLE SPAN:	M = WL ² /8	3WL ⁴ /384EI
TRIPLE SPAN:	M = WL ² /10	3WL ⁴ /384EI

NOTE:

1) FOR WIND LOADS ONLY, VALUES MAY BE INCREASE BY 33.3 %.



TYPE E-ESCO GALVALUME- GALVACOLOR

THE TYPE E - ESCO PANEL IS IDEALLY SUITED FOR EXPOSED METAL ROOFS AND SIDING APPLICATIONS. THIS PANEL IS A 36" WIDE, WITH 1 3/8" HIGH RIBS ON 12" CENTERS. IT IS AVAILABLE IN 24 & 26 GAUGE STEEL AND CUSTOM LENGTHS. THE STRENGTH OF THE PANEL ENHANCES WALKABILITY.

GALVACOLOR

TYPE E - ESCO IS ALSO AVAILABLE AS "GALVACOLOR" A PRE-PAINTED PANEL MADE OF ALU-ZINC COATED STEEL ACCORDING TO ASTM A792-99 AZ55, GRADE D. THE SHEET IS CHEMICALLY TREATED AND PAINTED WITH A FACTORY APPLIED AND BAKED - ON COAT OF REGULAR POLYESTER PAINT, HAVING ONE MIL THICKNESS ON THE UNDERSIDE.

GALVALUME

GALVALUME IS THE TRADE NAME FOR A PATENTED STEEL SHEET PRODUCT, HAVING A COATING OF CORROSION-RESISTANT ALUMINUM-ZINC ALLOY .

PHYSICAL PROPERTIES

SECTION-PROPERTIES	UNIT	GAGE	
		26	24
OVERALL WIDTH	IN.	38	38
NET COVER WIDTH	IN.	36	36
WEIGHT	P.S.F.	0.85	1.14
MIN. YIELD STRENGTH	K.S.I.	50	50
DESIGN STRESS	K.S.I.	30	30
MOMENT OF INERTIA *	IN. ⁴	0.049	0.066
Sx TOP	IN. ³	0.046	0.060
Sx BOTTOM	IN. ³	0.176	0.234
AREA	IN. ²	0.235	0.313
RESISTING MOMENT	FT.-LBS.	115	150
ALLOWABLE SHEAR	KIPS	4.70	6.26

* FIGURES SHOWN ARE MINIMUM VALUES FOR 12 IN. COVER WIDTH, REDUCED FOR USE OF THE FULL DESIGN STRESS OF 30 K.S.I. FOR POSITIVE OR NEGATIVE BENDING.

ALLOWABLE UNIFORM TOTAL LOADS (LBS./FT.²)

LOAD CONDITION	GA	SPAN IN FEET				
		3'	3'-6"	4'	4'-6"	5'
TWO SPANS	26	102	75	57	45	37
	24	133	98	75	59	48
THREE OR MORE SPANS	26	128	94	72	57	46
	24	167	122	94	74	60

	MOMENT	DEFLECTION
DOUBLE SPAN:	M = WL ² /8	3WL ⁴ /384EI
TRIPLE SPAN:	M = WL ² /10	3WL ⁴ /384EI

NOTE:

1) FOR WIND LOADS ONLY, VALUES MAY BE INCREASE BY 33.3 %.