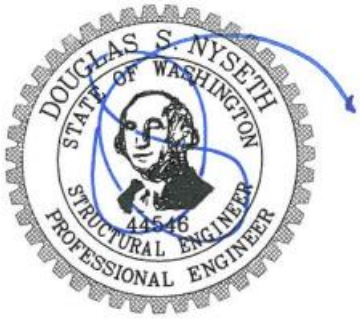
Structural Permit Calculations

Puyallup Bell Place

204 4th Street SW, Puyallup, WA 98371

The following calculations have been prepared under my direct supervision:



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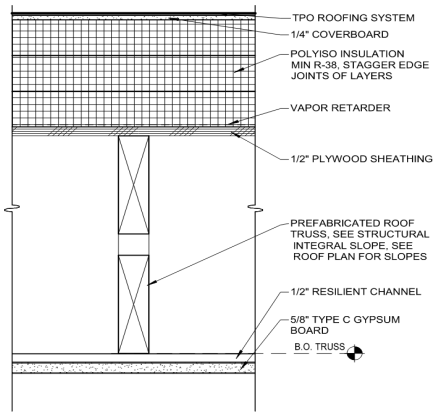
Bell Place
Puyallup, Washington
March 19th, 2026

STONEWOOD
STRUCTURAL ENGINEERS

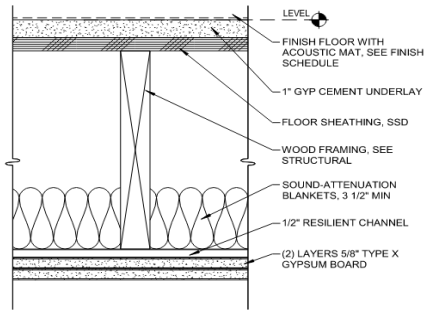
A. General Building Information

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup Bell	By: AAS
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 2/26/2026
	LOAD TAKEOFF		
	SINGLE AND MULTI STORY		
	Horizontal Assemblies		Last Update: 26-Oct-16

Typical Roof Assemby (PSF) [R1]		
Material	Deck	Joist
2x Truss		4.0
5/8" Plywood	2.00	
TPO Roof Assembly	1.0	
Insulation	5.0	
Resilient Channel	0.3	
5/8" Type X Gypsum wallboard	2.8	
MEP and Misc.	4.9	
Dead Load (psf):	16.0	20.0
Total Load (psf):	16.0	20.0



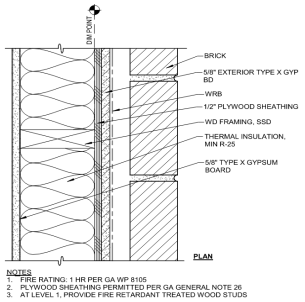
Typical Floor Assembly(PSF) [F2]		
Material	Deck	Joist
2x12 @ 16"oc		3.5
7/8" Plywood	2.8	
Acoustic Mat	1.5	
Vapor barrier	0.3	
Resilient Channel	0.3	
(2) 5/8 Gypsum xWallboard	5.5	
1" Gypcrete	9.2	
MEP + Misc	2.0	
Dead Load (psf):	21.5	25.0
Total Load (psf):	21.5	25.0



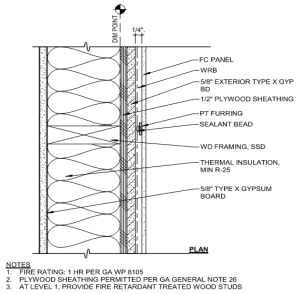
NOTES
1. FIRE RATING: 1 HR, GA FILE NO. FC 5107
2. STC: STC-55
3. SOUND TEST: INTEST T-761-3,12-5-77

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS	
	Location: Puyallup, WA	Job No.: 25-063	
	Client: C2K	Date: 2/26/2026	
	LOAD TAKEOFF		
	SINGLE AND MULTI STORY		
	Vertical Assemblies	Last Update: 26-Oct-16	

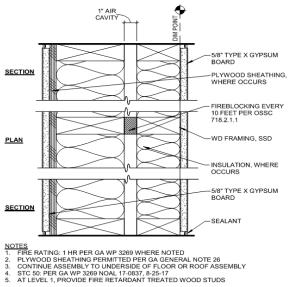
Exterior Wall w/ Brick (PSF) [51]	
Material	Weight (PSF)
2x8 Studs @ 12" oc	2.00
5/8" Type X Gypsum wallboard	2.75
1/2" Plywood	1.60
WRB	0.20
Batt insulation	2.00
Vapor Retardant Membrane	0.30
Brick Veneer	40.00
MEP & Misc.	3.6
Dead Load	52.5
Total Load	52.5



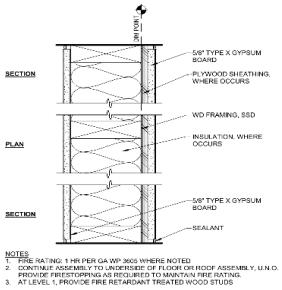
Typical Exterior Wall (PSF) [52]	
Material	Weight (PSF)
2x8 Studs @ 12" oc	2.00
5/8" Type X Gypsum wallboard	2.75
1/2" Plywood	1.60
WRB	0.20
Batt insulation	2.00
Vapor Retardant Membrane	0.30
Fiber Cement or Metal Panel	4.00
MEP & Misc.	4.1
Dead Load	17.0
Total Load	17.0



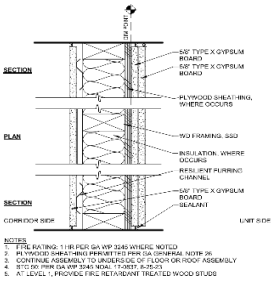
Typical Unit Demising Wall (PSF) - [22]	
Material	Weight (PSF)
2x4 @ 24" o.c.	0.60
2x6 @ 12" o.c.	1.90
(2) 5/8" Type X Gypsum Wallboard	5.50
1/2" Plywood Sheathing	1.60
Resiliant Channel	0.50
Batt Insulation	4.00
MEP & Misc.	4.90
Dead Load	19.0
Total Load	19.0



Typical Interior Wall (PSF) - [20]	
Material	Weight (PSF)
(2) 5/8" Gyp Wallboard Type x	5.50
2x6 Studs @ 16" oc	1.40
Batt Insulation	1.00
MEP and Misc.	1.60
Dead Load	9.5



Typical Corridor Wall (PSF) - [23]	
Material	Weight (PSF)
(3) 5/8" Gyp Wallboard Type X	8.25
1 /2" Plywood Sheathing	1.60
Resiliant Channel	0.50
2x4 @ 16" oc	1.40
Insulation	2.00
MEP and Misc.	3.70
Dead Load	17.5



STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup Bell	By: AAS
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 2/26/2026
		Building Weight	
		Weights of Horizontal and Vertical Assemblies	Last Update: 15-Jun-21

Vertical Assemblies	Weight (psf)
Brick Exterior Wall	52.5
Typical Exterior Wall	17.0
Window	8.0
Typical Interior Unit Wall	9.5
Demsing Wall	19.0
Corridor Wall	17.5

Wood Framed Floors Wall Weights

			Wall Lengths						Wall Weights						
Height	Floor Level	Tributary Floor	Brick Exteiror Wall (Ft)	Typical Exterior Wall (Ft)	Typical Interior Wall (Ft)	Demising Walls (Ft)	Typical Corridor Wall (Ft)	Window Area (sf)	Brick Exterior Wall (#)	Typical Exterior Wall (#)	Typical Interior Wall (#)	Demising Walls (#)	Corridor Walls (#)	Window Weight	Total Weight of Wall and Window per Level (lbs)
10.33	L3	2	191	571	1583	749	708	2314	46734	25539	70155	66388	57634	18512	**284961**
		3							46734	25539	70155	66388	57634	18512	**569922**
10.33	L4	3	191	571	1583	749	708	2314	46734	25539	70155	66388	57634	18512	
		4							46734	25539	70155	66388	57634	18512	**569922**
10.33	L5	4	191	571	1583	749	708	2314	46734	25539	70155	66388	57634	18512	
		5							46734	25539	70155	66388	57634	18512	**564924**
9.17	Roof	6	191	571	1583	749	708	2314	45917	24750	68929	65228	56627	18512	
		Roof							45917	24750	68929	65228	56627	18512	**402911**
4.00	Parapet	Roof	502	260	0	0	0	0	105320	17628	0	0	0	0	

Vertical Assemblies	Weight (psf)
12" Wall	150.0
8" Concrete Wall	100.0
Brick Exterior Wall	52.5
Typical Exterior Wall	17.0
Interior Wall	9.5
Concrete Column (plf)	292.0

Concrete Floors Wall Weights

			Wall Lengths						Wall Weights			
Height	Floor Level	Tributary Floor	12" Concrete Wall (Ft)	8" Concrete Wall (Ft)	Total Concrete Columns	Brick Exteiror Wall (Ft)	Typical Exteiror Wall (Ft)	Typical Interior Wall (Ft)	Concrete Column (#)	Interior Walls (#)	Exterior Walls (#)	Total Weight per Level
10.00	L2	1	278	140	52	87	535	290	75920	291900	68157	**435977**
		2							75920	291900	68157	**435977**

Building Weight by Level

Level	Floor Area (sq. ft.)	Net Weight (lbs)	Net Floor Load (psf)
2	27636	720938	26.1
3	21400	569922	26.6
4	21400	569922	26.6
5	21400	564924	26.4
Roof	21400	402911	18.8

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup Bell	By:	AAS
	Location:	Puyallup, WA	Job No.:	25-063
	Client:	C2K	Date:	2/27/2026
	Puyallup Bell		Last Update:	15-Jun-21
	Weights of Horizontal and Vertical Assemblies			

Horizontal Assemblies	Weight (psf)
Typical Floor Assembly	25
Typical Roof Assembly Roof	20
Typical Slab (13")	162.5
Perimeter Patio Slab (11")	137.5

Building Weight by Level At Wood Framed Floors

Level	Typical Floor Assembly Area	Wall Weight (See Following Sheet)	Diaphragm Weight	Net Weight	Net Floor Load
	(sq. ft.)	(lb)	(lb)	(lbs)	(psf)
3	21400	569922	535000	1104922	51.6
4	21400	569922	535000	1104922	51.6
5	21400	564924	535000	1099924	51.4
Roof	21400	402911	428000	830911	38.8

Building Weight by Level At Wood Concrete Levels

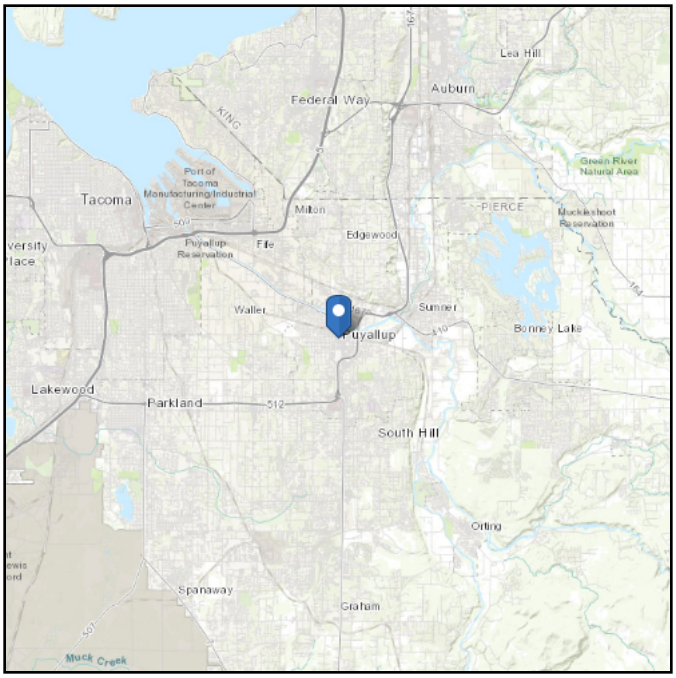
Level	Typical Slab Area	Perimeter Patio Slab Area	Diaphragm Weight	Wall Weight (See Following Sheet)	Net Weight	Net Floor Load
	(sq. ft.)	(sq. ft.)	(lb)	(lbs)	(lbs)	(psf)
2	25000	2297	4378338	435977	4814315	176.4

Superimposed Dead Load to be added to slab design from floors above (psf)	162.1
Superimposed dead load from non-concrete elements below slab (psf)	3.0
Seismic Mass at Level 2 (psf)	**341**

ASCE Hazards Report

Address:
330 3rd St SW
Puyallup, Washington
98371

Standard:	ASCE/SEI 7-16	**Latitude:**	47.189779
Risk Category:	II	**Longitude:**	-122.296692
Soil Class:	D - Stiff Soil	**Elevation:**	44.42621858699328 ft (NAVD 88)



Wind

Results:

Wind Speed	98 Vmph
10-year MRI	67 Vmph
25-year MRI	73 Vmph
50-year MRI	78 Vmph
100-year MRI	83 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Fri Feb 20 2026

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	1.273	S_{D1} :	N/A
S_1 :	0.438	T_L :	6
F_a :	1	PGA :	0.5
F_v :	N/A	PGA_M :	0.55
S_{MS} :	1.273	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	0.848	C_v :	1.355

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Fri Feb 20 2026

Date Source: USGS Seismic Design Maps

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup Bell	By: AAS
	Location:	Puyallup WA	Job No.: 25-063
	Client:	C2K	Date: 3/2/2025
	SEISMIC DESIGN ASCE 7-16 Lateral Seismic Forces - Wood Structure		Last Update: 24-Oct-16

Seismic Design Criteria:

Design Spectral Acceleration	
Short Period (S_{ds}):	0.849
1-Second (S_{d1}):	0.544
Design Parameters	
Average Roof Height (h) [ft]:	40.2
Typical Floor Area [sq ft]:	21,400
Response Modification (R):	6.5
Overstrength (Ω_o):	3.0
Deflection Amplification (C_d):	4.0
Importance Factor (I_s):	1.0
Response Spectrum Parameters	
Short Period (T_s) [sec]:	0.64
Long Period (T_L) [sec]:	6
Approximate Fundamental Period	
Period Coefficient (C_t):	0.02
Period Exponent (x):	0.75
Fundamental Period (T_a) [sec]:	0.319102
Structural Period Exponent (k):	1
Seismic Response Coefficient (C_s)	
Equation 12.8-2 (C_s):	0.130615
Equation 12.8-3 ($C_{s,max}$):	0.262275
Equation 12.8-3 ($C_{s,min}$):	0.037356
Controlling C_s:	0.130615

Period Selection
- (•) ELF Procedure
- ( ) User Input

Input: -

Vertical Disctribution of Forces (EQ 12.8-11, 12.8-12, 12.10-1, 12.10-2, 12.10-3)

TYPICAL FLOOR	Story ID	Story Parameters: Floor Area [sq. ft]	Weight (w_x) [psf]	Height (h_x) [ft]	$w_x * h_x^k$ [k]	Story Force (F_x) [k]	Story Force (F_x) [psf]	Story Shear (V_x) [k]	Story Shear (V_x) [psf]	Diaphragm Force (F_{px}) [k]	Diaphragm Force (F_{px}) [psf]
☐	Roof	21,400	38.8	40.2	33351	177.3	8.3	0.0	0.0	177.3	8.3
☐	L5	21,400	51.4	31.0	34099	181.3	8.5	177.3	8.3	204.3	9.5
☐	L4	21,400	51.6	20.7	22821	121.3	5.7	358.6	16.8	187.5	8.8
☐	L3	21,400	51.6	10.3	11410	60.7	2.8	479.9	22.4	187.5	8.8
☐	L2				0	0.0	0.0	540.6	25.3	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0

Seismic Weight (W) [k]:	4139
Base Shear (V) [k]:	541

Project:	Puyallup Bell	By:	AAS
Location:	Puyallup WA	Job No.:	25-063
Client:	C2K	Date:	3/2/2025
SEISMIC DESIGN ASCE 7-16 Lateral Seismic Forces - Concrete Structure		Last Update:	24-Oct-16

Seismic Design Criteria:

Design Spectral Acceleration	
Short Period (S_{ds}):	0.849
1-Second (S_{d1}):	0.544
Design Parameters	
Average Roof Height (h) [ft]:	11.0
Typical Floor Area [sq ft]:	27,636
Response Modification (R):	5.0
Overstrength (Ω_o):	2.5
Deflection Amplification (C_d):	5.0
Importance Factor (I_s):	1.0
Response Spectrum Parameters	
Short Period (T_s) [sec]:	1.50
Long Period (T_L) [sec]:	16
Approximate Fundamental Period	
Period Coefficient (C_t):	0.02
Period Exponent (x):	0.75
Fundamental Period (T_a) [sec]:	0.1208
Structural Period Exponent (k):	1
Seismic Response Coefficient (C_s)	
Equation 12.8-2 (C_s):	0.1698
Equation 12.8-3 ($C_{s,max}$):	0.90065
Equation 12.8-3 ($C_{s,min}$):	0.03736
Controlling C_s:	0.1698

Vertical Disctribution of Forces (EQ 12.8-11, 12.8-12, 12.10-1, 12.10-2, 12.10-3)

TYPICAL	Story ID	Story Parameters: Floor Area [sq. ft]	Weight (w_x) [psf]	Height (h_x) [ft]	$w_x * h_x^k$ [k]	Story Force (F_x) [k]	Story Force (F_x) [psf]	Story Shear (V_x) [k]	Story Shear (V_x) [psf]	Diaphragm Force (F_{px}) [k]	Diaphragm Force (F_{px}) [psf]
☐	2	27,636	341.5	11.0	103815	1602.5	58.0	0.0	0.0	1602.5	58.0
☐	1	27,636			0	0.0	0.0	1602.5	58.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0
☐					0	0.0	0.0	0.0	0.0	0.0	0.0

Period Selection
(•) ELF Procedure
( ) User Input
Input: -

Seismic Weight (W) [k]:	9438
Base Shear (V) [k]:	1603

Project:

Description:

By: Date: Page:

Table 1.5-2 Importance Factors by Risk Category of Buildings and Other Structures for Snow, Ice, and Earthquake Loads

Risk Category from Table 1.5-1	Snow Importance Factor, I_s	Ice Importance Factor—Thickness, I_i	Ice Importance Factor—Wind, I_w	Seismic Importance Factor, I_e
I	0.80	0.80	1.00	1.00
II	1.00	1.00	1.00	1.00
III	1.10	1.15	1.00	1.25
IV	1.20	1.25	1.00	1.50

Note: The component importance factor, I_p, applicable to earthquake loads, is not included in this table because it depends on the importance of the individual component rather than that of the building as a whole, or its occupancy. Refer to Section 13.1.3.

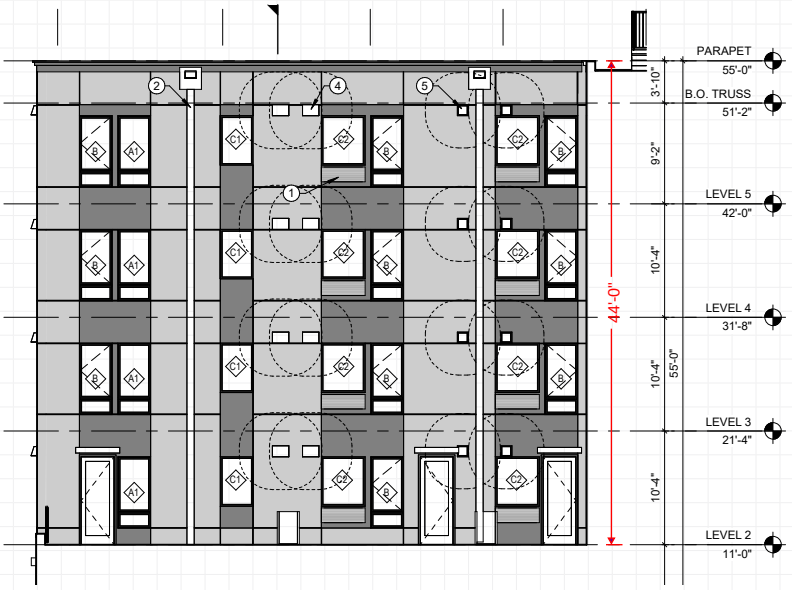
All important factors = 1.0

12.2.3.2 Two-Stage Analysis Procedure. A two-stage equivalent lateral force procedure is permitted to be used for structures that have a flexible upper portion above a rigid lower portion, provided that the design of the structure complies with all of the following:

a. The stiffness of the lower portion shall be at least 10 times the stiffness of the upper portion.
b. The period of the entire structure shall not be greater than 1.1 times the period of the upper portion considered as a separate structure supported at the transition from the upper to the lower portion.
c. The upper portion shall be designed as a separate structure using the appropriate values of R and ρ.
d. The lower portion shall be designed as a separate structure using the appropriate values of R and ρ. The reactions from the upper portion shall be those determined from the analysis of the upper portion amplified by the ratio of the R/ρ of the upper portion over R/ρ of the lower portion. This ratio shall not be less than 1.0.
e. The upper portion is analyzed with the equivalent lateral force or modal response spectrum procedure, and the lower portion is analyzed with the equivalent lateral force procedure.

A) Structural System Selection For Upper Wood Structure (ASCE T. 12.2-1)

16. Light-frame(wood) walls sheathed with wood structural panels rated for shear resistance
    R = 6.5
    omega = 3
    Cd = 4
    Height limitation: 65 ft



H = 44' < 65': Buildings in conformance with lateral height limitations

B) Diaphragm Flexibility, Configuration Irregularities, and Redundancy (ASCE 12.3)

I) Diaphragm Flexibility

12.3.1 Diaphragm Flexibility. The structural analysis shall consider the relative stiffnesses of diaphragms and the vertical elements of the seismic force-resisting system. Unless a diaphragm can be idealized as either flexible or rigid in accordance with Sections 12.3.1.1, 12.3.1.2, or 12.3.1.3, the structural analysis shall explicitly include consideration of the stiffness of the diaphragm (i.e., semirigid modeling assumption).

Diaphragm to be idealized as Semi-Rigid

B) Diaphragm Flexibility, Configuration Irregularities, and Redundancy (ASCE 12.3)

II) Configuration Irregularities

a) Horizontal Irregularites

Table 12.3-1 Horizontal Structural Irregularities

Type	Description	Reference Section	Seismic Design Category Application
1a.	**Torsional Irregularity:** Torsional irregularity is defined to exist where the maximum story drift, computed including accidental torsion with $A_x = 1.0$, at one end of the structure transverse to an axis is more than 1.2 times the average of the story drifts at the two ends of the structure. Torsional irregularity requirements in the reference sections apply only to structures in which the diaphragms are rigid or semirigid.	12.3.3.4 12.7.3 12.8.4.3 12.12.1 Table 12.6-1 16.3.4	D, E, and F B, C, D, E, and F C, D, E, and F C, D, E, and F D, E, and F B, C, D, E, and F
1b.	**Extreme Torsional Irregularity:** Extreme torsional irregularity is defined to exist where the maximum story drift, computed including accidental torsion with $A_x = 1.0$, at one end of the structure transverse to an axis is more than 1.4 times the average of the story drifts at the two ends of the structure. Extreme torsional irregularity requirements in the reference sections apply only to structures in which the diaphragms are rigid or semirigid.	12.3.3.1 12.3.3.4 12.3.4.2 12.7.3 12.8.4.3 12.12.1 Table 12.6-1 16.3.4	E and F D D B, C, and D C and D C and D D B, C, and D
2.	**Reentrant Corner Irregularity:** Reentrant corner irregularity is defined to exist where both plan projections of the structure beyond a reentrant corner are greater than 15% of the plan dimension of the structure in the given direction.	12.3.3.4 Table 12.6-1	D, E, and F D, E, and F
3.	**Diaphragm Discontinuity Irregularity:** Diaphragm discontinuity irregularity is defined to exist where there is a diaphragm with an abrupt discontinuity or variation in stiffness, including one that has a cutout or open area greater than 50% of the gross enclosed diaphragm area, or a change in effective diaphragm stiffness of more than 50% from one story to the next.	12.3.3.4 Table 12.6-1	D, E, and F D, E, and F
4.	**Out-of-Plane Offset Irregularity:** Out-of-plane offset irregularity is defined to exist where there is a discontinuity in a lateral force-resistance path, such as an out-of-plane offset of at least one of the vertical elements.	12.3.3.3 12.3.3.4 12.7.3 Table 12.6-1 16.3.4	B, C, D, E, and F D, E, and F B, C, D, E, and F D, E, and F B, C, D, E, and F
5.	**Nonparallel System Irregularity:** Nonparallel system irregularity is defined to exist where vertical lateral force-resisting elements are not parallel to the major orthogonal axes of the seismic force-resisting system.	12.5.3 12.7.3 Table 12.6-1 16.3.4	C, D, E, and F B, C, D, E, and F D, E, and F B, C, D, E, and F

12.3.3.4 Increase in Forces Caused by Irregularities for Seismic Design Categories D through F. For structures assigned to Seismic Design Category D, E, or F and having a horizontal structural irregularity of Type 1a, 1b, 2, 3, or 4 in Table 12.3-1 or a vertical structural irregularity of Type 4 in Table 12.3-2, the design forces determined from Section 12.10.1.1 shall be increased 25% for the following elements of the seismic force-resisting system:

1. Connections of diaphragms to vertical elements and to collectors and
2. Collectors and their connections, including connections to vertical elements, of the seismic force-resisting system.

EXCEPTION: Forces calculated using the seismic load effects including overstrength of Section 12.4.3 need not be increased.

Loads to diaphragm collectors and connections to do be amplified by 25%

B) Diaphragm Flexibility, Configuration Irregularities, and Redundancy (ASCE 12.3)

II) Configuration Irregularities

a) Horizontal Irregularites

12.7.3 Structural Modeling. A mathematical model of the structure shall be constructed for the purpose of determining member forces and structure displacements resulting from applied loads and any imposed displacements or P-delta effects. The model shall include the stiffness and strength of elements that are significant to the distribution of forces and deformations in the structure and represent the spatial distribution of mass and stiffness throughout the structure.

In addition, the model shall comply with the following:

a. Stiffness properties of concrete and masonry elements shall consider the effects of cracked sections.
b. For steel moment frame systems, the contribution of panel zone deformations to overall story drift shall be included.

Structures that have horizontal structural irregularity Type 1a, 1b, 4, or 5 of Table 12.3-1 shall be analyzed using a 3D representation. Where a 3D model is used, a minimum of three degrees of freedom consisting of translation in two orthogonal plan directions and rotation about the vertical axis shall be included at each level of the structure. Where the diaphragms have not been classified as rigid or flexible in accordance with Section 12.3.1, the model shall include representation of the diaphragm's stiffness characteristics and, when dynamic analysis is performed, sufficient degrees of freedom as are required to account for the participation of the diaphragm in the structure's dynamic response. When modal response spectrum or response history analysis is performed, a minimum of three dynamic degrees of freedom consisting of translation in two orthogonal plan directions and torsional rotation about the vertical axis at each level of the structure shall be used.

EXCEPTION: Analysis using a 3D representation is not required for structures with flexible diaphragms that have Type 4 horizontal structural irregularities.

Structure requires 3D Model

12.8.4.3 Amplification of Accidental Torsional Moment. Structures assigned to Seismic Design Category C, D, E, or F, where Type 1a or 1b torsional irregularity exists as defined in Table 12.3-1 shall have the effects accounted for by multiplying M_{ta} at each level by a torsional amplification factor (A_x) as illustrated in Fig. 12.8-1 and determined from the following equation:

$$A_x = \left(\frac{\delta_{max}}{1.2\delta_{avg}} \right)^2 \qquad (12.8\text{-}14)$$

where

δ_{max} = maximum displacement at level x computed assuming $A_x = 1$ [in. (mm)], and

δ_{avg} = average of the displacements at the extreme points of the structure at level x computed assuming $A_x = 1$ [in. (mm)].

The torsional amplification factor (A_x) shall not be less than 1 and is not required to exceed 3.0. The more severe loading for each element shall be considered for design.

Amplified torsion required - see analysis within the lateral section of the calculations

B) Diaphragm Flexibility, Configuration Irregularities, and Redundancy (ASCE 12.3)

II) Configuration Irregularities

a) Horizontal Irregularites

12.12.1 Story Drift Limit. The design story drift (Δ) as determined in Sections 12.8.6, 12.9.1, or 12.9.2 shall not exceed the allowable story drift (Δ_a) as obtained from Table 12.12-1 for any story.

Table 12.12-1 Allowable Story Drift, Δ_a[a,b]

Structure	Risk Category I or II	Risk Category III	Risk Category IV
Structures, other than masonry shear wall structures, four stories or less above the base as defined in Section 11.2, with interior walls, partitions, ceilings, and exterior wall systems that have been designed to accommodate the story drifts	$0.025h_{sx}$[c]	$0.020h_{sx}$	$0.015h_{sx}$
Masonry cantilever shear wall structures[d]	$0.010h_{sx}$	$0.010h_{sx}$	$0.010h_{sx}$
Other masonry shear wall structures	$0.007h_{sx}$	$0.007h_{sx}$	$0.007h_{sx}$
All other structures	$0.020h_{sx}$	$0.015h_{sx}$	$0.010h_{sx}$

[a] h_{sx} is the story height below level x.
[b] For seismic force-resisting systems solely comprising moment frames in Seismic Design Categories D, E, and F, the allowable story drift shall comply with the requirements of Section 12.12.1.1.
[c] There shall be no drift limit for single-story structures with interior walls, partitions, ceilings, and exterior wall systems that have been designed to accommodate the story drifts. The structure separation requirement of Section 12.12.3 is not waived.
[d] Structures in which the basic structural system consists of masonry shear walls designed as vertical elements cantilevered from their base or foundation support that are so constructed that moment transfer between shear walls (coupling) is negligible.

Max story drift = 0.020 hsx, see RISA output

Table 12.6-1 Permitted Analytical Procedures

Seismic Design Category	Structural Characteristics	Equivalent Lateral Force Procedure, Section 12.8[a]	Modal Response Spectrum Analysis, Section 12.9.1, or Linear Response History Analysis, Section 12.9.2[a]	Nonlinear Response History Procedures, Chapter 16[a]
B, C	All structures	P	P	P
D, E, F	Risk Category I or II buildings not exceeding two stories above the base	P	P	P
	Structures of light-frame construction	P	P	P
	Structures with no structural irregularities and not exceeding 160 ft (48.8 m) in structural height	P	P	P
	Structures exceeding 160 ft (48.8 m) in structural height with no structural irregularities and with $T < 3.5T_s$	P	P	P
	Structures not exceeding 160 ft (48.8 m) in structural height and having only horizontal irregularities of Type 2, 3, 4, or 5 in Table 12.3-1 or vertical irregularities of Type 4, 5a, or 5b in Table 12.3-2	P	P	P
	All other structures	NP	P	P

[a] P: Permitted; NP: Not Permitted; $T_s = S_{D1}/S_{DS}$.

Equivalent Lateral Procedure to be used

B) Diaphragm Flexibility, Configuration Irregularities, and Redundancy (ASCE 12.3)

II) Configuration Irregularities

b) Vertical Irregularities

Table 12.3-2 Vertical Structural Irregularities

Type	Description	Reference Section	Seismic Design Category Application
1a.	**Stiffness–Soft Story Irregularity:** Stiffness–soft story irregularity is defined to exist where there is a story in which the lateral stiffness is less than 70% of that in the story above or less than 80% of the average stiffness of the three stories above.	Table 12.6-1	D, E, and F
1b.	**Stiffness–Extreme Soft Story Irregularity:** Stiffness–extreme soft story irregularity is defined to exist where there is a story in which the lateral stiffness is less than 60% of that in the story above or less than 70% of the average stiffness of the three stories above.	12.3.3.1 Table 12.6-1	E and F D, E, and F
2.	**Weight (Mass) Irregularity:** Weight (mass) irregularity is defined to exist where the effective mass of any story is more than 150% of the effective mass of an adjacent story. A roof that is lighter than the floor below need not be considered.	Table 12.6-1	D, E, and F
3.	**Vertical Geometric Irregularity:** Vertical geometric irregularity is defined to exist where the horizontal dimension of the seismic force-resisting system in any story is more than 130% of that in an adjacent story.	Table 12.6-1	D, E, and F
4.	**In-Plane Discontinuity in Vertical Lateral Force-Resisting Element Irregularity:** In-plane discontinuity in vertical lateral force-resisting element irregularity is defined to exist where there is an in-plane offset of a vertical seismic force-resisting element resulting in overturning demands on supporting structural elements.	12.3.3.3 12.3.3.4 Table 12.6-1	B, C, D, E, and F D, E, and F D, E, and F
5a.	**Discontinuity in Lateral Strength–Weak Story Irregularity:** Discontinuity in lateral strength–weak story irregularity is defined to exist where the story lateral strength is less than 80% of that in the story above. The story lateral strength is the total lateral strength of all seismic-resisting elements sharing the story shear for the direction under consideration.	12.3.3.1 Table 12.6-1	E and F D, E, and F
5b.	**Discontinuity in Lateral Strength–Extreme Weak Story Irregularity:** Discontinuity in lateral strength–extreme weak story irregularity is defined to exist where the story lateral strength is less than 65% of that in the story above. The story strength is the total strength of all seismic-resisting elements sharing the story shear for the direction under consideration.	12.3.3.1 12.3.3.2 Table 12.6-1	D, E, and F B and C D, E, and F

12.3.3.3 Elements Supporting Discontinuous Walls or Frames. Structural elements supporting discontinuous walls or frames of structures that have horizontal irregularity Type 4 of Table 12.3-1 or vertical irregularity Type 4 of Table 12.3-2 shall be designed to resist the seismic load effects, including overstrength of Section 12.4.3. The connections of such discontinuous walls or frames to the supporting members shall be adequate to transmit the forces for which the discontinuous walls or frames were required to be designed.

Omega required of plywood shear wall hold down forces to design PT slab

A) Structural System Selection For Upper Wood Structure (ASCE T. 12.2-1)

1. Special Reinforced Concrete Shear Walls
   R = 5.0
   omega = 2 1/2
   Cd = 5
   Height limitation: 160 ft

B) Diaphragm Flexibility, Configuration Irregularities, and Redundancy (ASCE 12.3)

I) Diaphragm Flexibility

12.3.1 Diaphragm Flexibility. The structural analysis shall consider the relative stiffnesses of diaphragms and the vertical elements of the seismic force-resisting system. Unless a diaphragm can be idealized as either flexible or rigid in accordance with Sections 12.3.1.1, 12.3.1.2, or 12.3.1.3, the structural analysis shall explicitly include consideration of the stiffness of the diaphragm (i.e., semirigid modeling assumption).

Diaphragm to be idealized as Rigid

12.3.1.2 Rigid Diaphragm Condition. Diaphragms of concrete slabs or concrete-filled metal deck with span-to-depth ratios of 3 or less in structures that have no horizontal irregularities are permitted to be idealized as rigid.

II) Configuration Irregularities

No vertical or horizontal irregularities identified

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell Location: Puyallup, WA Client: C2L	By: AAS Job No.: 25-063 Date:
	ASCE 7-16	
	WIND DESIGN	
	Gable and Monoslope Roofs: Components and Cladding Design Pressures	Last Update:

Wind Design Parameters	
Basic Wind Speed (V_{ult}) [mph]:	98
Mean Roof Height (h) [ft]:	55
Ground Elevation Above Sea Level (z_g) [ft]:	0
Roof Slope Type:	Monoslope (3°<θ≤10°)
Roof Overhangs:	No overhangs
Exposure Category:	B
Enclosure Classification:	Enclosed Buildings
Structure Type:	All Others
Wind Design Factors	
Topographic Factor (K_{zt}):	1.00
Directionality Factor (K_d):	0.85
Velocity Pressure Exposure Coef. (K_z, K_h):	0.83
Internal Pressure Coef. (GC_{pi}):	±0.18
Ground Elevation Factor (K_e):	1.00

Design Wind Pressure (q_h) [psf]:	17.41

Effective Wind Area (A_{eff}) [sq ft]:	Wall and Roof External Pressure Coefficients by Zone (GC_p)								
	-1	-2	-2'	-3	-3'	+All Zones	-4	-5	+4/5
1	-1.10	-1.30	-1.60	-1.80	-2.60	0.30	-1.10	-1.40	1.00
10	-1.10	-1.30	-1.60	-1.80	-2.60	0.30	-1.10	-1.40	1.00
25	-1.10	-1.26	-1.56	-1.56	-2.20	0.26	-1.03	-1.26	0.93
50	-1.10	-1.23	-1.53	-1.38	-1.90	0.23	-0.98	-1.15	0.88
100	-1.10	-1.20	-1.50	-1.20	-1.60	0.20	-0.92	-1.05	0.82
150	-1.10	-1.20	-1.50	-1.20	-1.60	0.20	-0.89	-0.98	0.79
200	-1.10	-1.20	-1.50	-1.20	-1.60	0.20	-0.87	-0.94	0.77
250	-1.10	-1.20	-1.50	-1.20	-1.60	0.20	-0.85	-0.91	0.75
500	-1.10	-1.20	-1.50	-1.20	-1.60	0.20	-0.80	-0.80	0.70

Height Above Ground [ft]:	Load Case	+4/5	-4	+4/5	-4	+4/5	-4	+4/5	-4	+4/5	-4
		Zone 4 Wall Pressures									
		Effective Wind Area									
		10 ft²		25 ft²		50 ft²		100 ft²		500 ft²	
15	LRFD	20.54	-22.28	19.32	-21.06	18.39	-20.14	17.47	-19.21	15.32	-17.06
	ASD	12.33	-13.37	11.59	-12.64	11.04	-12.08	10.48	-11.53	9.19	-10.24
30	LRFD	20.54	-22.28	19.32	-21.06	18.39	-20.14	17.47	-19.21	15.32	-17.06
	ASD	12.33	-13.37	11.59	-12.64	11.04	-12.08	10.48	-11.53	9.19	-10.24
40	LRFD	20.54	-22.28	19.32	-21.06	18.39	-20.14	17.47	-19.21	15.32	-17.06
	ASD	12.33	-13.37	11.59	-12.64	11.04	-12.08	10.48	-11.53	9.19	-10.24
50	LRFD	20.54	-22.28	19.32	-21.06	18.39	-20.14	17.47	-19.21	15.32	-17.06
	ASD	12.33	-13.37	11.59	-12.64	11.04	-12.08	10.48	-11.53	9.19	-10.24
75	LRFD	20.54	-22.28	19.32	-21.06	18.39	-20.14	17.47	-19.21	15.32	-17.06
	ASD	12.33	-13.37	11.59	-12.64	11.04	-12.08	10.48	-11.53	9.19	-10.24
100	LRFD	20.54	-22.28	19.32	-21.06	18.39	-20.14	17.47	-19.21	15.32	-17.06
	ASD	12.33	-13.37	11.59	-12.64	11.04	-12.08	10.48	-11.53	9.19	-10.24

Height Above Ground [ft]:	Load Case	+4/5	-5	+4/5	-5	+4/5	-5	+4/5	-5	+4/5	-5
		Zone 5 Wall Pressures									
		Effective Wind Area									
		10 ft²		25 ft²		50 ft²		100 ft²		500 ft²	
15	LRFD	20.54	-27.51	19.32	-25.06	18.39	-23.21	17.47	-21.36	15.32	-17.06
	ASD	12.33	-16.50	11.59	-15.04	11.04	-13.93	10.48	-12.82	9.19	-10.24
30	LRFD	20.54	-27.51	19.32	-25.06	18.39	-23.21	17.47	-21.36	15.32	-17.06
	ASD	12.33	-16.50	11.59	-15.04	11.04	-13.93	10.48	-12.82	9.19	-10.24
40	LRFD	20.54	-27.51	19.32	-25.06	18.39	-23.21	17.47	-21.36	15.32	-17.06
	ASD	12.33	-16.50	11.59	-15.04	11.04	-13.93	10.48	-12.82	9.19	-10.24
50	LRFD	20.54	-27.51	19.32	-25.06	18.39	-23.21	17.47	-21.36	15.32	-17.06
	ASD	12.33	-16.50	11.59	-15.04	11.04	-13.93	10.48	-12.82	9.19	-10.24
75	LRFD	20.54	-27.51	19.32	-25.06	18.39	-23.21	17.47	-21.36	15.32	-17.06
	ASD	12.33	-16.50	11.59	-15.04	11.04	-13.93	10.48	-12.82	9.19	-10.24
100	LRFD	20.54	-27.51	19.32	-25.06	18.39	-23.21	17.47	-21.36	15.32	-17.06
	ASD	12.33	-16.50	11.59	-15.04	11.04	-13.93	10.48	-12.82	9.19	-10.24

Effective Wind Area (A_{eff}) [sq ft]:	Load Case	Roof Pressures by Zone Zone					
		-1	-2	-2'	-3	-3'	+All Zones
1	LRFD	-22.28	-25.77	-30.99	-34.47	-48.40	8.36
	ASD	-13.37	-15.46	-18.59	-20.68	-29.04	5.01
10	LRFD	-22.28	-25.77	-30.99	-34.47	-48.40	8.36
	ASD	-13.37	-15.46	-18.59	-20.68	-29.04	5.01
25	LRFD	-22.28	-25.07	-30.30	-30.31	-41.47	7.66
	ASD	-13.37	-15.04	-18.18	-18.19	-24.88	4.60
50	LRFD	-22.28	-24.55	-29.77	-27.17	-36.23	7.14
	ASD	-13.37	-14.73	-17.86	-16.30	-21.74	4.28
100	LRFD	-22.28	-24.03	-29.25	-24.03	-30.99	6.62
	ASD	-13.37	-14.42	-17.55	-14.42	-18.59	3.97
150	LRFD	-22.28	-24.03	-29.25	-24.03	-30.99	6.62
	ASD	-13.37	-14.42	-17.55	-14.42	-18.59	3.97
200	LRFD	-22.28	-24.03	-29.25	-24.03	-30.99	6.62
	ASD	-13.37	-14.42	-17.55	-14.42	-18.59	3.97
250	LRFD	-22.28	-24.03	-29.25	-24.03	-30.99	6.62
	ASD	-13.37	-14.42	-17.55	-14.42	-18.59	3.97
500	LRFD	-22.28	-24.03	-29.25	-24.03	-30.99	6.62
	ASD	-13.37	-14.42	-17.55	-14.42	-18.59	3.97

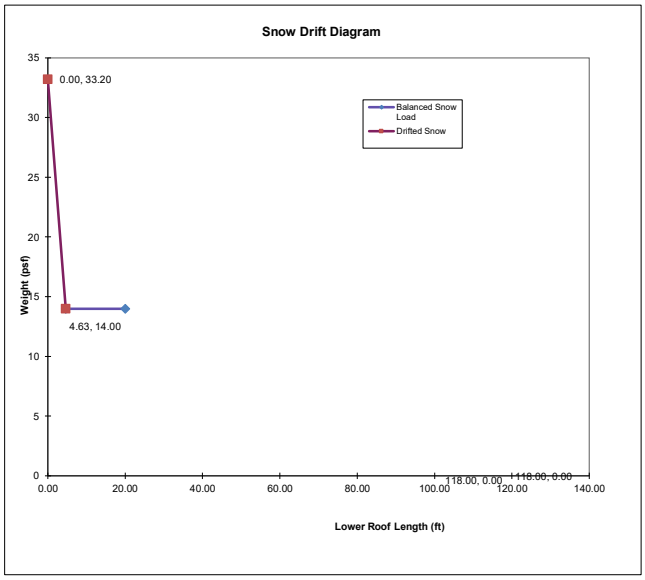
Indicates wall zone, ignore whole column

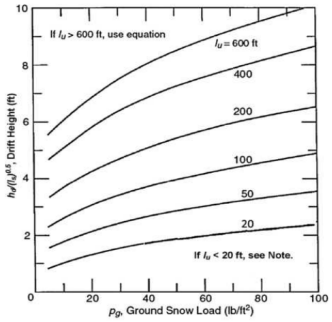
Effective Wind Area (A_{eff}) [sq ft]:	Overhang External Pressure Coefficients by Zone (GC_p)			
	FALSE	FALSE	FALSE	FALSE
1	FALSE	FALSE	FALSE	FALSE
10	FALSE	FALSE	FALSE	FALSE
25	FALSE	FALSE	FALSE	FALSE
50	FALSE	FALSE	FALSE	FALSE
100	FALSE	FALSE	FALSE	FALSE
150	FALSE	FALSE	FALSE	FALSE
200	FALSE	FALSE	FALSE	FALSE
250	FALSE	FALSE	FALSE	FALSE
500	FALSE	FALSE	FALSE	FALSE

Effective Wind Area (A_{eff}) [sq ft]:	Load Case	Overhang Pressures by Zone Zone			
		FALSE	FALSE	FALSE	FALSE
1	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
10	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
25	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
50	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
100	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
150	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
200	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
250	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88
500	LRFD	-3.13	-3.13	-3.13	-3.13
	ASD	-1.88	-1.88	-1.88	-1.88

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyalup, WA	Job No.: 25-063
	Client: C2K	Date: 3/2/2026
	ASCE 7-16	
	SNOW DRIFT CALCULATION	
	Parapet Snow Drift #1 - North Wall	Last Update: 16-Oct-25

Parapet?				☑ Parapet?	
Ground Snow			P_g	20.0	(psf)
Exposure Factor			Ce	1.0	
Thermal Factor			Ct	1.0	
Importance Factor			Is	1.0	
Difference between Upper Roof & the Lower Roof			H	2.0	ft
Horiz. Dim of Lower Roof			L_l	118.0	ft
Horiz. Dim of Upper Roof			L_u	1.0	ft
Roof Snow Load	$P_f = 0.7 C_e C_t I_s \rho_g$	Eqn. 7.3-1		14.00	(psf)
Density of Snow	$\gamma = 0.13\rho_g + 14$	Eqn. 7.7-1		16.60	pcf
Height of Uniform Snow	$h_b = \rho_f / \gamma$	Fig 7.7-2 / Sec. 7.7.1		0.84	ft
Top of Uniform Snow to Roof	$h_c = H - h_b$	Fig 7.7-2		1.16	ft
Does Drift Need to be Considered?	H_c / h_b	Sec. 7.7.1		1.37	*hc/hb > 0.2, Drift must be considered*
Height of Leeward Drift	$h_{d,lee} = \left[\left(0.43 * \sqrt[3]{l_u} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1		1.23	*Lu < 20 -- drift height eqn. evaluated with Lu = 20*
Upper bound of leeward drift when Lu < 20	$h_{d,lee\ max} = \sqrt{I_s \rho_g l_u / 4\gamma}$	Fig 7.6-1		0.55	*Upper bound of leeward drift height*
Upper bound of leeward drift when Lu >= 20	$h_{d,lee\ max} = 0.6 L_l$	Sec. 7.7.1		#N/A	*Lu < 20 -- eqn. not considered*
Height of Windward Drift	$h_{d,wind} = 0.75 * \left[\left(0.43 * \sqrt[3]{l_l} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1 / Sec. 7.7.1		2.58	*Lu > 20 -- drift height eqn. evaluated with user input*
Upper bound of windward drift when Lu < 20	$h_{d_{wind}max} = 0.75 * \sqrt{I_s \rho_g l_l / 4\gamma}$	Fig 7.6-1 / Sec. 7.7.1		#N/A	*Ll >= 20 -- eqn. not considered*
Drift Height **LEEWARD**			$h_{d\ leeward}$	0.55	ft
Drift Height **WINDWARD**			$h_{d\ windward}$	2.58	ft
Use Larger of $h_{d\ lower}$ and $h_{d\ windward}$		Sec. 7.7.1 / Fig 7.7-2	h_d	**1.16**	*Windward drift governs design*
Weight of Drifted snow at hd		Sec. 7.7.1 / Fig 7.7-2	P_d	**19.2**	psf
Width of Drift		Sec. 7.7.1 / Fig 7.7-2	W_d	**4.6**	ft *w = 8hc*





$$\frac{h_d}{\sqrt{l_u}} = \left(0.43\sqrt[3]{l_u}\sqrt[4]{p_g + 10}\right) - 1.5$$

Notes: If l_u < 20 ft, use l_u = 20 ft, except h_d for this small fetch case need not be taken greater than $\sqrt{(l_u \rho_g l_u / 4\gamma)}$ where l_u is the actual fetch distance, not the minimum fetch of 20 ft.
To convert lb/ft² to kN/m², multiply by 0.0479. To convert feet to meters, multiply by 0.3048.

FIGURE 7.6-1 Graph and Equation for Determining Drift Height, h_d

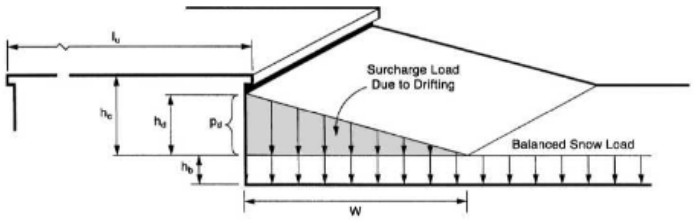
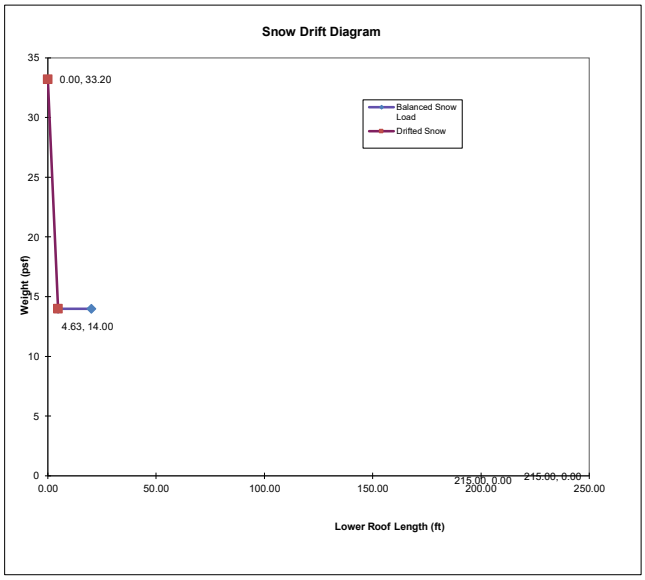
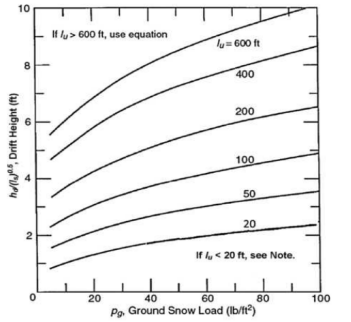


FIGURE 7.7-2 Configuration of Snowdrifts on Lower Roofs

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyalup, WA	Job No.: 25-063
	Client: C2K	Date: 3/2/2026
	ASCE 7-16	
	SNOW DRIFT CALCULATION	
	Parapet Snow Drift #2 - East/West Walls	Last Update: 16-Oct-25

Parapet?				☑ Parapet?		
Ground Snow			P_g	20.0	(psf)	
Exposure Factor			Ce	1.0		
Thermal Factor			Ct	1.0		
Importance Factor			Is	1.0		
Difference between Upper Roof & the Lower Roof			H	2.0	ft	
Horiz. Dim of Lower Roof			L_l	215.0	ft	
Horiz. Dim of Upper Roof			L_u	1.0	ft	
Roof Snow Load	$P_f = 0.7 C_e C_t I_s \rho_g$	Eqn. 7.3-1		14.00	(psf)	
Density of Snow	$\gamma = 0.13\rho_g + 14$	Eqn. 7.7-1		16.60	pcf	
Height of Uniform Snow	$h_b = \rho_f / \gamma$	Fig 7.7-2 / Sec. 7.7.1		0.84	ft	
Top of Uniform Snow to Roof	$h_c = H - h_b$	Fig 7.7-2		1.16	ft	
Does Drift Need to be Considered?	H_c / h_b	Sec. 7.7.1		1.37		*hc/hb > 0.2, Drift must be considered*
Height of Leeward Drift	$h_{d,lee} = \left[\left(0.43 * \sqrt[3]{l_u} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1		1.23		*Lu < 20 -- drift height eqn. evaluated with Lu = 20*
Upper bound of leeward drift when Lu < 20	$h_{d,lee\ max} = \sqrt{I_s \rho_g l_u / 4\gamma}$	Fig 7.6-1		0.55		*Upper bound of leeward drift height*
Upper bound of leeward drift when Lu >= 20	$h_{d,lee\ max} = 0.6 L_l$	Sec. 7.7.1		#N/A		*Lu < 20 -- eqn. not considered*
Height of Windward Drift	$h_{d,wind} = 0.75 * \left[\left(0.43 * \sqrt[3]{l_l} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1 / Sec. 7.7.1		3.40		*Lu > 20 -- drift height eqn. evaluated with user input*
Upper bound of windward drift when Lu < 20	$h_{d_{wind}max} = 0.75 * \sqrt{l_s \rho_g l_l / 4\gamma}$	Fig 7.6-1 / Sec. 7.7.1		#N/A		*Ll >= 20 -- eqn. not considered*
Drift Height **LEEWARD**			$h_{d\ leeward}$	0.55	ft	
Drift Height **WINDWARD**			$h_{d\ windward}$	3.40	ft	
Use Larger of $h_{d\ lower}$ and $h_{d\ windward}$		Sec. 7.7.1 / Fig 7.7-2	h_d	**1.16**		*Windward drift governs design*
Weight of Drifted snow at hd		Sec. 7.7.1 / Fig 7.7-2	P_d	**19.2**	psf	
Width of Drift		Sec. 7.7.1 / Fig 7.7-2	W_d	**4.6**	ft	*w = 8hc*





$$\frac{h_d}{\sqrt{l_u}} = \left(0.43\sqrt[3]{l_u}\sqrt[4]{p_g + 10}\right) - 1.5$$

Notes: If l_u < 20 ft, use l_u = 20 ft, except h_d for this small fetch case need not be taken greater than $\sqrt{(l_u \rho_g l_u / 4\gamma)}$ where l_u is the actual fetch distance, not the minimum fetch of 20 ft.
To convert lb/ft² to kN/m², multiply by 0.0479. To convert feet to meters, multiply by 0.3048.

FIGURE 7.6-1 Graph and Equation for Determining Drift Height, h_d

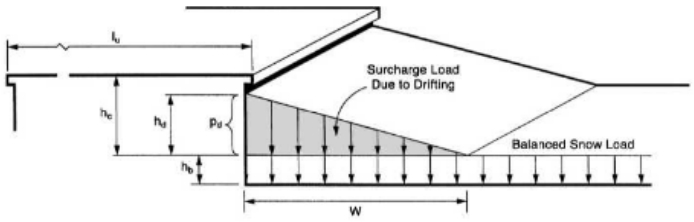
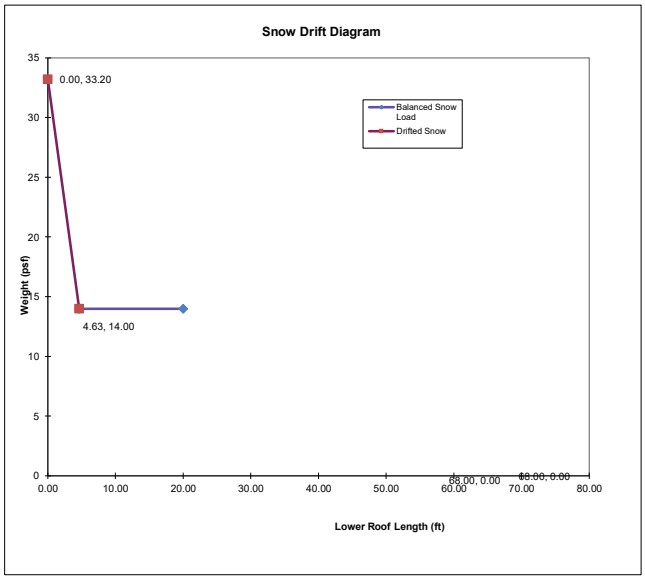
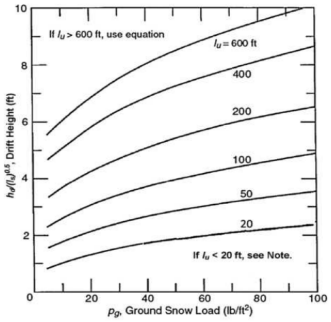


FIGURE 7.7-2 Configuration of Snowdrifts on Lower Roofs

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyalup, WA	Job No.: 25-063
	Client: C2K	Date: 3/2/2026
	ASCE 7-16	
	SNOW DRIFT CALCULATION	
	Parapet Snow Drift #3 - Courtyard Walls	Last Update: 16-Oct-25

Parapet?				☑ Parapet?		
Ground Snow			P_g	20.0	(psf)	
Exposure Factor			Ce	1.0		
Thermal Factor			Ct	1.0		
Importance Factor			Is	1.0		
Difference between Upper Roof & the Lower Roof			H	2.0	ft	
Horiz. Dim of Lower Roof			L_l	68.0	ft	
Horiz. Dim of Upper Roof			L_u	1.0	ft	
Roof Snow Load	$P_f = 0.7 C_e C_t I_s \rho_g$	Eqn. 7.3-1		14.00	(psf)	
Density of Snow	$\gamma = 0.13\rho_g + 14$	Eqn. 7.7-1		16.60	pcf	
Height of Uniform Snow	$h_b = \rho_f / \gamma$	Fig 7.7-2 / Sec. 7.7.1		0.84	ft	
Top of Uniform Snow to Roof	$h_c = H - h_b$	Fig 7.7-2		1.16	ft	
Does Drift Need to be Considered?	H_c / h_b	Sec. 7.7.1		1.37		*hc/hb > 0.2, Drift must be considered*
Height of Leeward Drift	$h_{d,lee} = \left[\left(0.43 * \sqrt[3]{l_u} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1		1.23		*Lu < 20 -- drift height eqn. evaluated with Lu = 20*
Upper bound of leeward drift when Lu < 20	$h_{d,lee\ max} = \sqrt{I_s \rho_g I_u / 4\gamma}$	Fig 7.6-1		0.55		*Upper bound of leeward drift height*
Upper bound of leeward drift when Lu >= 20	$h_{d,lee\ max} = 0.6 L_l$	Sec. 7.7.1		#N/A		*Lu < 20 -- eqn. not considered*
Height of Windward Drift	$h_{d,wind} = 0.75 * \left[\left(0.43 * \sqrt[3]{l_l} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1 / Sec. 7.7.1		1.96		*Lu > 20 -- drift height eqn. evaluated with user input*
Upper bound of windward drift when Lu < 20	$h_{d_{wind}max} = 0.75 * \sqrt{I_s \rho_g l_l / 4\gamma}$	Fig 7.6-1 / Sec. 7.7.1		#N/A		*Ll >= 20 -- eqn. not considered*
Drift Height **LEEWARD**			$h_{d\ leeward}$	0.55	ft	
Drift Height **WINDWARD**			$h_{d\ windward}$	1.96	ft	
Use Larger of $h_{d\ lower}$ and $h_{d\ windward}$		Sec. 7.7.1 / Fig 7.7-2	h_d	**1.16**		*Windward drift governs design*
Weight of Drifted snow at hd		Sec. 7.7.1 / Fig 7.7-2	P_d	**19.2**	psf	
Width of Drift		Sec. 7.7.1 / Fig 7.7-2	W_d	**4.6**	ft	*w = 8hc*





$$\frac{h_d}{\sqrt{l_u}} = \left(0.43\sqrt[3]{l_u}\sqrt[4]{p_g + 10}\right) - 1.5$$

Notes: If l_u < 20 ft, use l_u = 20 ft, except h_d for this small fetch case need not be taken greater than $\sqrt{(I_u \rho_g I_u / 4\gamma)}$ where l_u is the actual fetch distance, not the minimum fetch of 20 ft.
To convert lb/ft² to kN/m², multiply by 0.0479. To convert feet to meters, multiply by 0.3048.

FIGURE 7.6-1 Graph and Equation for Determining Drift Height, h_d

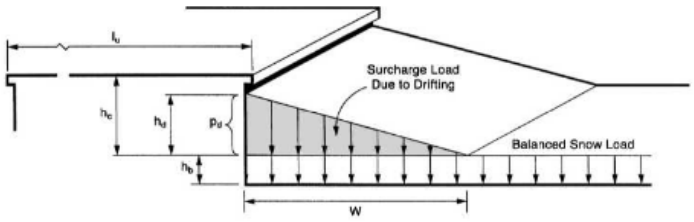
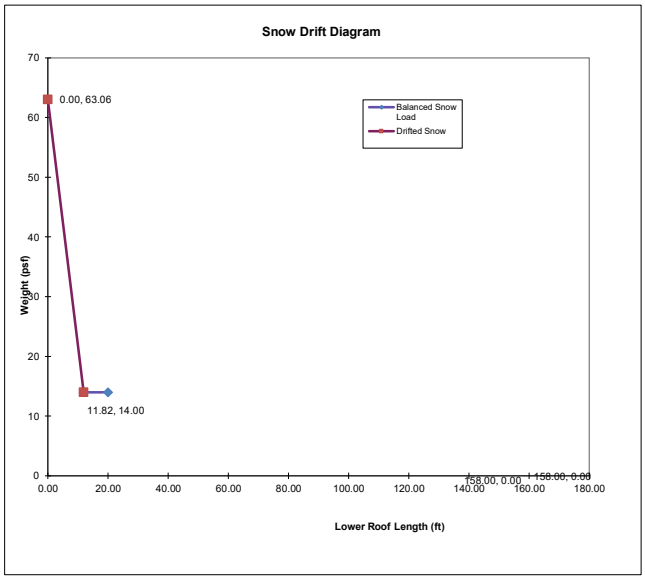
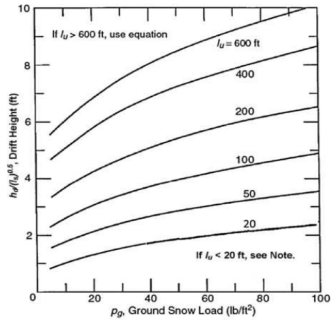


FIGURE 7.7-2 Configuration of Snowdrifts on Lower Roofs

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyalup, WA	Job No.: 25-063
	Client: C2K	Date: 3/2/2026
	ASCE 7-16	
	SNOW DRIFT CALCULATION	
	Elevator Overrun - Worst Case	Last Update: 16-Oct-25

Parapet?				☐ Parapet?	
Ground Snow			P_g	20.0 (psf)	
Exposure Factor			Ce	1.0	
Thermal Factor			Ct	1.0	
Importance Factor			Is	1.0	
Difference between Upper Roof & the Lower Roof			H	12.0 ft	
Horiz. Dim of Lower Roof			L_l	158.0 ft	
Horiz. Dim of Upper Roof			L_u	27.3 ft	
Roof Snow Load	$P_f = 0.7 C_e C_t I_s \rho_g$	Eqn. 7.3-1		14.00 (psf)	
Density of Snow	$\gamma = 0.13\rho_g + 14$	Eqn. 7.7-1		16.60 pcf	
Height of Uniform Snow	$h_b = \rho_f / \gamma$	Fig 7.7-2 / Sec. 7.7.1		0.84 ft	
Top of Uniform Snow to Roof	$h_c = H - h_b$	Fig 7.7-2		11.16 ft	
Does Drift Need to be Considered?	H_c / h_b	Sec. 7.7.1		13.23	*hc/hb > 0.2, Drift must be considered*
Height of Leeward Drift	$h_{d,lee} = \left[\left(0.43 * \sqrt[3]{l_u} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1		1.53	*Lu > 20 -- drift height eqn. evaluated with user input*
Upper bound of leeward drift when Lu < 20	$h_{d,lee\ max} = \sqrt{I_s \rho_g l_u / 4\gamma}$	Fig 7.6-1		#N/A	*Lu > 20 -- eqn. not considered*
Upper bound of leeward drift when Lu >= 20	$h_{d,lee\ max} = 0.6 L_l$	Sec. 7.7.1		94.80	*Upper bound of leeward drift height*
Height of Windward Drift	$h_{d,wind} = 0.75 * \left[\left(0.43 * \sqrt[3]{l_l} * \sqrt[4]{\rho_g + 10}\right) - 1.5\right]\sqrt{l_s}$	Fig 7.6-1 / Sec. 7.7.1		2.96	*Lu > 20 -- drift height eqn. evaluated with user input*
Upper bound of windward drift when Lu < 20	$h_{d_{wind}max} = 0.75 * \sqrt{l_s \rho_g l_l / 4\gamma}$	Fig 7.6-1 / Sec. 7.7.1		#N/A	*Ll >= 20 -- eqn. not considered*
Drift Height **LEEWARD**			$h_{d\ leeward}$	1.53 ft	
Drift Height **WINDWARD**			$h_{d\ windward}$	2.96 ft	
Use Larger of $h_{d\ lower}$ and $h_{d\ windward}$		Sec. 7.7.1 / Fig 7.7-2	h_d	**2.96**	*Windward drift governs design*
Weight of Drifted snow at hd		Sec. 7.7.1 / Fig 7.7-2	P_d	**49.1** psf	
Width of Drift		Sec. 7.7.1 / Fig 7.7-2	W_d	**11.8** ft	*w = 4hd*





$$\frac{h_d}{\sqrt{l_u}} = \left(0.43\sqrt[3]{l_u}\sqrt[4]{p_g + 10}\right) - 1.5$$

Notes: If l_u < 20 ft, use l_u = 20 ft, except h_d for this small fetch case need not be taken greater than $\sqrt{(l_u \rho_g l_u / 4\gamma)}$ where l_u is the actual fetch distance, not the minimum fetch of 20 ft.
To convert lb/ft² to kN/m², multiply by 0.0479. To convert feet to meters, multiply by 0.3048.

FIGURE 7.6-1 Graph and Equation for Determining Drift Height, h_d

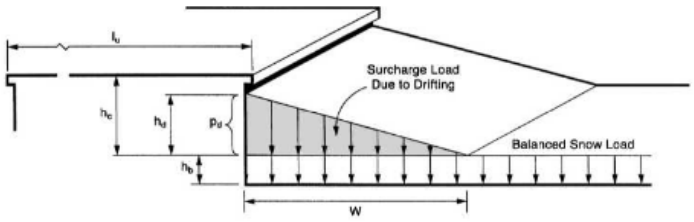


FIGURE 7.7-2 Configuration of Snowdrifts on Lower Roofs

Bell Place
Puyallup, Washington
March 19th, 2026

STONEWOOD
STRUCTURAL ENGINEERS

B. GRAVITY DESIGN

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
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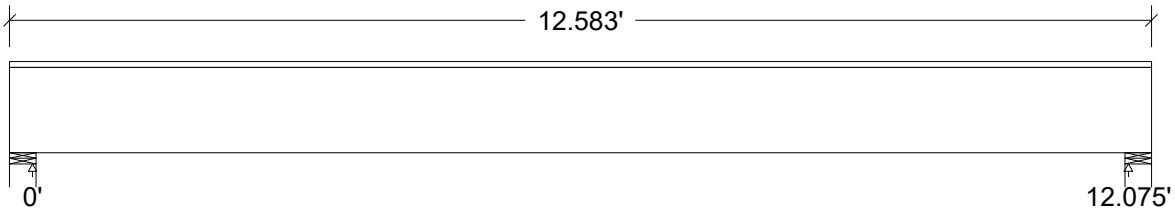
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
FLOOR DL	Dead	Full Area				25.00(24.0")		psf
FLOOR LL	Live	Full Area				40.00(24.0")		psf
Self-weight	Dead	Full UDL				4.0		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	339		339
Live	503		503
Factored:			
Total	842		842
Bearing:			
Capacity			
Joist	3281		3281
Support	4101		4101
Des ratio			
Joist	0.26		0.26
Support	0.21		0.21
Load comb	#2		#2
Length	3.50		3.50
Min req'd	0.90		0.90
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	-		-
Fcp sup	625		625

Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

2x12 AT 24"oc

Lumber-soft, D.Fir-L, No.2, 2x12 (1-1/2"x11-1/4")

Supports: All - Lumber Stud Wall, D.Fir-L Stud

Floor joist spaced at 24.0" c/c; Total length: 12.58'; Clear span: 12.0'; Volume = 1.5 cu.ft.

Lateral support: top = continuous, bottom = at supports; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 60	Fv' = 180	psi	fv/Fv' = 0.34
Bending(+)	fb = 926	Fb' = 1035	psi	fb/Fb' = 0.89
Live Defl'n	0.13 = < L/999	0.40 = L/360	in	0.33
Total Defl'n	0.27 = L/535	0.60 = L/240	in	0.45

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	900	1.00	1.00	1.00	1.000	1.000	-	1.15	1.00	1.00	2
Fcp'	625	-	1.00	1.00	-	-	-	-	1.00	1.00	-
E'	1.6 million		1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.58 million		1.00	1.00	-	-	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 809, V design = 678 (NDS 3.4.3.1(a)) lbs; M(+) = 2442 lbs-ft
 EI = 284.76e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Sawn lumber bending members shall be laterally supported according to the provisions of NDS Clause 4.4.1.

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
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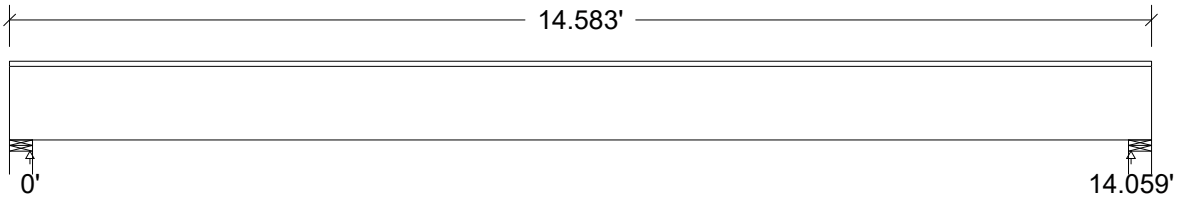
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
FLOOR DL	Dead	Full Area				25.00(16.0")		psf
FLOOR LL	Live	Full Area				40.00(16.0")		psf
Self-weight	Dead	Full UDL				4.0		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	271		271
Live	389		389
Factored:			
Total	660		660
Bearing:			
Capacity			
Joist	3281		3281
Support	4101		4101
Des ratio			
Joist	0.20		0.20
Support	0.16		0.16
Load comb	#2		#2
Length	3.50		3.50
Min req'd	0.70		0.70
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	-		-
Fcp sup	625		625

Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

2x12 AT 16"oc

Lumber-soft, D.Fir-L, No.2, 2x12 (1-1/2"x11-1/4")

Supports: All - Lumber Stud Wall, D.Fir-L Stud

Floor joist spaced at 16.0" c/c; Total length: 14.58'; Clear span: 14.0'; Volume = 1.7 cu.ft.

Lateral support: top = continuous, bottom = at supports; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 49	Fv' = 180	psi	fv/Fv' = 0.27
Bending(+)	fb = 850	Fb' = 1035	psi	fb/Fb' = 0.82
Live Defl'n	0.16 = < L/999	0.47 = L/360	in	0.35
Total Defl'n	0.34 = L/499	0.70 = L/240	in	0.48

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	900	1.00	1.00	1.00	1.000	1.000	-	1.15	1.00	1.00	2
Fcp'	625	-	1.00	1.00	-	-	-	-	1.00	1.00	-
E'	1.6 million		1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.58 million		1.00	1.00	-	-	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 637, V design = 550 (NDS 3.4.3.1(a)) lbs; M(+) = 2240 lbs-ft
 EI = 284.76e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Sawn lumber bending members shall be laterally supported according to the provisions of NDS Clause 4.4.1.

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:03	JOIST_12oc

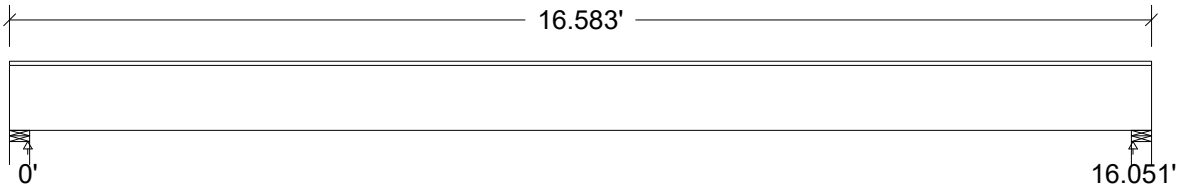
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
FLOOR DL	Dead	Full Area				25.00(12.0")		psf
FLOOR LL	Live	Full Area				40.00(12.0")		psf
Self-weight	Dead	Full UDL				4.0		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	239		239
Live	332		332
Factored:			
Total	571		571
Bearing:			
Capacity			
Joist	3281		3281
Support	4101		4101
Des ratio			
Joist	0.17		0.17
Support	0.14		0.14
Load comb	#2		#2
Length	3.50		3.50
Min req'd	0.61		0.61
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	-		-
Fcp sup	625		625

Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

2x12 AT 12"oc

Lumber-soft, D.Fir-L, No.2, 2x12 (1-1/2"x11-1/4")

Supports: All - Lumber Stud Wall, D.Fir-L Stud

Floor joist spaced at 12.0" c/c; Total length: 16.58'; Clear span: 16.0'; Volume = 1.9 cu.ft.

Lateral support: top = continuous, bottom = at supports; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 43	Fv' = 180	psi	fv/Fv' = 0.24
Bending(+)	fb = 843	Fb' = 1035	psi	fb/Fb' = 0.81
Live Defl'n	0.21 = L/918	0.54 = L/360	in	0.39
Total Defl'n	0.44 = L/439	0.80 = L/240	in	0.55

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	900	1.00	1.00	1.00	1.000	1.000	-	1.15	1.00	1.00	2
Fcp'	625	-	1.00	1.00	-	-	-	-	1.00	1.00	-
E'	1.6 million		1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.58 million		1.00	1.00	-	-	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 554, V design = 487 (NDS 3.4.3.1(a)) lbs; M(+) = 2222 lbs-ft
 EI = 284.76e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Sawn lumber bending members shall be laterally supported according to the provisions of NDS Clause 4.4.1.

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:04	JOIST_(2)16oc

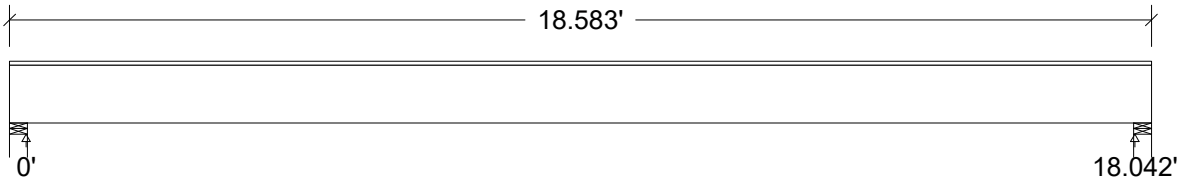
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
FLOOR DL	Dead	Full Area				12.50(16.0")		psf
FLOOR LL	Live	Full Area				20.00(16.0")		psf
Self-weight	Dead	Full UDL				4.0		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	191		191
Live	248		248
Factored:			
Total	439		439
Bearing:			
Capacity			
Joist	3281		3281
Support	4101		4101
Des ratio			
Joist	0.13		0.13
Support	0.11		0.11
Load comb	#2		#2
Length	3.50		3.50
Min req'd	0.50*		0.50*
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	–		–
Fcp sup	625		625

*Minimum bearing length setting used: 1/2" for end supports

Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

(2) 2x12 AT 16"oc

Lumber-soft, D.Fir-L, No.2, 2x12 (1-1/2"x11-1/4")

Supports: All - Lumber Stud Wall, D.Fir-L Stud

Floor joist spaced at 16.0" c/c; Total length: 18.58'; Clear span: 18.0'; Volume = 2.2 cu.ft.

Lateral support: top = continuous, bottom = at supports; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 34	Fv' = 180	psi	fv/Fv' = 0.19
Bending(+)	fb = 731	Fb' = 1035	psi	fb/Fb' = 0.71
Live Defl'n	0.22 = L/969	0.60 = L/360	in	0.37
Total Defl'n	0.48 = L/448	0.90 = L/240	in	0.54

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	900	1.00	1.00	1.00	1.000	1.000	-	1.15	1.00	1.00	2
Fcp'	625	-	1.00	1.00	-	-	-	-	1.00	1.00	-
E'	1.6 million		1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.58 million		1.00	1.00	-	-	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 427, V design = 382 (NDS 3.4.3.1(a)) lbs; M(+) = 1926 lbs-ft
 EI = 284.76e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Sawn lumber bending members shall be laterally supported according to the provisions of NDS Clause 4.4.1.

STONEWOOD
STRUCTURAL ENGINEERS

Project:	Puyallup Bell	By: AA
Location:	Puyallup, WA	Job No.: 25-063
Client:	C2K	Date: 10/10/2025

WALL DESIGN LOADING

Worst Case Interior Wall - Joists Perpendicular

Interior Unit 12'-6" Trib

Last Update:

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)	Wind (psf)	Wall, dead (psf)
25	20	20	40	25	12	13

Interior/Exterior	Interior
Element Type	All other members
KLL =	1
Stud Size	2x4
Alignment Framing?	No
Joist Depth	12"

	Regular Floor Live							Snow					Dead Loads				Wind
Floor #	AT (ft2)	Trib Length (ft)	∑AT (ft2)	L_0 (psf)	Reduction Factor	LL per floor (plf))	∑LL (plf)	AT (ft2)	Trib Length (ft)	S (psf)	Reduction Factor	Snow (plf)	DL [Floor] (psf)	DL [Wall] (psf)	Tributary Height [Wall] (ft)	∑DL (plf)	Wind (plf)
Roof					1.00	0	0	1	2.0	25	1	50.0	20	13	2.00	66.0	24.0
4		12.5	0	40	1.00	500	500.0				--	50.0	25	13	10.30	512.4	123.6
3		12.5	0	40	1.00	500	1000.0				--	50.0	25	13	10.30	958.8	123.6
2		12.5	0	40	1.00	500	1500.0				--	50.0	25	13	10.30	1405.2	123.6
1		12.5	0	40	1.00	500	2000.0				--	50.0	25	13	10.30	1851.6	123.6
			0	--	--	--	--				--	--	--	--	--	--	--

	Axial Loading							Wind Loading			
Floor #	Load Case 1 (plf)	Load Case 2 (plf)	Load Case 3 (plf)	Load Case 4 (plf)	Load Case 5 (plf)	Load Case 6 (plf)	Governing Factored Axial Load (plf)	Load Case 5 (plf)	Load Case 6 (plf)	Governing Factored Wind Load (plf)	Governing Factored Wind Load (psf)
Roof	66.0	66.0	66.0	103.5	66.0	103.5	**103.5**	14.4	10.8	**10.8**	**5.4**
4	512.4	1012.4	1012.4	924.9	512.4	924.9	**924.9**	74.2	55.6	**55.6**	**5.4**
3	958.8	1958.8	1958.8	1746.3	958.8	1746.3	**1746.3**	74.2	55.6	**55.6**	**5.4**
2	1405.2	2905.2	2905.2	2567.7	1405.2	2567.7	**2567.7**	74.2	55.6	**55.6**	**5.4**
1	1851.6	3851.6	3851.6	3389.1	1851.6	3389.1	**3389.1**	74.2	55.6	**55.6**	**5.4**
0	--	--	--	--	--	--	**0.0**	--	--	--	--

ASD Load Combinations	
ASD Load Combinations	
Case 1	D
Case 2	D+L
Case 3	D+ (LR or S or R)
Case 4	D+0.75L+0.75(Lr or S or R)
Case 5	D+0.6W
Case 6	D+0.75L+0.75(0.6W)+0.75(LR or S or R)

		2x4 Results			2x6 Results			2x8 Results		
Floor #	Rounded Wall Height	12"oc	16"oc	24"oc	12"oc	16"oc	24"oc	12"oc	16"oc	24"oc
Roof	2.0	--	--	--	--	--	--	--	--	--
4	11.0	(1) 2x4	(1) 2x4	(2) 2x4	(1) 2x6	(1) 2x6	(1) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
3	11.0	(2) 2x4	(2) 2x4	(3)2x4	(1) 2x6	(1) 2x6	(1) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
2	11.0	(2) 2x4	(3)2x4	--	(1) 2x6	(1) 2x6	(2) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
1	11.0	(3)2x4	(3)2x4	--	(1) 2x6	(1) 2x6	(2) 2x6	(1) 2x8	(1) 2x8	(2) 2x8
0	--	--	--	--	--	--	--	--	--	--

STONEWOOD
STRUCTURAL ENGINEERS

Project:	Puyallup Bell	By: AA
Location:	Puyallup, WA	Job No.: 25-063
Client:	C2K	Date: 10/10/2025

WALL DESIGN LOADING

Worst Case Interior Wall - Joists Perpendicular

Interior Unit 15'-6" Trib

Last Update:

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)	Wind (psf)	Wall, dead (psf)
25	20	20	40	25	12	13

Interior/Exterior	Interior
Element Type	All other members
KLL =	1
Stud Size	2x4
Alignment Framing?	No
Joist Depth	12"

	Regular Floor Live							Snow					Dead Loads				Wind
Floor #	AT (ft2)	Trib Length (ft)	∑AT (ft2)	L_0 (psf)	Reduction Factor	LL per floor (plf))	∑LL (plf)	AT (ft2)	Trib Length (ft)	S (psf)	Reduction Factor	Snow (plf)	DL [Floor] (psf)	DL [Wall] (psf)	Tributary Height [Wall] (ft)	∑DL (plf)	Wind (plf)
Roof					1.00	0	0	1	2.0	25	1	50.0	20	13	2.00	66.0	24.0
4		15.5	0	40	1.00	620	620.0				--	50.0	25	13	10.30	587.4	123.6
3		15.5	0	40	1.00	620	1240.0				--	50.0	25	13	10.30	1108.8	123.6
2		15.5	0	40	1.00	620	1860.0				--	50.0	25	13	10.30	1630.2	123.6
1		15.5	0	40	1.00	620	2480.0				--	50.0	25	13	10.30	2151.6	123.6
			0	--	--	--	--				--	--	--	--	--	--	--

	Axial Loading							Wind Loading			
Floor #	Load Case 1 (plf)	Load Case 2 (plf)	Load Case 3 (plf)	Load Case 4 (plf)	Load Case 5 (plf)	Load Case 6 (plf)	Governing Factored Axial Load (plf)	Load Case 5 (plf)	Load Case 6 (plf)	Governing Factored Wind Load (plf)	Governing Factored Wind Load (psf)
Roof	66.0	66.0	66.0	103.5	66.0	103.5	**103.5**	14.4	10.8	**10.8**	**5.4**
4	587.4	1207.4	1207.4	1089.9	587.4	1089.9	**1089.9**	74.2	55.6	**55.6**	**5.4**
3	1108.8	2348.8	2348.8	2076.3	1108.8	2076.3	**2076.3**	74.2	55.6	**55.6**	**5.4**
2	1630.2	3490.2	3490.2	3062.7	1630.2	3062.7	**3062.7**	74.2	55.6	**55.6**	**5.4**
1	2151.6	4631.6	4631.6	4049.1	2151.6	4049.1	**4049.1**	74.2	55.6	**55.6**	**5.4**
0	--	--	--	--	--	--	**0.0**	--	--	--	--

ASD Load Combinations	
ASD Load Combinations	
Case 1	D
Case 2	D+L
Case 3	D+ (LR or S or R)
Case 4	D+0.75L+0.75(Lr or S or R)
Case 5	D+0.6W
Case 6	D+0.75L+0.75(0.6W)+0.75(LR or S or R)

		2x4 Results			2x6 Results			2x8 Results		
Floor #	Rounded Wall Height	12"oc	16"oc	24"oc	12"oc	16"oc	24"oc	12"oc	16"oc	24"oc
Roof	2.0	--	--	--	--	--	--	--	--	--
4	11.0	(1) 2x4	(1) 2x4	(2) 2x4	(1) 2x6	(1) 2x6	(1) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
3	11.0	(2) 2x4	(2) 2x4	(3)2x4	(1) 2x6	(1) 2x6	(1) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
2	11.0	(2) 2x4	(3)2x4	--	(1) 2x6	(1) 2x6	(2) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
1	11.0	(3)2x4	(4)2x4	--	(1) 2x6	(2) 2x6	(2) 2x6	(1) 2x8	(1) 2x8	(2) 2x8
0	--	--	--	--	--	--	--	--	--	--

STONEWOOD
STRUCTURAL ENGINEERS

Project:	Puyallup Bell	By: AA
Location:	Puyallup, WA	Job No.: 25-063
Client:	C2K	Date: 10/10/2025

WALL DESIGN LOADING

Worst Case Interior Wall - Joists Perpendicular

Interior Unit 12'-6" Trib

Last Update:

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)	Wind (psf)	Wall, dead (psf)
25	20	20	40	25	12	17

Interior/Exterior	Interior
Element Type	All other members
KLL =	1
Stud Size	2x4
Alignment Framing?	No
Joist Depth	12"

	Regular Floor Live							Snow					Dead Loads				Wind
Floor #	AT (ft2)	Trib Length (ft)	∑AT (ft2)	L_0 (psf)	Reduction Factor	LL per floor (plf))	∑LL (plf)	AT (ft2)	Trib Length (ft)	S (psf)	Reduction Factor	Snow (plf)	DL [Floor] (psf)	DL [Wall] (psf)	Tributary Height [Wall] (ft)	∑DL (plf)	Wind (plf)
Roof					1.00	0	0	1	13.0	25	1	325.0	20	17	2.00	294.0	24.0
4		13.0	0	40	1.00	520	520.0				--	325.0	25	17	10.30	794.1	123.6
3		13.0	0	40	1.00	520	1040.0				--	325.0	25	17	10.30	1294.2	123.6
2		13.0	0	40	1.00	520	1560.0				--	325.0	25	17	10.30	1794.3	123.6
1		13.0	0	40	1.00	520	2080.0				--	325.0	25	17	10.30	2294.4	123.6
			0	--	--	--	--				--	--	--	--	--	--	--

	Axial Loading							Wind Loading			
Floor #	Load Case 1 (plf)	Load Case 2 (plf)	Load Case 3 (plf)	Load Case 4 (plf)	Load Case 5 (plf)	Load Case 6 (plf)	Governing Factored Axial Load (plf)	Load Case 5 (plf)	Load Case 6 (plf)	Governing Factored Wind Load (plf)	Governing Factored Wind Load (psf)
Roof	294.0	294.0	294.0	537.8	294.0	537.8	**537.8**	14.4	10.8	**10.8**	**5.4**
4	794.1	1314.1	1314.1	1427.9	794.1	1427.9	**1427.9**	74.2	55.6	**55.6**	**5.4**
3	1294.2	2334.2	2334.2	2318.0	1294.2	2318.0	**2318.0**	74.2	55.6	**55.6**	**5.4**
2	1794.3	3354.3	3354.3	3208.1	1794.3	3208.1	**3208.1**	74.2	55.6	**55.6**	**5.4**
1	2294.4	4374.4	4374.4	4098.2	2294.4	4098.2	**4098.2**	74.2	55.6	**55.6**	**5.4**
0	--	--	--	--	--	--	**0.0**	--	--	--	--

ASD Load Combinations	
ASD Load Combinations	
Case 1	D
Case 2	D+L
Case 3	D+ (LR or S or R)
Case 4	D+0.75L+0.75(Lr or S or R)
Case 5	D+0.6W
Case 6	D+0.75L+0.75(0.6W)+0.75(LR or S or R)

		2x4 Results			2x6 Results			2x8 Results		
Floor #	Rounded Wall Height	12"oc	**16"oc**	**24"oc**	12"oc	**16"oc**	**24"oc**	12"oc	**16"oc**	**24"oc**
Roof	2.0	--	--	--	--	--	--	--	--	--
4	11.0	(1) 2x4	(2) 2x4	(2) 2x4	(1) 2x6	(1) 2x6	(1) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
3	11.0	(2) 2x4	(2) 2x4	(3)2x4	(1) 2x6	(1) 2x6	(1) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
2	11.0	(2) 2x4	(3)2x4	--	(1) 2x6	(1) 2x6	(2) 2x6	(1) 2x8	(1) 2x8	(1) 2x8
1	11.0	(3)2x4	--	--	(1) 2x6	(2) 2x6	(2) 2x6	(1) 2x8	(1) 2x8	(2) 2x8
0	--	--	--	--	--	--	--	--	--	--

STONEWOOD
STRUCTURAL ENGINEERS

Project:	Puyallup Bell	By: AA
Location:	Puyallup, WA	Job No.: 25-063
Client:	C2K	Date: 10/10/2025

WALL DESIGN LOADING

Worst Case Interior Wall - Joists Perpendicular

Worse Exterior - Typical

Last Update:

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)	Wind (psf)	Wall, dead (psf)
25	20	20	40	25	16	55

Interior/Exterior	Exterior
Element Type	
KLL =	--
Stud Size	2x8
Alignment Framing?	No
Joist Depth	12"

	Regular Floor Live							Snow					Dead Loads				Wind
Floor #	AT (ft2)	Trib Length (ft)	∑AT (ft2)	L_0 (psf)	Reduction Factor	LL per floor (plf))	∑LL (plf)	AT (ft2)	Trib Length (ft)	S (psf)	Reduction Factor	Snow (plf)	DL [Floor] (psf)	DL [Wall] (psf)	Tributary Height [Wall] (ft)	∑DL (plf)	Wind (plf)
Roof					1.00	0	0	1	13.0	25	1	325.0	20	55	2.00	370.0	32.0
5		11.0	0	40	1.00	440	440.0				--	325.0	25	55	10.30	1211.5	164.8
4		11.0	0	40	1.00	440	880.0				--	325.0	25	55	10.30	2053.0	164.8
3		11.0	0	40	1.00	440	1320.0				--	325.0	25	55	10.30	2894.5	164.8
2		11.0	0	40	1.00	440	1760.0				--	325.0	25	55	10.30	3736.0	164.8
0			0	--	--	--	--				--	--	--	--	--	--	--

	Axial Loading							Wind Loading			
Floor #	Load Case 1 (plf)	Load Case 2 (plf)	Load Case 3 (plf)	Load Case 4 (plf)	Load Case 5 (plf)	Load Case 6 (plf)	**Governing Factored Axial Load (plf)**	Load Case 5 (plf)	Load Case 6 (plf)	**Governing Factored Wind Load (plf)**	**Governing Factored Wind Load (psf)**
Roof	370.0	370.0	370.0	613.8	370.0	613.8	**613.8**	19.2	14.4	**14.4**	**7.2**
5	1211.5	1651.5	1651.5	1785.3	1211.5	1785.3	**1785.3**	98.9	74.2	**74.2**	**7.2**
4	2053.0	2933.0	2933.0	2956.8	2053.0	2956.8	**2956.8**	98.9	74.2	**74.2**	**7.2**
3	2894.5	4214.5	4214.5	4128.3	2894.5	4128.3	**4128.3**	98.9	74.2	**74.2**	**7.2**
2	3736.0	5496.0	5496.0	5299.8	3736.0	5299.8	**5299.8**	98.9	74.2	**74.2**	**7.2**
0	--	--	--	--	--	--	**0.0**	--	--	--	--

ASD Load Combinations	
ASD Load Combinations	
Case 1	D
Case 2	D+L
Case 3	D+ (LR or S or R)
Case 4	D+0.75L+0.75(Lr or S or R)
Case 5	D+0.6W
Case 6	D+0.75L+0.75(0.6W)+0.75(LR or S or R)

SEE SEPARATE SPREADSHEETS

		2x4 Results			2x6 Results			2x8 Results		
Floor #	Rounded Wall Height	12"oc	**16"oc**	**24"oc**	12"oc	**16"oc**	**24"oc**	12"oc	**16"oc**	**24"oc**
Roof	2.0	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd
5	11.0	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd
4	11.0	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd
3	11.0	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd
2	11.0	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd	Design Req'd
0	--	--	--	--	--	--	--	--	--	--

STONEWOOD STRUCTURAL ENGINEERS	Project:		By: EWS
	Location:	Portland, OR	Job No.:
	Client:		Date:
	Typical Stud Wall Capacity		Last Update: 9/14/2020

Typical Stud Wall Capacity (ASD) [plf]

	2x6					
Wall Height	Load	Spacing	Load	Spacing	Load	Spacing
8	5133	12"oc	3850	16"oc	2565	24"oc
8.5	5133	12"oc	3850	16"oc	2565	24"oc
9	5133	12"oc	3850	16"oc	2565	24"oc
9.5	5133	12"oc	3850	16"oc	2565	24"oc
10	5133	12"oc	3850	16"oc	2565	24"oc
10.5	5133	12"oc	3850	16"oc	2565	24"oc
11	5133	12"oc	3850	16"oc	2565	24"oc
11.5	5133	12"oc	3850	16"oc	2565	24"oc
12	5011	12"oc	3758	16"oc	2505	24"oc
12.5	4677	12"oc	3508	16"oc	2335	24"oc
13	4371	12"oc	3278	16"oc	2185	24"oc
13.5	4090	12"oc	3067	16"oc	2041	24"oc
14	3833	12"oc	2874	16"oc	1915	24"oc
14.5	3596	12"oc	2697	16"oc	1797	24"oc
15	3380	12"oc	2535	16"oc	1689	24"oc

Fcp controls (compression of bottom plate)

	2x8					
Wall Height	Load	Spacing	Load	Spacing	Load	Spacing
8	6755	12"oc	5068	16"oc	3379	24"oc
8.5	6755	12"oc	5068	16"oc	3379	24"oc
9	6755	12"oc	5068	16"oc	3379	24"oc
9.5	6755	12"oc	5068	16"oc	3379	24"oc
10	6755	12"oc	5068	16"oc	3379	24"oc
10.5	6755	12"oc	5068	16"oc	3379	24"oc
11	6755	12"oc	5068	16"oc	3379	24"oc
11.5	6755	12"oc	5068	16"oc	3379	24"oc
12	6755	12"oc	5068	16"oc	3379	24"oc
12.5	6755	12"oc	5068	16"oc	3379	24"oc
13	6755	12"oc	5068	16"oc	3379	24"oc
13.5	6755	12"oc	5068	16"oc	3379	24"oc
14	6755	12"oc	5068	16"oc	3379	24"oc
14.5	6755	12"oc	5068	16"oc	3379	24"oc
15	6755	12"oc	5068	16"oc	3379	24"oc

	2X4					
Wall Height	Load	Spacing	Load	Spacing	Load	Spacing
8	2971	12"oc	2229	16"oc	1486	24"oc
8.5	2672	12"oc	2004	16"oc	1335	24"oc
9	2412	12"oc	1809	16"oc	1206	24"oc
9.5	2185	12"oc	1639	16"oc	1091	24"oc
10	1986	12"oc	1490	16"oc	991	24"oc
10.5	1812	12"oc	1359	16"oc	906	24"oc
11	1659	12"oc	1244	16"oc	829	24"oc
11.5	1524	12"oc	1143	16"oc	762	24"oc
12	1403	12"oc	1052	16"oc	701	24"oc
12.5	1296	12"oc	972	16"oc	647	24"oc
13	1201	12"oc	900	16"oc	600	24"oc
13.5	1115	12"oc	835	16"oc	553	24"oc
14	1037	12"oc	778	16"oc	506	24"oc
14.5	967	12"oc	725	16"oc	464	24"oc
15						

Assumptions/Notes:

-> D. Fir-L, No. 2

-> Weak axis braced

-> No eccentricity applied

-> 5 psf lateral wind pressure applied

-> Duration of Load factor = 1.0 (D and L), 1.6 (W)

-> Minimum 1/2" gypsum or 3/8" APA rated sheathing fastened into and bracing narrow face, both sides of all studs

-> Blocked and fastened with minimum 8d nails spaced at most 12" at edge and 6" interior, per AWC SDPWS 3.1.1.1

-> [capacity of (2) studs] = [capacity of (1) stud] x 2

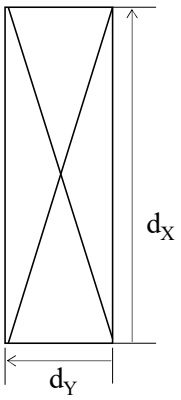
-> interpolation of capacity within a column at different wall heights is acceptable

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell		By: AA
	Location: Puyallup, WA		Job No.: 25-063
	Client: C2K		Date: 10/10/2026
	ALLOWABLE STRENGTH DESIGN		
	COMBINED FLEXURE AND AXIAL COMRESSION (2018 NDS § 15.4)		
	For Solid Sawn Stud Walls		Last Update: 03-Jun-25

Member Data: 2nd Floor 8x Wall - Wind Check

Size:	d_X =	7.25	in
	d_Y =	1.50	in
Props:	E' =	1,600,000	psi
	E' min =	580,000	psi
	$F_{b'}$ =	1987	psi
	F_c* =	2268	psi
Sill Plate:	F_c perp =	625	in
Axial:	L_{UX} =	123.6	Ke
	K_X =	1	lbs
Loads:	P =	7067	ft-#
	M_X =	283	
Constants:	c =	0.8	

Stud Species	Douglas Fir-Larch No.2	
Sill PL Species	Douglas Fir-Larch No.2	
Size	2x8	
Fire Proofing	None	
C_D	1.60	
C_m	1.00	
C_t	1.00	
C_F bending	1.20	
C_F compression	1.05	
C_r	1.15	
Lateral pressure	16.0	psf
Axial Load	5,300	plf
Eccentricty	0.73	in
Stud Spacing	16.00	in
Stud Height	10.300	ft



Deflection	0.07	in
Length/deflection ratio =	L/1744	

Ylinen Eq. 3.7-1

$$F_c' = F_c^* \left\{ \frac{1+\frac{F_{cE}}{F_c^*}}{2c} - \sqrt{\left[\frac{1+\frac{F_{cE}}{F_c^*}}{2c}\right]^2 - \frac{\frac{F_{cE}}{F_c^*}}{c}} \right\}$$

le/d =	17	
F_{cEX} =	1640	psi
Fb_{EX} =	1748	psi
$f_b = M_X/S_X$ =	258	psi
$f_C = P/A$ =	650	psi
F_c' =	1295	psi

fb<Fb & fb<FbEX, OK

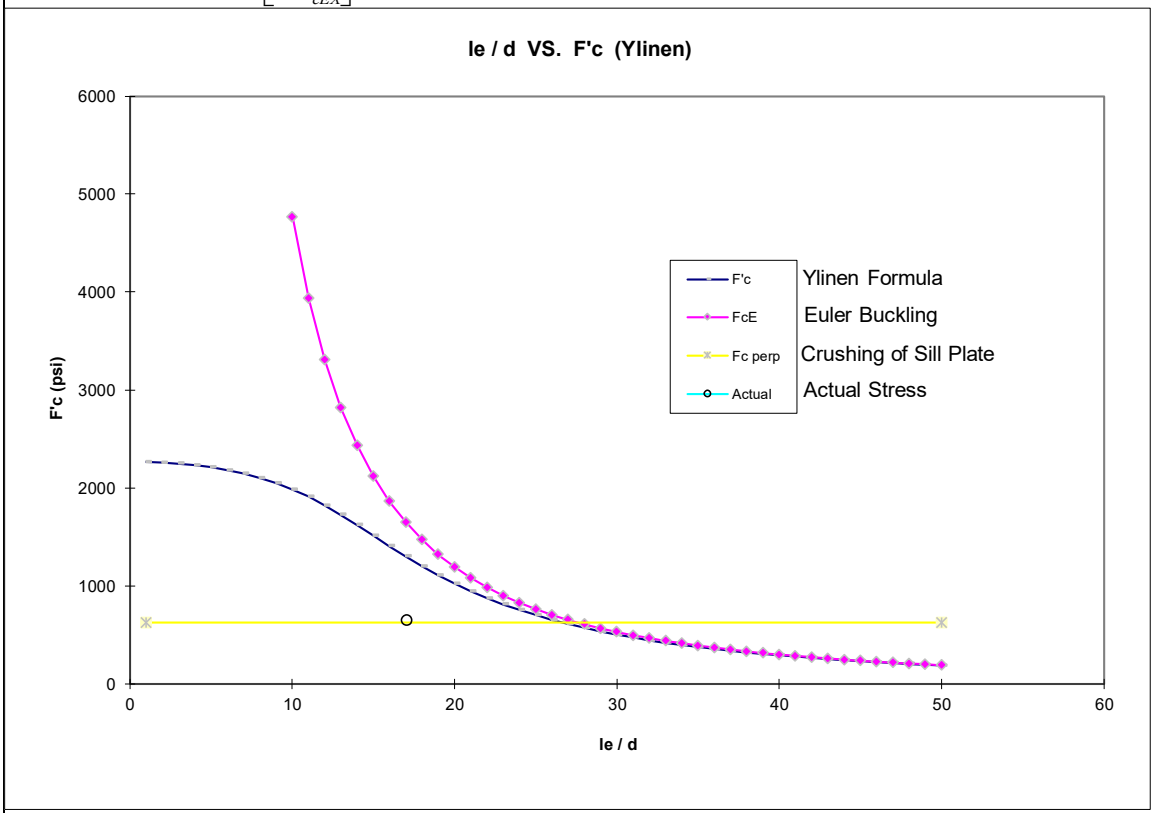
fc > FcEX or Fc perp. or Fc',NG

Eq. 15.4-1

$$\left[\frac{f_c}{F_c}\right]^2 + \frac{f_{bX} + f_c(6e_X/d)[1+0.234(f_c/F_{cEX})]}{F_{bX}\left[1-\frac{f_c}{F_{cEX}}\right]} \le 1.0$$

0.252	+	0.570	=	0.82

<= 1.0 OK

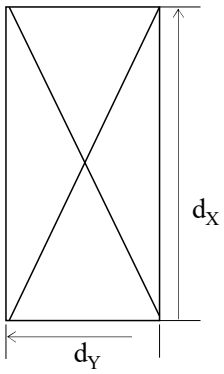


STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell		By: AA
	Location: Puyallup, WA		Job No.: 25-063
	Client: C2K		Date: 10/10/2026
	ALLOWABLE STRENGTH DESIGN		
	COMBINED FLEXURE AND AXIAL COMRESSION (2018 NDS § 15.4)		
	For Solid Sawn Stud Walls		Last Update: 03-Jun-25

Member Data: 2nd Floor 8x Wall - No Wind Check

Size:	d_X =	7.25	in
	d_Y =	1.50	in
Props:	E' =	1,600,000	psi
	E' min =	580,000	psi
	$F_{b'}$ =	1428	psi
	F_c* =	1630	psi
Sill Plate:	F_c perp =	625	in
Axial:	L_{UX} =	123.0	Ke
	K_X =	1	lbs
Loads:	P =	7067	ft-#
	M_X =	2	
Constants:	c =	0.8	

Stud Species	Douglas Fir-Larch No.2	
Sill PL Species	Douglas Fir-Larch No.2	
Size	2x8	
Fire Proofing	None	
CD	1.15	
Cm	1.00	
Ct	1.00	
CF bending	1.20	
CF compression	1.05	
Cr	1.15	
Lateral pressure	0.1	psf
Axial Load	5,300	plf
Eccentricty	0.73	in
Stud Spacing	16.00	in
Stud Height	10.250	ft



Deflection	0.00	in
Length/deflection ratio =	L/283095	

Ylinen Eq. 3.7-1

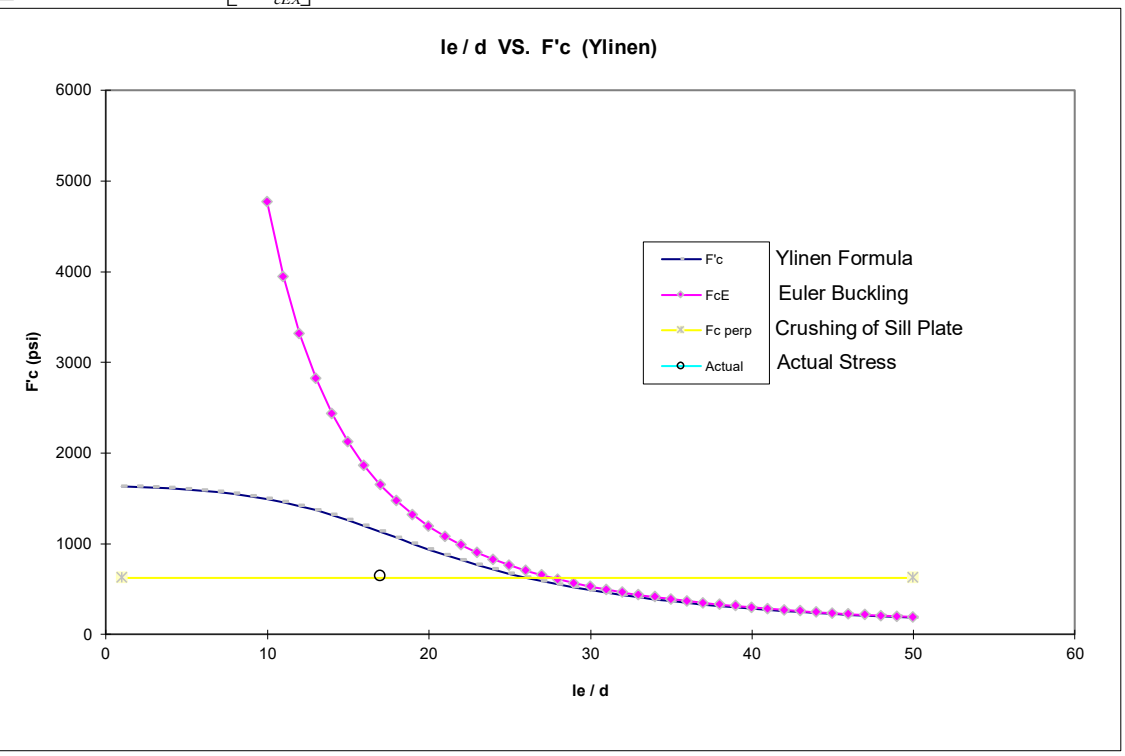
$$F_c' = F_c^* \left\{ \frac{1+\frac{F_{cE}}{F_c^*}}{2c} - \sqrt{\left[\frac{1+\frac{F_{cE}}{F_c^*}}{2c}\right]^2 - \frac{\frac{F_{cE}}{F_c^*}}{c}} \right\}$$

le/d =	17		
F_{cEX} =	1656	psi	
Fb_{EX} =	1756	psi	
f_b = M_X/S_X =	2	psi	fb<Fb & fb<FbEX, OK
f_C = P/A =	650	psi	fc > FcEX or Fc perp. or Fc',NG
F_c' =	1135	psi	

Eq. 15.4-1

$$\left[\frac{f_c}{F_c}\right]^2 + \frac{f_{bX} + f_c(6e_X/d)[1+0.234(f_c/F_{cEX})]}{F_{bX}\left[1-\frac{f_c}{F_{cEX}}\right]} \le 1.0$$

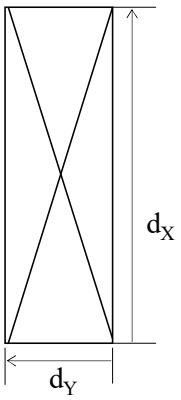
0.328	+	0.492	=	0.82	<= 1.0 OK



STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AA
	Location: Puyallup, WA	Job No.: 25-063
	Client: C2K	Date: 10/10/2026
	ALLOWABLE STRENGTH DESIGN	
	COMBINED FLEXURE AND AXIAL COMRESSION (2018 NDS § 15.4)	
	For Solid Sawn Stud Walls	Last Update: 03-Jun-25

Member Data: 1st Floor 8x Wall - Wind Check (Below PT Slab)

Size:	d_X =	7.25	in	Stud Species	Douglas Fir-Larch No.2	
	d_Y =	1.50	in	Sill PL Species	Douglas Fir-Larch No.2	
Props:	E' =	1,600,000	psi	Size	2x8	
	E' min =	580,000	psi	Fire Proofing	Douglas Fir	
	$F_{b'}$ =	1947	psi	C_D	1.60	
	F_c* =	1746	psi	C_m	1.00	
Sill Plate:	F_c perp =	625	in	C_t	1.00	
Axial:	L_{UX} =	192.0	Ke	C_F bending	1.20	
	K_X =	1	lbs	C_F compression	1.05	
Loads:	P =	10	ft-#	C_r	1.15	
	M_X =	512		Lateral pressure	16.0	psf
Constants:	c =	0.8		Axial Load	10	plf
				Eccentricty	0.73	in
				Stud Spacing	12.00	in
				Stud Height	16.000	ft



Deflection 0.31 in

Length/deflection ratio = **L/620**

Ylinen Eq. 3.7-1

$$F_c' = F_c^* \left\{ \frac{1+\frac{F_{cE}}{F_c^*}}{2c} - \sqrt{\left[\frac{1+\frac{F_{cE}}{F_c^*}}{2c}\right]^2 - \frac{\frac{F_{cE}}{F_c^*}}{c}} \right\}$$

le/d =	26	
F_{cEX} =	680	psi
Fb_{EX} =	1125	psi
$f_b = M_X/S_X$ =	468	psi
$f_C = P/A$ =	1	psi
F_c' =	613	psi

fb<Fb & fb<FbEX, OK

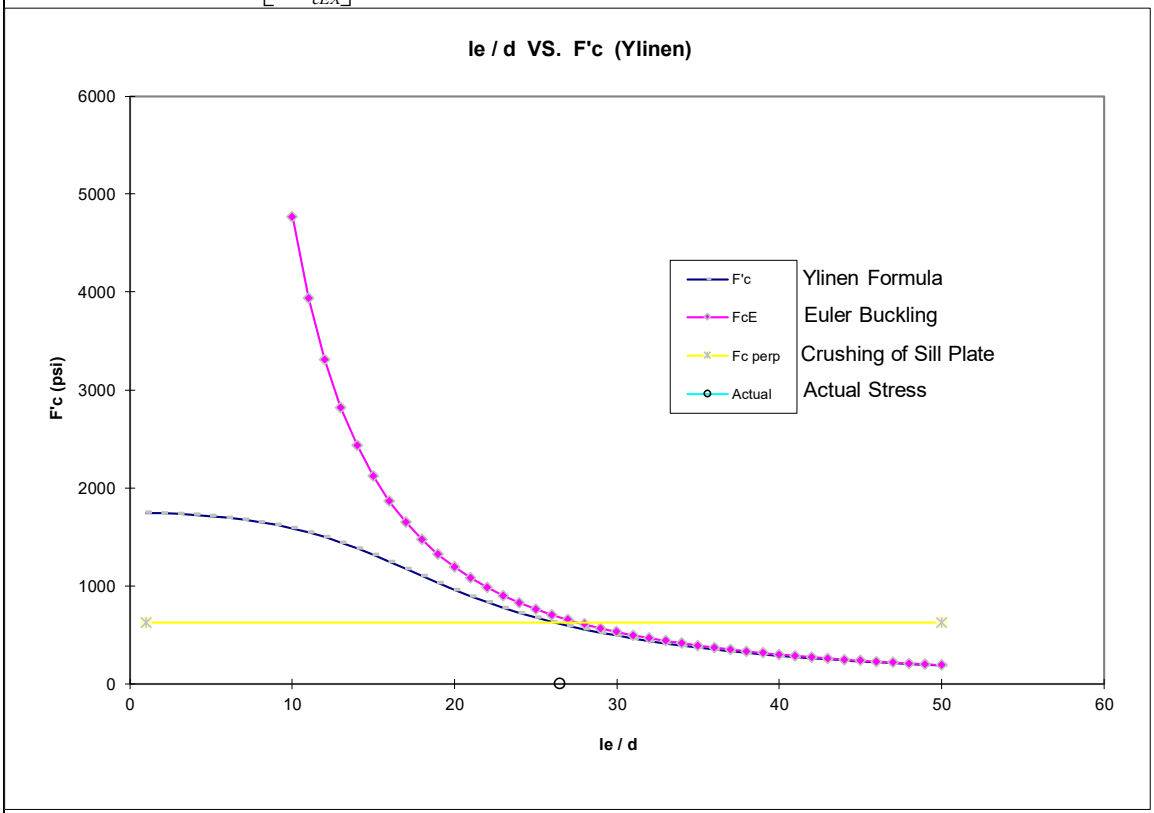
fc < FcEX, Fc perp. & Fc', OK

Eq. 15.4-1

$$\left[\frac{f_c}{F_c}\right]^2 + \frac{f_{bX} + f_c(6e_X/d)[1+0.234(f_c/F_{cEX})]}{F_{bX}\left[1-\frac{f_c}{F_{cEX}}\right]} \le 1.0$$

0.000	+	0.241	=	0.24

<= 1.0 OK



STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup AOB	By: RRA
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 9/16/2025
	COLUMN DESING LOADING		
	Axial Loads on King and Trimmer Studs		Version #: / Last Update: 9/16/2025

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)
25	20	20	40	25

KLL
4

Column Location: Exterior 4'-3" OPENING

Table 4.7-1 Live Load Element Factor, K_{LL}

Element	K_{LL}[a]
Interior columns	4
Exterior columns without cantilever slabs	4
Edge columns with cantilever slabs	3
Corner columns with cantilever slabs	2
Edge beams without cantilever slabs	2
Interior beams	2
All other members not identified, including	1
Edge beams with cantilever slabs	
Cantilever beams	
One-way slabs	
Two-way slabs	
Members without provisions for continuous shear transfer normal to their span	

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	4				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	4.25	17	1	1	0.227			0.28	0.72			0.90	0.227			0.283	0.72			0.85	20.00	2.79	0.056
4	4.25	8	1	1	0.133		0.213		0.43		0.68		0.608		0.213	0.567	0.90		0.680	0.567	20.00	2.79	0.056
3	4.25	8	1	1	0.133		0.213		0.43		0.68		0.887		0.660	0.567	1.18		1.127	0.567	20.00	2.79	0.056
2	4.25	8	1	1	0.133		0.213		0.43		0.68		1.166		1.107	0.567	1.46		1.573	0.567	20.00	2.79	0.056

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup AOB	By: RRA
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 9/16/2025
	COLUMN DESING LOADING		
	Axial Loads on King and Trimmer Studs		Version #: / Last Update: 9/16/2025

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)
25	20	20	40	25

KLL
4

Column Location: Exterior 6'-3" OPENING

Table 4.7-1 Live Load Element Factor, K_{LL}

Element	K_{LL}[a]
Interior columns	4
Exterior columns without cantilever slabs	4
Edge columns with cantilever slabs	3
Corner columns with cantilever slabs	2
Edge beams without cantilever slabs	2
Interior beams	2
All other members not identified, including	1
Edge beams with cantilever slabs	
Cantilever beams	
One-way slabs	
Two-way slabs	
Members without provisions for continuous shear transfer normal to their span	

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	6				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	6.25	17	1	1	0.227			0.28	1.06			1.33	0.227			0.283	1.06			1.28	20.00	3.79	0.076
4	6.25	8	1	1	0.133		0.213		0.63		1.00		0.778		0.213	0.779	1.27		1.000	0.779	20.00	3.79	0.076
3	6.25	8	1	2	0.133		0.213		0.63		1.00		0.816		0.618	0.519	1.99		1.809	1.039	20.00	3.79	0.076
2	6.25	8	2	2	0.133		0.213		0.63		1.00		1.536		1.427	0.779	2.03		2.213	0.779	20.00	3.79	0.076

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup AOB	By: RRA
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 9/16/2025
	COLUMN DESING LOADING		
	Axial Loads on King and Trimmer Studs		Version #: / ast Update: 9/16/2025

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)
25	20	20	40	25

KLL
4

Column Location: Exterior 8'-3" OPENING

Table 4.7-1 Live Load Element Factor, K_{LL}

Element	K_{LL}[a]
Interior columns	4
Exterior columns without cantilever slabs	4
Edge columns with cantilever slabs	3
Corner columns with cantilever slabs	2
Edge beams without cantilever slabs	2
Interior beams	2
All other members not identified, including	1
Edge beams with cantilever slabs	
Cantilever beams	
One-way slabs	
Two-way slabs	
Members without provisions for continuous shear transfer normal to their span	

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	8				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	8.25	17	1	1	0.227			0.28	1.40			1.75	0.227			0.283	1.40			1.70	20.00	4.79	0.096
4	8.25	8	1	1	0.133		0.213		0.83		1.32		0.948		0.213	0.992	1.64		1.320	0.992	20.00	4.79	0.096
3	8.25	8	1	2	0.133		0.213		0.83		1.32		0.996		0.724	0.661	2.55		2.342	1.322	20.00	4.79	0.096
2	8.25	8	2	2	0.133		0.213		0.83		1.32		1.906		1.747	0.992	2.60		2.853	0.992	20.00	4.79	0.096

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup AOB	By: RRA
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 9/16/2025
	COLUMN DESING LOADING		
	Axial Loads on King and Trimmer Studs		Version #: / Last Update: 9/16/2025

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)
25	20	20	40	25

KLL
4

Column Location: Exterior 12'-6" OPENING

Table 4.7-1 Live Load Element Factor, K_{LL}

Element	K_{LL}[a]
Interior columns	4
Exterior columns without cantilever slabs	4
Edge columns with cantilever slabs	3
Corner columns with cantilever slabs	2
Edge beams without cantilever slabs	2
Interior beams	2
All other members not identified, including	1
Edge beams with cantilever slabs	
Cantilever beams	
One-way slabs	
Two-way slabs	
Members without provisions for continuous shear transfer normal to their span	

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	12.25				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	12.5	17	1	1	0.227			0.28	2.13			2.66	0.227			0.283	2.13			2.60	20.00	6.92	0.138
4	12.5	8	1	2	0.133		0.213		1.25		2.00		0.917		0.213	0.962	2.82		2.000	1.924	20.00	6.92	0.138
3	12.5	8	2	2	0.133		0.213		1.25		2.00		2.001		1.320	1.443	3.12		3.107	1.443	20.00	6.92	0.138
2	12.5	8	2	2	0.133		0.213		1.25		2.00		2.693		2.427	1.443	3.81		4.213	1.443	20.00	6.92	0.138

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup AOB	By: RRA
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 9/16/2025
	COLUMN DESING LOADING		
	Axial Loads on King and Trimmer Studs		Version #: / ast Update: 9/16/2025

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)
25	20	20	40	25

KLL
4

Column Location: Interior 4'-3" OPENING

Table 4.7-1 Live Load Element Factor, K_{LL}

Element	K_{LL}[a]
Interior columns	4
Exterior columns without cantilever slabs	4
Edge columns with cantilever slabs	3
Corner columns with cantilever slabs	2
Edge beams without cantilever slabs	2
Interior beams	2
All other members not identified, including	1
Edge beams with cantilever slabs	
Cantilever beams	
One-way slabs	
Two-way slabs	
Members without provisions for continuous shear transfer normal to their span	

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	4				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	4.25	1	1	1	0.013			0.02	0.04			0.05	0.013			0.017	0.04			0.05	20.00	2.79	0.056
4	4.25	15	1	1	0.250		0.400		0.80		1.28		0.278		0.400	0.033	0.82		1.275	0.033	20.00	2.79	0.056
3	4.25	15	1	1	0.250		0.400		0.80		1.28		0.801		1.238	0.033	1.35		2.113	0.033	20.00	2.79	0.056
2	4.25	15	2	1	0.250		0.400		0.80		1.28		1.683		2.633	0.044	1.51		2.392	0.022	20.00	2.79	0.056

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup AOB	By: RRA
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: 9/16/2025
	COLUMN DESING LOADING		
	Axial Loads on King and Trimmer Studs		Version #: / Last Update: 9/16/2025

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)
25	20	20	40	25

KLL
4

Column Location: Interior 6'-3" OPENING

Table 4.7-1 Live Load Element Factor, K_{LL}

Element	K_{LL}[a]
Interior columns	4
Exterior columns without cantilever slabs	4
Edge columns with cantilever slabs	3
Corner columns with cantilever slabs	2
Edge beams without cantilever slabs	2
Interior beams	2
All other members not identified, including	1
Edge beams with cantilever slabs	
Cantilever beams	
One-way slabs	
Two-way slabs	
Members without provisions for continuous shear transfer normal to their span	

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	6				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	6.25	1	1	1	0.013			0.02	0.06			0.08	0.013			0.017	0.06			0.08	20.00	3.79	0.076
4	6.25	15	1	1	0.250		0.400		1.17		1.88		0.288		0.400	0.046	1.21		1.875	0.046	20.00	3.79	0.076
3	6.25	15	2	1	0.250		0.400		1.17		1.88		1.248		1.917	0.061	1.67		2.633	0.031	20.00	3.79	0.076
2	6.25	15	2	2	0.250		0.400		1.17		1.88		1.710		2.675	0.046	2.63		4.150	0.046	20.00	3.79	0.076

STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup Bell	By: AAS
	Location:	Puyallup, WA	Job No.: 25-063
	Client:	C2K	Date: ########
	COLUMN DESING LOADING		
	Axial Loads on King and Trimmer Studs		Version #:
			Last Update: 9/16/2025

Dead, floor (psf)	Dead, roof (psf)	Live, roof (psf)	Live (psf)	Snow (psf)
25	20	20	40	25

KLL
4

Table 4.7-1 Live Load Element Factor, K_{LL}

Element	K_{LL}[a]
Interior columns	4
Exterior columns without cantilever slabs	4
Edge columns with cantilever slabs	3
Corner columns with cantilever slabs	2
Edge beams without cantilever slabs	2
Interior beams	2
All other members not identified, including	1
Edge beams with cantilever slabs	
Cantilever beams	
One-way slabs	
Two-way slabs	
Members without provisions for continuous shear transfer normal to their span	

Column Location: Interior 8'-3" OPENING

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	8				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	8.25	1	1	1	0.013			0.02	0.08			0.10	0.013			0.017	0.08			0.10	20.00	4.79	0.096
4	8.25	15	2	2	0.250		0.400		1.55		2.48		0.298		0.400	0.058	1.59		2.475	0.058	20.00	4.79	0.096
3	8.25	15	3	2	0.250		0.400		1.55		2.48		1.386		2.125	0.070	2.30		3.625	0.047	20.00	4.79	0.096
2	8.25	15	3	2	0.250		0.400		1.55		2.48		2.464		3.850	0.070	3.02		4.775	0.047	20.00	4.79	0.096

Stud Spacing (in)	16				Axial Loads per Floor								Axial Loads Accumulated										
Opening Width (ft)	8				King Studs				Trimmers				King Studs				Trimmers						
Floor #	Beam Length (ft)	Trib Width (ft)	# of Kings	# of Trimmers	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	D (kips)	L_R (kips)	L0 (kips)	S (kips)	Wind Pressure (psf)	Wind Trib Area (ft)	W (klf)
Roof	8.25	1	1	1	0.013			0.02	0.08			0.10	0.013			0.017	0.08			0.10	20.00	4.79	0.096
4	8.25	15	2	2	0.250		0.400		1.55		2.48		0.298		0.400	0.058	1.59		2.475	0.058	20.00	4.79	0.096
3	8.25	15	3	2	0.250		0.400		1.55		2.48		1.386		2.125	0.070	2.30		3.625	0.047	20.00	4.79	0.096
2	8.25	15	4	2	0.250		0.400		1.55		2.48		2.710		4.233	0.078	2.78		4.392	0.039	20.00	4.79	0.096

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 4'-3" Exterior Header

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

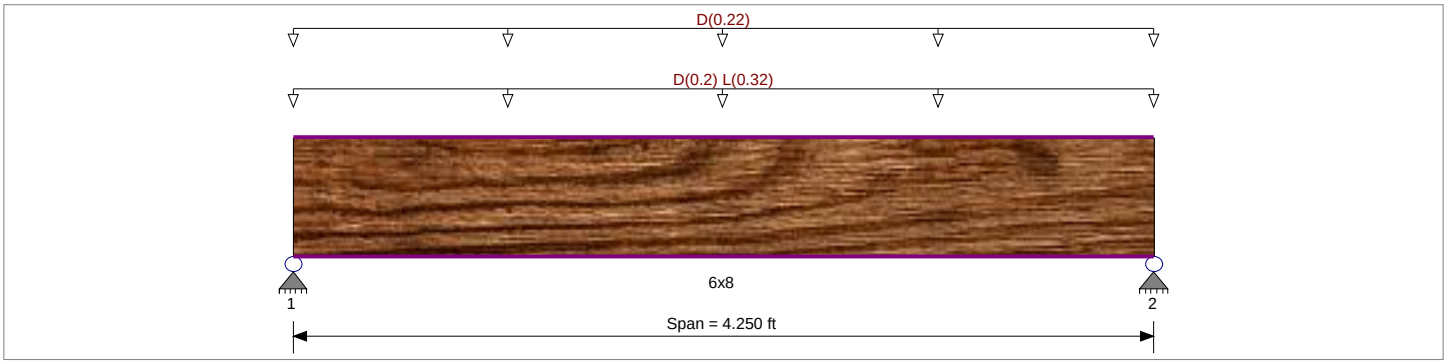
Wood Species : Douglas Fir-Larch (North)
Wood Grade : No.1

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	1300 psi
Fb -	1300 psi
Fc - Prll	925 psi
Fc - Perp	625 psi
Fv	170 psi
Ft	675 psi

E : Modulus of Elasticity

Ebend- xx	1600 ksi
Eminbend - xx	580 ksi
Density	30.59 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 8.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.303** : 1	Maximum Shear Stress Ratio	=	**0.241** : 1
Section used for this span		**6x8** NDS2018	Section used for this span		**6x8** NDS2018
fb: Actual	=	393.44 psi	fv: Actual	=	40.97 psi
F'b	=	1,300.00 psi	F'v	=	170.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	2.125 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.008 in	Ratio =	6677	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.018 in	Ratio =	2853	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.193	0.153	0.90	1.00	1.00	1.00	1.000	1.00	1.00	1.00	0.97	225.3	1,170.0	0.65	23.5	153.0
+D+L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.303	0.241	1.00	1.00	1.00	1.00	1.000	1.00	1.00	1.00	1.69	393.4	1,300.0	1.13	41.0	170.0
+D+0.750L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.216	0.172	1.25	1.00	1.00	1.00	1.000	1.00	1.00	1.00	1.51	351.4	1,625.0	1.01	36.6	212.5

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 4'-3" Exterior Header

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	**1**	0.065	0.052	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	0.58	135.2	2,080.0	0.39	14.1	272.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.0179	2.141		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	1.591	1.591
Max Upward from Load Combinations	1.591	1.591
Max Upward from Load Cases	0.911	0.911
D Only	0.911	0.911
+D+L	1.591	1.591
+D+0.750L	1.421	1.421
+0.60D	0.547	0.547
L Only	0.680	0.680

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 6'-3" Exterior Header

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

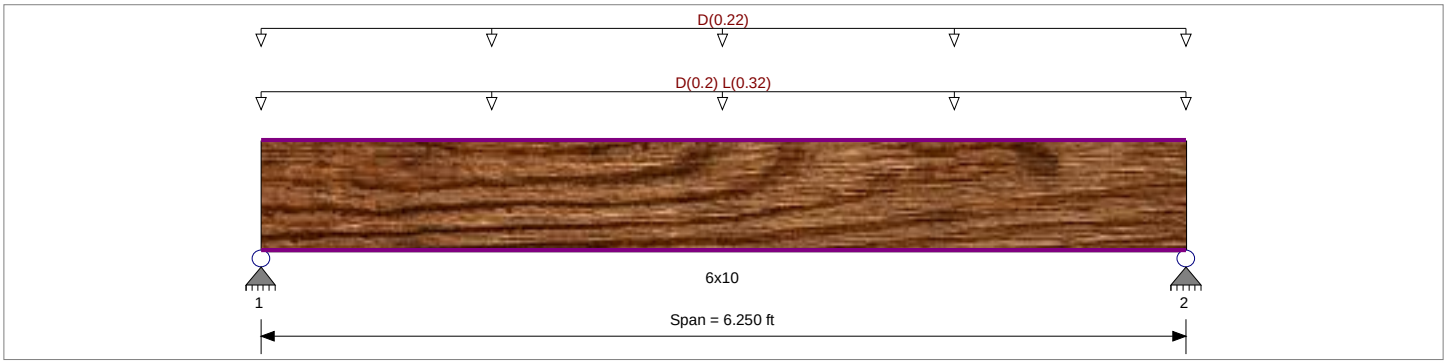
Wood Species : Douglas Fir-Larch (North)
Wood Grade : No.1

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	1,300.0 psi
Fb -	1,300.0 psi
Fc - Prll	925.0 psi
Fc - Perp	625.0 psi
Fv	170.0 psi
Ft	675.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	30.590 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 8.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.409** : 1	Maximum Shear Stress Ratio	=	**0.298** : 1
Section used for this span		**6x10** NDS2018	Section used for this span		**6x10** NDS2018
fb: Actual	=	531.97 psi	fv: Actual	=	50.66 psi
F'b	=	1,300.00 psi	F'v	=	170.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	3.125 ft	Location of maximum on span	=	5.474 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.018 in	Ratio =	4267	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.041 in	Ratio =	1818	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.261	0.190	0.90	1.00	1.00	1.00	1.000	1.00	1.00	1.00	2.10	305.3	1,170.0	1.01	29.1	153.0
+D+L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.409	0.298	1.00	1.00	1.00	1.00	1.000	1.00	1.00	1.00	3.67	532.0	1,300.0	1.76	50.7	170.0
+D+0.750L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.293	0.213	1.25	1.00	1.00	1.00	1.000	1.00	1.00	1.00	3.28	475.3	1,625.0	1.58	45.3	212.5

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 6'-3" Exterior Header

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	**1**	0.088	0.064	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	1.26	183.2	2,080.0	0.61	17.4	272.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.0413	3.148		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	2.347	2.347
Max Upward from Load Combinations	2.347	2.347
Max Upward from Load Cases	1.347	1.347
D Only	1.347	1.347
+D+L	2.347	2.347
+D+0.750L	2.097	2.097
+0.60D	0.808	0.808
L Only	1.000	1.000

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 8'-3" Exterior Header

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

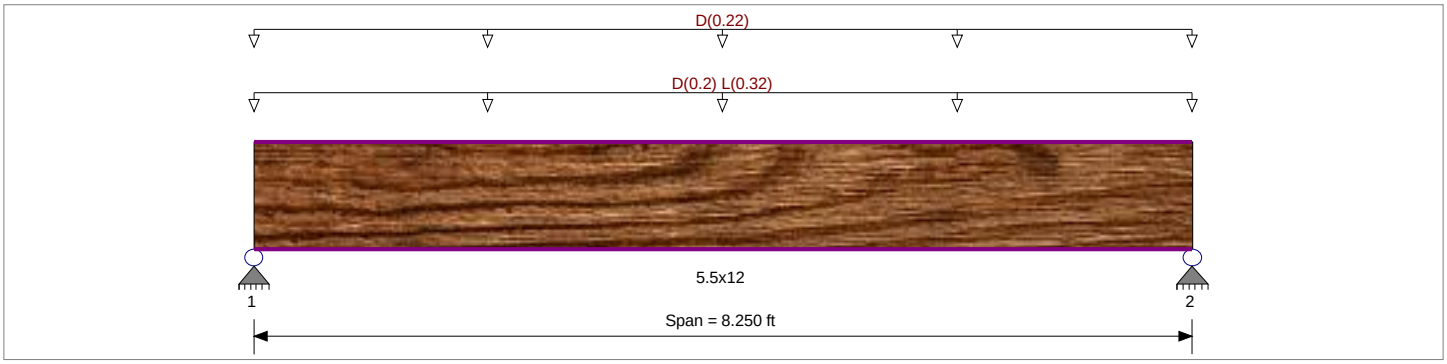
Wood Species : DF/DF
Wood Grade : 24F-V4

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2400 psi
Fb -	1850 psi
Fc - Prll	1650 psi
Fc - Perp	650 psi
Fv	265 psi
Ft	1100 psi

E : Modulus of Elasticity

Ebend- xx	1800 ksi
Eminbend - xx	950 ksi
Density	31.21 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 8.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.243** : 1	Maximum Shear Stress Ratio	=	**0.203** : 1
Section used for this span		**5.5x12** NDS2018	Section used for this span		**5.5x12** NDS2018
fb: Actual	=	583.41 psi	fv: Actual	=	53.68 psi
F'b	=	2,400.00 psi	F'v	=	265.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	4.125 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.024 in	Ratio =	4206	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.055 in	Ratio =	1784	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_V	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.156	0.130	0.90	1.00	1.00	1.00	1.000	1.00	1.00	1.00	3.69	335.9	2,160.0	1.36	30.9	238.5
+D+L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.243	0.203	1.00	1.00	1.00	1.00	1.000	1.00	1.00	1.00	6.42	583.4	2,400.0	2.36	53.7	265.0
+D+0.750L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.174	0.145	1.25	1.00	1.00	1.00	1.000	1.00	1.00	1.00	5.74	521.5	3,000.0	2.11	48.0	331.3

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 8'-3" Exterior Header

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_V	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.052	0.044	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	2.22	201.5	3,840.0	0.82	18.5	424.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.0555	4.155		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	3.112	3.112
Max Upward from Load Combinations	3.112	3.112
Max Upward from Load Cases	1.792	1.792
D Only	1.792	1.792
+D+L	3.112	3.112
+D+0.750L	2.782	2.782
+0.60D	1.075	1.075
L Only	1.320	1.320

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 12'-3" Exterior Header

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

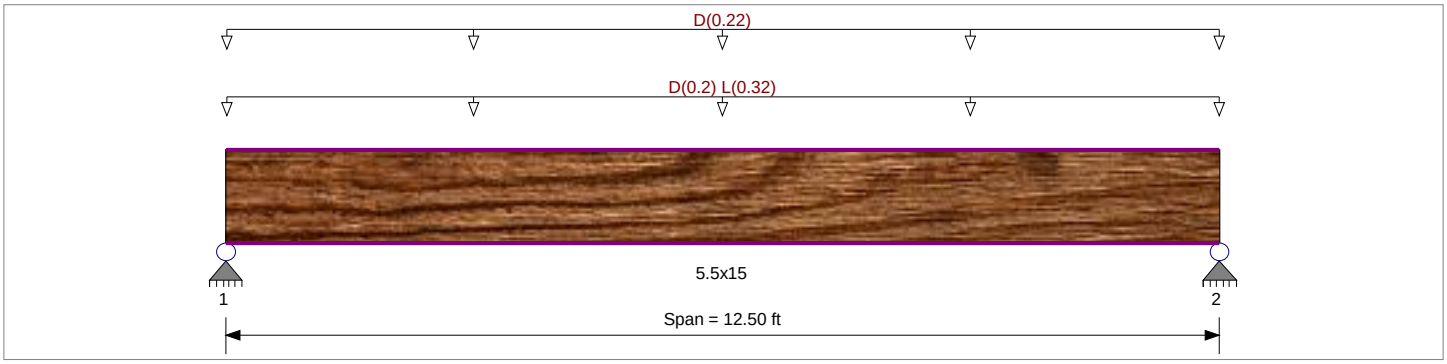
Wood Species : DF/DF
Wood Grade : 24F-V4

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,400.0 psi
Fb -	1,850.0 psi
Fc - Prll	1,650.0 psi
Fc - Perp	650.0 psi
Fv	265.0 psi
Ft	1,100.0 psi

E : Modulus of Elasticity

Ebend- xx	1,800.0 ksi
Eminbend - xx	950.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 8.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.359** : 1	Maximum Shear Stress Ratio	=	**0.261** : 1
Section used for this span		**5.5x15** NDS2018	Section used for this span		**5.5x15** NDS2018
fb: Actual	=	861.23 psi	fv: Actual	=	69.15 psi
F'b	=	2,400.00 psi	F'v	=	265.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	6.250 ft	Location of maximum on span	=	11.268 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.063 in	Ratio =	2362	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.150 in	Ratio =	997	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_V	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 12.50 ft	1	0.230	0.168	0.90	1.00	1.00	1.00	1.000	1.00	1.00	1.00	8.55	497.6	2,160.0	2.20	40.0	238.5
+D+L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 12.50 ft	1	0.359	0.261	1.00	1.00	1.00	1.00	1.000	1.00	1.00	1.00	14.80	861.2	2,400.0	3.80	69.1	265.0
+D+0.750L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 12.50 ft	1	0.257	0.187	1.25	1.00	1.00	1.00	1.000	1.00	1.00	1.00	13.24	770.3	3,000.0	3.40	61.9	331.3

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 12'-3" Exterior Header

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_V	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 12.50 ft	**1**	0.078	0.057	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	5.13	298.6	3,840.0	1.32	24.0	424.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.1504	6.296		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	4.737	4.737
Max Upward from Load Combinations	4.737	4.737
Max Upward from Load Cases	2.737	2.737
D Only	2.737	2.737
+D+L	4.737	4.737
+D+0.750L	4.237	4.237
+0.60D	1.642	1.642
L Only	2.000	2.000

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 4'-3" Exterior Header - Parallel

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

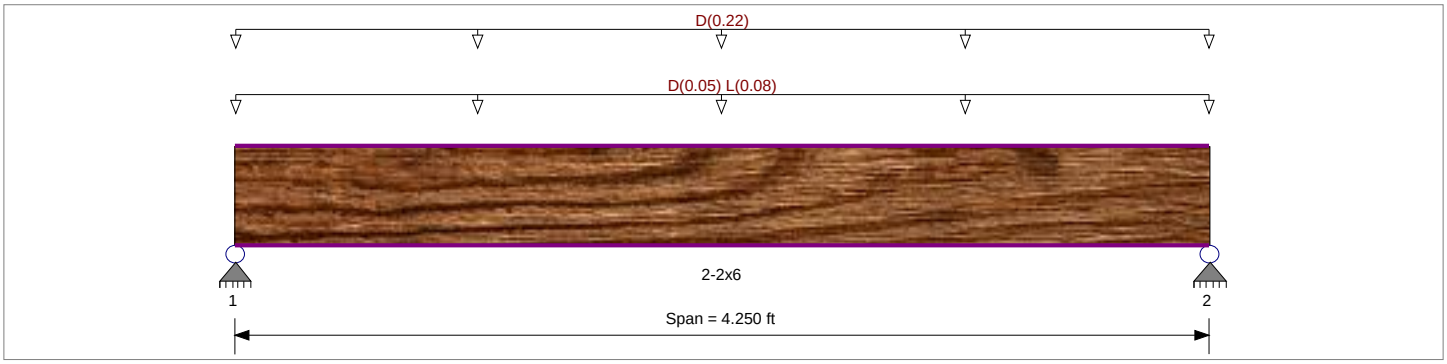
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	900 psi
Fb -	900 psi
Fc - Prll	1350 psi
Fc - Perp	625 psi
Fv	180 psi
Ft	575 psi

E : Modulus of Elasticity

Ebend- xx	1600 ksi
Eminbend - xx	580 ksi
Density	31.21 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 2.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.541** : 1	Maximum Shear Stress Ratio	=	**0.299** : 1
Section used for this span		**2-2x6** NDS2018	Section used for this span		**2-2x6** NDS2018
fb: Actual	=	633.37 psi	fv: Actual	=	53.85 psi
F'b	=	1,170.00 psi	F'v	=	180.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	2.125 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.009 in	Ratio =	5745	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.039 in	Ratio =	1300	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.465	0.257	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.62	490.1	1,053.0	0.46	41.7	162.0
+D+L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.541	0.299	1.00	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.80	633.4	1,170.0	0.59	53.8	180.0
+D+0.750L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.409	0.226	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.75	597.5	1,462.5	0.56	50.8	225.0

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 4'-3" Exterior Header - Parallel

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.157	0.087	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.37	294.0	1,872.0	0.27	25.0	288.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.0392	2.141		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	0.751	0.751
Max Upward from Load Combinations	0.751	0.751
Max Upward from Load Cases	0.581	0.581
D Only	0.581	0.581
+D+L	0.751	0.751
+D+0.750L	0.709	0.709
+0.60D	0.349	0.349
L Only	0.170	0.170

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 6'-3" Exterior Header - Parallel

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

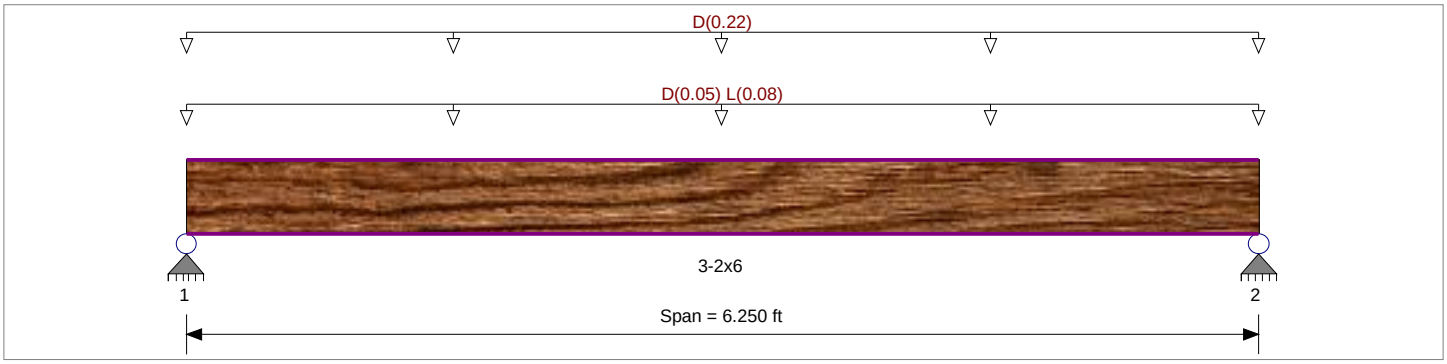
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 2.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.784** : 1	Maximum Shear Stress Ratio	=	**0.319** : 1
Section used for this span		**3-2x6** NDS2018	Section used for this span		**3-2x6** NDS2018
fb: Actual	=	917.78 psi	fv: Actual	=	57.48 psi
F'b	=	1,170.00 psi	F'v	=	180.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	3.125 ft	Location of maximum on span	=	5.794 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.028 in	Ratio =	2710	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.123 in	Ratio =	610	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.675	0.275	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.34	711.2	1,053.0	0.73	44.5	162.0
+D+L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.784	0.319	1.00	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.74	917.8	1,170.0	0.95	57.5	180.0
+D+0.750L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.592	0.241	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.64	866.1	1,462.5	0.90	54.2	225.0

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 6'-3" Exterior Header - Parallel

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	**1**	0.228	0.093	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.81	426.7	1,872.0	0.44	26.7	288.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.1229	3.148		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	1.111	1.111
Max Upward from Load Combinations	1.111	1.111
Max Upward from Load Cases	0.861	0.861
D Only	0.861	0.861
+D+L	1.111	1.111
+D+0.750L	1.048	1.048
+0.60D	0.516	0.516
L Only	0.250	0.250

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 8'-3" Exterior Header - Parallel

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

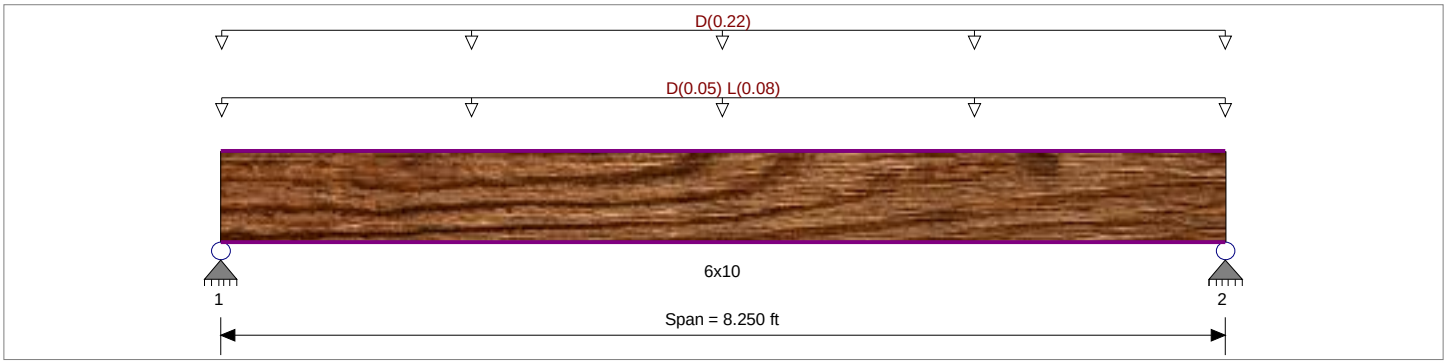
Wood Species : Douglas Fir-Larch (North)
Wood Grade : No.1

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	1300 psi
Fb -	1300 psi
Fc - Prll	925 psi
Fc - Perp	625 psi
Fv	170 psi
Ft	675 psi

E : Modulus of Elasticity

Ebend- xx	1600 ksi
Eminbend - xx	580 ksi
Density	30.59 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 2.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.343** : 1	Maximum Shear Stress Ratio	=	**0.204** : 1
Section used for this span		**6x10** NDS2018	Section used for this span		**6x10** NDS2018
fb: Actual	=	445.62 psi	fv: Actual	=	34.65 psi
F'b	=	1,300.00 psi	F'v	=	170.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	4.125 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.013 in	Ratio =	7421	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.060 in	Ratio =	1644	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.296	0.176	0.90	1.00	1.00	1.00	1.000	1.00	1.00	1.00	2.39	346.9	1,170.0	0.94	27.0	153.0
+D+L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.343	0.204	1.00	1.00	1.00	1.00	1.000	1.00	1.00	1.00	3.07	445.6	1,300.0	1.21	34.6	170.0
+D+0.750L					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.259	0.154	1.25	1.00	1.00	1.00	1.000	1.00	1.00	1.00	2.90	420.9	1,625.0	1.14	32.7	212.5

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 8'-3" Exterior Header - Parallel

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.250 ft	1	0.100	0.059	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	1.43	208.1	2,080.0	0.56	16.2	272.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.0602	4.155		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	1.490	1.490
Max Upward from Load Combinations	1.490	1.490
Max Upward from Load Cases	1.160	1.160
D Only	1.160	1.160
+D+L	1.490	1.490
+D+0.750L	1.407	1.407
+0.60D	0.696	0.696
L Only	0.330	0.330

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 4'-3" Interior (4x check. 6x okay by inspection)

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

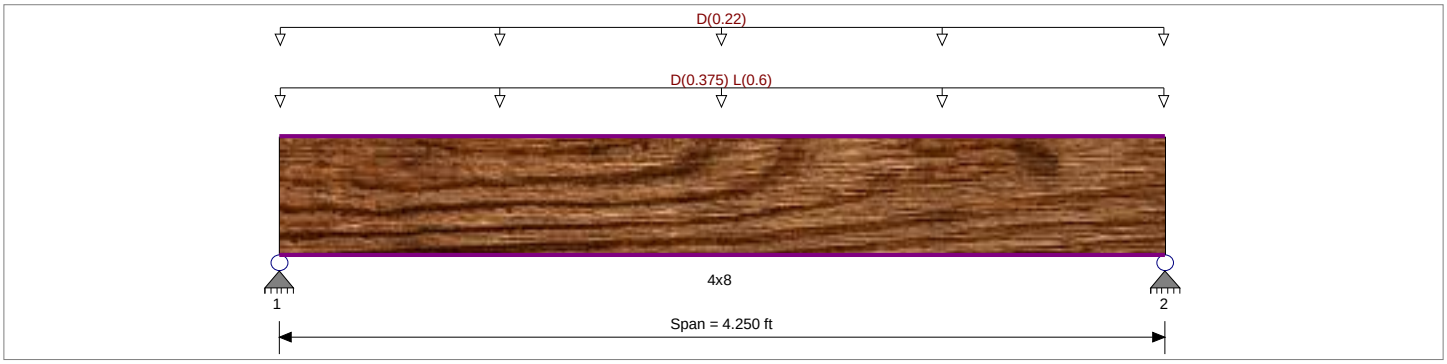
Wood Species : Douglas Fir-Larch (North)
Wood Grade : No.1

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	1,300.0 psi
Fb -	1,300.0 psi
Fc - Prll	925.0 psi
Fc - Perp	625.0 psi
Fv	170.0 psi
Ft	675.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	30.590 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 15.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.628** : 1	Maximum Shear Stress Ratio	=	**0.641** : 1
Section used for this span		**4x8** NDS2018	Section used for this span		**4x8** NDS2018
fb: Actual	=	1,060.72 psi	fv: Actual	=	108.96 psi
F'b	=	1,690.00 psi	F'v	=	170.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	2.125 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.025 in	Ratio =	2047	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.050 in	Ratio =	1023	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.349	0.356	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.36	530.5	1,521.0	0.92	54.5	153.0
+D+L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.628	0.641	1.00	1.00	1.00	1.00	1.300	1.00	1.00	1.00	2.71	1,060.7	1,690.0	1.84	109.0	170.0
+D+0.750L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	1	0.439	0.449	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	2.37	928.2	2,112.5	1.61	95.3	212.5

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 4'-3" Interior (4x check. 6x okay by inspection)

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 4.250 ft	**1**	0.118	0.120	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.81	318.3	2,704.0	0.55	32.7	272.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.0498	2.141		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	2.551	2.551
Max Upward from Load Combinations	2.551	2.551
Max Upward from Load Cases	1.276	1.276
D Only	1.276	1.276
+D+L	2.551	2.551
+D+0.750L	2.232	2.232
+0.60D	0.765	0.765
L Only	1.275	1.275

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 6'-3" Interior (4x check. 6x okay by inspection)

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

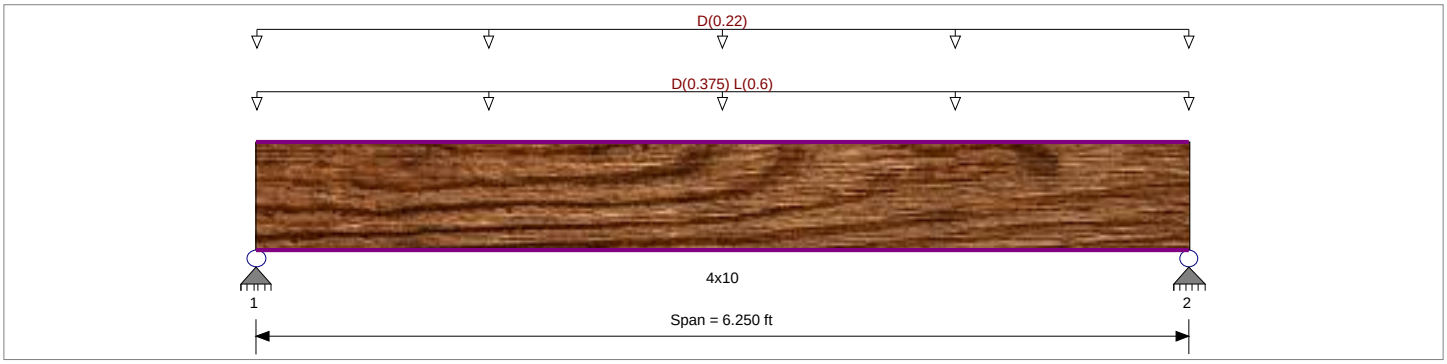
Wood Species : Douglas Fir-Larch (North)
Wood Grade : No.1

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	1,300.0 psi
Fb -	1,300.0 psi
Fc - Prll	925.0 psi
Fc - Perp	625.0 psi
Fv	170.0 psi
Ft	675.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	30.590 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 15.0 ft
Uniform Load : D = 0.0550 ksf, Tributary Width = 4.0 ft, (Brick Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.904** : 1	Maximum Shear Stress Ratio	=	**0.777** : 1
Section used for this span		**4x10** NDS2018	Section used for this span		**4x10** NDS2018
fb: Actual	=	1,410.95 psi	fv: Actual	=	132.10 psi
F'b	=	1,560.00 psi	F'v	=	170.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	3.125 ft	Location of maximum on span	=	5.497 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.056 in	Ratio =	1336	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.112 in	Ratio =	667	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.503	0.432	0.90	1.00	1.00	1.00	1.200	1.00	1.00	1.00	2.94	706.6	1,404.0	1.43	66.2	153.0
+D+L					1.00	1.00	1.00	1.200	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.904	0.777	1.00	1.00	1.00	1.00	1.200	1.00	1.00	1.00	5.87	1,410.9	1,560.0	2.85	132.1	170.0
+D+0.750L					1.00	1.00	1.00	1.200	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	1	0.633	0.544	1.25	1.00	1.00	1.00	1.200	1.00	1.00	1.00	5.14	1,234.9	1,950.0	2.50	115.6	212.5

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 6'-3" Interior (4x check. 6x okay by inspection)

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.200	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.250 ft	**1**	0.170	0.146	1.60	1.00	1.00	1.00	1.200	1.00	1.00	1.00	1.76	423.9	2,496.0	0.86	39.7	272.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.1124	3.148		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	3.756	3.756
Max Upward from Load Combinations	3.756	3.756
Max Upward from Load Cases	1.881	1.881
D Only	1.881	1.881
+D+L	3.756	3.756
+D+0.750L	3.287	3.287
+0.60D	1.129	1.129
L Only	1.875	1.875

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 8' Interior Header - Parallel

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-22 / IBC 2024

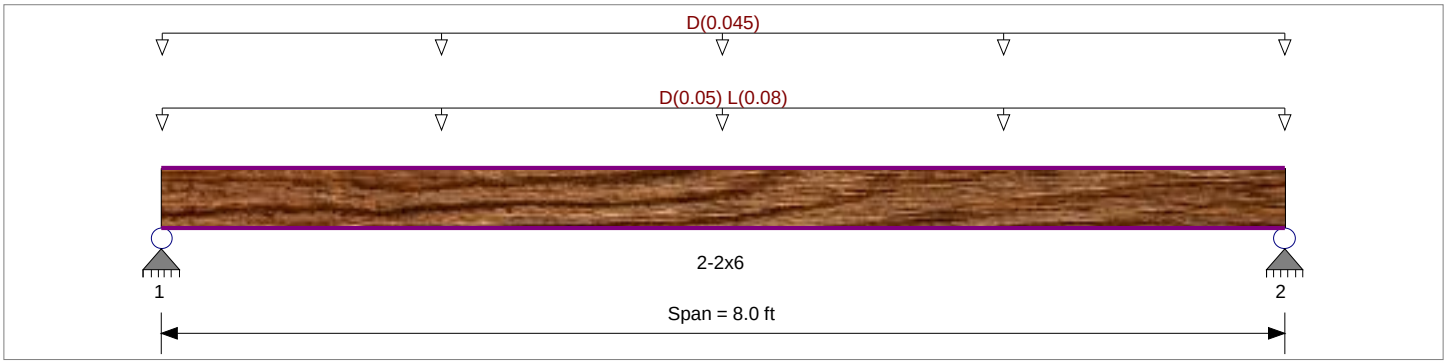
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0250, L = 0.040 ksf, Tributary Width = 2.0 ft
Uniform Load : D = 0.0150 ksf, Tributary Width = 3.0 ft, (Wall Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	**0.969** : 1	Maximum Shear Stress Ratio	=	**0.321** : 1
Section used for this span		**2-2x6** NDS2018	Section used for this span		**2-2x6** NDS2018
fb: Actual	=	1,133.44 psi	fv: Actual	=	57.83 psi
F'b	=	1,170.00 psi	F'v	=	180.00 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	4.000 ft	Location of maximum on span	=	7.562 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.111 in	Ratio =	861	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	>=360	n/a
Max Downward Total Deflection	0.249 in	Ratio =	385	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	>=180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 8.0 ft	1	0.594	0.197	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.79	625.7	1,053.0	0.35	31.9	162.0
+D+L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.0 ft	1	0.969	0.321	1.00	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.43	1,133.4	1,170.0	0.64	57.8	180.0
+D+0.750L					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.0 ft	1	0.688	0.228	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.27	1,006.5	1,462.5	0.56	51.4	225.0

STONEWOOD
STRUCTURAL ENGINEERS

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Beam

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: 8' Interior Header - Parallel

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.0 ft	**1**	0.201	0.067	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.47	375.4	1,872.0	0.21	19.2	288.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.2487	4.029		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	0.714	0.714
Max Upward from Load Combinations	0.714	0.714
Max Upward from Load Cases	0.394	0.394
D Only	0.394	0.394
+D+L	0.714	0.714
+D+0.750L	0.634	0.634
+0.60D	0.237	0.237
L Only	0.320	0.320

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual King Stud

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combinations Used : ASCE 7-22 / IBC 2024

General Information

Analysis Method	Allowable Stress Design		
End Fixities	Top & Bottom Pinned		
Overall Column Height	10 ft		
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch		
Wood Grade	No.2		
Fb +	900 psi	Fv	180 psi
Fb -	900 psi	Ft	575 psi
Fc - Prll	1350 psi	Density	31.21 pcf
Fc - Perp	625 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1600	1600	1600 ksi
Minimum	580	580	

Column Buckling Condition:
ABOUT X-X Axis: Lux = 10 ft, Kx = 1.0
Fully braced against buckling ABOUT Y-Y Axis

Wood Section Name	**2x6**
Wood Grading/Manuf.	Graded Lumber
Wood Member Type	Sawn
Exact Width	**1.50** in
Exact Depth	**5.50** in
Area	8.250 in^2
Ix	20.797 in^4
Iy	1.547 in^4

Allow Stress Modification Factors

Cf or Cv for Bending	1.30
Cf or Cv for Compressio	1.10
Cf or Cv for Tension	1.30
Cm : Wet Use Factor	1.0
Ct : Temperature Fact	1.0
Cfu : Flat Use Factor	1.0
Kf about Y	1.0
Kf about X	1.0
Use Cr : Repetitive ?	No

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 17.881 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 10.0 ft, D = 0.90, L = 1.40 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.3476 : 1**

Load Combination	+D+L
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are .	
Applied Axial	2.318 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	808.37 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	10.0 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors

	Bending	Compression	Shear

Load Combination Results

Load Combination	C_D	Controlling Cp Value	Controlling Cp About	Max Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Max Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.585	X Axis	0.1424	PASS	0.0 ft	0.0	PASS	10.0 ft
+D+L	1.000	0.544	X Axis	0.3476	PASS	0.0 ft	0.0	PASS	10.0 ft
+D+0.750L	1.250	0.461	X Axis	0.2789	PASS	0.0 ft	0.0	PASS	10.0 ft
+0.60D	1.600	0.376	X Axis	0.07469	PASS	0.0 ft	0.0	PASS	10.0 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
D Only					0.918				

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual King Stud

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
+D+L					2.318				
+D+0.750L					1.968				
+0.60D					0.551				
L Only					1.400				

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Axial, Base Max		2.318								
Axial, Base Min		0.551								
Rx, Base Max										
Rx, Base Min										
Rx, Top Max										
Rx, Top Min										
Ry, Base Max										
Ry, Base Min										
Ry, Top Max										
Ry, Top Min										

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000ft	0.000 in	0.000 ft

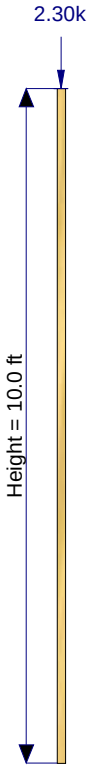
Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

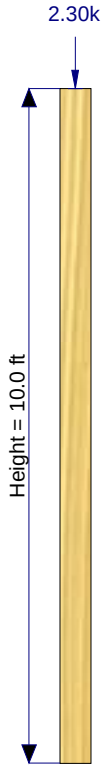
DESCRIPTION: Worst Individual King Stud

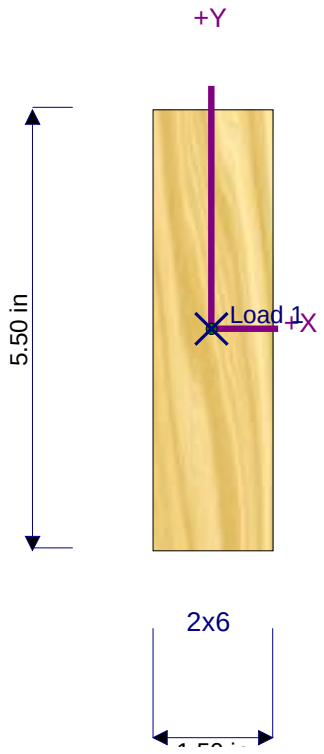
Sketches

My Loads - Looking along Y-Y Axis



Mx Loads - Looking along X-X Axis





Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual King Stud

1.50 in

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Copy of Worst Individual King Stud

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combinations Used : ASCE 7-22 / IBC 2024

General Information

Analysis Method	Allowable Stress Design		
End Fixities	Top & Bottom Pinned		
Overall Column Height	10 ft		
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch		
Wood Grade	No.2		
Fb +	900.0 psi	Fv	180.0 psi
Fb -	900.0 psi	Ft	575.0 psi
Fc - Prll	1,350.0 psi	Density	31.210 pcf
Fc - Perp	625.0 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Column Buckling Condition:
ABOUT X-X Axis: Lux = 10 ft, Kx = 1.0
Fully braced against buckling ABOUT Y-Y Axis

Wood Section Name	**2x4**		
Wood Grading/Manuf.	Graded Lumber		
Wood Member Type	Sawn		
Exact Width	**1.50** in	Allow Stress Modification Factors	
Exact Depth	**3.50** in	Cf or Cv for Bending	1.50
Area	5.250 in^2	Cf or Cv for Compressio	1.150
Ix	5.359 in^4	Cf or Cv for Tension	1.50
Iy	0.9844 in^4	Cm : Wet Use Factor	1.0
		Ct : Temperature Fact	1.0
		Cfu : Flat Use Factor	1.0
		Kf about Y	1.0
		Kf about X	1.0
		Use Cr : Repetitive ?	No

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 11.379 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 10.0 ft, D = 0.570, L = 0.90 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.7409 : 1**

Load Combination	+D+L
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are .	
Applied Axial	1.481 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	380.822 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	10.0 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors

	Bending	Compression	Shear

Load Combination Results

Load Combination	C_D	Controlling Cp Value	Controlling Cp About	Max Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Max Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.270	X Axis	0.2933	PASS	0.0 ft	0.0	PASS	10.0 ft
+D+L	1.000	0.245	X Axis	0.7409	PASS	0.0 ft	0.0	PASS	10.0 ft
+D+0.750L	1.250	0.199	X Axis	0.6194	PASS	0.0 ft	0.0	PASS	10.0 ft
+0.60D	1.600	0.157	X Axis	0.1699	PASS	0.0 ft	0.0	PASS	10.0 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
D Only					0.581				

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Copy of Worst Individual King Stud

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
+D+L					1.481				
+D+0.750L					1.256				
+0.60D					0.349				
L Only					0.900				

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Axial, Base Max		1.481								
Axial, Base Min		0.349								
Rx, Base Max										
Rx, Base Min										
Rx, Top Max										
Rx, Top Min										
Ry, Base Max										
Ry, Base Min										
Ry, Top Max										
Ry, Top Min										

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000ft	0.000 in	0.000 ft

Wood Column

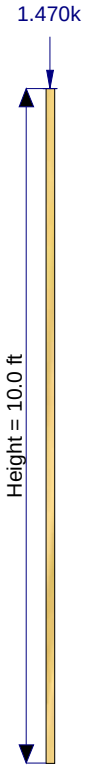
Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

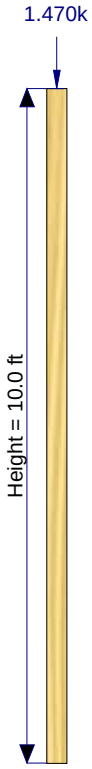
DESCRIPTION: Copy of Worst Individual King Stud

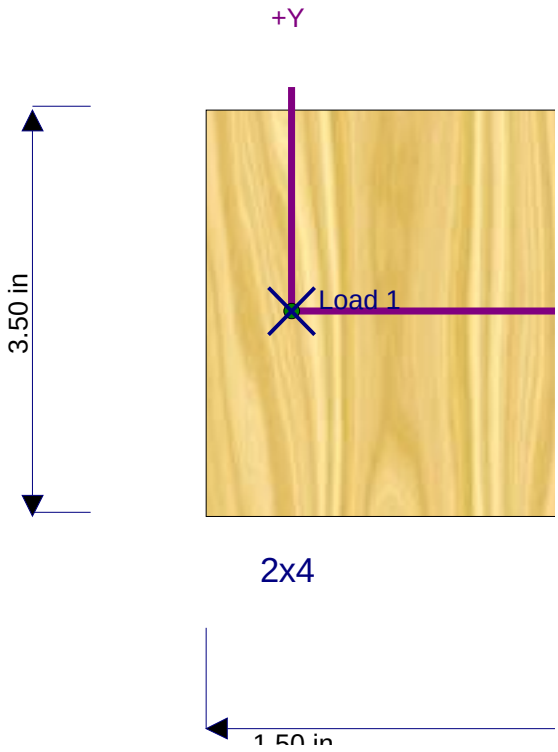
Sketches

My Loads - Looking along Y-Y Axis



Mx Loads - Looking along X-X Axis





Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Copy of Worst Individual King Stud

1.50 in

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual King Stud - Exterior

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combinations Used : ASCE 7-22 / IBC 2024

General Information

Analysis Method	Allowable Stress Design			Wood Section Name	**2x8**
End Fixities	Top & Bottom Pinned			Wood Grading/Manuf.	Graded Lumber
Overall Column Height	10 ft			Wood Member Type	Sawn
(Used for non-slender calculations)				Exact Width	**1.50** in
Wood Species	Douglas Fir-Larch			Exact Depth	**7.250** in
Wood Grade	No.2			Area	10.875 in^2
Fb +	900.0 psi	Fv	180.0 psi	Ix	47.635 in^4
Fb -	900.0 psi	Ft	575.0 psi	Iy	2.039 in^4
Fc - Prll	1,350.0 psi	Density	31.210 pcf		
Fc - Perp	625.0 psi				

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Column Buckling Condition:
ABOUT X-X Axis: Lux = 10 ft, Kx = 1.0
Fully braced against buckling ABOUT Y-Y Axis

Allow Stress Modification Factors

Cf or Cv for Bending	1.20
Cf or Cv for Compressio	1.050
Cf or Cv for Tension	1.20
Cm : Wet Use Factor	1.0
Ct : Temperature Fact	1.0
Cfu : Flat Use Factor	1.0
Kf about Y	1.0
Kf about X	1.0
Use Cr : Repetitive ?	No

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 23.570 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 10.0 ft, D = 1.350, L = 1.250 k
BENDING LOADS . . .
Lat. Uniform Load creating Mx-x, W = 0.070 k/ft

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.5676 : 1**
Load Combination +D+0.60W
Governing NDS Forumla Comp + Mxx, NDS Eq. 3.9-3
Location of max.above base 4.966 ft
At maximum location values are .
Applied Axial 1.374 k
Applied Mx 0.5250 k-ft
Applied My 0.0 k-ft
Fc : Allowable 1,346.63 psi

PASS Maximum Shear Stress Ratio = **0.1006 : 1**
Load Combination +D+0.60W
Location of max.above base 10.0 ft
Applied Design Shear 43.448 psi
Allowable Shear 288.0 psi

Maximum SERVICE Lateral Load Reactions . .
Top along Y-Y 0.350 k Bottom along Y-Y 0.350 k
Top along X-X 0.0 k Bottom along X-X 0.0 k

Maximum SERVICE Load Lateral Deflections . . .
Along Y-Y 0.2089 in at 5.034 ft above base
for load combination : W Only
Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors

	Bending	Compression	Shear

Load Combination Results

Load Combination	C_D	Controlling Cp Value	Controlling Cp About	Max Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Max Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.786	X Axis	0.1259	PASS	0.0 ft	0.0	PASS	10.0 ft
+D+L	1.000	0.757	X Axis	0.2249	PASS	0.0 ft	0.0	PASS	10.0 ft
+D+0.750L	1.250	0.685	X Axis	0.1752	PASS	0.0 ft	0.0	PASS	10.0 ft
+D+0.60W	1.600	0.594	X Axis	0.5676	PASS	4.966 ft	0.1006	PASS	10.0 ft
+D+0.750L+0.450W	1.600	0.594	X Axis	0.4677	PASS	4.966 ft	0.07543	PASS	10.0 ft
+0.60D+0.60W	1.600	0.594	X Axis	0.5451	PASS	4.966 ft	0.1006	PASS	10.0 ft
+0.60D	1.600	0.594	X Axis	0.05628	PASS	0.0 ft	0.0	PASS	10.0 ft

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual King Stud - Exterior

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
D Only					1.374				
+D+L					2.624				
+D+0.750L					2.311				
+D+0.60W			-0.210	-0.210	1.374				
+D+0.750L+0.450W			-0.158	-0.158	2.311				
+0.60D+0.60W			-0.210	-0.210	0.824				
+0.60D					0.824				
L Only					1.250				
W Only			-0.350	-0.350					

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Axial, Base Max	2.624									
Axial, Base Min										
Rx, Base Max										
Rx, Base Min										
Rx, Top Max										
Rx, Top Min										
Ry, Base Max										
Ry, Base Min	-0.350									
Ry, Top Max										
Ry, Top Min	-0.350									

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.60W	0.0000 in	0.000 ft	0.125 in	5.034 ft
+D+0.750L+0.450W	0.0000 in	0.000 ft	0.094 in	5.034 ft
+0.60D+0.60W	0.0000 in	0.000 ft	0.125 in	5.034 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
W Only	0.0000 in	0.000 ft	0.209 in	5.034 ft

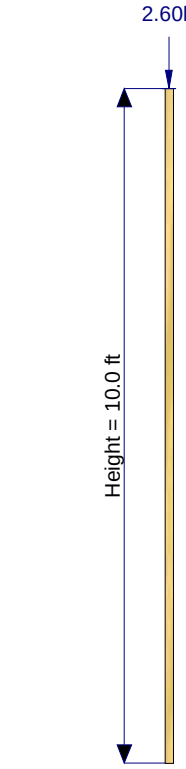
Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

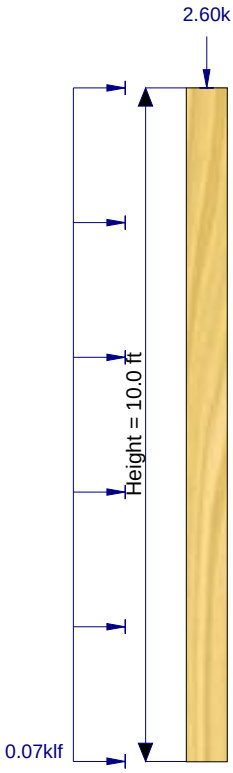
DESCRIPTION: Worst Individual King Stud - Exterior

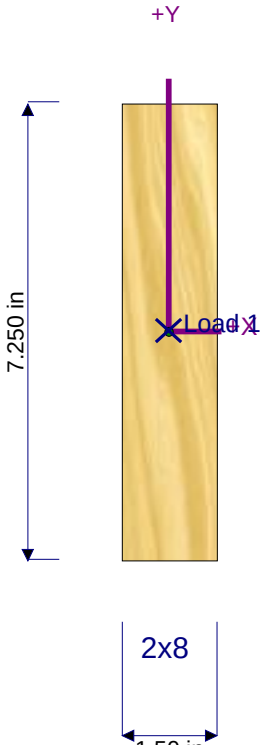
Sketches

My Loads - Looking along Y-Y Axis



Mx Loads - Looking along X-X Axis





Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual King Stud - Exterior

1.50 in

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual Trimmer

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combinations Used : ASCE 7-22 / IBC 2024

General Information

Analysis Method	Allowable Stress Design		
End Fixities	Top & Bottom Pinned		
Overall Column Height	8 ft		
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch		
Wood Grade	No.2		
Fb +	900.0 psi	Fv	180.0 psi
Fb -	900.0 psi	Ft	575.0 psi
Fc - Prll	1,350.0 psi	Density	31.210 pcf
Fc - Perp	625.0 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Column Buckling Condition:
ABOUT X-X Axis: Lux = 8 ft, Kx = 1.0
Fully braced against buckling ABOUT Y-Y Axis

Wood Section Name	**2x6**		
Wood Grading/Manuf.	Graded Lumber		
Wood Member Type	Sawn		
Exact Width	**1.50** in	Allow Stress Modification Factors	
Exact Depth	**5.50** in	Cf or Cv for Bending	1.30
Area	8.250 in^2	Cf or Cv for Compressio	1.10
Ix	20.797 in^4	Cf or Cv for Tension	1.30
Iy	1.547 in^4	Cm : Wet Use Factor	1.0
		Ct : Temperature Fact	1.0
		Cfu : Flat Use Factor	1.0
		Kf about Y	1.0
		Kf about X	1.0
		Use Cr : Repetitive ?	No

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 14.305 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 8.0 ft, D = 1.510, L = 2.40 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.4519 : 1**

Load Combination	+D+L
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are .	
Applied Axial	3.924 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	1,052.54 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	8.0 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors

	Bending	Compression	Shear

Load Combination Results

Load Combination	C D	Controlling Cp Value	Controlling Cp About	Max Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Max Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.743	X Axis	0.1862	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+L	1.000	0.709	X Axis	0.4519	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+0.750L	1.250	0.629	X Axis	0.3449	PASS	0.0 ft	0.0	PASS	8.0 ft
+0.60D	1.600	0.535	X Axis	0.08716	PASS	0.0 ft	0.0	PASS	8.0 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
D Only					1.524				

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual Trimmer

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
+D+L					3.924				
+D+0.750L					3.324				
+0.60D					0.915				
L Only					2.400				

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Axial, Base Max		3.924								
Axial, Base Min		0.915								
Rx, Base Max										
Rx, Base Min										
Rx, Top Max										
Rx, Top Min										
Ry, Base Max										
Ry, Base Min										
Ry, Top Max										
Ry, Top Min										

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000ft	0.000 in	0.000 ft

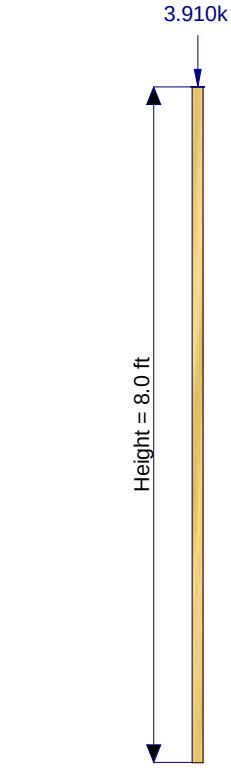
Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

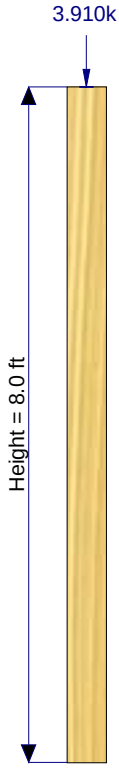
DESCRIPTION: Worst Individual Trimmer

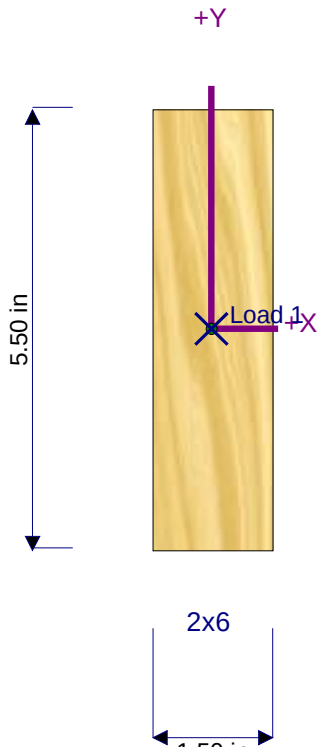
Sketches

My Loads - Looking along Y-Y Axis



Mx Loads - Looking along X-X Axis





Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual Trimmer

1.50 in

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Copy of Worst Individual Trimmer

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combinations Used : ASCE 7-22 / IBC 2024

General Information

Analysis Method	Allowable Stress Design		
End Fixities	Top & Bottom Pinned		
Overall Column Height	7 ft		
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch		
Wood Grade	No.2		
Fb +	900.0 psi	Fv	180.0 psi
Fb -	900.0 psi	Ft	575.0 psi
Fc - Prll	1,350.0 psi	Density	31.210 pcf
Fc - Perp	625.0 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Column Buckling Condition:
ABOUT X-X Axis: Lux = 7 ft, Kx = 1.0
Fully braced against buckling ABOUT Y-Y Axis

Wood Section Name	**2x4**		
Wood Grading/Manuf.	Graded Lumber		
Wood Member Type	Sawn		
Exact Width	**1.50** in	Allow Stress Modification Factors	
Exact Depth	**3.50** in	Cf or Cv for Bending	1.50
Area	5.250 in^2	Cf or Cv for Compressio	1.150
Ix	5.359 in^4	Cf or Cv for Tension	1.50
Iy	0.9844 in^4	Cm : Wet Use Factor	1.0
		Ct : Temperature Fact	1.0
		Cfu : Flat Use Factor	1.0
		Kf about Y	1.0
		Kf about X	1.0
		Use Cr : Repetitive ?	No

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 7.965 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 7.0 ft, D = 1.390, L = 2.20 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.9671 : 1**

Load Combination	+D+L
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are .	
Applied Axial	3.598 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	708.67 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	7.0 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors

	Bending	Compression	Shear

Load Combination Results

Load Combination	C_D	Controlling Cp Value	Controlling Cp About	Max Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Max Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.495	X Axis	0.3848	PASS	0.0 ft	0.0	PASS	7.0 ft
+D+L	1.000	0.456	X Axis	0.9671	PASS	0.0 ft	0.0	PASS	7.0 ft
+D+0.750L	1.250	0.380	X Axis	0.7874	PASS	0.0 ft	0.0	PASS	7.0 ft
+0.60D	1.600	0.306	X Axis	0.2101	PASS	0.0 ft	0.0	PASS	7.0 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
D Only					1.398				

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Copy of Worst Individual Trimmer

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
+D+L					3.598				
+D+0.750L					3.048				
+0.60D					0.839				
L Only					2.200				

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Axial, Base Max		3.598								
Axial, Base Min		0.839								
Rx, Base Max										
Rx, Base Min										
Rx, Top Max										
Rx, Top Min										
Ry, Base Max										
Ry, Base Min										
Ry, Top Max										
Ry, Top Min										

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000ft	0.000 in	0.000 ft

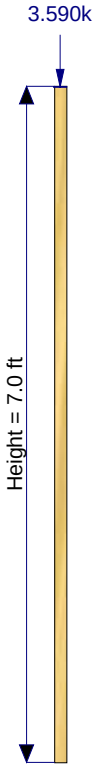
Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

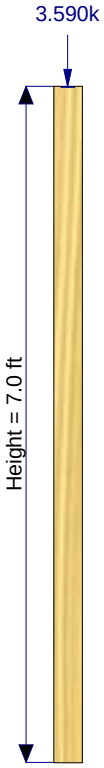
DESCRIPTION: Copy of Worst Individual Trimmer

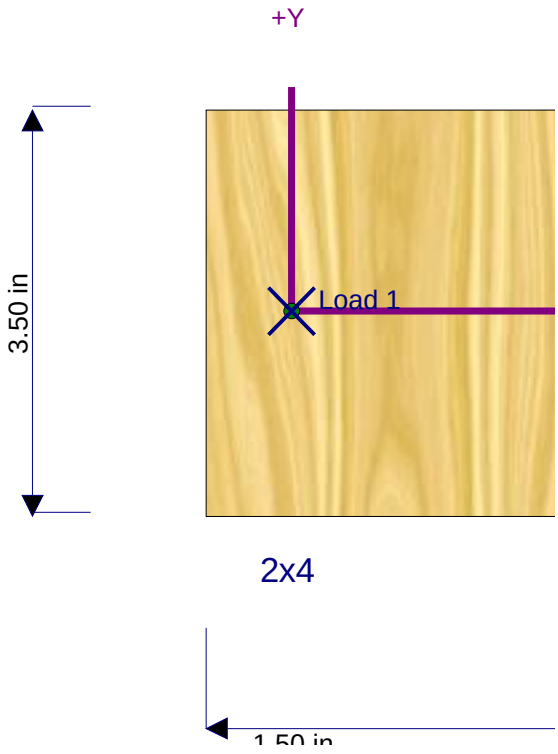
Sketches

My Loads - Looking along Y-Y Axis



Mx Loads - Looking along X-X Axis





Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Copy of Worst Individual Trimmer

1.50 in

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual Trimmer Exterior

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : NDS 2018
Load Combinations Used : ASCE 7-22 / IBC 2024

General Information

Analysis Method	Allowable Stress Design		
End Fixities	Top & Bottom Pinned		
Overall Column Height	8 ft		
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch		
Wood Grade	No.2		
Fb +	900.0 psi	Fv	180.0 psi
Fb -	900.0 psi	Ft	575.0 psi
Fc - Prll	1,350.0 psi	Density	31.210 pcf
Fc - Perp	625.0 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Column Buckling Condition:
ABOUT X-X Axis: Lux = 8 ft, Kx = 1.0
Fully braced against buckling ABOUT Y-Y Axis

Wood Section Name	**2x8**		
Wood Grading/Manuf.	Graded Lumber		
Wood Member Type	Sawn		
Exact Width	**1.50** in	Allow Stress Modification Factors	
Exact Depth	**7.250** in	Cf or Cv for Bending	1.20
Area	10.875 in^2	Cf or Cv for Compressio	1.050
Ix	47.635 in^4	Cf or Cv for Tension	1.20
Iy	2.039 in^4	Cm : Wet Use Factor	1.0
		Ct : Temperature Fact	1.0
		Cfu : Flat Use Factor	1.0
		Kf about Y	1.0
		Kf about X	1.0
		Use Cr : Repetitive ?	No

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 18.856 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 8.0 ft, D = 2.10, L = 2.10 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.3182 : 1**

Load Combination	+D+L
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are .	
Applied Axial	4.219 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	1,219.27 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	8.0 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors

	Bending	Compression	Shear

Load Combination Results

Load Combination	C_D	Controlling Cp Value	Controlling Cp About	Max Axial + Bending Stress Ratio	Status	Location	Max Shear Ratio	Status	Location
D Only	0.900	0.877	X Axis	0.1741	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+L	1.000	0.860	X Axis	0.3182	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+0.750L	1.250	0.815	X Axis	0.2351	PASS	0.0 ft	0.0	PASS	8.0 ft
+0.60D	1.600	0.750	X Axis	0.06875	PASS	0.0 ft	0.0	PASS	8.0 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
D Only					2.119				

STONEWOOD

Project Title: Puyallup Bell
Engineer: RRA
Project ID: 25-063
Project Descr: Header and Stud Calcs

Wood Column

Project File: Bell_headerstuds.ec6

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual Trimmer Exterior

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Axial (k) @ Base	My (k-ft) @ Base	My (k-ft) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top
+D+L					4.219				
+D+0.750L					3.694				
+0.60D					1.271				
L Only					2.100				

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Axial, Base Max		4.219								
Axial, Base Min		1.271								
Rx, Base Max										
Rx, Base Min										
Rx, Top Max										
Rx, Top Min										
Ry, Base Max										
Ry, Base Min										
Ry, Top Max										
Ry, Top Min										

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000ft	0.000 in	0.000 ft

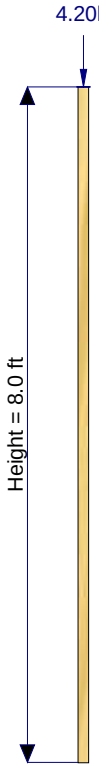
Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

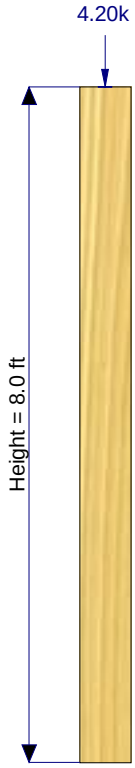
DESCRIPTION: Worst Individual Trimmer Exterior

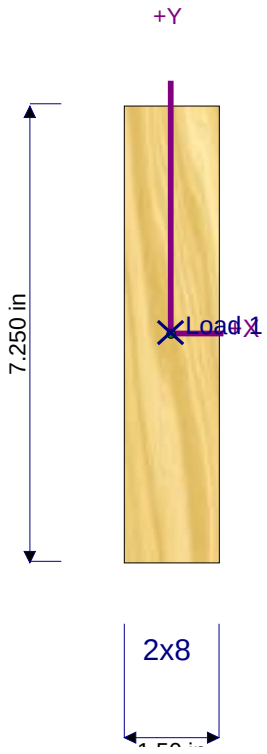
Sketches

My Loads - Looking along Y-Y Axis



Mx Loads - Looking along X-X Axis





Wood Column

LIC# : KW-06014924, Build:20.26.02.06 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Worst Individual Trimmer Exterior

1.50 in

FRAMING NOTES:

1. SEE TYPICAL WOOD FRAMING DETAIL SHEET FOR TYPICAL DETAILS.
2. DENOTES SHEAR WALL BELOW, SEE LEVEL 2 FRAMING PLAN FOR TYPE AND SHEAR WALL SCHEDULE FOR REQUIREMENTS.
3. DENOTES BEARING WALL OR COLUMN BELOW, IN ADDITION EXTERIOR AND CORRIDOR WALLS ARE ALL BEARING. SEE WALL SCHEDULE FOR WALL SIZE AND SPACING.
4. OTHER TRADES TO DESIGN THEIR SYSTEMS TO ACCOMMODATE 3/8" WOOD SHRINKAGE PER FLOOR.
5. SEE S502 FOR ACCEPTABLE HOLE SIZE/LOCATION FOR FLOOR JOISTS AND BEAMS.
6. PLYWOOD OR OSB WITH OVER DRIVEN FASTENERS MAY BE REJECTED AND HAVE TO BE REPLACED. NO MORE THAN 20% OF PERIMETER FASTENERS CAN BE OVERDRIVEN BY NO MORE THAN 1/8"
7. SILL PLATES, TOP PLATES AND BEAMS SHALL HAVE MC15 MAXIMUM WHEN INSTALLED. WALL STUDS AND COLUMNS TO HAVE MC19 MAXIMUM WHEN INSTALLED.
8. TYPICAL FLOOR JOISTS ARE 2x12 AT 16"oc UNLESS NOTED OTHERWISE.
9. DENOTES HANGER, SEE HANGER SCHEDULE FOR TYPICAL HANGERS UNLESS NOTED ON PLAN. FIRE PROTECTION AT XHR BEAMS PER ARCHITECT.
10. ALL WOOD IN CONTACT WITH CONCRETE AND NOT EXPOSED TO WETTING SHALL BE BORATE TREATED. GALVANIZING OF BOLTS AND FASTENERS NOT REQUIRED AT BORATE TREATED WOOD. PROVIDE SILL GASKETS BETWEEN SILL AND CONCRETE.
11. SEE 4/ S520 FOR BLOCK OUTS AT ELECTRICAL PANELS AND FIRE EXTINGUISHER CABINETS.
12. DIAPHRAGM IS UNBLOCKED UNLESS NOTED OTHERWISE.
13. DENOTES SIMPSON COILED STRAP OF TYPE INDICATED ON PLAN, USE 0.148" x 3" NAILS IN EVERY OTHER STRAP HOLE FOR FLOOR AND WALL SHEATHING, FOR TOTAL LENGTH SHOWN ON PLAN UNLESS NOTED OTHERWISE. PROVIDE 2x4 FLAT BLOCKING UNDER STRAP AS INDICATED ON PLAN.
14. (W)JT — DENOTES NUMBER OF KING AND TRIMMER STUDS AT NON-TYPICAL BUILT UP COLUMNS. AT LOCATIONS WITHOUT A TAG PROVIDE KINGS AND TRIMMERS PER OPENING SCHEDULE.
15. INDICATES ZONE AT ENDS OF SHEAR WALLS FOR COMPRESSION POST AND HOLDOWNS PER PLAN AND TABLE. THIS ZONE IS APPROXIMATELY 12" AT 6x WALLS, NO PLUMBING, MECHANICAL OR ELECTRICAL COMPONENTS SHALL RUN HORIZONTALLY OR VERTICALLY THROUGH THIS ZONE.
16. PF(X) — DENOTES PRIMARY FRAME MEMBERS THAT REQUIRE (X) HOURS OF FIRE PROTECTION. PRIMARY FRAME MEMBERS REQUIRE INDIVIDUAL DRYWALL ENCASEMENT, SEE ARCHITECT AND STRUCTURAL FOR MORE INFORMATION.
17. FWH — INDICATES FIRE WALL HANGER, SEE SCHEDULE FOR REQUIREMENTS.
18. SILL PLATES, TOP PLATES AND BEAMS SHALL HAVE MC15 MAXIMUM WHEN INSTALLED. WALL STUDS AND COLUMNS TO HAVE MC19 MAXIMUM WHEN INSTALLED.
19. CHAR (X) — DENOTES WOOD MEMBERS THAT HAVE BEEN DESIGNATED FOR X HOURS OF FIRE PROTECTION USING THE AWC FIRE DESIGN SPECIFICATION. ADDITIONAL TENSION LAMINATIONS TO BE ADDED TO XHR GLULAM BEAMS PER DETAILS 5 / S505 AND 6 / S505

BEARING WALL SCHEDULE

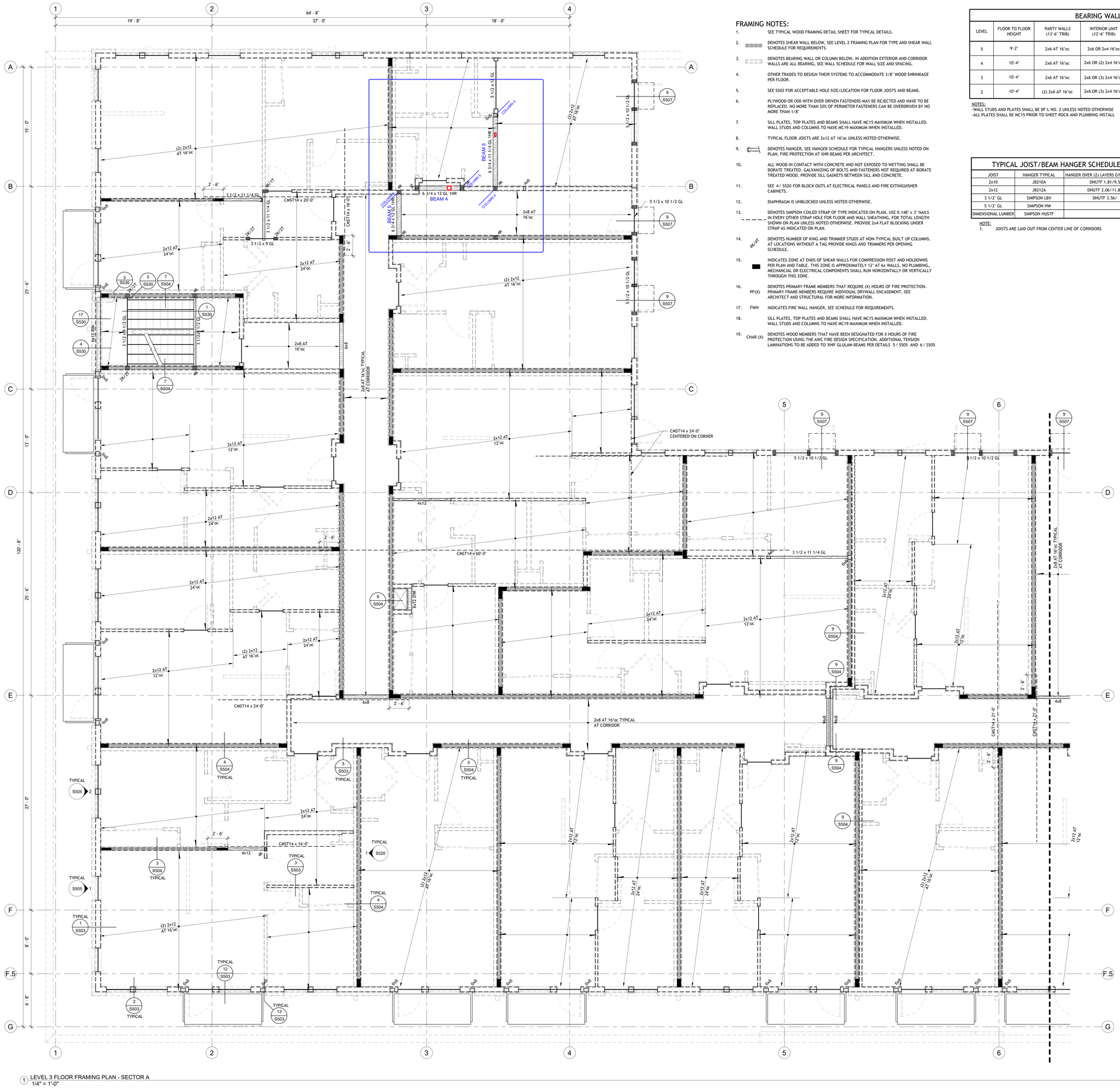
LEVEL	FLOOR TO FLOOR HEIGHT	PARTY WALLS (13'-6" TRIB)	INTERIOR UNIT (12'-6" TRIB)	INTERIOR UNIT (15'-6" TRIB)	CORRIDOR	EXTERIOR
5	9'-2"	2x6 AT 16"oc	2x6 OR 2x4 16"oc	2x6 OR 2x4 16"oc	2x6 AT 16"oc	2x8 AT 16"oc
4	10'-4"	2x6 AT 16"oc	2x6 OR (2) 2x4 16"oc	2x6 OR (2) 2x4 16"oc	2x6 AT 16"oc	2x8 AT 16"oc
3	10'-4"	2x6 AT 16"oc	2x6 OR (3) 2x4 16"oc	2x6 OR (3) 2x4 16"oc	(2) 2x6 AT 16"oc	2x8 AT 16"oc
2	10'-4"	(2) 2x6 AT 16"oc	2x6 OR (3) 2x4 16"oc	2x6 OR (4) 2x4 16"oc	(2) 2x6 AT 16"oc	2x8 AT 16"oc

NOTES:
-WALL STUDS AND PLATES SHALL BE DF-L NO. 2 UNLESS NOTED OTHERWISE
-ALL PLATES SHALL BE MC15 PRIOR TO SHEET ROCK AND PLUMBING INSTALL

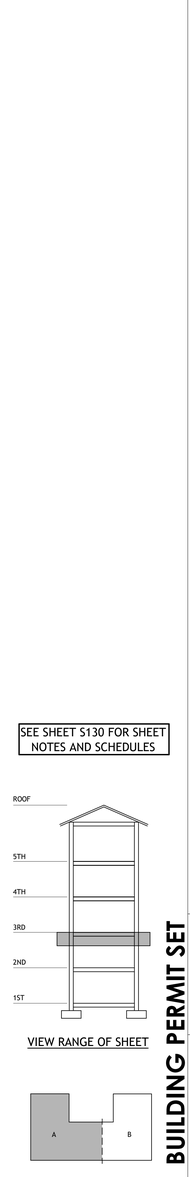
TYPICAL JOIST/BEAM HANGER SCHEDULE

JOIST	HANGER TYPICAL	HANGER OVER (2) LAYERS GYPSUM BOARD
2x10	JB210A	DHUTF 1.81/9.5
2x12	JB212A	DHUTF 2.06/11.88
3 1/2" GL	SIMPSON LBV	DHUTF 3.56/
5 1/2" GL	SIMPSON HW	
DIMENSIONAL LUMBER	SIMPSON HUSTF	

NOTE:
1. JOISTS ARE LAID OUT FROM CENTER LINE OF CORRIDORS



1 LEVEL 3 FLOOR FRAMING PLAN - SECTOR A
1/4" = 1'-0"



VIEW RANGE OF SHEET

SEE SHEET S130 FOR SHEET NOTES AND SCHEDULES

C2K
ARCHITECTURE
1645 NW HOYT
PORTLAND OREGON 97209
503 444 2200

STONEWOOD
STRUCTURAL ENGINEERS
2001 NW 19th Ave STE 103A
Portland, OR 97209
360.216.1704
www.stonewoodstructural.com

PUYALLUP BELL PLACE

OWNER:
URBAN PUYALLUP MIXED USE LLC

ADDRESS:
204 4TH ST SW
PUYALLUP, WA 98371

PROJECT NO.: 25-063
DRAWN: AAS
DATE: 20 MARCH 2026
BUILDING PERMIT SET
REVISION: DESCRIPTION:

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BUILDING PERMIT SET

SHEET TITLE:
LEVEL 3 FRAMING PLAN SECTOR A

SHEET NO.:
S203A

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B69

BEARING WALL SCHEDULE

LEVEL	FLOOR TO FLOOR HEIGHT	PARTY WALLS (13'-6" TRIB)	INTERIOR UNIT (12'-6" TRIB)	INTERIOR UNIT (15'-6" TRIB)	CORRIDOR	EXTERIOR
5	9'-2"	2x6 AT 16'oc	2x6 OR 2x4 16'oc	2x6 OR 2x4 16'oc	2x6 AT 16'oc	2x8 AT 16'oc
4	10'-4"	2x6 AT 16'oc	2x6 OR (2) 2x4 16'oc	2x6 OR (2) 2x4 16'oc	2x6 AT 16'oc	2x8 AT 16'oc
3	10'-4"	2x6 AT 16'oc	2x6 OR (3) 2x4 16'oc	2x6 OR (3) 2x4 16'oc	(2) 2x6 AT 16'oc	2x8 AT 16'oc
2	10'-4"	(2) 2x6 AT 16'oc	2x6 OR (3) 2x4 16'oc	2x6 OR (4) 2x4 16'oc	(2) 2x6 AT 16'oc	2x8 AT 16'oc

NOTES:
-WALL STUDS AND PLATES SHALL BE DF-L NO. 2 UNLESS NOTED OTHERWISE
-ALL PLATES SHALL BE MC15 PRIOR TO SHEET ROCK AND PLUMBING INSTALL

INTERIOR BEARING WALL KING AND TRIMMER STUD SCHEDULE

FLOOR JOISTS PERPENDICULAR

LEVEL	STUD SIZE	OPENING WIDTH					
		UP TO 4'-3"		4'-4" TO 6'-3"		6'-3" TO 8'-3"	
		LOW	FLUSH	LOW	FLUSH	LOW	FLUSH
5	2x4	1K/1T	2K	1K/1T	2K	1K/1T	2K
	2x6	1K/1T	2K	1K/1T	2K	1K/1T	2K
4	2x4	2K/1T	3K	2K/1T	3K	2K/2T	4K
	2x6	1K/1T	2K	1K/1T	2K	2K/2T	3K
3	2x4	2K/2T	4K	2K/2T	4K	3K/2T	5K
	2x6	1K/1T	2K	2K/1T	3K	3K/2T	4K
2	2x4	3K/2T	5K	3K/2T	5K	4K/2T	6K
	2x6	2K/1T	3K	2K/2T	4K	3K/2T	5K

NOTE:
-WHERE ROOF TRUSSES ARE PERPENDICULAR AND FLOOR JOISTS ARE PARALLEL PROVIDE NUMBER OF KING AND TRIMMER STUDS PER FLOOR JOIST PARALLEL CONDITION

EXTERIOR BEARING WALL KING AND TRIMMER STUD SCHEDULE

FLOOR JOISTS PERPENDICULAR

LEVEL	OPENING WIDTH		
	4'-3" OR LESS	6'-3" OR LESS	8'-3" OR LESS
5	1K/1T	1K/1T	1K/1T
4	1K/1T	1K/1T	1K/1T
3	1K/1T	1K/2T	1K/2T
2	1K/1T	2K/2T	2K/2T

INTERIOR WALL HEADER SCHEDULE

FLOOR JOISTS PERPENDICULAR

OPENING WIDTH	4x HEADER	6x HEADER	STUDS
UP TO 4'-3"	4x8	6x8	SEE SCHEDULE
4'-3" TO 6'-3"	4x10	6x10	SEE SCHEDULE
6'-3" OR MORE	SEE PLAN	SEE PLAN	SEE SCHEDULE

FLOOR JOISTS PARALLEL

OPENING WIDTH	4x HEADER	6x HEADER	STUDS
UP TO 4'-3"	(2) 2x6	(2) 2x6	1K/1T
4'-3" TO 6'-3"	(2) 2x6	(2) 2x6	1K/1T
6'-6" OR MORE	(2) 2x6	(2) 2x6	2K/2T

NOTE:
-SEE BUILT UP HEADER DETAIL FOR THE REQUIRED ASSEMBLY WHERE 2x SAWN HEADERS ARE CALLED OUT WITHIN THE TABLES ABOVE

EXTERIOR WALL HEADER SCHEDULE

FLOOR JOISTS PERPENDICULAR

OPENING WIDTH	HEADER	SILL	STUDS
UP TO 4'-3"	6x8	(1) 2x	SEE SCHEDULE
4'-3" TO 6'-3"	6x10	(1) 2x	SEE SCHEDULE
8'-3" MAXIMUM	5 1/2 x 12 GL	(2) 2x	SEE SCHEDULE

FLOOR JOISTS PARALLEL

OPENING WIDTH	HEADER	SILL	STUDS
UP TO 4'-3"	(2) 2x6	(1) 2x	1K/1T
4'-3" TO 6'-3"	(3) 2x6	(1) 2x	2K/2T
8'-3" MAXIMUM	6x10	(2) 2x	2K/2T

NOTE:
-SEE BUILT UP HEADER DETAIL FOR THE REQUIRED ASSEMBLY WHERE 2x SAWN HEADERS ARE CALLED OUT WITHIN THE TABLES ABOVE

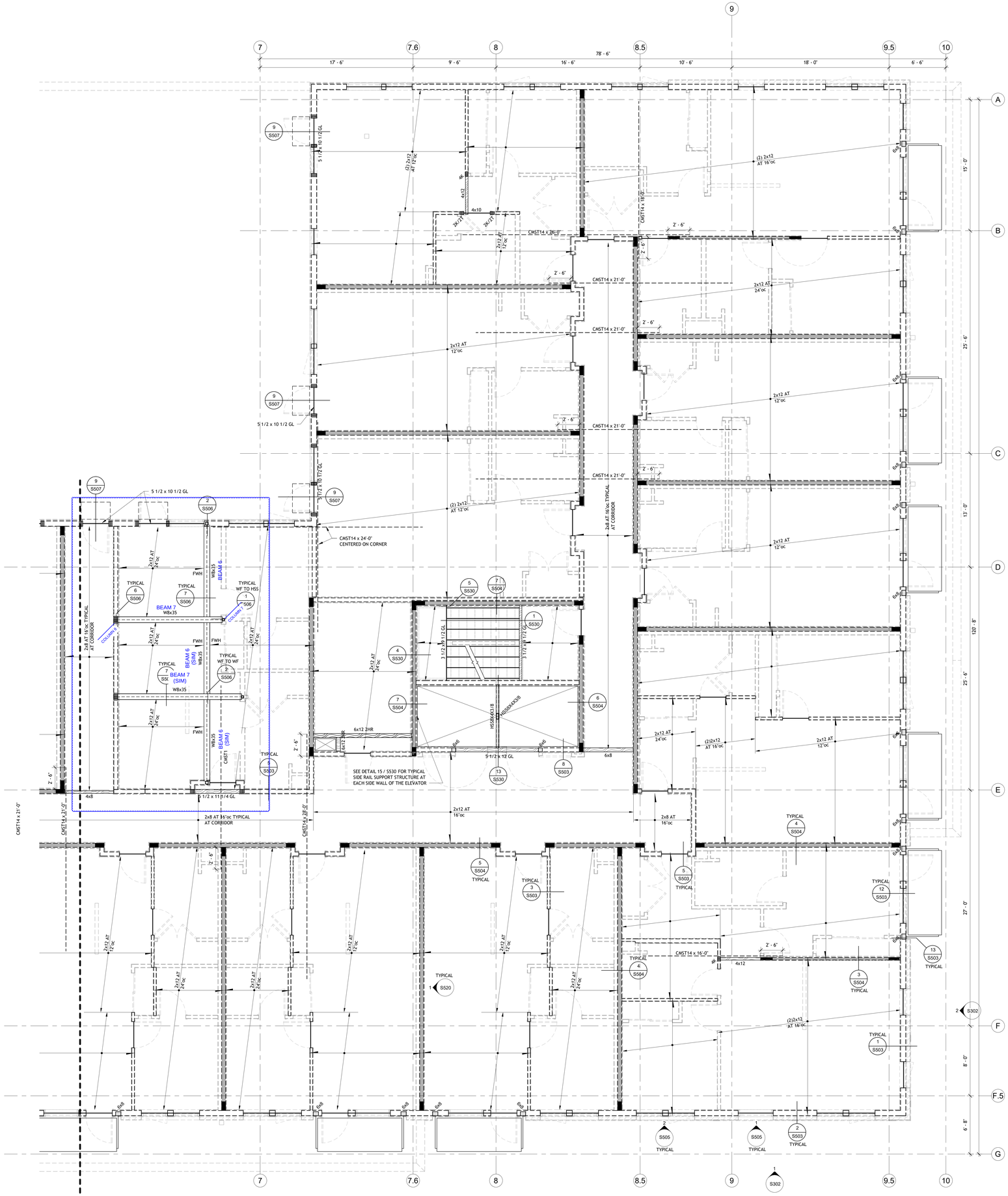
TYPICAL JOIST/BEAM HANGER SCHEDULE

JOIST	HANGER TYPICAL	HANGER OVER (2) LAYERS GYPSUM BOARD
2x10	JB210A	DHUTF 1.81/9.5
2x12	JB212A	DHUTF 2.06/11.88
3 1/2" GL	SIMPSON LBV	DHUTF 3.56/
5 1/2" GL	SIMPSON HW	
DIMENSIONAL LUMBER	SIMPSON HUSTF	

NOTE:
1. JOISTS ARE LAID OUT FROM CENTER LINE OF CORRIDORS

FRAMING NOTES:

1. SEE TYPICAL WOOD FRAMING DETAIL SHEET FOR TYPICAL DETAILS.
2. DENOTES SHEAR WALL BELOW, SEE LEVEL 2 FRAMING PLAN FOR TYPE AND SHEAR WALL SCHEDULE FOR REQUIREMENTS.
3. DENOTES BEARING WALL OR COLUMN BELOW, IN ADDITION EXTERIOR AND CORRIDOR WALLS ARE ALL BEARING, SEE WALL SCHEDULE FOR WALL SIZE AND SPACING.
4. OTHER TRADES TO DESIGN THEIR SYSTEMS TO ACCOMMODATE 3/8" WOOD SHRINKAGE PER FLOOR.
5. SEE S502 FOR ACCEPTABLE HOLE SIZE/LOCATION FOR FLOOR JOISTS AND BEAMS.
6. PLYWOOD OR OSB WITH OVER DRIVEN FASTENERS MAY BE REJECTED AND HAVE TO BE REPLACED. NO MORE THAN 20% OF PERIMETER FASTENERS CAN BE OVERDRIVEN BY NO MORE THAN 1/8"
7. SILL PLATES, TOP PLATES AND BEAMS SHALL HAVE MC15 MAXIMUM WHEN INSTALLED. WALL STUDS AND COLUMNS TO HAVE MC19 MAXIMUM WHEN INSTALLED.
8. TYPICAL FLOOR JOISTS ARE 2x12 AT 16"oc UNLESS NOTED OTHERWISE.
9. DENOTES HANGER, SEE HANGER SCHEDULE FOR TYPICAL HANGERS UNLESS NOTED ON PLAN. FIRE PROTECTION AT XHR BEAMS PER ARCHITECT.
10. ALL WOOD IN CONTACT WITH CONCRETE AND NOT EXPOSED TO WETTING SHALL BE BORATE TREATED. GALVANIZING OF BOLTS AND FASTENERS NOT REQUIRED AT BORATE TREATED WOOD. PROVIDE SILL GASKETS BETWEEN SILL AND CONCRETE.
11. SEE 4 / S520 FOR BLOCK OUTS AT ELECTRICAL PANELS AND FIRE EXTINGUISHER CABINETS.
12. DIAPHRAGM IS UNBLOCKED UNLESS NOTED OTHERWISE.
13. DENOTES SIMPSON COILED STRAP OF TYPE INDICATED ON PLAN, USE 0.148" x 3" NAILS IN EVERY OTHER STRAP HOLE FOR FLOOR AND WALL SHEATHING, FOR TOTAL LENGTH SHOWN ON PLAN UNLESS NOTED OTHERWISE. PROVIDE 2x4 FLAT BLOCKING UNDER STRAP AS INDICATED ON PLAN.
14. PK/FT DENOTES NUMBER OF KING AND TRIMMER STUDS AT NON-TYPICAL BUILT UP COLUMNS. AT LOCATIONS WITHOUT A TAG PROVIDE KINGS AND TRIMMERS PER OPENING SCHEDULE.
15. INDICATES ZONE AT ENDS OF SHEAR WALLS FOR COMPRESSION POST AND HOLDOWNS PER PLAN AND TABLE. THIS ZONE IS APPROXIMATELY 12" AT 6x WALLS, NO PLUMBING, MECHANICAL OR ELECTRICAL COMPONENTS SHALL RUN HORIZONTALLY OR VERTICALLY THROUGH THIS ZONE.
16. PF(X) DENOTES PRIMARY FRAME MEMBERS THAT REQUIRE (X) HOURS OF FIRE PROTECTION. PRIMARY FRAME MEMBERS REQUIRE INDIVIDUAL DRYWALL ENCASEMENT, SEE ARCHITECT AND STRUCTURAL FOR MORE INFORMATION.
17. FWH INDICATES FIRE WALL HANGER, SEE SCHEDULE FOR REQUIREMENTS.
18. SILL PLATES, TOP PLATES AND BEAMS SHALL HAVE MC15 MAXIMUM WHEN INSTALLED. WALL STUDS AND COLUMNS TO HAVE MC19 MAXIMUM WHEN INSTALLED.
19. CHAR (X) DENOTES WOOD MEMBERS THAT HAVE BEEN DESIGNATED FOR X HOURS OF FIRE PROTECTION USING THE AWC FIRE DESIGN SPECIFICATION. ADDITIONAL TENSION LAMINATIONS TO BE ADDED TO 'XHR' GLULAM BEAMS PER DETAILS 5 / S505 AND 6 / S505



1 LEVEL 3 FLOOR FRAMING PLAN - SECTOR B
1/4" = 1'-0"

C2K
ARCHITECTURE
1645 NW HOYT
PORTLAND OREGON 97209
503 444 2200

STONEWOOD
STRUCTURAL ENGINEERS
2001 NW 19th Ave STE 103A
Portland, OR 97209
360.216.1704
www.stonewoodstructural.com

PUYALLUP BELL PLACE

OWNER:
URBAN PUYALLUP MIXED USE LLC

ADDRESS:
204 4TH ST SW
PUYALLUP, WA 98371

PROJECT NO.: 25-063
DRAWN: AAS
DATE: 20 MARCH 2026
BUILDING PERMIT SET
REVISION: DESCRIPTION:

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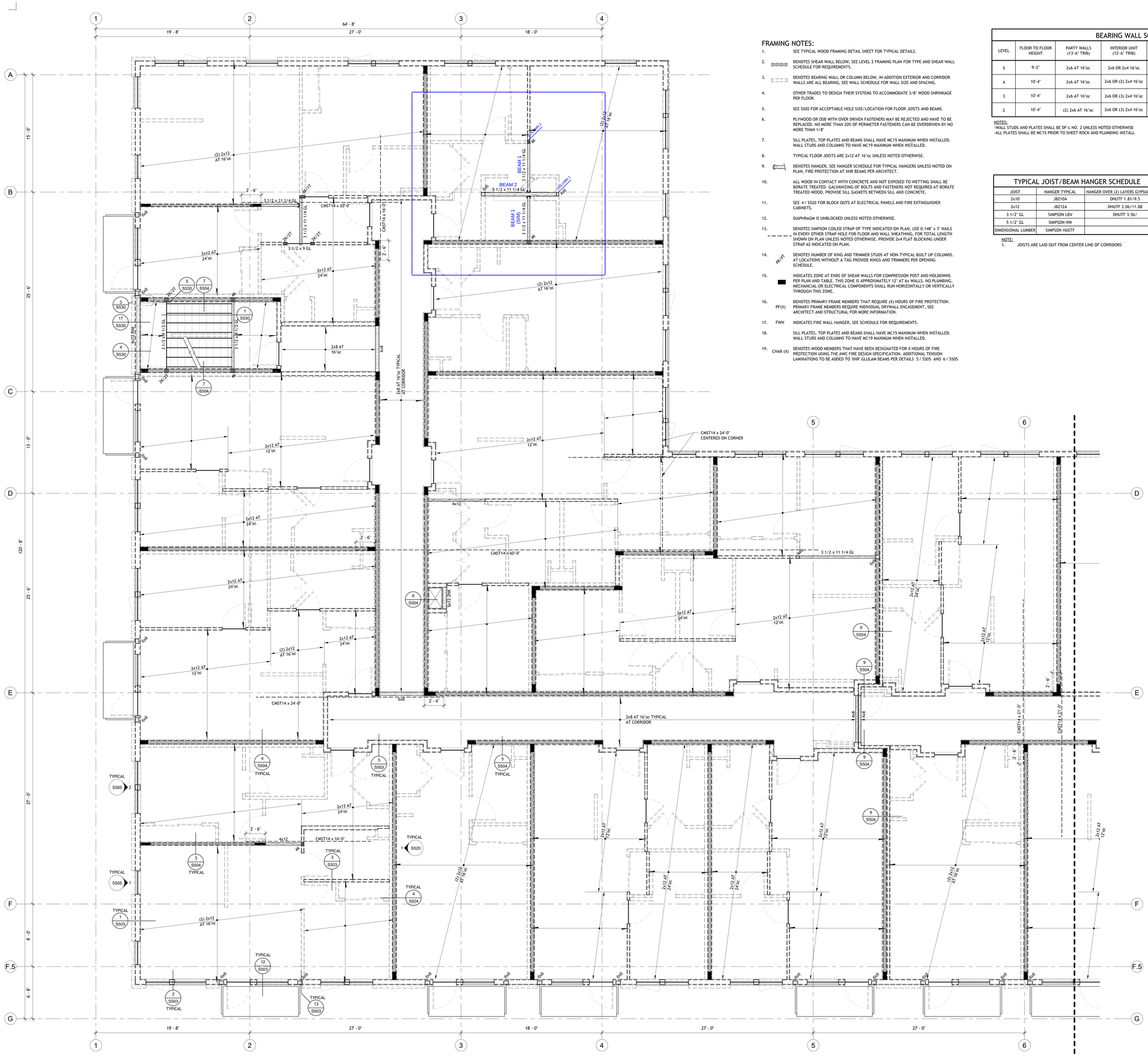
BUILDING PERMIT SET

SHEET TITLE:
LEVEL 3 FRAMING PLAN
SECTOR B

SHEET NO.:
S203B



1 LEVELS 4 & 5 FLOOR FRAMING PLAN - SECTOR A
1/4" = 1'-0"

FRAMING NOTES:

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BEARING WALL SCHEDULE

LEVEL	FLOOR TO FLOOR HEIGHT	PARTY WALLS (13'-6" TRIB)	INTERIOR UNIT (12'-6" TRIB)	INTERIOR UNIT (15'-6" TRIB)	CORRIDOR	EXTERIOR
5	9'-2"	2x6 AT 16"oc	2x6 OR 2x4 16"oc	2x6 OR 2x4 16"oc	2x6 AT 16"oc	2x8 AT 16"oc
4	10'-4"	2x6 AT 16"oc	2x6 OR (2) 2x4 16"oc	2x6 OR (2) 2x4 16"oc	2x6 AT 16"oc	2x8 AT 16"oc
3	10'-4"	2x6 AT 16"oc	2x6 OR (3) 2x4 16"oc	2x6 OR (3) 2x4 16"oc	(2) 2x6 AT 16"oc	2x8 AT 16"oc
2	10'-4"	(2) 2x6 AT 16"oc	2x6 OR (3) 2x4 16"oc	2x6 OR (4) 2x4 16"oc	(2) 2x6 AT 16"oc	2x8 AT 16"oc

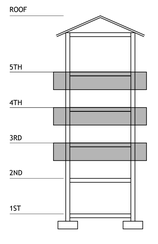
NOTES:
-WALL STUDS AND PLATES SHALL BE DF-L NO. 2 UNLESS NOTED OTHERWISE
-ALL PLATES SHALL BE MC15 PRIOR TO SHEET ROCK AND PLUMBING INSTALL

TYPICAL JOIST/BEAM HANGER SCHEDULE

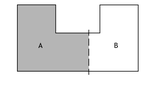
JOIST	HANGER TYPICAL	HANGER OVER (2) LAYERS GYPSUM BOARD
2x10	JB210A	DHUTF 1.81/9.5
2x12	JB212A	DHUTF 2.06/11.88
3 1/2" GL	SIMPSON LBV	DHUTF 3.56/
5 1/2" GL	SIMPSON HW	
DIMENSIONAL LUMBER	SIMPSON HUSTF	

NOTE:
1. JOISTS ARE LAID OUT FROM CENTER LINE OF CORRIDORS

SEE SHEET S130 FOR SHEET NOTES AND SCHEDULES



VIEW RANGE OF SHEET



C2K
ARCHITECTURE
1645 NW HOYT
PORTLAND OREGON 97209
503 444 2200

STONEWOOD
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2001 NW 19th Ave STE 103A
Portland, OR 97209
360.216.1704
www.stonewoodstructural.com

PUYALLUP BELL PLACE

OWNER:
URBAN PUYALLUP MIXED USE LLC

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204 4TH ST SW
PUYALLUP, WA 98371

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DRAWN: AAS
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BUILDING PERMIT SET

SHEET TITLE:
LEVELS 4 & 5 FLOOR FRAMING PLAN SECTOR A

SHEET NO.:
S204A

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WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
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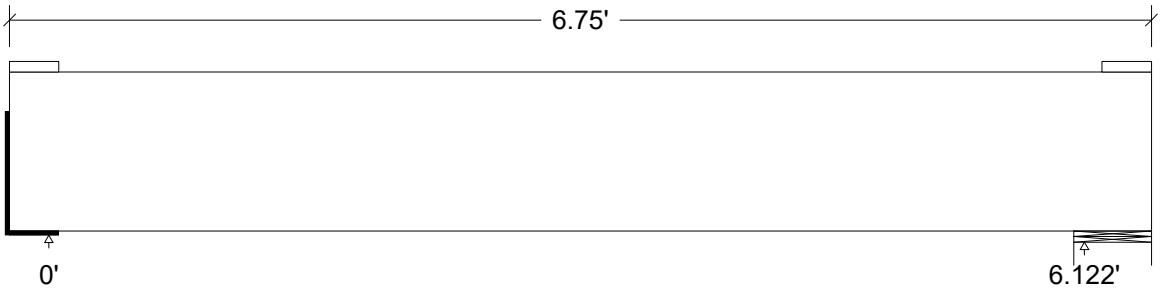
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
DL	Dead	Full Area				25.00(15.00')		psf
LL	Live	Full Area				40.00(15.00')		psf
Self-weight	Dead	Full UDL				9.1		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	1262		1324
Live	1975		2075
Factored:			
Total	3238		3399
Bearing:			
Capacity			
Beam	7962		12512
Support	-		13320
Des ratio			
Beam	0.41		0.27
Support	-		0.26
Load comb	#2		#2
Length	3.50		5.50
Min req'd	1.42		1.49
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	-		-
Fcp sup	-		625

Puyallup Bell_Beam 1

Glulam-Unbalan., West Species, 24F-V4 DF, 3-1/2"x11-1/4"

Supports: 1 - Hanger; 2 - Lumber Stud Wall, D.Fir-L Stud;
Total length: 6.75'; Clear span: 6'; Volume = 1.8 cu.ft.; 8 laminations, 3-1/2" maximum width,
Lateral support: top = at supports, bottom = at supports;
This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 77	Fv' = 265	psi	fv/Fv' = 0.29
Bending(+)	fb = 749	Fb' = 2345	psi	fb/Fb' = 0.32
Live Defl'n	0.03 = < L/999	0.20 = L/360	in	0.12
Total Defl'n	0.05 = < L/999	0.31 = L/240	in	0.16

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CV	Cfu	Cr	Cfrt	Notes	Cvr	LC#
Fv'	265	1.00	1.00	1.00	-	-	-	-	1.00	1.00	1.00	2
Fb'+	2400	1.00	1.00	1.00	0.977	1.000	-	-	1.00	1.00	-	2
Fcp'	650	-	1.00	1.00	-	-	-	-	1.00	-	-	-
E'	1.8 million	1.00	1.00	1.00	-	-	-	-	1.00	-	-	2
Eminy'	0.85 million	1.00	1.00	1.00	-	-	-	-	1.00	-	-	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 3012, V design = 2031 (NDS 3.4.3.1(a)) lbs; M(+) = 4610 lbs-ft
 EI = 747.50e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Lateral stability(+):  Lu = 6.13'  Le = 12.63'  RB = 11.8
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Glulam design values are for materials conforming to ANSI 117-2015 and manufactured in accordance with ANSI A190.1-2012
4. GLULAM: bxd = actual breadth x actual depth.
5. Glulam Beams shall be laterally supported according to the provisions of NDS Clause 3.3.3.
6. GLULAM: bearing length based on smaller of Fcp(tension), Fcp(comp'n).

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
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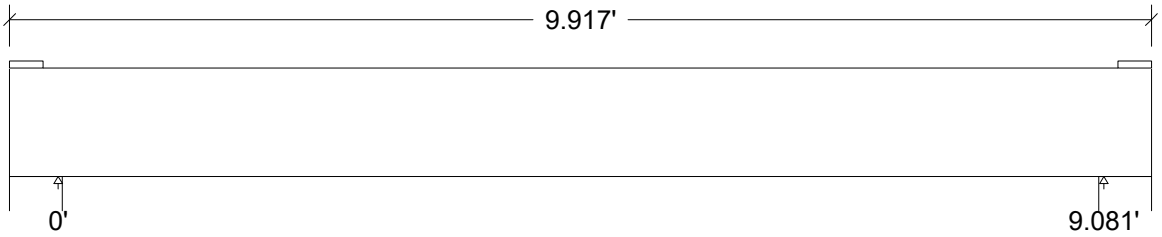
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
Beam 1 DL x2	Dead	Point		5.50		2600		lbs
Beam 1 LL x2	Live	Point		5.50		4200		lbs
Self-weight	Dead	Full UDL				14.2		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	1211		1518
Live	1852		2348
Factored:			
Total	3062		3867
Bearing:			
Capacity			
Beam	19662		19662
Support	21175		21175
Des ratio			
Beam	0.16		0.20
Support	0.14		0.18
Load comb	#2		#2
Length	5.50		5.50
Min req'd	0.86		1.08
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	–		–
Fc sup	700		700

Puyallup Bell_Beam 2

Glulam-Unbalan., West Species, 24F-V4 DF, 5-1/2"x11-1/4"

Supports: All - Timber-soft Column, D.Fir-L No.2

Total length: 9.92'; Clear span: 9'; Volume = 4.3 cu.ft.; 8 laminations, 5-1/2" maximum width,

Lateral support: top = at supports, bottom = at supports;

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 93	Fv' = 265	psi	fv/Fv' = 0.35
Bending(+)	fb = 1589	Fb' = 2373	psi	fb/Fb' = 0.67
Live Defl'n	0.09 = < L/999	0.30 = L/360	in	0.31
Total Defl'n	0.18 = L/589	0.45 = L/240	in	0.41

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CV	Cfu	Cr	Cfrt	Notes	Cvr	LC#
Fv'	265	1.00	1.00	1.00	-	-	-	-	1.00	1.00	1.00	2
Fb'+	2400	1.00	1.00	1.00	0.989	1.000	-	-	1.00	1.00	-	2
Fcp'	650	-	1.00	1.00	-	-	-	-	1.00	-	-	-
E'	1.8 million	1.00	1.00	1.00	-	-	-	-	1.00	-	-	2
Eminy'	0.85 million	1.00	1.00	1.00	-	-	-	-	1.00	-	-	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 3854, V design = 3854 (NDS 3.4.3.1(a)) lbs; M(+) = 15366 lbs-ft
 EI = 1174.64e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Lateral stability(+):  Lu = 9.06'  Le = 17.63'  RB = 8.9
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Glulam design values are for materials conforming to ANSI 117-2015 and manufactured in accordance with ANSI A190.1-2012
4. GLULAM: bxd = actual breadth x actual depth.
5. Glulam Beams shall be laterally supported according to the provisions of NDS Clause 3.3.3.
6. GLULAM: bearing length based on smaller of Fcp(tension), Fcp(comp'n).

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
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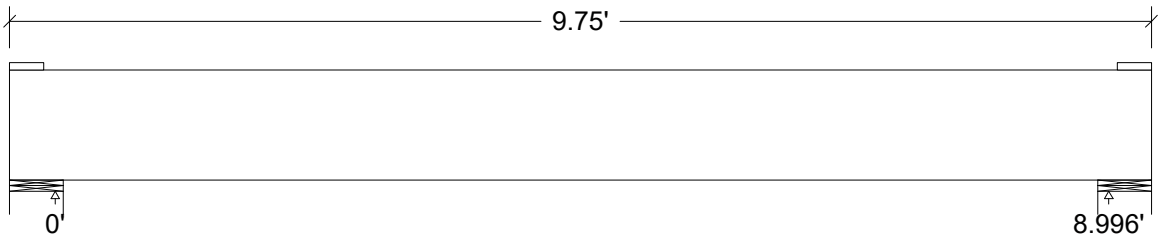
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
DL	Dead	Full Area				25.00(15.00')		psf
LL	Live	Full Area				40.00(15.00')		psf
Beam 1 DL x2	Dead	Point		6.67		2600		lbs
Beam 1 LL x2	Live	Point		6.67		4200		lbs
Self-weight	Dead	Full UDL				17.5		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	2696		3717
Live	4201		5849
Factored:			
Total	6897		9566
Bearing:			
Capacity			
Beam	24131		24131
Support	23203		23203
Des ratio			
Beam	0.29		0.40
Support	0.30		0.41
Load comb	#2		#2
Length	5.50		5.50
Min req'd	1.63**		2.27**
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	-		-
Fcp sup	625		625

**Minimum bearing length governed by the required width of the supporting member.

Puyallup Bell_Beam 3

Glulam-Unbalan., West Species, 24F-V4 DF, 6-3/4"x11-1/4"

Supports: All - Lumber Stud Wall, D.Fir-L Stud

Total length: 9.75'; Clear span: 8.833'; Volume = 5.1 cu.ft.; 8 laminations, 6-3/4" maximum width,

Lateral support: top = at supports, bottom = at supports;

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 162	Fv' = 265	psi	fv/Fv' = 0.61
Bending(+)	fb = 1800	Fb' = 2384	psi	fb/Fb' = 0.76
Live Defl'n	0.12 = L/882	0.30 = L/360	in	0.41
Total Defl'n	0.24 = L/451	0.45 = L/240	in	0.53

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CV	Cfu	Cr	Cfrt	Notes	Cvr	LC#
Fv'	265	1.00	1.00	1.00	-	-	-	-	1.00	1.00	1.00	2
Fb'+	2400	1.00	1.00	1.00	0.993	1.000	-	-	1.00	1.00	-	2
Fcp'	650	-	1.00	1.00	-	-	-	-	1.00	-	-	-
E'	1.8 million	1.00	1.00	-	-	-	-	-	1.00	-	-	2
Eminy'	0.85 million	1.00	1.00	-	-	-	-	-	1.00	-	-	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 9211, V design = 8190 (NDS 3.4.3.1(a)) lbs; M(+) = 21355 lbs-ft
 EI = 1441.60e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Lateral stability(+):  Lu = 9.00'  Le = 17.50'  RB = 7.2
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Glulam design values are for materials conforming to ANSI 117-2015 and manufactured in accordance with ANSI A190.1-2012
4. GLULAM: bxd = actual breadth x actual depth.
5. Glulam Beams shall be laterally supported according to the provisions of NDS Clause 3.3.3.
6. GLULAM: bearing length based on smaller of Fcp(tension), Fcp(comp'n).

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:43	Puyallup Bell_Beam 4

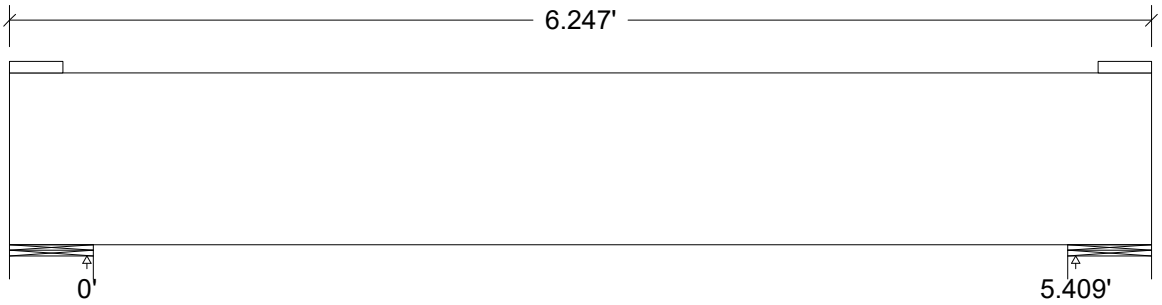
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
DL	Dead	Full Area				25.00(3.00')		psf
LL	Live	Full Area				40.00(3.00')		psf
Beam 2 DL x2	Dead	Point		3.50		3000		lbs
Beam 2 LL x2	Live	Point		3.50		3700		lbs
Self-weight	Dead	Full UDL				17.5		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	1575		1988
Live	1971		2479
Factored:			
Total	3546		4467
Bearing:			
Capacity			
Beam	24131		24131
Support	23203		23203
Des ratio			
Beam	0.15		0.19
Support	0.15		0.19
Load comb	#2		#2
Length	5.50		5.50
Min req'd	0.84**		1.06**
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	-		-
Fcp sup	625		625

**Minimum bearing length governed by the required width of the supporting member.

Puyallup Bell_Beam 4

Glulam-Unbalan., West Species, 24F-V4 DF, 6-3/4"x11-1/4"

Supports: All - Lumber Stud Wall, D.Fir-L Stud

Total length: 6.25'; Clear span: 5.33'; Volume = 3.3 cu.ft.; 8 laminations, 6-3/4" maximum width,

Lateral support: top = at supports, bottom = at supports;

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 83	Fv' = 265	psi	fv/Fv' = 0.31
Bending(+)	fb = 813	Fb' = 2390	psi	fb/Fb' = 0.34
Live Defl'n	0.02 = < L/999	0.18 = L/360	in	0.09
Total Defl'n	0.03 = < L/999	0.27 = L/240	in	0.13

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CV	Cfu	Cr	Cfrt	Notes	Cvr	LC#
Fv'	265	1.00	1.00	1.00	-	-	-	-	1.00	1.00	1.00	2
Fb'+	2400	1.00	1.00	1.00	0.996	1.000	-	-	1.00	1.00	-	2
Fcp'	650	-	1.00	1.00	-	-	-	-	1.00	-	-	-
E'	1.8 million	1.00	1.00	-	-	-	-	-	1.00	-	-	2
Eminy'	0.85 million	1.00	1.00	-	-	-	-	-	1.00	-	-	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 4386, V design = 4178 (NDS 3.4.3.1(a)) lbs; M(+) = 9651 lbs-ft
 EI = 1441.60e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Lateral stability(+):  Lu = 5.44'  Le = 11.13'  RB = 5.7
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Glulam design values are for materials conforming to ANSI 117-2015 and manufactured in accordance with ANSI A190.1-2012
4. GLULAM: bxd = actual breadth x actual depth.
5. Glulam Beams shall be laterally supported according to the provisions of NDS Clause 3.3.3.
6. GLULAM: bearing length based on smaller of Fcp(tension), Fcp(comp'n).

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:45	Puyallup Bell_Beam 5

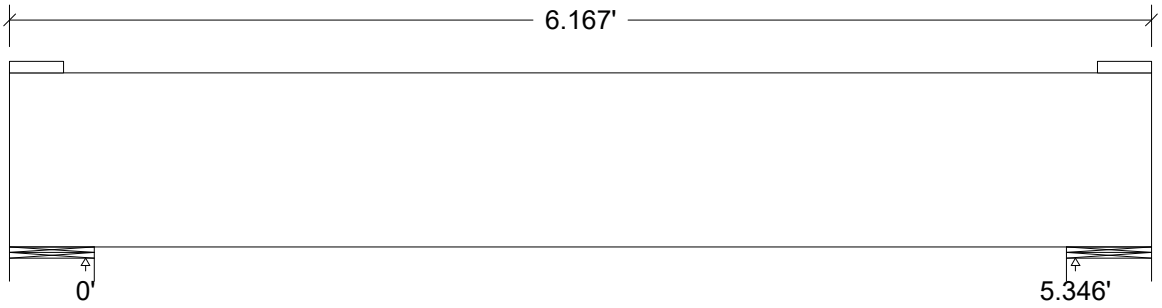
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
L3 DL	Dead	Full Area				25.00(4.00')		psf
L3 LL	Live	Full Area				40.00(4.00')		psf
L4&5 DL	Dead	Full Area				50.00(10.00')		psf
L4&5 LL	Live	Full Area				80.00(10.00')		psf
Self-weight	Dead	Full UDL				17.5		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	1897		1897
Live	2960		2960
Factored:			
Total	4857		4857
Bearing:			
Capacity			
Beam	24131		24131
Support	23203		23203
Des ratio			
Beam	0.20		0.20
Support	0.21		0.21
Load comb	#2		#2
Length	5.50		5.50
Min req'd	1.15**		1.15**
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	-		-
Fcp sup	625		625

**Minimum bearing length governed by the required width of the supporting member.

Puyallup Bell_Beam 5

Glulam-Unbalan., West Species, 24F-V4 DF, 6-3/4"x11-1/4"

Supports: All - Lumber Stud Wall, D.Fir-L Stud

Total length: 6.17'; Clear span: 5.25'; Volume = 3.3 cu.ft.; 8 laminations, 6-3/4" maximum width,

Lateral support: top = at supports, bottom = at supports;

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 53	Fv' = 265	psi	fv/Fv' = 0.20
Bending(+)	fb = 475	Fb' = 2390	psi	fb/Fb' = 0.20
Live Defl'n	0.01 = < L/999	0.18 = L/360	in	0.07
Total Defl'n	0.02 = < L/999	0.27 = L/240	in	0.09

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL	CV	Cfu	Cr	Cfrt	Notes	Cvr	LC#
Fv'	265	1.00	1.00	1.00	-	-	-	-	1.00	1.00	1.00	2
Fb'+	2400	1.00	1.00	1.00	0.996	1.000	-	-	1.00	1.00	-	2
Fcp'	650	-	1.00	1.00	-	-	-	-	1.00	-	-	-
E'	1.8 million	1.00	1.00	-	-	-	-	-	1.00	-	-	2
Eminy'	0.85 million	1.00	1.00	-	-	-	-	-	1.00	-	-	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Bearing   : Support 1 - LC #2 = D + L
             Support 2 - LC #2 = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V max = 4217, V design = 2662 (NDS 3.4.3.1(a)) lbs; M(+) = 5636 lbs-ft
 EI = 1441.60e06 lb-in^2
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Lateral stability(+):  Lu = 5.38'  Le = 11.00'  RB = 5.7
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Glulam design values are for materials conforming to ANSI 117-2015 and manufactured in accordance with ANSI A190.1-2012
4. GLULAM: bxd = actual breadth x actual depth.
5. Glulam Beams shall be laterally supported according to the provisions of NDS Clause 3.3.3.
6. GLULAM: bearing length based on smaller of Fcp(tension), Fcp(comp'n).

Puyallup - Bell Place
Puyallup Washington
25-063
Prepared By: AAS
Reviewed By: DSN

Steel Beam

Project File: BEAMS.ec6

LIC# : KW-06014924, Build:20.25.07.09 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Puyallup Bell_Beam 6

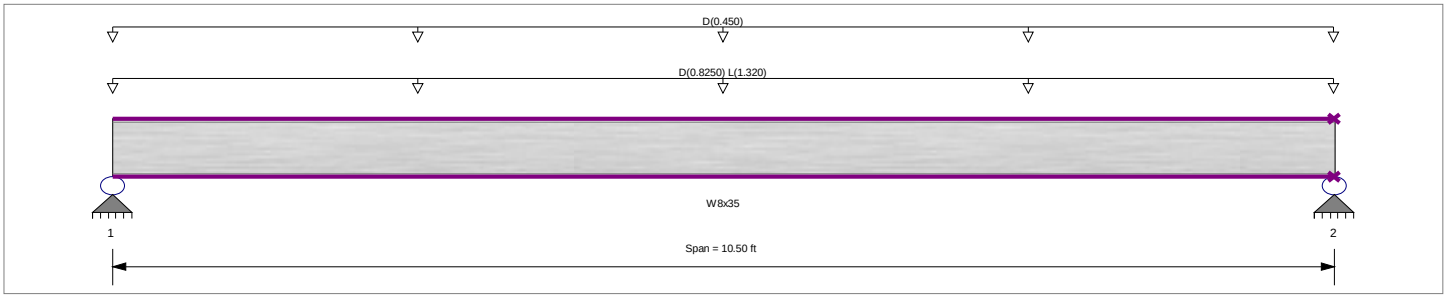
Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : AISC 360-16
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Strength Design
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling
Bending Axis : Major Axis Bending

Fy : Steel Yield : 50.0 ksi
E: Modulus : 29,000.0 ksi



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Uniform Load : D = 0.0750, L = 0.120 ksf, Tributary Width = 11.0 ft, (L3, 4, 5 Loading)
Uniform Load : D = 0.0150 ksf, Tributary Width = 30.0 ft, (Wall Weight)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =	0.413 : 1	Maximum Shear Stress Ratio =	0.271 : 1
Section used for this span	W8x35	Section used for this span	W8x35
Ma : Applied	35.762 k-ft	Va : Applied	13.624 k
Mn / Omega : Allowable	86.577 k-ft	Vn/Omega : Allowable	50.344 k
Load Combination	+D+L	Load Combination	+D+L
		Location of maximum on span	0.000 ft
Span # where maximum occurs	Span # 1	Span # where maximum occurs	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.098 in	Ratio =	1,279	>=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0	<360	n/a
Max Downward Total Deflection	0.194 in	Ratio =	651	>=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0	<180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	Summary of Moment Values Mmax +	Mmax -	Ma Max	Mnx	Mnx/Omega	Cb	Rm	Summary of Shear Values Va Max	VnxVnx/Omega
D Only												
Dsgn. L = 10.50 ft	1	0.203	0.133	17.57		17.57	144.58	86.58	1.00	1.00	6.69	75.52 50.34
+D+L												
Dsgn. L = 10.50 ft	1	0.413	0.271	35.76		35.76	144.58	86.58	1.00	1.00	13.62	75.52 50.34
+D+0.750L												
Dsgn. L = 10.50 ft	1	0.361	0.236	31.21		31.21	144.58	86.58	1.00	1.00	11.89	75.52 50.34
+0.60D												
Dsgn. L = 10.50 ft	1	0.122	0.080	10.54		10.54	144.58	86.58	1.00	1.00	4.02	75.52 50.34

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.1936	5.280		0.0000	0.000

Maximum Deflections for Load Combinations

Load Combination	Span	Max. Downward Defl	Location in Span	Span	Max. Upward Defl	Location in Span
D Only	1	0.0951	5.280		0.0000	0.000
+D+L	1	0.1936	5.280		0.0000	0.000
+D+0.750L	1	0.1690	5.280		0.0000	0.000
+0.60D	1	0.0571	5.280		0.0000	0.000
L Only	1	0.0985	5.280		0.0000	0.000

Puyallup - Bell Place
Puyallup Washington
25-063
Prepared By: AAS
Reviewed By: DSN

Steel Beam

Project File: BEAMS.ec6

LIC# : KW-06014924, Build:20.25.07.09 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Puyallup Bell_Beam 6

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	13.624	13.624
Max Upward from Load Combinations	13.624	13.624
Max Upward from Load Cases	6.930	6.930
D Only	6.694	6.694
+D+L	13.624	13.624
+D+0.750L	11.891	11.891
+0.60D	4.016	4.016
L Only	6.930	6.930

Steel Section Properties : W8x35

Depth	=	8.120	in	I xx	=	127.00	in^4	J	=	0.769	in^4
Web Thick	=	0.310	in	S xx		31.20	in^3	Cw	=	619.00	in^6
Flange Width	=	8.020	in	R xx	=	3.510	in				
Flange Thick	=	0.495	in	Zx	=	34.700	in^3				
Area	=	10.300	in^2	I yy	=	42.600	in^4				
Weight	=	35.000	plf	S yy	=	10.600	in^3	Wno	=	15.300	in^2
Kdesign	=	0.889	in	R yy	=	2.030	in	Sw	=	15.200	in^4
K1	=	0.813	in	Zy	=	16.100	in^3	Qf	=	7.280	in^3
rts	=	2.280	in					Qw	=	17.100	in^3
Ycg	=	4.060	in								

Puyallup - Bell Place
Puyallup Washington
25-063
Prepared By: AAS
Reviewed By: DSN

Steel Beam

Project File: BEAMS.ec6

LIC# : KW-06014924, Build:20.25.07.09 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Puyallup Bell_Beam 7

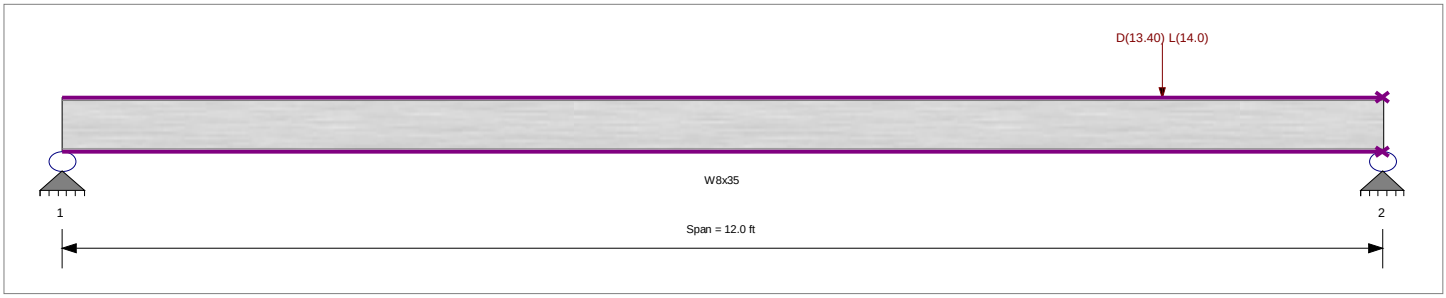
Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : AISC 360-16
Load Combination Set : ASCE 7-22 / IBC 2024

Material Properties

Analysis Method : Allowable Strength Design
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling
Bending Axis : Major Axis Bending

Fy : Steel Yield : 50.0 ksi
E: Modulus : 29,000.0 ksi



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Load(s) for Span Number 1
Point Load : D = 13.40, L = 14.0 k @ 10.0 ft, (Beam 6 Reaction x2)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =	0.526 : 1	Maximum Shear Stress Ratio =	0.454 : 1
Section used for this span	W8x35	Section used for this span	W8x35
Ma : Applied	45.562 k-ft	Va : Applied	22.833 k
Mn / Omega : Allowable	86.577 k-ft	Vn/Omega : Allowable	50.344 k
Load Combination	+D+L	Load Combination	+D+L
		Location of maximum on span	10.011 ft
Span # where maximum occurs	Span # 1	Span # where maximum occurs	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.117 in	Ratio =	1,233 >=360	Span: 1 : L Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.229 in	Ratio =	630 >=180	Span: 1 : +D+L
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	Summary of Moment Values Mmax +	Mmax -	Ma Max	Mnx	Mnx/Omega	Cb	Rm	Summary of Shear Values Va Max	Vnx	Vnx/Omega
D Only													
Dsgn. L = 12.00 ft	1	0.257	0.222	22.28		22.28	144.58	86.58	1.00	1.00	11.17	75.52	50.34
+D+L													
Dsgn. L = 12.00 ft	1	0.526	0.454	45.56		45.56	144.58	86.58	1.00	1.00	22.83	75.52	50.34
+D+0.750L													
Dsgn. L = 12.00 ft	1	0.459	0.396	39.74		39.74	144.58	86.58	1.00	1.00	19.92	75.52	50.34
+0.60D													
Dsgn. L = 12.00 ft	1	0.154	0.133	13.37		13.37	144.58	86.58	1.00	1.00	6.70	75.52	50.34

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L	0.2285	6.857		0.0000	0.000

Maximum Deflections for Load Combinations

Load Combination	Span	Max. Downward Defl	Location in Span	Span	Max. Upward Defl	Location in Span
D Only	1	0.1118	6.857		0.0000	0.000
+D+L	1	0.2285	6.857		0.0000	0.000
+D+0.750L	1	0.1993	6.857		0.0000	0.000
+0.60D	1	0.0671	6.857		0.0000	0.000
L Only	1	0.1168	6.857		0.0000	0.000

Puyallup - Bell Place
Puyallup Washington
25-063
Prepared By: AAS
Reviewed By: DSN

Steel Beam

Project File: BEAMS.ec6

LIC# : KW-06014924, Build:20.25.07.09 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Puyallup Bell_Beam 7

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	4.567	22.833
Max Upward from Load Combinations	4.567	22.833
Max Upward from Load Cases	2.333	11.667
D Only	2.233	11.167
+D+L	4.567	22.833
+D+0.750L	3.983	19.917
+0.60D	1.340	6.700
L Only	2.333	11.667

Steel Section Properties : W8x35

Depth	=	8.120	in	I xx	=	127.00	in^4	J	=	0.769	in^4
Web Thick	=	0.310	in	S xx		31.20	in^3	Cw	=	619.00	in^6
Flange Width	=	8.020	in	R xx	=	3.510	in				
Flange Thick	=	0.495	in	Zx	=	34.700	in^3				
Area	=	10.300	in^2	I yy	=	42.600	in^4				
Weight	=	35.000	plf	S yy	=	10.600	in^3	Wno	=	15.300	in^2
Kdesign	=	0.889	in	R yy	=	2.030	in	Sw	=	15.200	in^4
K1	=	0.813	in	Zy	=	16.100	in^3	Qf	=	7.280	in^3
rts	=	2.280	in					Qw	=	17.100	in^3
Ycg	=	4.060	in								

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:53	Puyallup Bell_Column 1

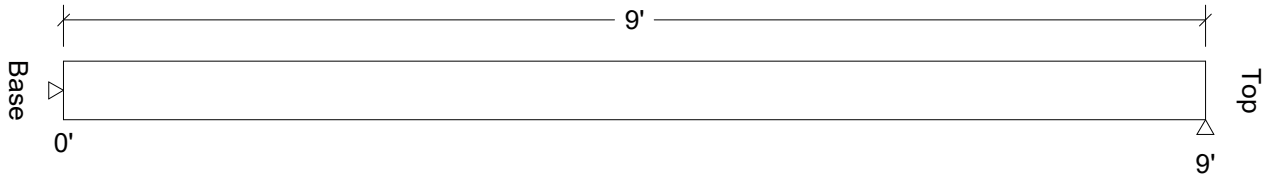
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Location [ft] Start	End	Magnitude Start	End	Unit
Beam 2 DL x2	Dead	Axial	(Ecc. = 0.92")		3000		lbs
Beam 2 LL x2	Live	Axial	(Ecc. = 0.92")		4600		lbs
Self-weight	Dead	Axial			41		lbs

Reactions (lbs):



Unfactored:			
Lateral:			
Dead	25		-25
Live	39		-39
Axial:			
Dead	3041		3041
Live	4600		4600
Factored:			
R->L			-65
Load comb			#2
L->R	65		
Load comb	#2		#1

Puyallup Bell_Column 1

Lumber Post, D.Fir-L, No.1, 4x6 (3-1/2"x5-1/2")

Support: Non-wood

Total length: 9.0'; Volume = 1.2 cu.ft.

Pinned base; Load face = width(b); Ke x Lb: 1.0 x 0.0 = 0.0 ft; Ke x Ld: 1.0 x 9.0 = 9.0 ft;

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 5	Fv' = 180	psi	fv/Fv' = 0.03
Bending(+)	fb = 395	Fb' = 1300	psi	fb/Fb' = 0.30
Axial	fc = 397	Fc' = 1007	psi	fc/Fc' = 0.39
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.62
Axial Bearing	fc = 397	Fc* = 1650	psi	fc/Fc* = 0.24
Live Defl'n	0.04 = < L/999	0.90 = L/120	in	0.04
Total Defl'n	0.08 = < L/999	0.90 = L/120	in	0.08

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	1000	1.00	1.00	1.00	1.000	1.300	-	1.00	1.00	1.00	2
Fc'	1500	1.00	1.00	1.00	0.610	1.100	-	-	1.00	1.00	2
E'	1.7 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.62 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Fc*	1500	1.00	1.00	1.00	-	1.100	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Axial     : LC #2  = D + L
 Combined  : LC #2  = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V = 65 lbs; M(+) = 581 lbs-ft; P = 7641 lbs
 EI = 82.49e06 lb-in^2
 Combined: Fb' = 1300 psi; fb = 0 psi; fbe = (P x e)/S = fc(6e/d) = 395 psi;
 FcE = 1322 psi
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Axial d governs, le/b = 0.0, le/d = 19.6
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Axial load eccentricity applied in direction of load face only. It is the designers responsibility to check for effect of eccentricity in the other direction.

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:51	Puyallup Bell_Column 2

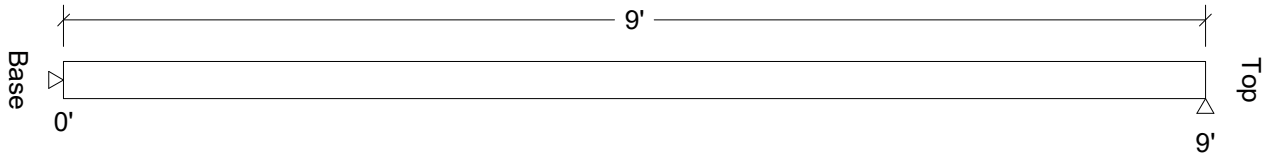
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Location [ft] Start	End	Magnitude Start	End	Unit
Beam 1 DL x2	Dead	Axial	(Ecc. = 0.58")		2600		lbs
Beam 1 LL x2	Live	Axial	(Ecc. = 0.58")		4200		lbs
Self-weight	Dead	Axial			45		lbs

Reactions (lbs):



Unfactored:			
Lateral:			
Dead	14		-14
Live	23		-23
Axial:			
Dead	2645		2645
Live	4200		4200
Factored:			
R->L			-37
Load comb			#2
L->R	37		
Load comb	#2		#1

Puyallup Bell_Column 2

Lumber n-ply, D.Fir-L, No.1, 2x4, 4-ply (6"x3-1/2")

Support: Non-wood

Total length: 9.0'; Volume = 1.3 cu.ft.

Pinned base; Load face = width(b); Built-up fastener: nails; Ke x Lb: 1.0 x 0.0 = 0.0 ft; Ke x Ld: 1.0 x 9.0 = 9.0 ft; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 3	Fv' = 180	psi	fv/Fv' = 0.01
Bending(+)	fb = 324	Fb' = 1725	psi	fb/Fb' = 0.19
Axial	fc = 326	Fc' = 495	psi	fc/Fc' = 0.66
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.98
Axial Bearing	fc = 326	Fc* = 1725	psi	fc/Fc* = 0.19
Live Defl'n	0.05 = < L/999	0.90 = L/120	in	0.06
Total Defl'n	0.10 = < L/999	0.90 = L/120	in	0.11

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	1000	1.00	1.00	1.00	1.000	1.500	-	1.15	1.00	1.00	2
Fc'	1500	1.00	1.00	1.00	0.287	1.150	-	-	1.00	1.00	2
E'	1.7 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.62 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Fc*	1500	1.00	1.00	1.00	-	1.150	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Axial     : LC #2  = D + L
 Combined  : LC #2  = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V = 37 lbs; M(+) = 331 lbs-ft; P = 6845 lbs, Kf = 1.00
 EI = 9.11e06 lb-in^2/ply
 Combined: Fb' = 1725 psi; fb = 0 psi; fbe = (P x e)/S = fc(6e/d) = 324 psi;
 FcE = 535 psi
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Axial d governs, le/b full = 0.0, le/b 1-ply = 0.0, le/d = 30.9
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. BUILT-UP COLUMNS: nailed or bolted built-up columns shall conform to the provisions of NDS Clause 15.3.
4. Axial load eccentricity applied in direction of load face only. It is the designers responsibility to check for effect of eccentricity in the other direction.

	COMPANY	PROJECT
WoodWorks® SOFTWARE FOR WOOD DESIGN	Mar. 19, 2026 10:54	Puyallup Bell_Column 3

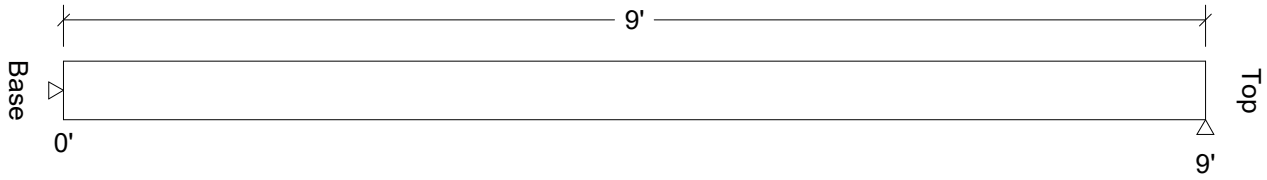
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Location [ft] Start	Location [ft] End	Magnitude Start	Magnitude End	Unit
Beam 3 DL	Dead	Axial	(Ecc. = 0.92")		3700		lbs
Beam 3 LL	Live	Axial	(Ecc. = 0.92")		5900		lbs
Self-weight	Dead	Axial			65		lbs

Reactions (lbs):



Unfactored:			
Lateral:			
Dead	31		-31
Live	50		-50
Axial:			
Dead	3765		3765
Live	5900		5900
Factored:			
R->L			-81
Load comb			#2
L->R	81		
Load comb	#2		#1

Puyallup Bell_Column 3

Timber-soft, D.Fir-L, No.1, 6x6 (5-1/2"x5-1/2")

Support: Non-wood

Total length: 9.0'; Volume = 1.9 cu.ft.; Post or timber

Pinned base; Load face = width(b); Ke x Lb: 1.0 x 0.0 = 0.0 ft; Ke x Ld: 1.0 x 9.0 = 9.0 ft;

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 4	Fv' = 170	psi	fv/Fv' = 0.02
Bending(+)	fb = 317	Fb' = 1200	psi	fb/Fb' = 0.26
Axial	fc = 319	Fc' = 759	psi	fc/Fc' = 0.42
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.56
Axial Bearing	fc = 319	Fc* = 1000	psi	fc/Fc* = 0.32
Live Defl'n	0.03 = < L/999	0.90 = L/120	in	0.04
Total Defl'n	0.06 = < L/999	0.90 = L/120	in	0.07

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	170	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	1200	1.00	1.00	1.00	1.000	1.000	-	1.00	1.00	1.00	2
Fc'	1000	1.00	1.00	1.00	0.759	1.000	-	-	1.00	1.00	2
E'	1.6 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.58 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Fc*	1000	1.00	1.00	1.00	-	1.000	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Axial     : LC #2  = D + L
 Combined  : LC #2  = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V = 81 lbs; M(+) = 733 lbs-ft; P = 9665 lbs
 EI = 122.01e06 lb-in^2
 Combined: Fb' = 1200 psi; fb = 0 psi; fbe = (P x e)/S = fc(6e/d) = 317 psi;
 FcE = 1236 psi
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Axial d governs, le/b = 0.0, le/d = 19.6
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Axial load eccentricity applied in direction of load face only. It is the designers responsibility to check for effect of eccentricity in the other direction.

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:56	Puyallup Bell_Column 4

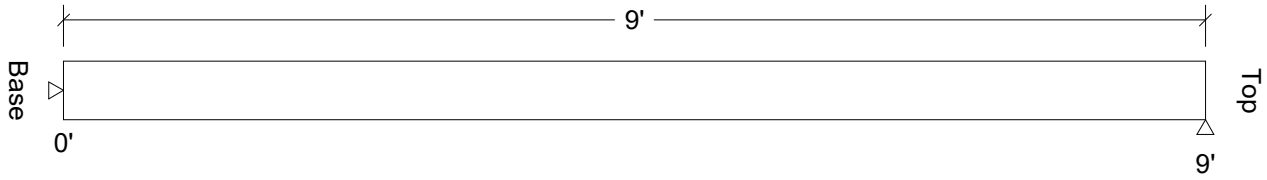
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Location [ft] Start	End	Magnitude Start	End	Unit
Beam 3 LL	Live	Axial	(Ecc. = 0.92")		4200		lbs
Beam 3 DL	Dead	Axial	(Ecc. = 0.92")		2700		lbs
Self-weight	Dead	Axial			71		lbs

Reactions (lbs):



Unfactored:			
Lateral:			
Dead	23		-23
Live	36		-36
Axial:			
Dead	2771		2771
Live	4200		4200
Factored:			
R->L			-59
Load comb			#2
L->R	59		
Load comb	#2		#1

Puyallup Bell_Column 4

Lumber n-ply, D.Fir-L, No.1, 2x6, 4-ply (6"x5-1/2")

Support: Non-wood

Total length: 9.0'; Volume = 2.1 cu.ft.

Pinned base; Load face = width(b); Built-up fastener: nails; Ke x Lb: 1.0 x 0.0 = 0.0 ft; Ke x Ld: 1.0 x 9.0 = 9.0 ft; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 3	Fv' = 180	psi	fv/Fv' = 0.01
Bending(+)	fb = 209	Fb' = 1495	psi	fb/Fb' = 0.14
Axial	fc = 211	Fc' = 1007	psi	fc/Fc' = 0.21
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.22
Axial Bearing	fc = 211	Fc* = 1650	psi	fc/Fc* = 0.13
Live Defl'n	0.02 = < L/999	0.90 = L/120	in	0.02
Total Defl'n	0.04 = < L/999	0.90 = L/120	in	0.04

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	1000	1.00	1.00	1.00	1.000	1.300	-	1.15	1.00	1.00	2
Fc'	1500	1.00	1.00	1.00	0.610	1.100	-	-	1.00	1.00	2
E'	1.7 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.62 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Fc*	1500	1.00	1.00	1.00	-	1.100	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Axial     : LC #2  = D + L
 Combined  : LC #2  = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V = 59 lbs; M(+) = 527 lbs-ft; P = 6971 lbs, Kf = 1.00
 EI = 35.35e06 lb-in^2/ply
 Combined: Fb' = 1495 psi; fb = 0 psi; fbe = (P x e)/S = fc(6e/d) = 209 psi;
 FcE = 1322 psi
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Axial d governs, le/b full = 0.0, le/b 1-ply = 0.0, le/d = 19.6
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. BUILT-UP COLUMNS: nailed or bolted built-up columns shall conform to the provisions of NDS Clause 15.3.
4. Axial load eccentricity applied in direction of load face only. It is the designers responsibility to check for effect of eccentricity in the other direction.

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:57	Puyallup Bell_Column 5

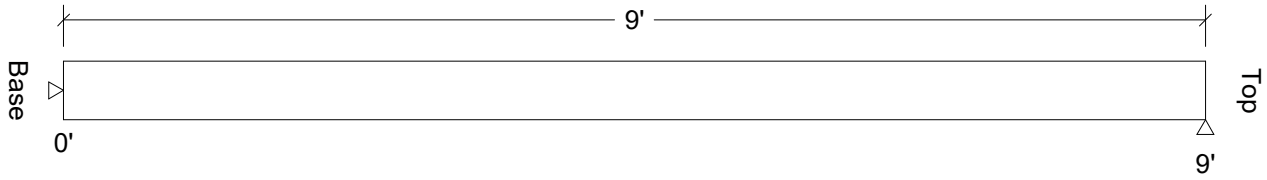
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Location [ft] Start	End	Magnitude Start	End	Unit
Beam 4 LL	Live	Axial	(Ecc. = 0.92")		2500		lbs
Beam 4 DL	Dead	Axial	(Ecc. = 0.92")		2000		lbs
Self-weight	Dead	Axial			88		lbs

Reactions (lbs):



Unfactored:			
Lateral:			
Dead	17		-17
Live	21		-21
Axial:			
Dead	2088		2088
Live	2500		2500
Factored:			
R->L			-38
Load comb			#2
L->R	38		
Load comb	#2		#1

Puyallup Bell_Column 5

Lumber n-ply, D.Fir-L, No.1, 2x6, 5-ply (7-1/2"x5-1/2")

Support: Non-wood

Total length: 9.0'; Volume = 2.6 cu.ft.

Pinned base; Load face = width(b); Built-up fastener: nails; Ke x Lb: 1.0 x 0.0 = 0.0 ft; Ke x Ld: 1.0 x 9.0 = 9.0 ft; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

WARNING: 5-ply built-up columns are not recommended. Refer to Design Note below.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 1	Fv' = 180	psi	fv/Fv' = 0.01
Bending(+)	fb = 109	Fb' = 1495	psi	fb/Fb' = 0.07
Axial	fc = 111	Fc' = 1007	psi	fc/Fc' = 0.11
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.09
Axial Bearing	fc = 111	Fc* = 1650	psi	fc/Fc* = 0.07
Live Defl'n	0.01 = < L/999	0.90 = L/120	in	0.01
Total Defl'n	0.02 = < L/999	0.90 = L/120	in	0.02

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	1000	1.00	1.00	1.00	1.000	1.300	-	1.15	1.00	1.00	2
Fc'	1500	1.00	1.00	1.00	0.610	1.100	-	-	1.00	1.00	2
E'	1.7 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.62 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Fc*	1500	1.00	1.00	1.00	-	1.100	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Axial     : LC #2  = D + L
 Combined  : LC #2  = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V = 38 lbs; M(+) = 344 lbs-ft; P = 4588 lbs, Kf = 1.00
 EI = 35.35e06 lb-in^2/ply
 Combined: Fb' = 1495 psi; fb = 0 psi; fbe = (P x e)/S = fc(6e/d) = 109 psi;
 FcE = 1322 psi
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Axial d governs, le/b full = 0.0, le/b 1-ply = 0.0, le/d = 19.6
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. BUILT-UP COLUMNS: nailed or bolted built-up columns shall conform to the provisions of NDS Clause 15.3.
4. Axial load eccentricity applied in direction of load face only. It is the designers responsibility to check for effect of eccentricity in the other direction.

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 10:59	Puyallup Bell_Column 6

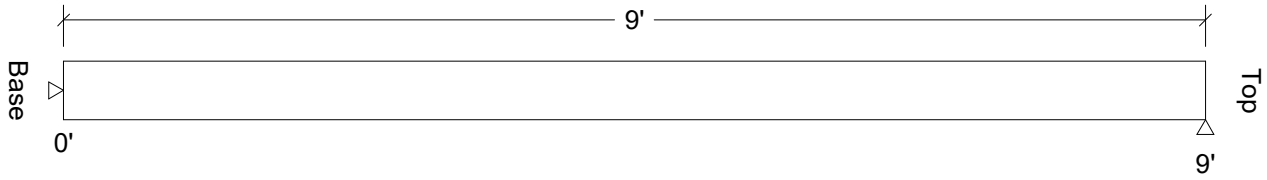
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Location [ft] Start	End	Magnitude Start	End	Unit
Beam 5 LL	Live	Axial	(Ecc. = 0.92")		3000		lbs
Beam 5 DL	Dead	Axial	(Ecc. = 0.92")		2000		lbs
Self-weight	Dead	Axial			71		lbs

Reactions (lbs):



Unfactored:			
Lateral:			
Dead	17		-17
Live	25		-25
Axial:			
Dead	2071		2071
Live	3000		3000
Factored:			
R->L			-42
Load comb			#2
L->R	42		
Load comb	#2		#1

Puyallup Bell_Column 6

Lumber n-ply, D.Fir-L, No.1, 2x6, 4-ply (6"x5-1/2")

Support: Non-wood

Total length: 9.0'; Volume = 2.1 cu.ft.

Pinned base; Load face = width(b); Built-up fastener: nails; Ke x Lb: 1.0 x 0.0 = 0.0 ft; Ke x Ld: 1.0 x 9.0 = 9.0 ft; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 2	Fv' = 180	psi	fv/Fv' = 0.01
Bending(+)	fb = 152	Fb' = 1495	psi	fb/Fb' = 0.10
Axial	fc = 154	Fc' = 1007	psi	fc/Fc' = 0.15
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.14
Axial Bearing	fc = 154	Fc* = 1650	psi	fc/Fc* = 0.09
Live Defl'n	0.01 = < L/999	0.90 = L/120	in	0.02
Total Defl'n	0.03 = < L/999	0.90 = L/120	in	0.03

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	1000	1.00	1.00	1.00	1.000	1.300	-	1.15	1.00	1.00	2
Fc'	1500	1.00	1.00	1.00	0.610	1.100	-	-	1.00	1.00	2
E'	1.7 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.62 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Fc*	1500	1.00	1.00	1.00	-	1.100	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Axial     : LC #2  = D + L
 Combined  : LC #2  = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V = 42 lbs; M(+) = 382 lbs-ft; P = 5071 lbs, Kf = 1.00
 EI = 35.35e06 lb-in^2/ply
 Combined: Fb' = 1495 psi; fb = 0 psi; fbe = (P x e)/S = fc(6e/d) = 152 psi;
 FcE = 1322 psi
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Axial d governs, le/b full = 0.0, le/b 1-ply = 0.0, le/d = 19.6
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. BUILT-UP COLUMNS: nailed or bolted built-up columns shall conform to the provisions of NDS Clause 15.3.
4. Axial load eccentricity applied in direction of load face only. It is the designers responsibility to check for effect of eccentricity in the other direction.

Puyallup - Bell Place
Puyallup Washington
25-063
Prepared By: AAS
Reviewed By: DSN

Steel Column

Project File: BEAMS.ec6

LIC# : KW-06014924, Build:20.25.07.09 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Puyallup Bell_Column 7

Code References

Governing Code : IBC 2021
Referenced Design Standard(s) : AISC 360-16
Load Combinations Used : ASCE 7-22 / IBC 2024

General Information

Steel Section Name : **HSS3x3x1/4**

Analysis Method :	Allowable Strength
Steel Stress Grade	
Fy : Steel Yield	36.0 ksi
E : Elastic Bending Modulus	29,000.0 ksi

Overall Column Height	9.50 ft
Top & Bottom Fixity	Top & Bottom Pinned
Brace condition :	

Unbraced Length for buckling ABOUT X-X Axis = 9.50 ft, K = 1.0
Unbraced Length for buckling ABOUT Y-Y Axis = 9.50 ft, K = 1.0

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 83.695 lbs * Dead Load Factor
AXIAL LOADS . . .
Beam 7 Right Reaction: Axial Load at 9.50 ft, D = 11.167, L = 11.670 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = 0.7593 : 1

Load Combination	+D+L
Location of max.above base	0.0 ft
At maximum location values are . . .	
Pa : Axial	22.921 k
Pn / Omega : Allowabl	30.187 k
Ma-x : Applied	0.0 k-ft
Mn-x / Omega : Allowable	4.455 k-ft
Ma-y : Applied	0.0 k-ft
Mn-y / Omega : Allowable	4.455 k-ft

PASS Maximum Shear Stress Rati 0.0 : 1

Load Combination	0.0
Location of max.above base	0.0 ft
At maximum location values are . . .	
Va : Applied	0.0 k
Vn / Omega : Allowable	0.0 k

Maximum Load Reactions . .

Top along X-X	0.0 k
Bottom along X-X	0.0 k
Top along Y-Y	0.0 k
Bottom along Y-Y	0.0 k

Maximum Load Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination :

Along X-X 0.0 in at 0.0 ft above base
for load combination :

Load Combination Results

Load Combination	Maximum Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Cbx	Cby	KxLx/Rx	KyLy/Ry	Maximum Shear Ratios: Stress Ratio	Status	Location
D Only	0.373	PASS	0.00 ft	1.00	1.00	102.70	102.70	0.000	PASS	0.00 ft
+D+L	0.759	PASS	0.00 ft	1.00	1.00	102.70	102.70	0.000	PASS	0.00 ft
+D+0.750L	0.663	PASS	0.00 ft	1.00	1.00	102.70	102.70	0.000	PASS	0.00 ft
+0.60D	0.224	PASS	0.00 ft	1.00	1.00	102.70	102.70	0.000	PASS	0.00 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
D Only	11.251								
+D+L	22.921								
+D+0.750L	20.003								
+0.60D	6.750								
L Only	11.670								

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Axial, Base Max		22.921								
Axial, Base Min		6.750								
Rx, Base Max										

Puyallup - Bell Place
Puyallup Washington
25-063
Prepared By: AAS
Reviewed By: DSN

Steel Column

Project File: BEAMS.ec6

LIC# : KW-06014924, Build:20.25.07.09 Stonewood Structural Engineers, Inc. (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Puyallup Bell_Column 7

Extreme Reactions

Item	Extreme Value	Axial (k) @ Base	Rx (k) @ Base	Rx (k) @ Top	Ry (k) @ Base	Ry (k) @ Top	Mx (k-ft) @ Base	Mx (k-ft) @ Top	My (k-ft) @ Base	My (k-ft) @ Top
Rx, Base Min										
Rx, Top Max										
Rx, Top Min										
Ry, Base Max										
Ry, Base Min										
Ry, Top Max										
Ry, Top Min										

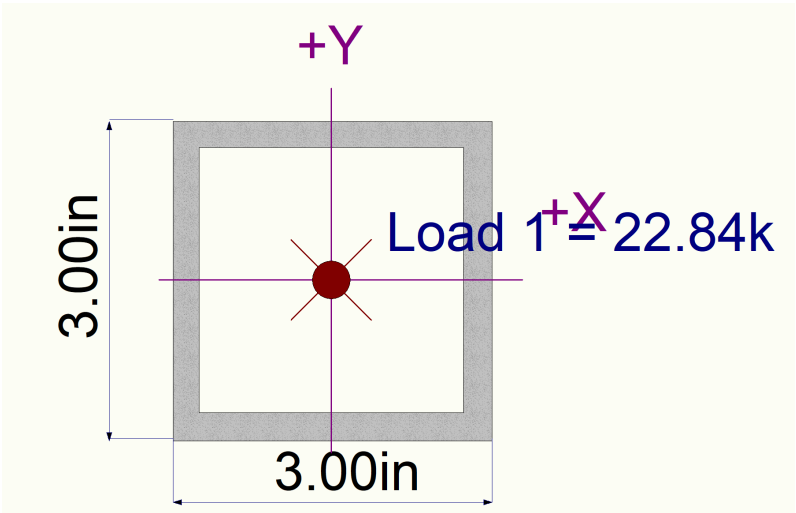
Maximum Deflections for Load Combinations

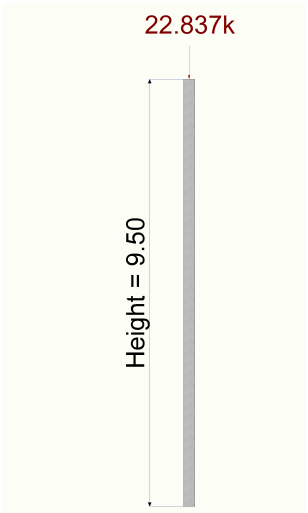
Load Combination	Max. Deflection in X dir	Distance	Max. Deflection in Y dir	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000 ft	0.000 in	0.000 ft

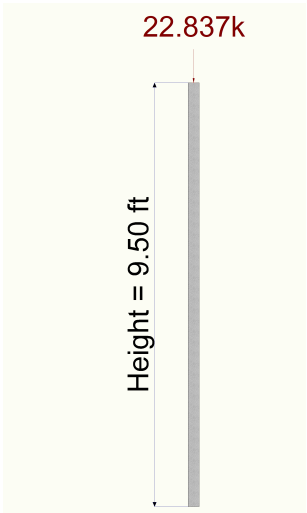
Steel Section Properties : HSS3x3x1/4

Depth	=	3.000 in	I xx	=	3.02 in^4	J	=	5.080 in^4
Design Thick	=	0.233 in	S xx	=	2.01 in^3			
Width	=	3.000 in	R xx	=	1.110 in			
Wall Thick	=	0.250 in	Zx	=	2.480 in^3			
Area	=	2.440 in^2	I yy	=	3.020 in^4	C	=	3.520 in^3
Weight	=	8.810 plf	S yy	=	2.010 in^3			
			R yy	=	1.110 in			
Ycg	=	0.000 in						

Sketches







WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
	Mar. 19, 2026 11:13	Puyallup Bell_Column 8

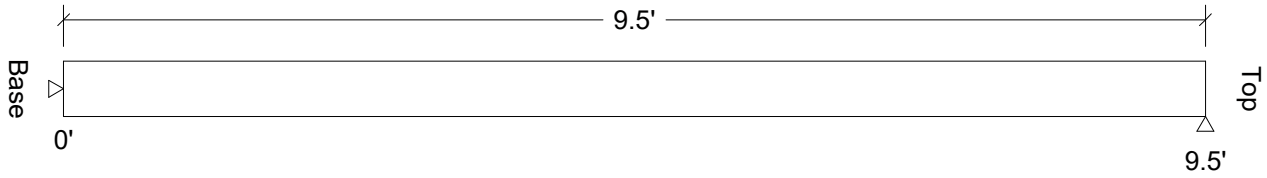
Design Check Calculation Sheet

WoodWorks Sizer 13.2.1

Loads:

Load	Type	Distribution	Location [ft] Start	End	Magnitude Start	End	Unit
Beam 7 LL	Live	Axial	(Ecc. = 0.92")		2333		lbs
Beam 7 DL	Dead	Axial	(Ecc. = 0.92")		2233		lbs
Self-weight	Dead	Axial			74		lbs

Reactions (lbs):



Unfactored:			
Lateral:			
Dead	18		-18
Live	19		-19
Axial:			
Dead	2307		2307
Live	2333		2333
Factored:			
R->L			-37
Load comb			#2
L->R	37		
Load comb	#2		#1

Puyallup Bell_Column 8

Lumber n-ply, D.Fir-L, No.1, 2x6, 4-ply (6"x5-1/2")

Support: Non-wood

Total length: 9.5'; Volume = 2.2 cu.ft.

Pinned base; Load face = width(b); Built-up fastener: nails; Ke x Lb: 1.0 x 0.0 = 0.0 ft; Ke x Ld: 1.0 x 9.5 = 9.5 ft; Repetitive factor: applied where permitted (refer to online help);

This section PASSES the design code check.

Analysis vs. Allowable Stress and Deflection using NDS 2018 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 2	Fv' = 180	psi	fv/Fv' = 0.01
Bending(+)	fb = 138	Fb' = 1495	psi	fb/Fb' = 0.09
Axial	fc = 141	Fc' = 939	psi	fc/Fc' = 0.15
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.13
Axial Bearing	fc = 141	Fc* = 1650	psi	fc/Fc* = 0.09
Live Defl'n	0.01 = < L/999	0.95 = L/120	in	0.01
Total Defl'n	0.03 = < L/999	0.95 = L/120	in	0.03

Additional Data:

FACTORS:	F/E(psi)	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	180	1.00	1.00	1.00	-	-	-	-	1.00	1.00	2
Fb'+	1000	1.00	1.00	1.00	1.000	1.300	-	1.15	1.00	1.00	2
Fc'	1500	1.00	1.00	1.00	0.569	1.100	-	-	1.00	1.00	2
E'	1.7 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Emin'	0.62 million	1.00	1.00	-	-	-	-	1.00	1.00	2
Fc*	1500	1.00	1.00	1.00	-	1.100	-	-	1.00	1.00	2

CRITICAL LOAD COMBINATIONS:

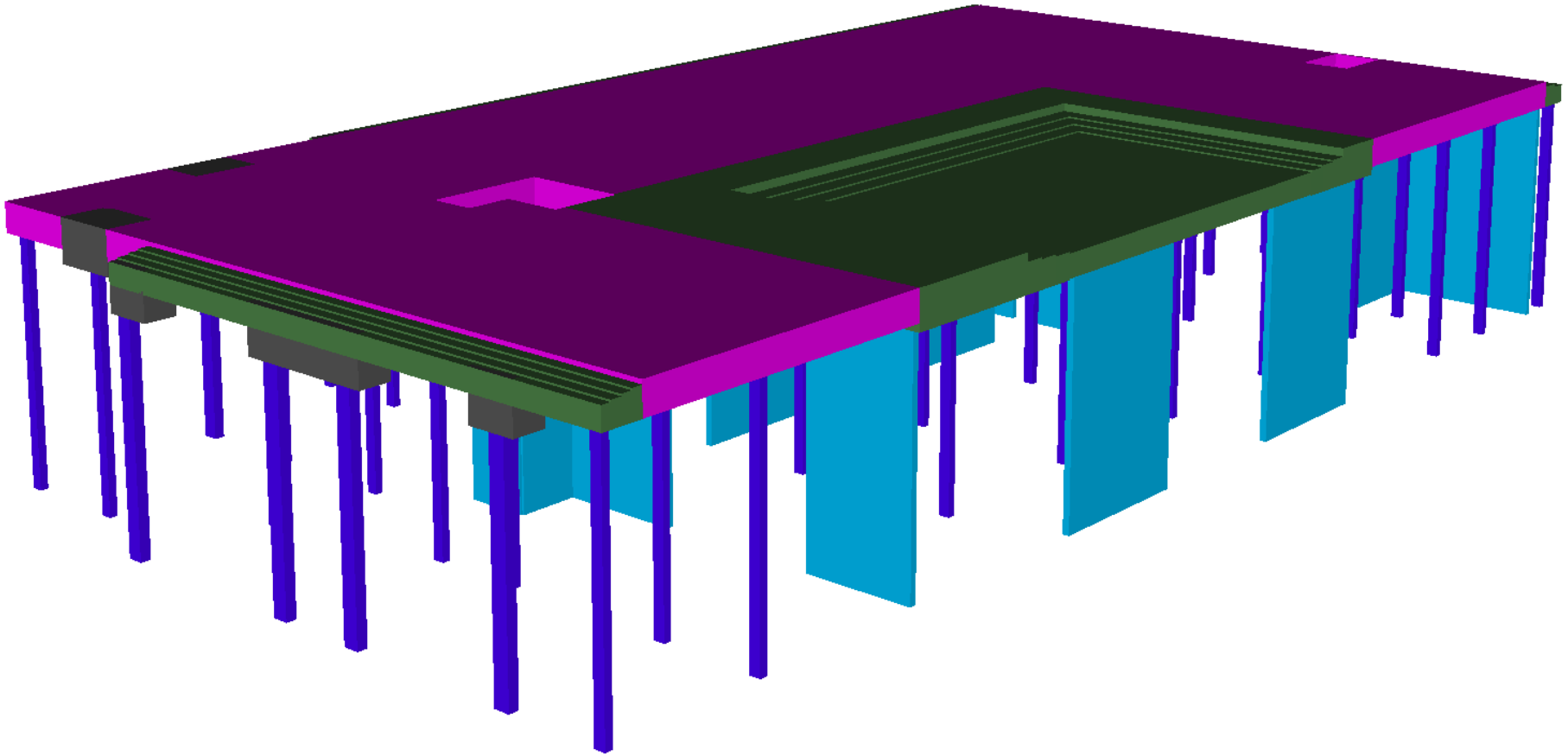
```
 Shear     : LC #2  = D + L
 Bending(+): LC #2  = D + L
 Deflection: LC #2  = D + L  (live)
             LC #2  = D + L  (total)
 Axial     : LC #2  = D + L
 Combined  : LC #2  = D + L
 Load Types: D=dead L=live
 Load combinations: ASD Basic from ASCE 7-16 2.4; all LC's listed in the Analysis report
```

CALCULATIONS:

```
 V = 37 lbs; M(+) = 349 lbs-ft; P = 4640 lbs, Kf = 1.00
 EI = 35.35e06 lb-in^2/ply
 Combined: Fb' = 1495 psi; fb = 0 psi; fbe = (P x e)/S = fc(6e/d) = 138 psi;
 FcE = 1186 psi
 "Live" deflection is due to all non-dead loads (live, wind, snow…)
 Total deflection = 1.50 permanent + "live"
 Axial d governs, le/b full = 0.0, le/b 1-ply = 0.0, le/d = 20.7
```

Design Notes:

1. Analysis and design are in accordance with the ICC International Building Code (IBC 2021) and the National Design Specification (NDS 2018), using Allowable Stress Design (ASD). Design values are from the NDS Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. BUILT-UP COLUMNS: nailed or bolted built-up columns shall conform to the provisions of NDS Clause 15.3.
4. Axial load eccentricity applied in direction of load face only. It is the designers responsibility to check for effect of eccentricity in the other direction.



03/19/26 11:55:29	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

117 MATERIALS

117.20 CONCRETE MATERIAL PROPERTIES

ID	Label	F'c	Unit Weight	Type	Ec	Creep coefficient	Fiber Type	Fiber Dosage
		psi	pcf		ksi			
1	Concrete 1	5000	150.00	Normal	4287	2.00		

F'c = strength at 28 days
Ec = modulus of elasticity at 28 days

117.40 REINFORCEMENT (NONPRESTRESSED) MATERIAL PROPERTIES

ID	Label	fy	fvy	Es
		ksi	ksi	ksi
1	MildSteel 1	60.000	60.000	30000

fy = yield stress of longitudinal reinforcement
fvy = yield stress of one-way shear reinforcement
Es = modulus of elasticity

117.60 PRESTRESSING MATERIAL PROPERTIES

ID	Label	fpu	fpy	Eps
		ksi	ksi	ksi
1	Prestressing 1	270.000	240.000	29007

fpu = ultimate stress
fpy = yield stress
Eps = modulus of elasticity

117.80 GENERIC MATERIAL PROPERTIES

ID	Label	Unit Weight	E	G	Poisson's Ratio	
		pcf	ksi	ksi		

E = modulus of elasticity
G = shear modulus

142 CODES AND ASSUMPTIONS

142.10 DESIGN CODE SPECIFIED: ACI 318-2019
142.15 TORSIONAL STIFFNESS OF BEAMS ACCOUNTED FOR
142.16 TORSIONAL STIFFNESS OF LOWER COLUMNS ACCOUNTED FOR
142.17 TORSIONAL STIFFNESS OF UPPER COLUMNS ACCOUNTED FOR

142.20 MATERIAL AND STRENGTH REDUCTION FACTORS

Two-way Slabs
ACI 318-2019 strength reduction factors used:
For bending = 0.90

For shear two-way = 0.75

One-way Slabs
ACI 318-2019 strength reduction factors used:
For bending = 0.90
For shear one-way = 0.75

Beams
ACI 318-2019 strength reduction factors used:
For bending = 0.90
For shear one-way = 0.75

142.30 COVER TO REINFORCEMENT

Two-way Slabs
Prestressing Tendons (CGS)
At top = 1.50 in
At bottom = 1.50 in
Nonprestressing reinforcement (cover)
At top = 1.00 in
At bottom = 1.00 in

One-way Slabs
Prestressing Tendons (CGS)
At top = 1.50 in
At bottom = 1.50 in
Nonprestressing reinforcement (cover)
At top = 1.00 in
At bottom = 1.00 in

Beams
Prestressing Tendons (CGS)
At top = 1.50 in
At bottom = 1.50 in
Nonprestressing reinforcement (cover)
At top = 1.50 in
At bottom = 1.50 in

142.40 MINIMUM BAR LENGTH

Two-way systems
Cut off length of minimum steel over support (length/span) = 0.17
Cut off length of minimum steel in span (length/span) = 0.33
Extension of rebar beyond where required for strength:
Top bars = 12.00 in
Bottom bars = 12.00 in

One-way slabs
Cut off length of minimum steel over support (length/span) = 0.17
Cut off length of minimum steel in span (length/span) = 0.33
Extension of rebar beyond where required for strength:
Top bars = 12.00 in
Bottom bars = 12.00 in

Beams
Cut off length of minimum steel over support (length/span) = 0.17

Cut off length of minimum steel in span (length/span) = 0.33
Extension of rebar beyond where required for strength:
Top bars = 12.00 in
Bottom bars = 12.00 in

143 DESIGN CRITERIA

143.10 ONE-WAY SLABS

Sustain load stresses
Tension stress as multiple of (f'c)^1/2
At top fibers = 7.50
At bottom fibers = 7.50
Compression stress as multiple of f'c
Extreme fiber = 0.45

Initial load stresses
Tension stress as multiple of (f'c)^1/2
At top fibers = 3.00
At bottom fibers = 3.00
Compression stress as multiple of f'c
Extreme fiber = 0.60

Total load stresses
Tension stress as multiple of (f'c)^1/2
At top fibers = 7.50
At bottom fibers = 7.50
Compression stress as multiple of f'c
Extreme fiber = 0.60

143.20 TWO-WAY SLABS

Sustain load stresses
Tension stress as multiple of (f'c)^1/2
At top fibers = 6.00
At bottom fibers = 6.00
Compression stress as multiple of f'c
Extreme fiber = 0.45

Initial load stresses
Tension stress as multiple of (f'c)^1/2
At top fibers = 3.00
At bottom fibers = 3.00
Compression stress as multiple of f'c
Extreme fiber = 0.60

Total load stresses
Tension stress as multiple of (f'c)^1/2
At top fibers = 6.00
At bottom fibers = 6.00
Compression stress as multiple of f'c
Extreme fiber = 0.60

143.30 BEAMS

Sustain load stresses
- Tension stress as multiple of (f'c)^1/2
  - At top fibers = 7.50
  - At bottom fibers = 7.50
- Compression stress as multiple of f'c
  - Extreme fiber = 0.45

Initial load stresses
- Tension stress as multiple of (f'c)^1/2
  - At top fibers = 3.00
  - At bottom fibers = 3.00
- Compression stress as multiple of f'c
  - Extreme fiber = 0.60

Total load stresses
- Tension stress as multiple of (f'c)^1/2
  - At top fibers = 7.50
  - At bottom fibers = 7.50
- Compression stress as multiple of f'c
  - Extreme fiber = 0.60

144.40 USER DEFINED STIFFNESS MODIFIERS SUMMARY

Columns

usage	#	M11	M22	M33	F11

Beams

usage	#	M11	M33	F11

Walls

usage	#	M11	M22	F11	F22

Slabs

usage	#	M11	M22	F11	F22

146 LOAD CASES AND COMBINATIONS

146.20 LOAD CASES

Dead load
Live load
Selfweight
Prestressing
Hyperstatic
Snow Load
ELX
ELX PLUS Z
ELX MINUS Z
ELZ
ELZ PLUS X
ELZ MINUS X
SUPER IMPOSED

146.40 LOAD COMBINATIONS

Name: Service(Total Load)
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.40 x Live load

Name: Service(Sustained Load)
Evaluation: SERVICE SUSTAINED LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.12 x Live load

Name: Strength(Dead and Live)
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight + 1.20 x Dead load + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.64 x Live load

Name: Strength(Dead Load Only)
Evaluation: STRENGTH
Combination detail: 1.40 x Selfweight + 1.40 x Dead load + 1.40 x SUPER IMPOSED + 1.00 x Hyperstatic

Name: 20 DAYS
Evaluation: CRACKED DEFLECTION
Combination detail: 1.00 x Selfweight + 1.15 x Prestressing

Name: 40 DAYS
Evaluation: CRACKED DEFLECTION
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 0.30 x SUPER IMPOSED + 1.00 x Prestressing

Name: 180 DAYS
Evaluation: CRACKED DEFLECTION
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.12 x Live load

Name: TOTAL
Evaluation: CRACKED DEFLECTION
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.40 x Live load

Name: SERV1
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 2.10 x ELX + 1.00 x SUPER IMPOSED + 1.00 x Prestressing

Name: SERV2

Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -2.10 x ELX + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV3
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 2.10 x ELX PLUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV4
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -2.10 x ELX PLUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV5
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 2.10 x ELX MINUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV6
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -2.10 x ELX MINUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV7
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 2.10 x ELZ + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV8
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -2.10 x ELZ + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV9
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 2.10 x ELZ PLUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV10
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -2.10 x ELZ PLUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV11
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 2.10 x ELZ MINUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV12
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -2.10 x ELZ MINUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV13
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load + 2.10 x ELX + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV14
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load -2.10 x ELX + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV15
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load + 2.10 x ELX PLUS Z + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV16

Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load -2.10 x ELX PLUS Z + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV17
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load + 2.10 x ELX MINUS Z + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV18
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load -2.10 x ELX MINUS Z + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV19
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load + 2.10 x ELZ + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV20
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load -2.10 x ELZ + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV21
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load + 2.10 x ELZ PLUS X + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV22
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load -2.10 x ELZ PLUS X + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV23
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load + 2.10 x ELZ MINUS X + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV24
Evaluation: SERVICE TOTAL LOAD
Combination detail: 0.60 x Selfweight + 0.60 x Dead load -2.10 x ELZ MINUS X + 0.60 x SUPER IMPOSED + 1.00 x Prestressing
Name: SERV25
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.57 x ELX + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV26
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -1.57 x ELX + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV27
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.57 x ELX PLUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV28
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -1.57 x ELX PLUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV29
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.57 x ELX MINUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV30

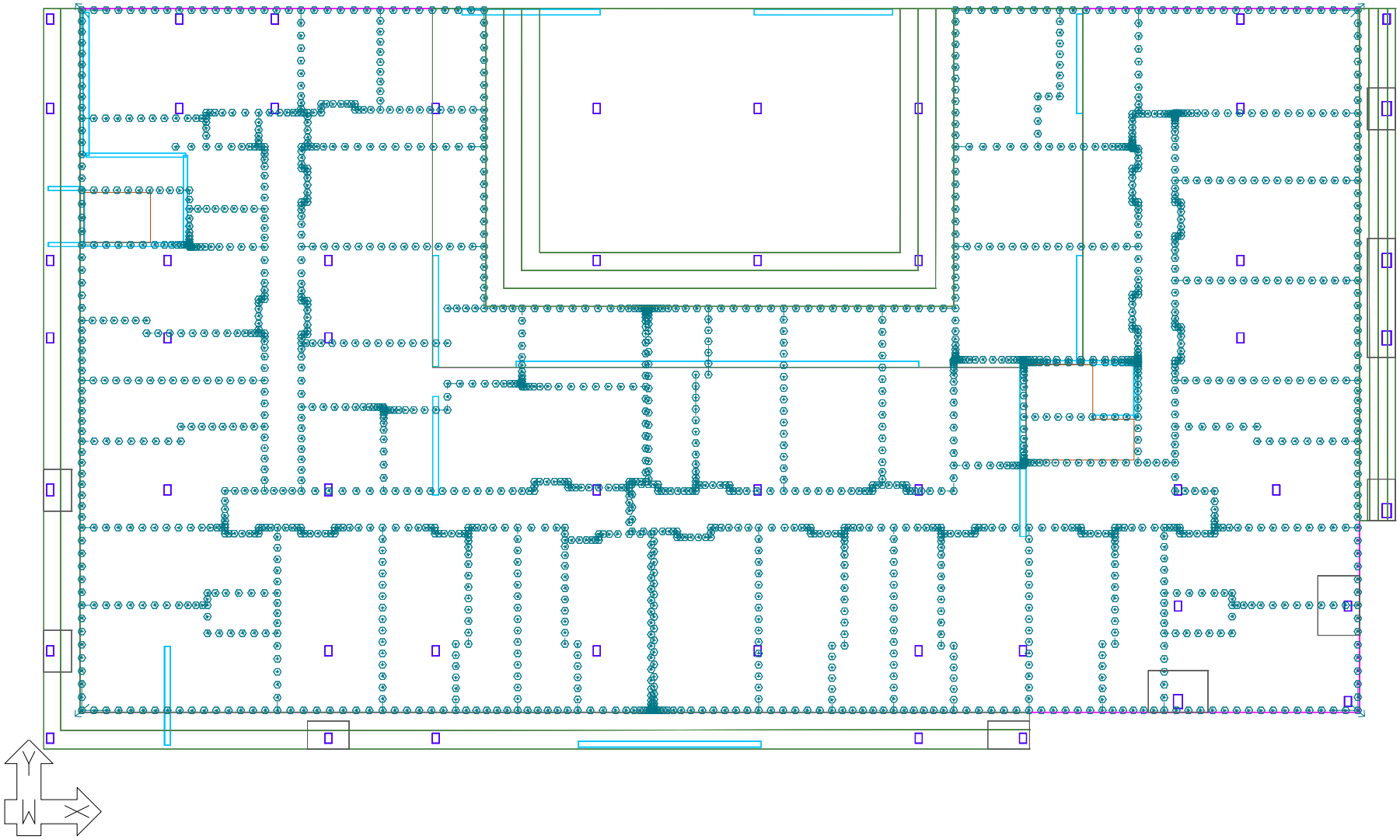
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -1.57 x ELX MINUS Z + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV31
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.57 x ELZ + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV32
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -1.57 x ELZ + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV33
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.57 x ELZ PLUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV34
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -1.57 x ELZ PLUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV35
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load + 1.57 x ELZ MINUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: SERV44
Evaluation: SERVICE TOTAL LOAD
Combination detail: 1.00 x Selfweight + 1.00 x Dead load -1.57 x ELZ MINUS X + 1.00 x SUPER IMPOSED + 1.00 x Prestressing + 0.30 x Live load
Name: Reduced Live
Evaluation: NO CODE CHECK
Combination detail: 0.40 x Live load
Name: STRE1
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight + 3.00 x ELX + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE2
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight -3.00 x ELX + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE3
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight + 3.00 x ELX PLUS Z + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE4
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight -3.00 x ELX PLUS Z + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE5
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight + 3.00 x ELX MINUS Z + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE6
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight -3.00 x ELX MINUS Z + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE7
Evaluation: STRENGTH

Combination detail: 1.20 x Selfweight + 3.00 x ELZ + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE8
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight -3.00 x ELZ + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE9
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight + 3.00 x ELZ PLUS X + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE10
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight -3.00 x ELZ PLUS X + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE11
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight + 3.00 x ELZ MINUS X + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE12
Evaluation: STRENGTH
Combination detail: 1.20 x Selfweight -3.00 x ELZ MINUS X + 1.20 x SUPER IMPOSED + 1.00 x Hyperstatic + 0.40 x Live load
Name: STRE13
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load + 3.00 x ELX + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE14
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load -3.00 x ELX + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE15
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load + 3.00 x ELX PLUS Z + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE16
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load -3.00 x ELX PLUS Z + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE17
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load + 3.00 x ELX MINUS Z + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE18
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load -3.00 x ELX MINUS Z + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE19
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load + 3.00 x ELZ + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE24
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load -3.00 x ELZ + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE23
Evaluation: STRENGTH

Combination detail: 0.90 x Selfweight + 0.90 x Dead load + 3.00 x ELZ PLUS X + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE22
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load -3.00 x ELZ PLUS X + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE21
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load + 3.00 x ELZ MINUS X + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: STRE20
Evaluation: STRENGTH
Combination detail: 0.90 x Selfweight + 0.90 x Dead load -3.00 x ELZ MINUS X + 0.90 x SUPER IMPOSED + 1.00 x Hyperstatic
Name: Long Term 40
Evaluation: LONG TERM DEFLECTION
Combination detail: 1.02 x 20 DAYS + 1.00 x 40 DAYS
Name: Long Term 180
Evaluation: LONG TERM DEFLECTION
Combination detail: 0.14 x 20 DAYS + 1.67 x 40 DAYS + 1.00 x 180 DAYS
Name: Long Term 360
Evaluation: LONG TERM DEFLECTION
Combination detail: 0.14 x 20 DAYS + 0.34 x 40 DAYS + 1.56 x 180 DAYS + 1.00 x TOTAL
Name: Long Term 5000
Evaluation: LONG TERM DEFLECTION
Combination detail: 0.15 x 20 DAYS + 0.29 x 40 DAYS + 2.00 x 180 DAYS + 1.00 x TOTAL

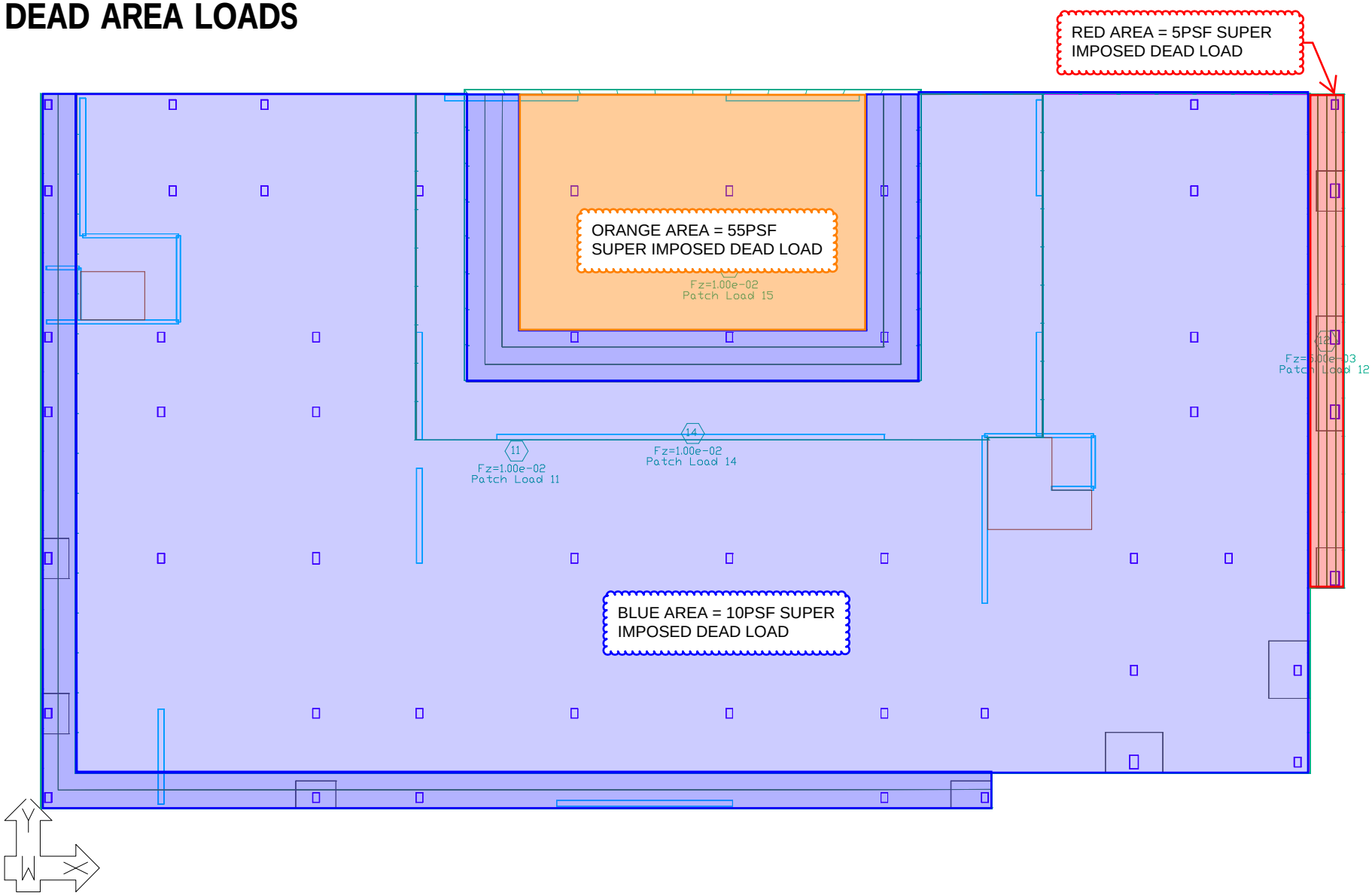
DEAD POINT AND LINE LOADS

Note: Loads from our RISA3D model were imported into ADAPT for the PT design, resulting in 1000s of point and line loads. They are shown graphically on the next set of pages. If list of loads is requested we can provide output pages



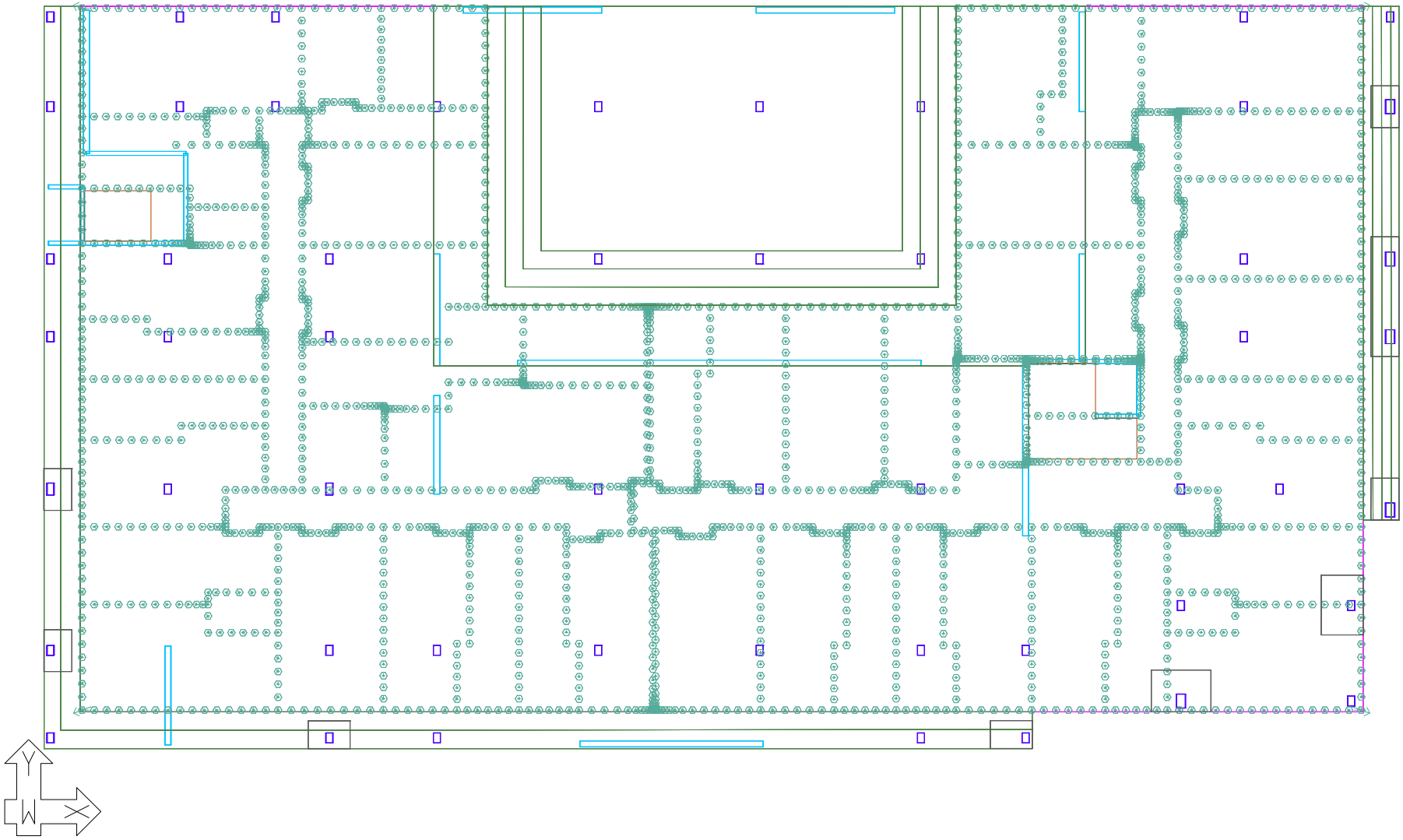
03/19/26 11:41:29	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

DEAD AREA LOADS



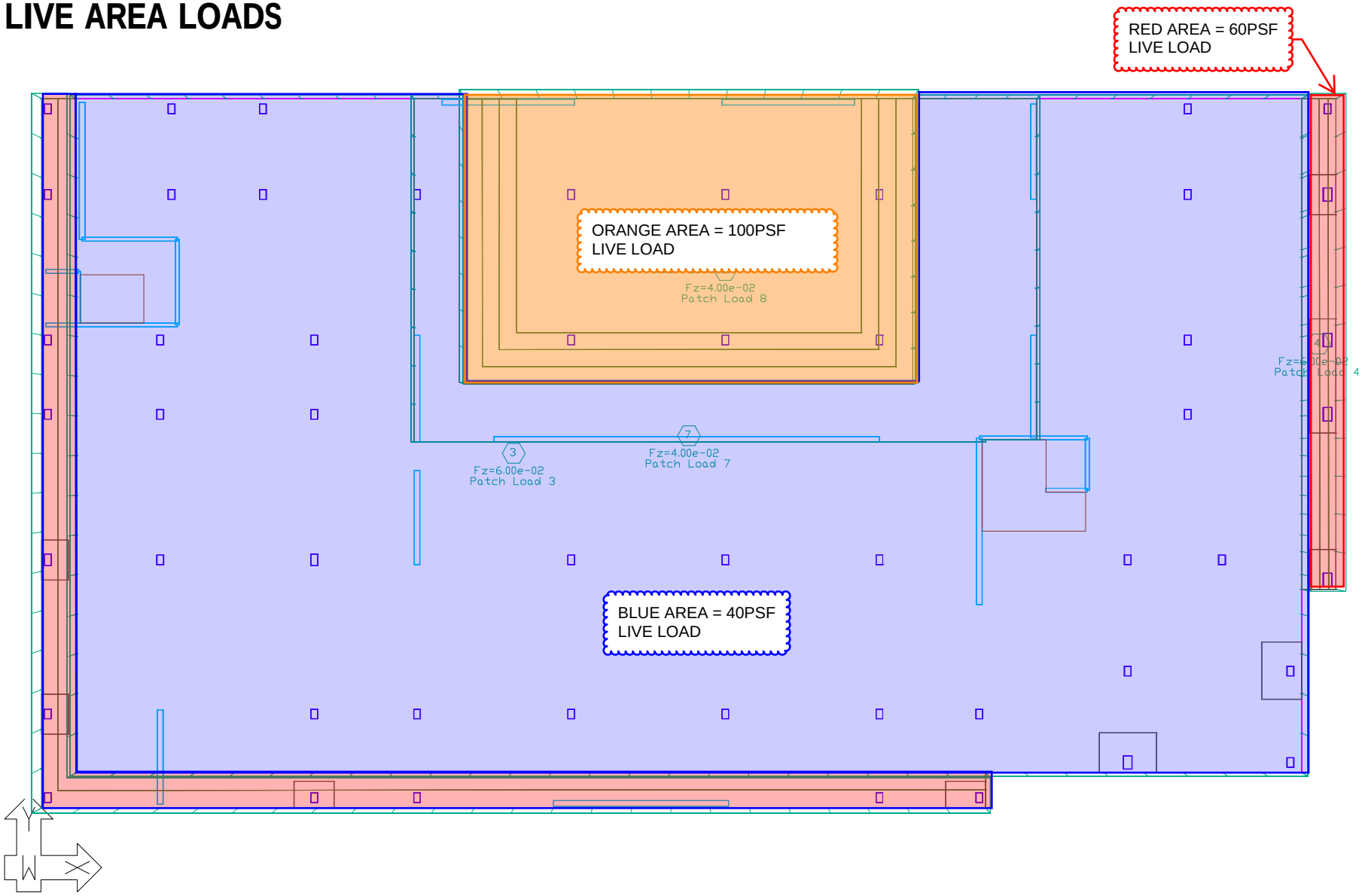
03/19/26 11:43:30	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

LIVE POINT AND LINE LOADS



03/19/26 11:40:28	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

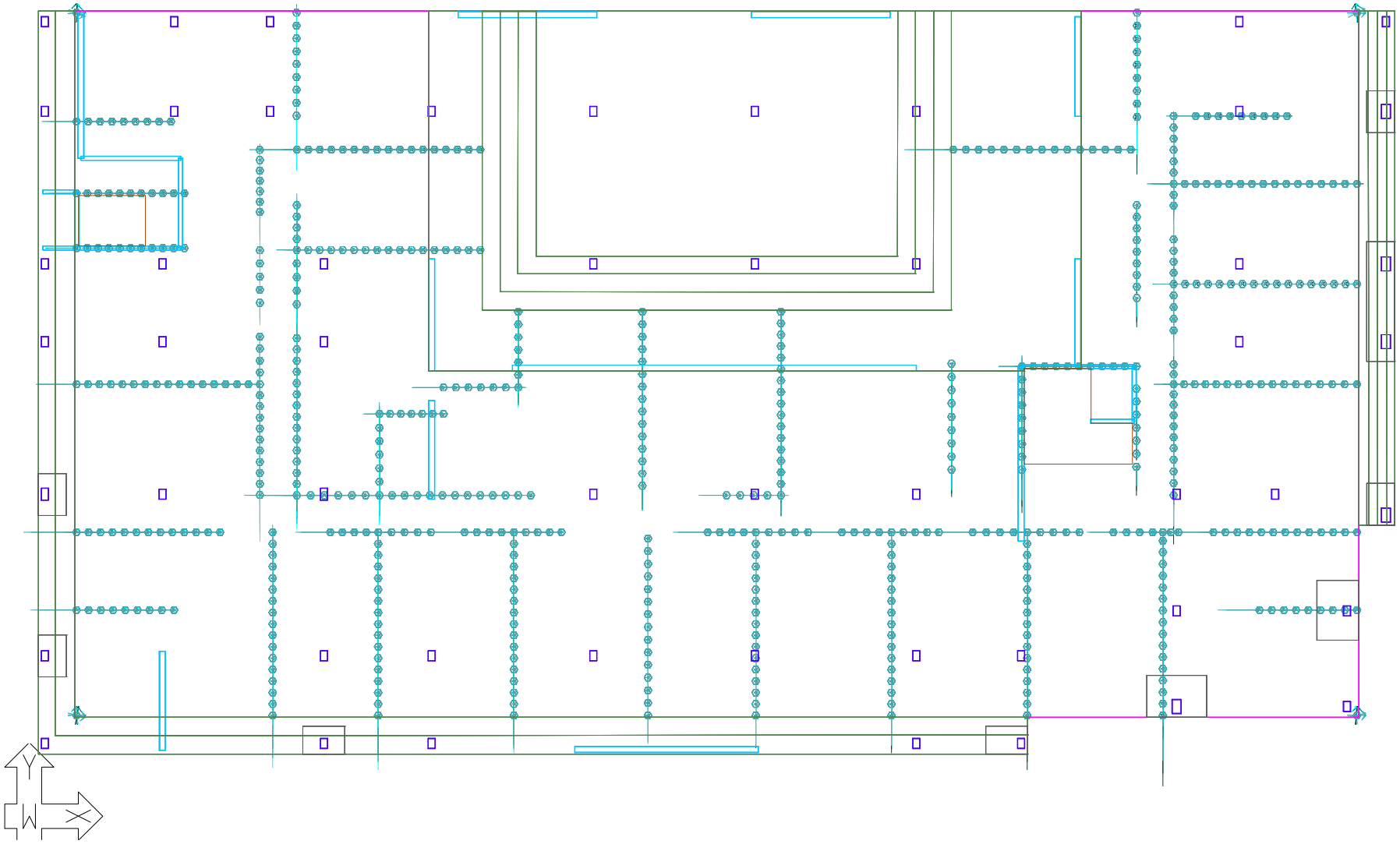
LIVE AREA LOADS



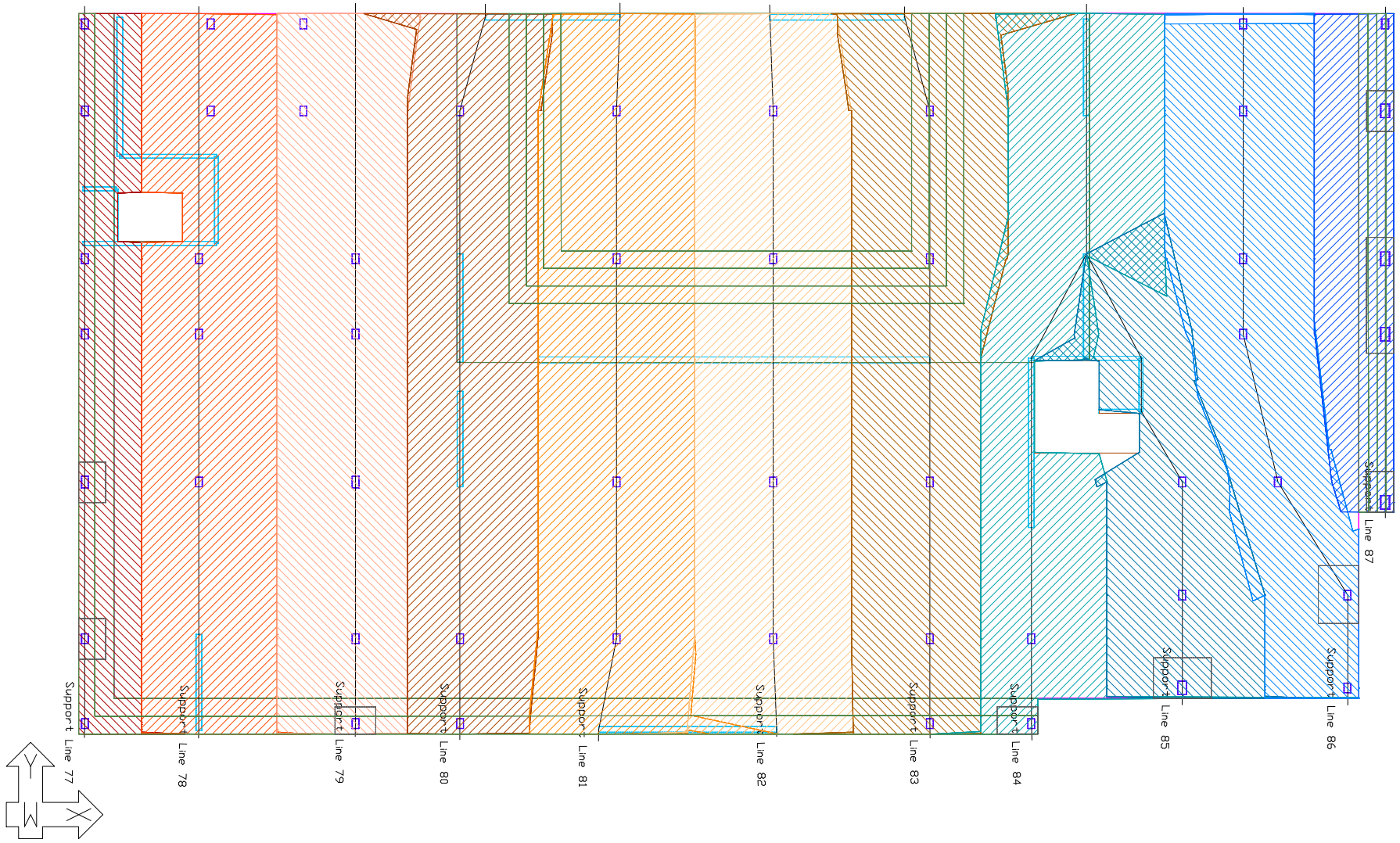
03/19/26 11:48:40	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

SEISMIC POINT LOADS

ELX, ELX-Z, ELX+Z, ELZ, ELZ-X,ELZ+X

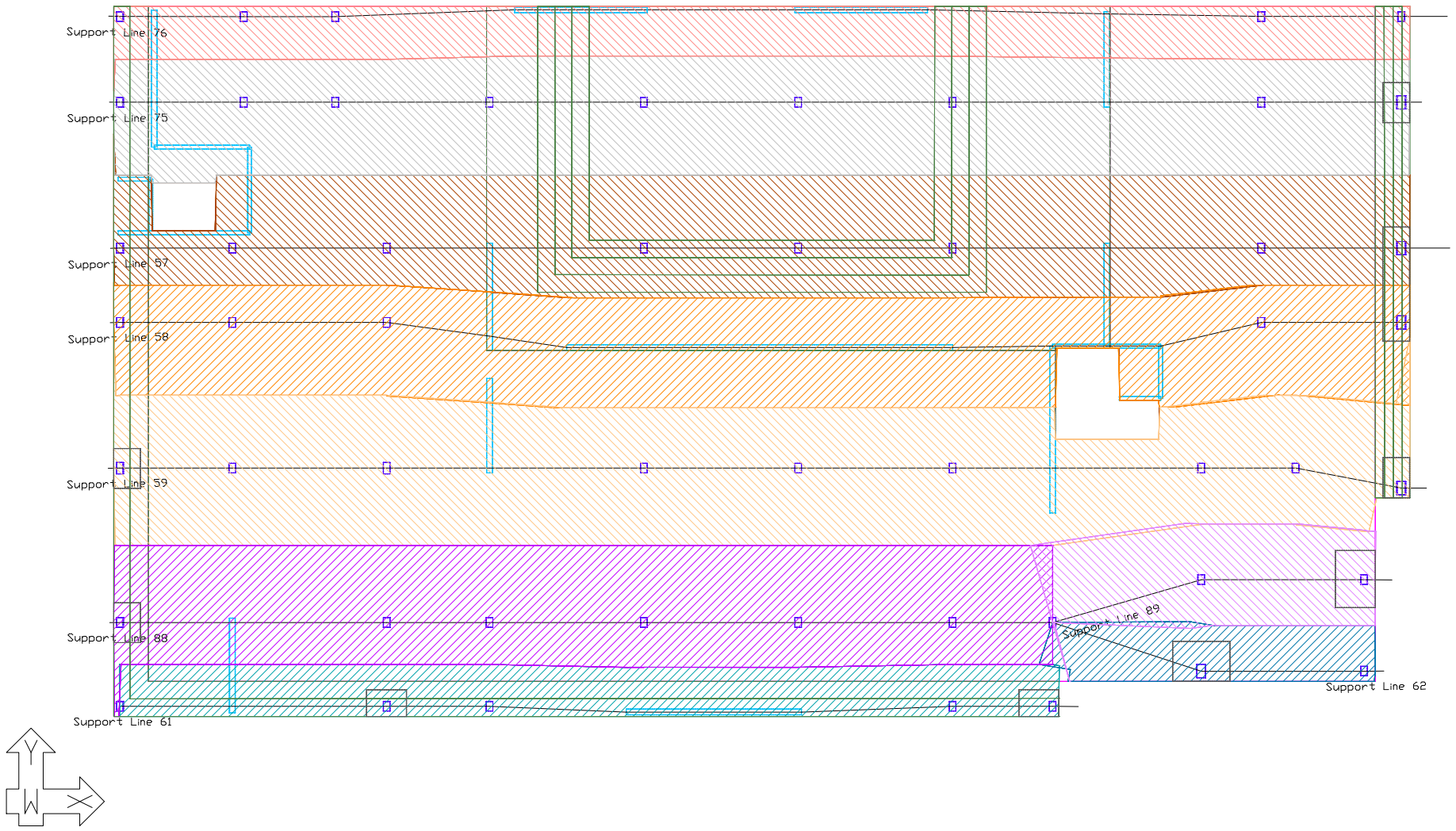


03/19/26 11:39:01	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		



Idealized Tributary Plan for Support Lines in Y-Direction

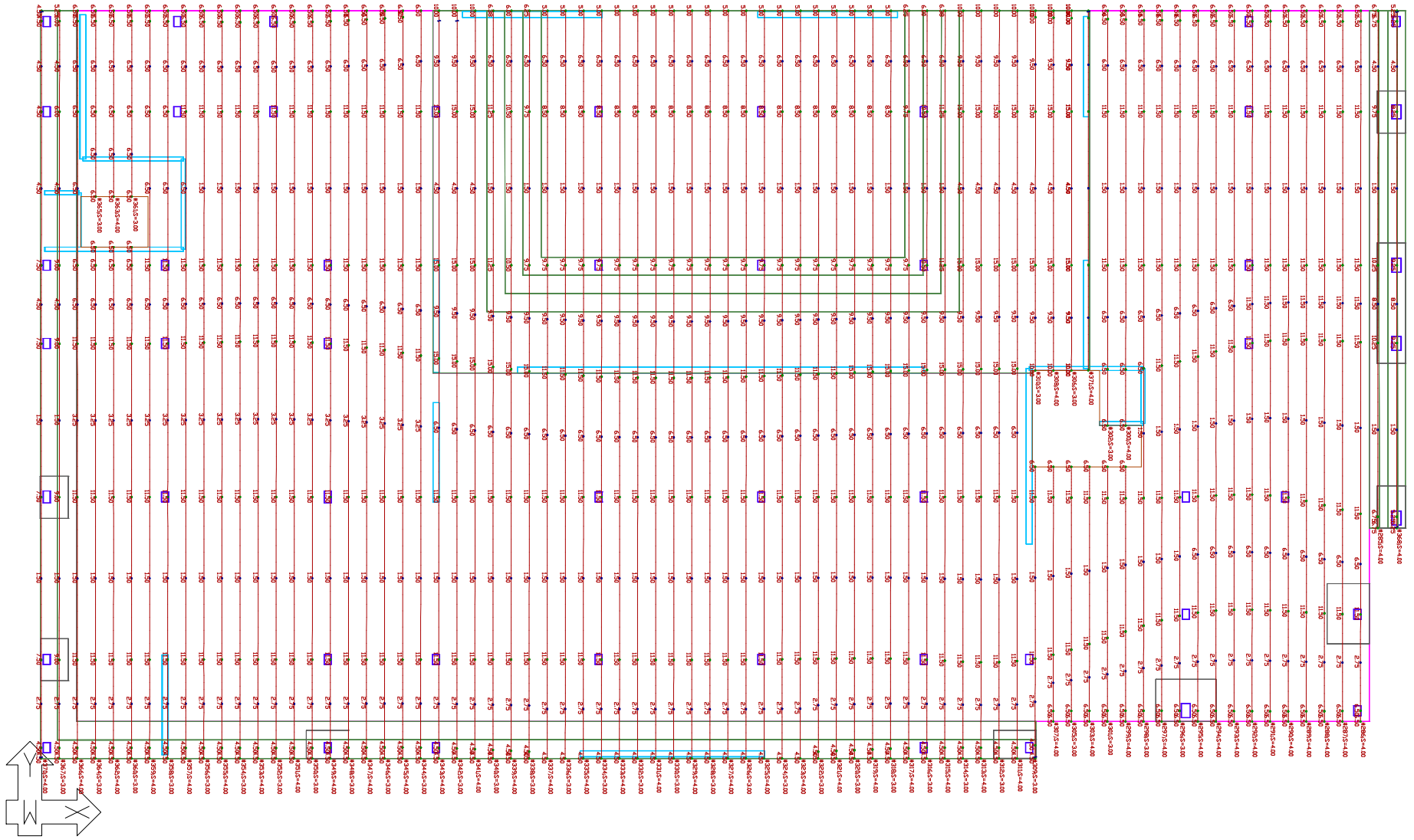
03/19/26 12:25:46	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		



Idealized Tributary Plan for Support Lines in X-Direction

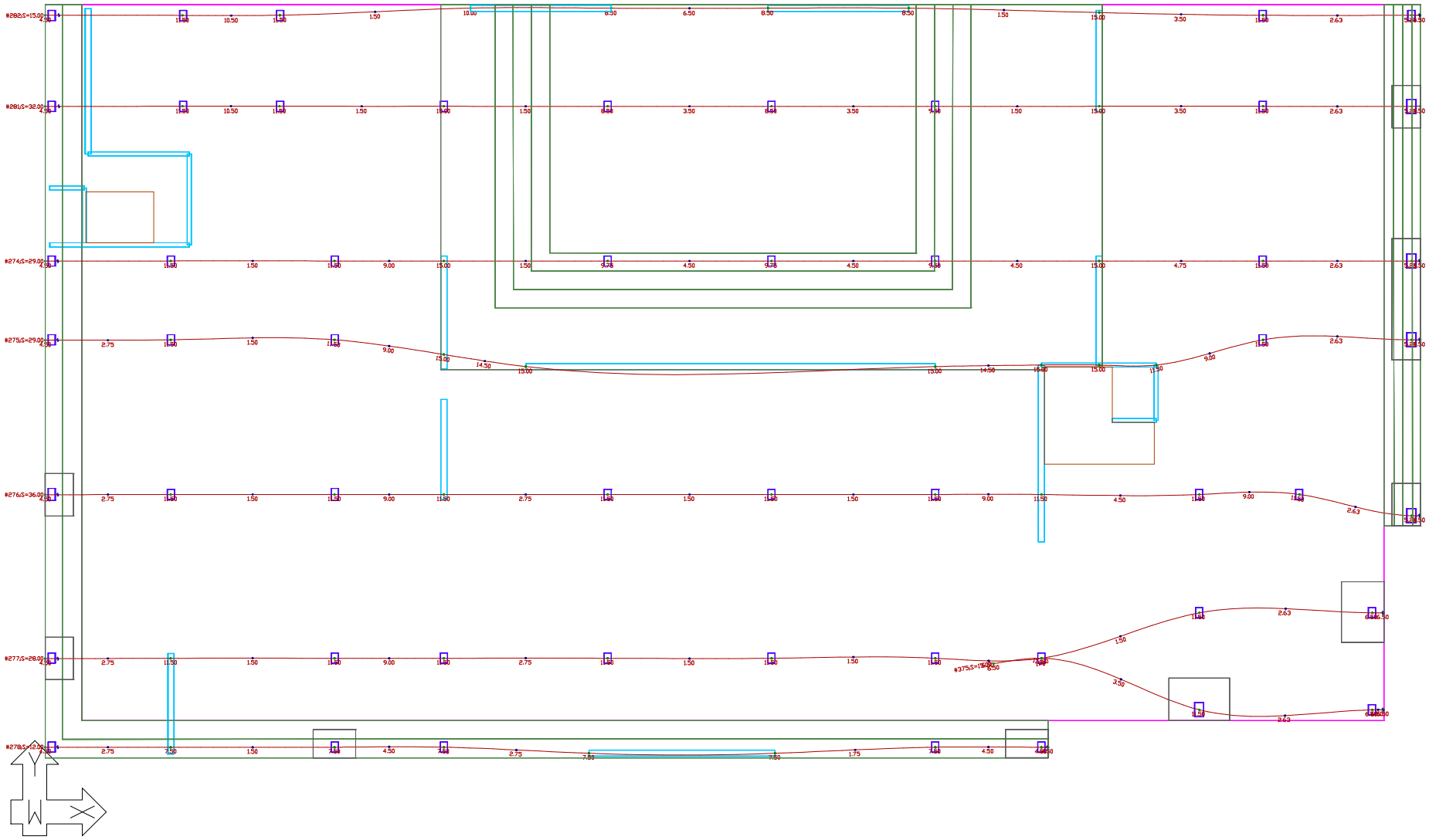
03/19/26 12:24:52	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

DISTRIBUTED TENDON ID, CGS, AND #STRANDS



03/19/26 12:05:12	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

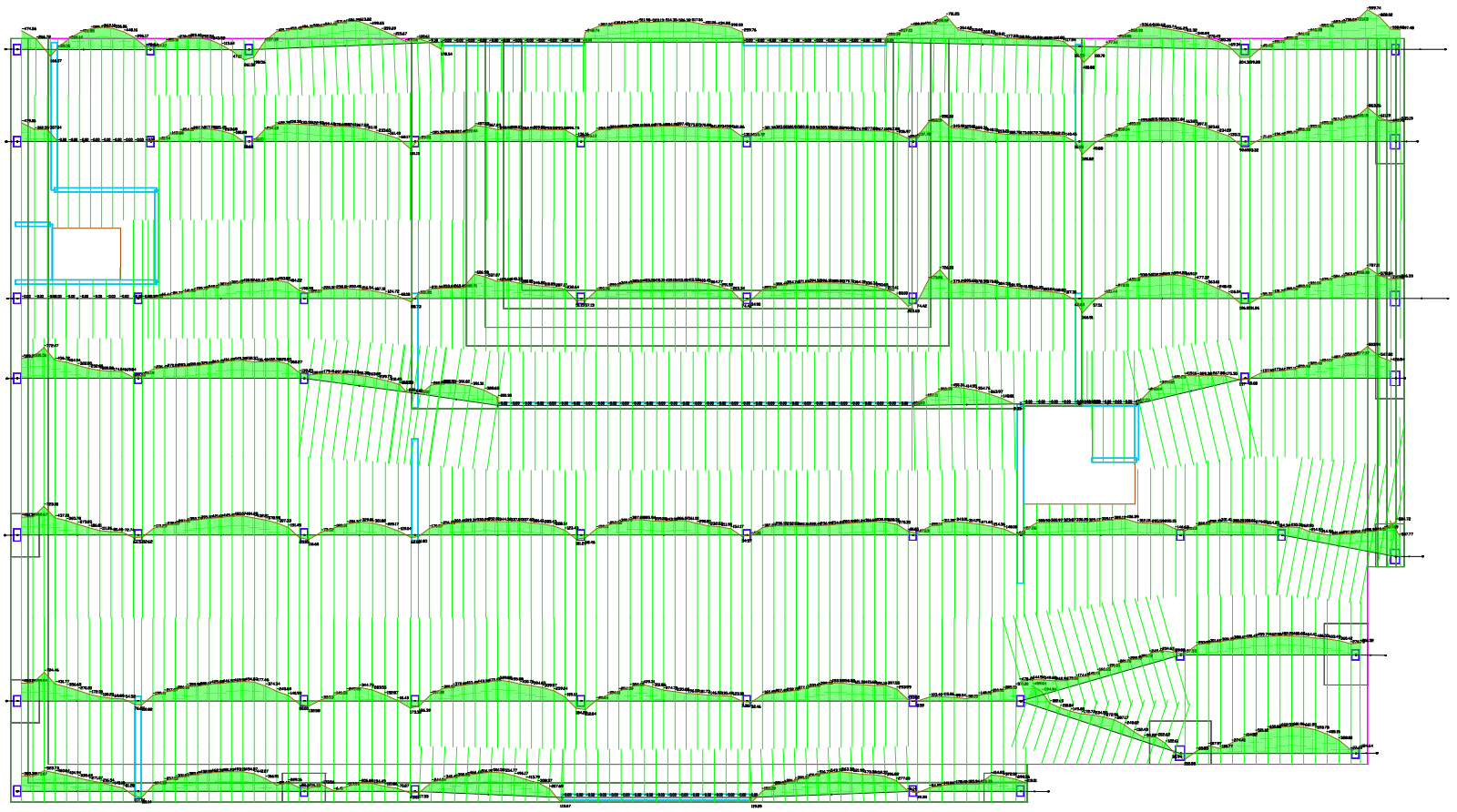
BANDED TENDON TENDON ID, CGS, AND #STRANDS

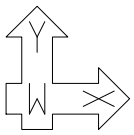


03/19/26 12:04:48	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

X-DIRECTION DESIGN STRIP ENVELOPED MAX TOP STRESS

Design Sections, Stresses, Top (Psi)
Load Combination: Service(Total Load) (SERVICE_TOTAL_LOAD)
Tensile stress positive
Max: 400.88
Min: -999.74

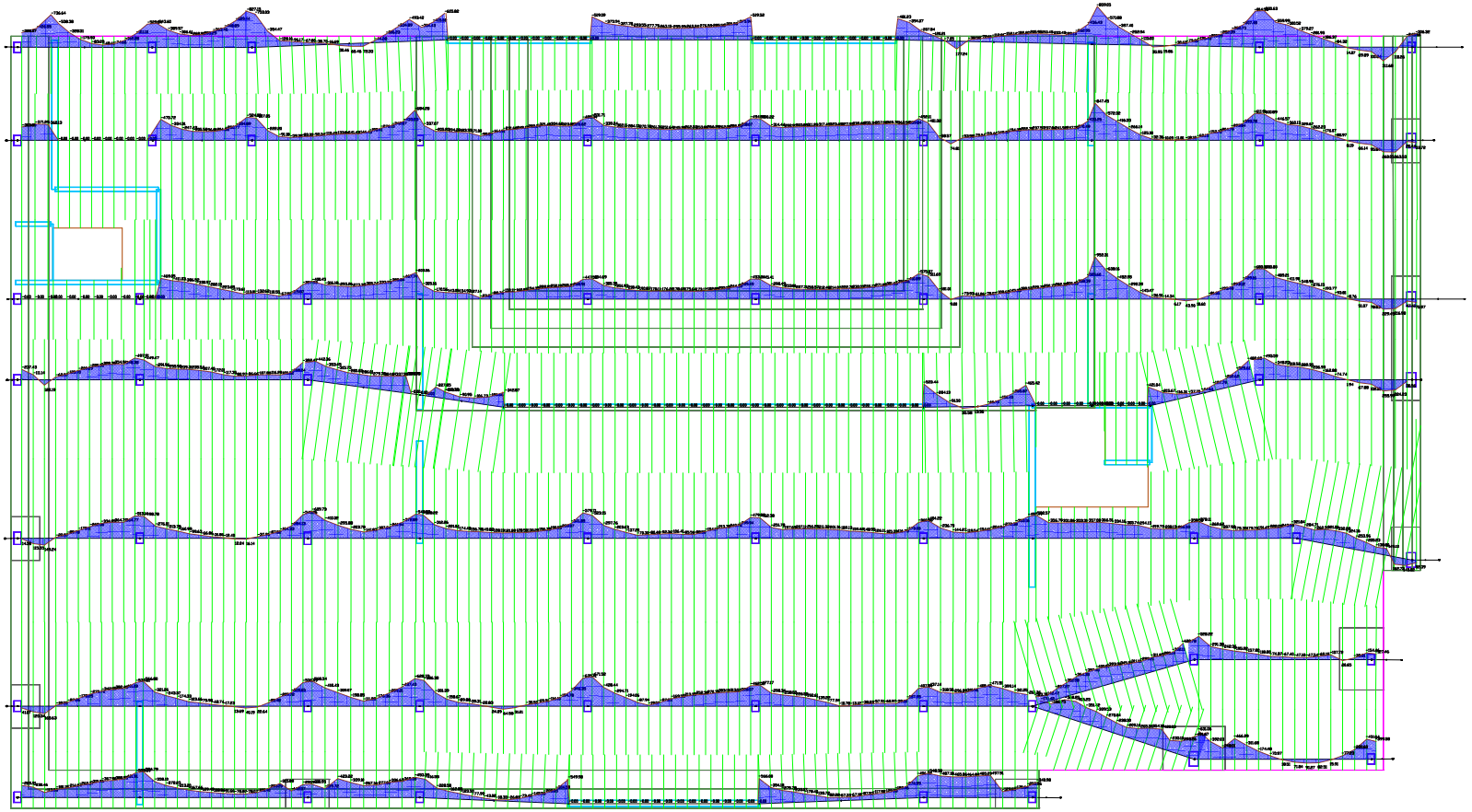


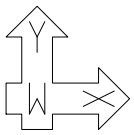


03/19/26 12:21:08	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

X-DIRECTION DESIGN STRIP ENVELOPED MAX BOTTOM STRESS

Design Sections, Stresses, Bottom (Psi)
Load Combination: Service(Total Load) (SERVICE_TOTAL_LOAD)
Tensile stress positive
Max: 319.37
Min: -952.31

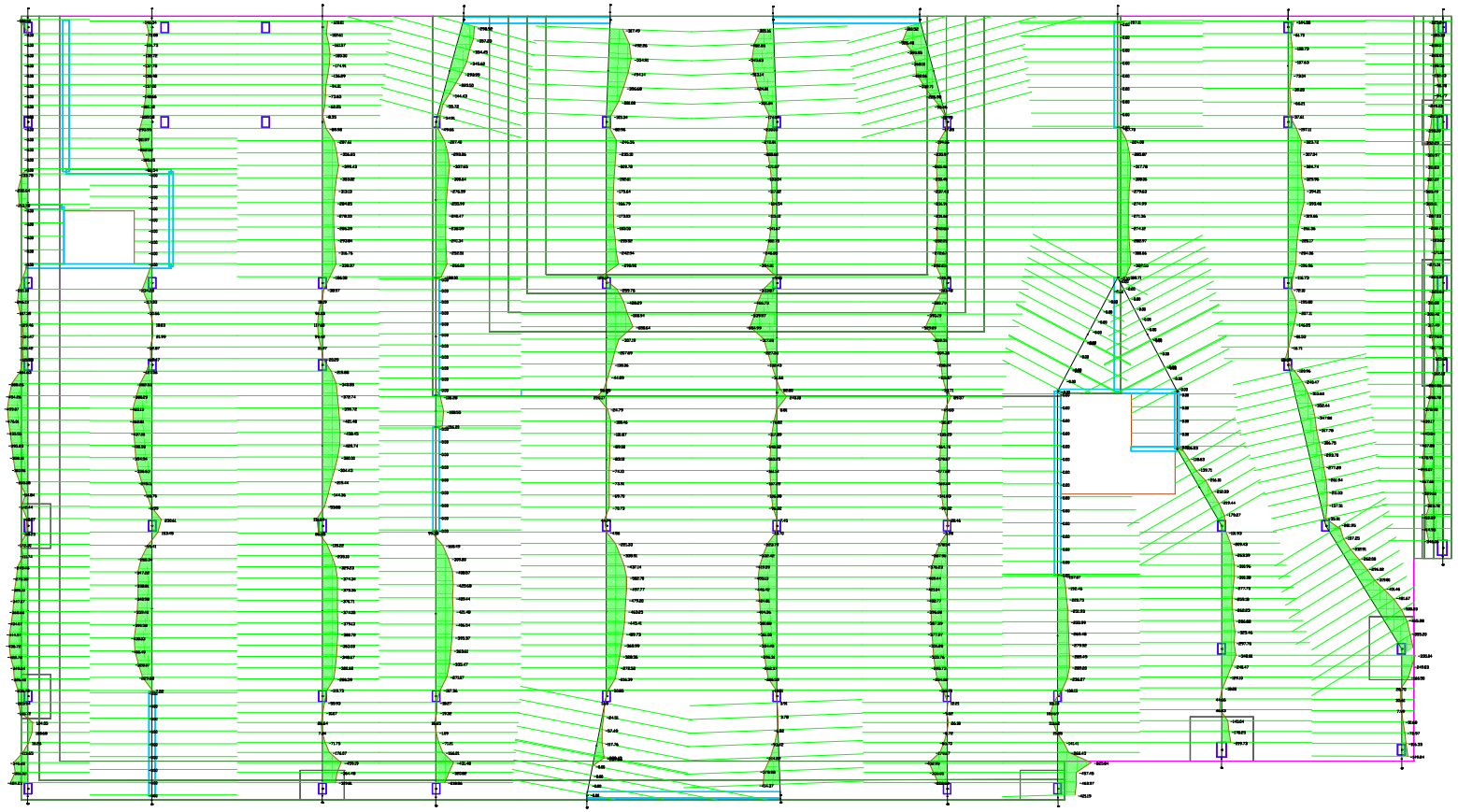


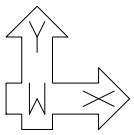


03/19/26 12:21:37	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

Y-DIRECTION DESIGN STRIP ENVELOPED MAX TOP STRESS

Design Sections, Stresses, Top (Psi)
Load Combination: Service(Total Load) (SERVICE_TOTAL_LOAD)
Tensile stress positive
Max: 400.88
Min: -999.74

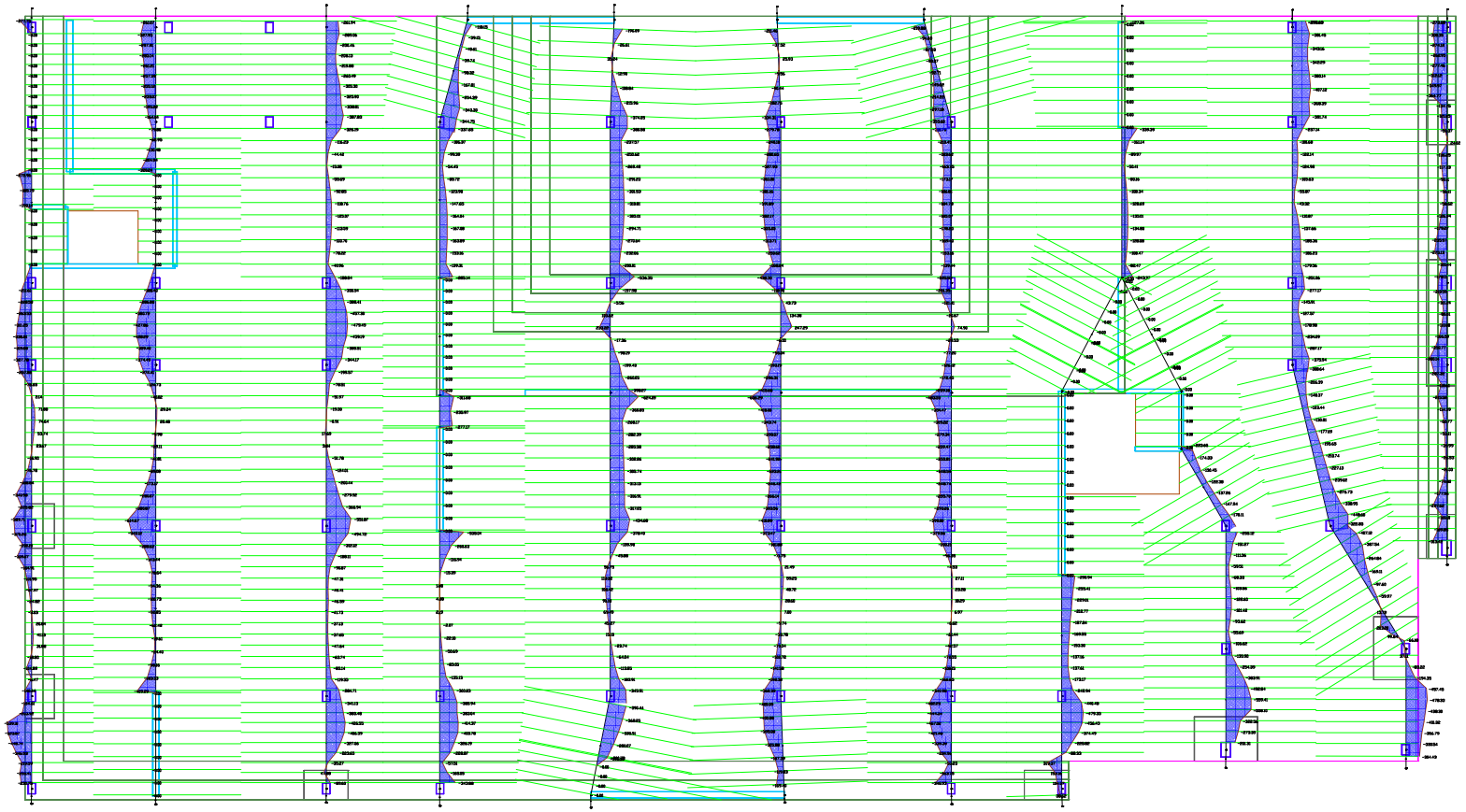


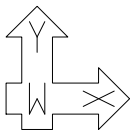


03/19/26 12:22:25	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

Y-DIRECTION DESIGN STRIP ENVELOPED MAX BOTTOM STRESS

Design Sections, Stresses, Bottom (Psi)
Load Combination: Service(Total Load) (SERVICE_TOTAL_LOAD)
Tensile stress positive
Max: 319.37
Min: -952.31

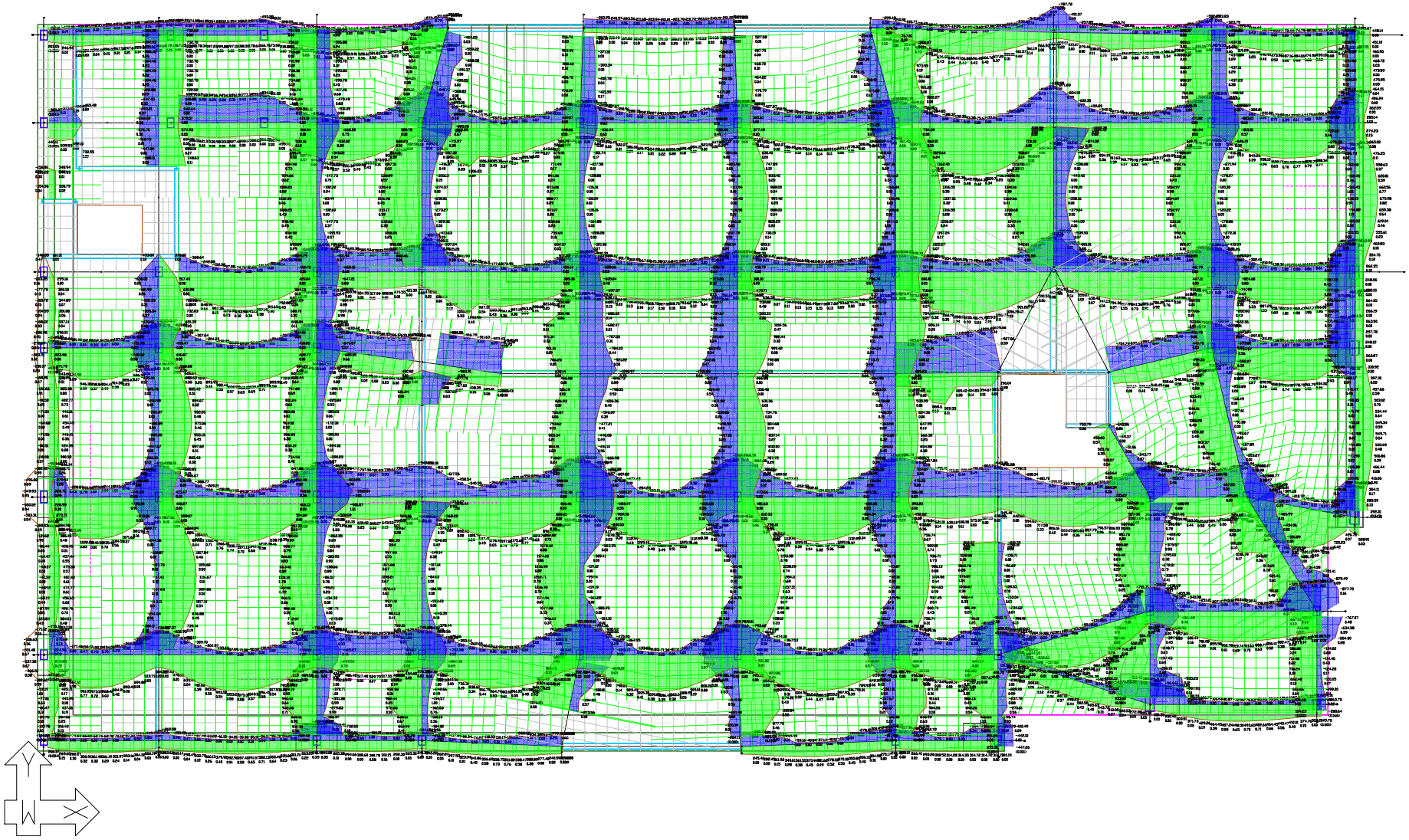




03/19/26 12:22:02	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

MOMENT DEMAND

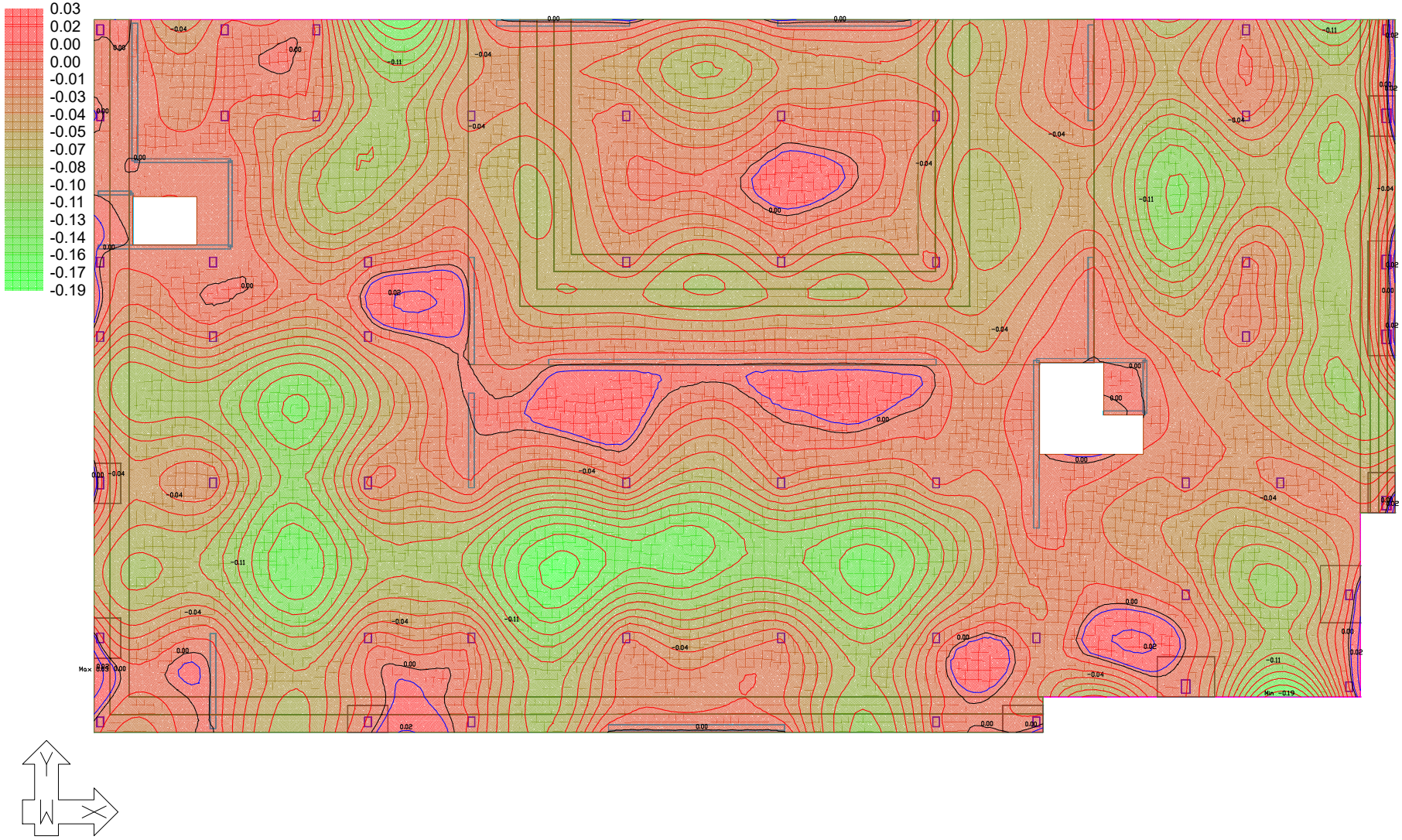
Design Sections, Investigation, Moment Capacity (Kip-ft)
Max: 1564.38
Min: -1265.66
Max demand/capacity ratio: 1.05 ← WITHIN 5% DCR



03/19/26 12:42:10	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

SERVICE DEFLECTION

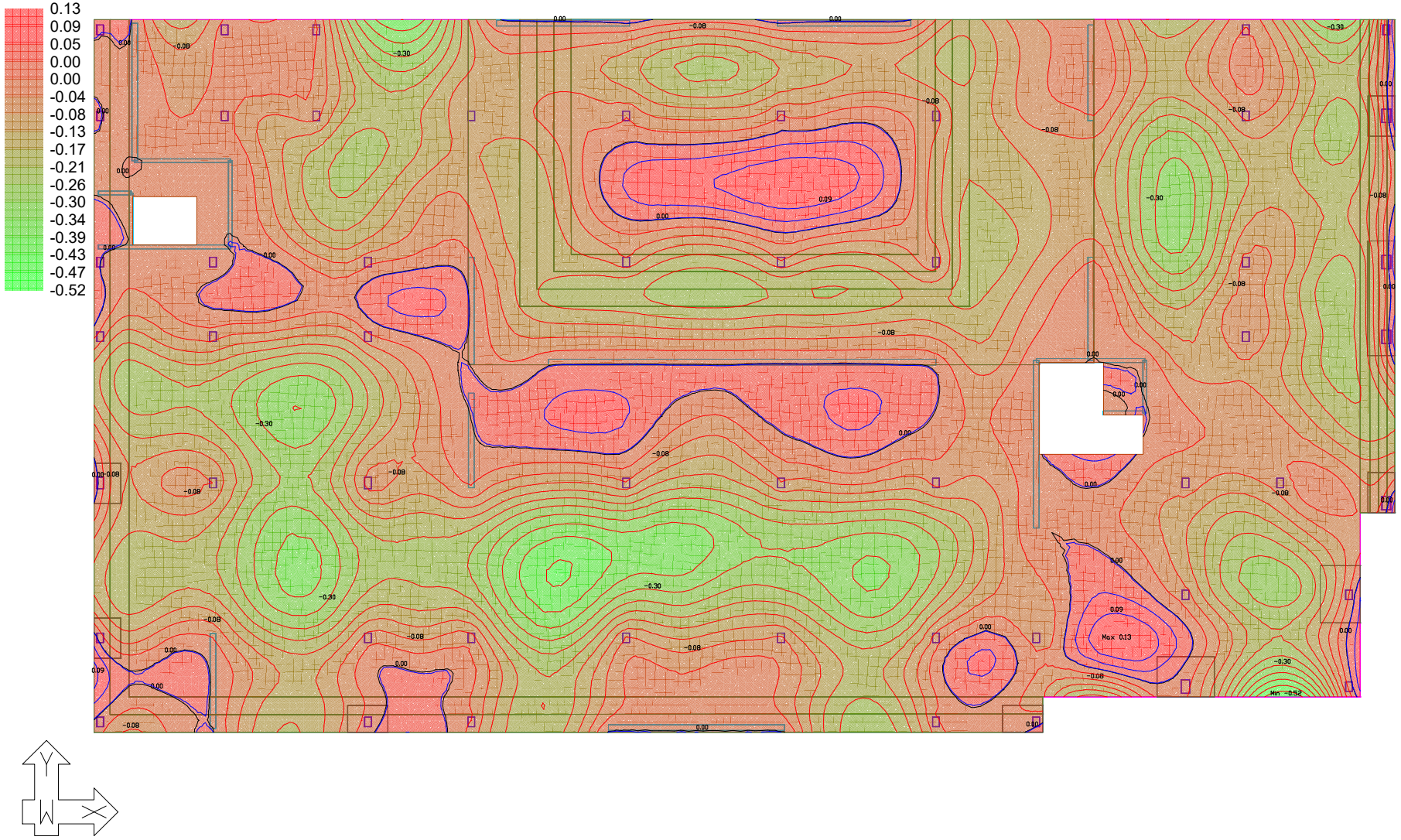
Slab, Deformation, Z-Translation (in)
Load Combination: Service(Total Load) (SERVICE_TOTAL_LOAD)
Max 0.03@(-251.43, 25.00, 10.00)
Min -0.19@(-44.74, 20.81, 10.00)



03/19/26 12:31:11	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

LONG TERM DEFLECTION INCLUDING CREEP MAP

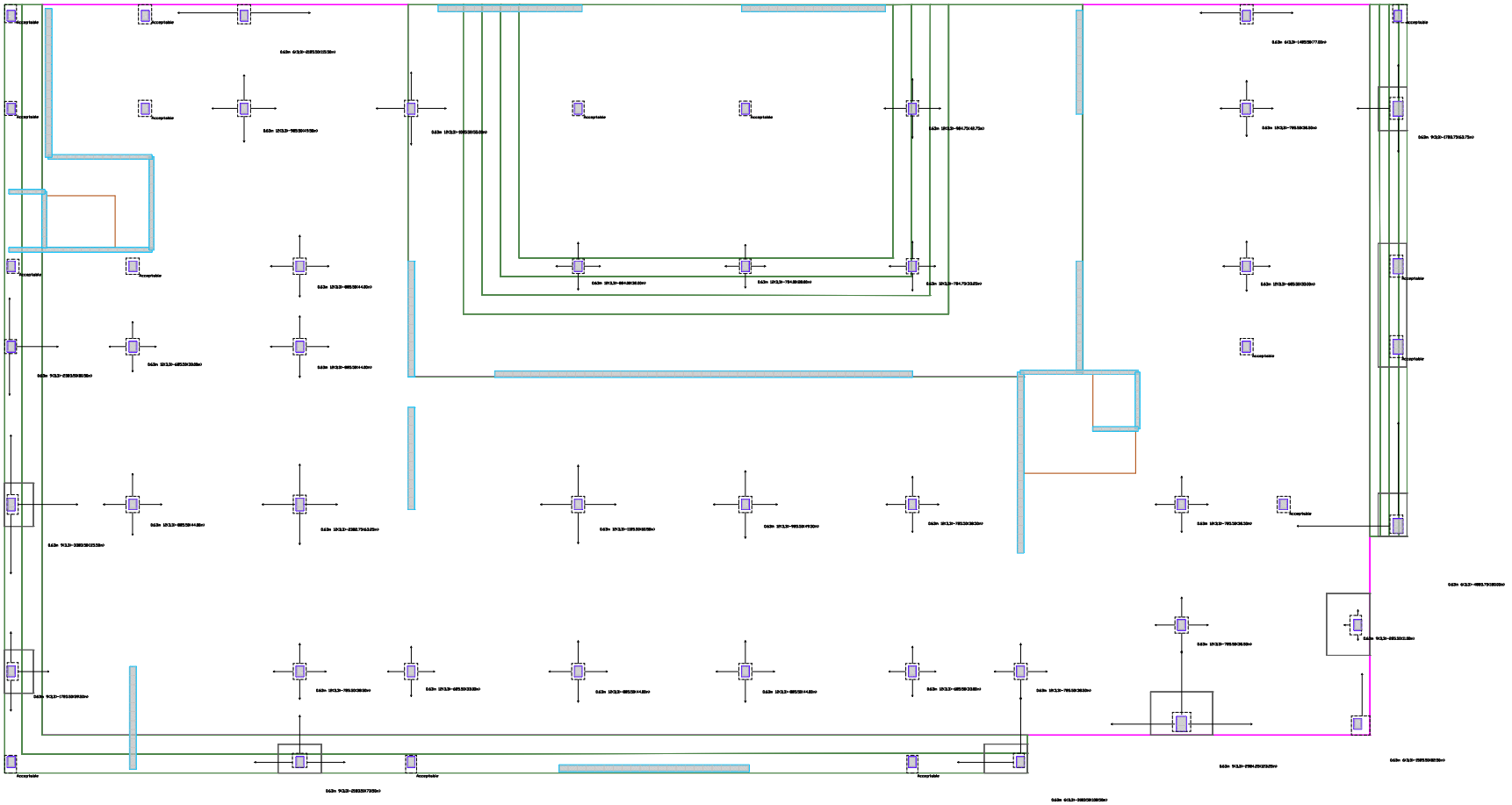
Slab, Deformation, Z-Translation (in)
Load Combination: Long Term 5000 (LONG_TERM_DEFLECTION)
Max 0.13@(-73.09, 30.59, 10.00)
Min -0.52@(-43.54, 20.81, 10.00)



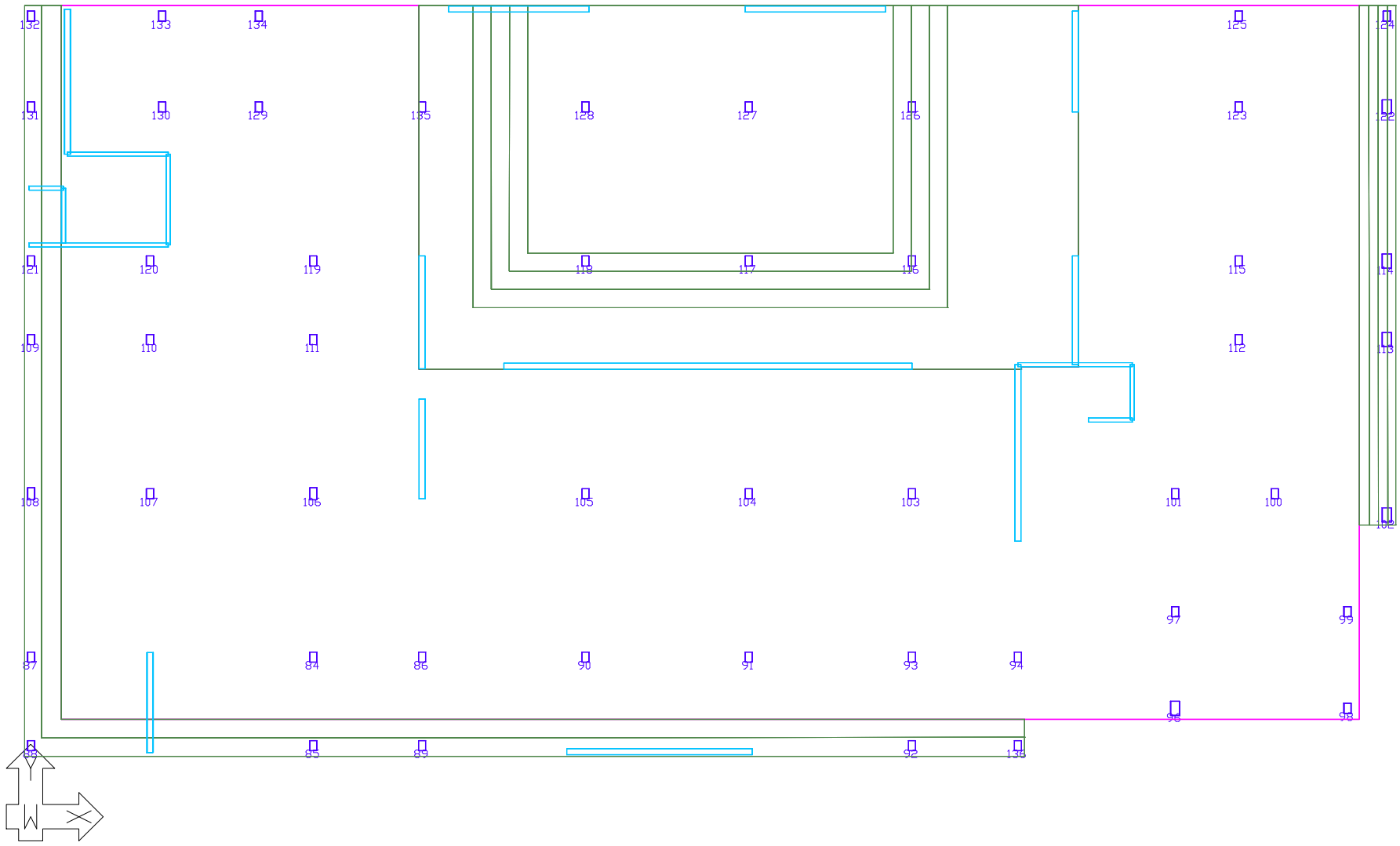
03/19/26 12:27:26	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

PUNCHING SHEAR REQUIRED HEADED STUD REINFORCEMENT

Punching Shear, Reinforcement
Studs, bar size, #Rails(r,s)-#studs@spacing(rail length)
Stirrups, bar size, max# legs, #layers (extent)



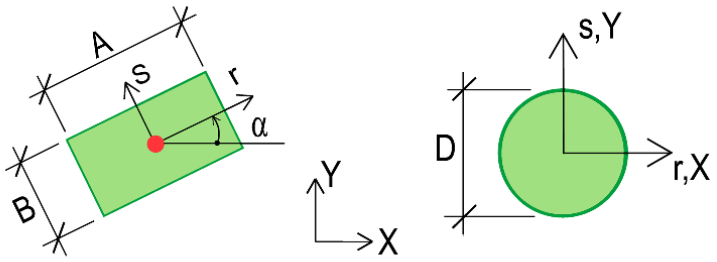
03/19/26 12:33:23	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		



03/19/26 12:57:57	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

180.40 PUNCHING SHEAR STRESS CHECK RESULTS

COLUMN SECTION



Load Combination:Strength(Dead and Live)

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-280.383	-20.706	0.217	0.008	0.225	0.240	0.94
Column 84	Interior	ss	-280.383	-10.583	0.217	0.004	0.221	0.240	0.92
Column 85	End	rr	-89.216	-12.631	0.057	0.027	0.085	0.162	0.52
Column 85	Edge	ss	-89.216	-10.140	0.075	0.004	0.079	0.191	0.41
Column 86	Interior	rr	-297.244	-21.088	0.230	0.008	0.238	0.240	0.99
Column 86	Interior	ss	-297.244	12.351	0.230	0.005	0.235	0.240	0.98
Column 87	Edge	rr	-108.648	-21.245	0.098	0.008	0.107	0.191	0.56
Column 87	End	ss	-108.648	23.471	0.070	0.035	0.105	0.162	0.65
Column 88	Corner	rr	-20.934	3.857	0.049	0.019	0.068	0.212	0.32
Column 88	Corner	ss	-20.934	17.620	0.049	0.002	0.051	0.212	0.24
Column 89	End	rr	-70.120	-21.970	0.105	0.010	0.115	0.202	0.57
Column 89	Edge	ss	-70.120	11.688	0.105	0.008	0.113	0.202	0.56
Column 90	Interior	rr	-377.838	-26.109	0.160	0.003	0.163	0.106	1.54
Column 90	Interior	ss	-377.838	-6.661	0.160	0.001	0.161	0.106	1.52
Column 91	Interior	rr	-365.788	-21.675	0.155	0.003	0.158	0.106	1.49
Column 91	Interior	ss	-365.788	5.050	0.155	0.001	0.155	0.106	1.47
Column 92	End	rr	-79.158	-24.184	0.118	0.012	0.130	0.202	0.65
Column 92	Edge	ss	-79.158	-11.877	0.118	0.008	0.126	0.202	0.63
Column 93	Interior	rr	-300.234	-19.952	0.150	0.003	0.154	0.106	1.45
Column 93	Interior	ss	-300.234	-14.424	0.150	0.002	0.153	0.106	1.44
Column 94	Interior	rr	-245.965	-6.670	0.191	0.003	0.193	0.240	0.80
Column 94	Interior	ss	-245.965	6.756	0.191	0.003	0.193	0.240	0.80
Column 96	End	rr	-239.153	-11.823	0.127	0.037	0.164	0.180	0.91
Column 96	Edge	ss	-239.153	17.905	0.127	0.003	0.130	0.180	0.72
Column 97	Interior	rr	-292.096	-8.877	0.226	0.003	0.230	0.240	0.96
Column 97	Interior	ss	-292.096	5.415	0.226	0.002	0.228	0.240	0.95
Column 98	Corner	rr	-117.533	9.778	0.142	0.047	0.189	0.204	0.92
Column 98	Corner	ss	-117.533	-30.219	0.142	0.054	0.196	0.204	0.96
Column 99	Edge	rr	-174.920	-6.948	0.122	0.002	0.124	0.180	0.69
Column 99	End	ss	-174.920	-22.962	0.122	0.030	0.151	0.180	0.84
Column 100	Interior	rr	-273.594	3.305	0.212	0.001	0.213	0.240	0.89
Column 100	Interior	ss	-273.594	0.537	0.212	0.000	0.212	0.240	0.88
Column 101	Interior	rr	-258.104	6.385	0.149	0.007	0.156	0.106	1.47
Column 101	Interior	ss	-258.104	-1.495	0.149	0.013	0.161	0.106	1.52
Column 102	Corner	rr	-103.129	-73.985	0.089	0.048	0.137	0.162	0.85
Column 102	Corner	ss	-103.129	-62.780	0.089	0.036	0.125	0.162	0.77
Column 103	Interior	rr	-324.626	19.757	0.163	0.003	0.166	0.106	1.57
Column 103	Interior	ss	-324.626	-7.043	0.163	0.001	0.164	0.106	1.54
Column 104	Interior	rr	-406.884	25.969	0.172	0.003	0.175	0.106	1.65

Column 104	Interior	ss	-406.884	-1.370	0.172	0.000	0.172	0.106	1.63
Column 105	Interior	rr	-411.785	34.839	0.174	0.004	0.179	0.106	1.68
Column 105	Interior	ss	-411.785	3.152	0.174	0.000	0.175	0.106	1.65
Column 106	Interior	rr	-386.606	11.601	0.158	0.001	0.159	0.106	1.50
Column 106	Interior	ss	-386.606	-15.012	0.158	0.002	0.159	0.106	1.50
Column 107	Interior	rr	-403.287	3.544	0.171	0.000	0.171	0.106	1.61
Column 107	Interior	ss	-403.287	9.071	0.171	0.001	0.172	0.106	1.62
Column 108	Edge	rr	-137.318	1.523	0.118	0.001	0.119	0.191	0.62
Column 108	End	ss	-137.318	37.117	0.088	0.044	0.132	0.162	0.82
Column 109	Edge	rr	-91.700	15.086	0.120	0.007	0.127	0.106	1.20
Column 109	End	ss	-91.700	-1.085	0.120	0.054	0.174	0.106	1.64
Column 110	Interior	rr	-312.194	24.930	0.156	0.004	0.161	0.106	1.51
Column 110	Interior	ss	-312.194	4.834	0.156	0.001	0.157	0.106	1.48
Column 111	Interior	rr	-245.493	25.802	0.190	0.010	0.200	0.240	0.83
Column 111	Interior	ss	-245.493	-12.278	0.190	0.005	0.195	0.240	0.81
Column 112	Interior	rr	-235.713	14.256	0.183	0.005	0.188	0.240	0.78
Column 112	Interior	ss	-235.713	4.392	0.183	0.002	0.184	0.240	0.77
Column 113	Edge	rr	-144.652	35.792	0.108	0.010	0.118	0.191	0.62
Column 113	End	ss	-144.652	-99.283	0.108	0.004	0.112	0.191	0.59
Column 114	Edge	rr	-127.202	-22.507	0.095	0.006	0.102	0.191	0.53
Column 114	End	ss	-127.202	-96.377	0.095	0.001	0.096	0.191	0.50
Column 115	Interior	rr	-312.059	-13.724	0.156	0.002	0.159	0.106	1.50
Column 115	Interior	ss	-312.059	-1.921	0.156	0.000	0.157	0.106	1.48
Column 116	Interior	rr	-286.925	-1.756	0.160	0.000	0.161	0.106	1.52
Column 116	Interior	ss	-286.925	4.083	0.160	0.001	0.161	0.106	1.52
Column 117	Interior	rr	-201.266	-31.013	0.164	0.010	0.174	0.106	1.64
Column 117	Interior	ss	-201.266	-0.797	0.164	0.000	0.164	0.106	1.55
Column 118	Interior	rr	-224.500	-35.328	0.157	0.009	0.166	0.106	1.57
Column 118	Interior	ss	-224.500	-0.229	0.157	0.000	0.158	0.106	1.49
Column 119	Interior	rr	-234.724	-25.442	0.182	0.010	0.192	0.240	0.80
Column 119	Interior	ss	-234.724	-8.301	0.182	0.003	0.185	0.240	0.77
Column 120	Interior	rr	-62.823	1.596	0.060	0.006	0.066	0.240	0.27
Column 120	Interior	ss	-62.823	1.104	0.060	0.005	0.065	0.240	0.27
Column 121	Edge	rr	0.490	0.638	0.001	0.001	0.002	0.212	0.01
Column 121	End	ss	0.490	6.861	0.001	0.018	0.017	0.212	0.08
Column 122	Edge	rr	-143.858	36.416	0.108	0.010	0.118	0.191	0.62
Column 122	End	ss	-143.858	-103.421	0.087	0.033	0.121	0.165	0.73
Column 123	Interior	rr	-331.280	21.608	0.166	0.004	0.170	0.106	1.60
Column 123	Interior	ss	-331.280	-0.433	0.166	0.000	0.166	0.106	1.57

Column 124	Corner	rr	-60.541	-1.060	0.132	0.040	0.171	0.212	0.81
Column 124	Corner	ss	-60.541	-36.050	0.132	0.065	0.196	0.212	0.93
Column 125	End	rr	-171.240	-4.747	0.116	0.052	0.168	0.106	1.58
Column 125	Edge	ss	-171.240	2.279	0.116	0.000	0.116	0.106	1.10
Column 126	Interior	rr	-287.150	2.381	0.161	0.000	0.161	0.106	1.52
Column 126	Interior	ss	-287.150	8.378	0.161	0.001	0.162	0.106	1.53
Column 127	Interior	rr	-173.221	-4.659	0.204	0.003	0.207	0.240	0.86
Column 127	Interior	ss	-173.221	-3.022	0.204	0.002	0.206	0.240	0.86
Column 128	Interior	rr	-196.403	-0.938	0.231	0.001	0.232	0.240	0.97
Column 128	Interior	ss	-196.403	0.723	0.231	0.000	0.232	0.240	0.96
Column 129	Interior	rr	-310.732	18.617	0.156	0.003	0.159	0.106	1.50
Column 129	Interior	ss	-310.732	10.566	0.156	0.002	0.157	0.106	1.48
Column 130	Interior	rr	-101.650	0.891	0.079	0.000	0.079	0.240	0.33
Column 130	Interior	ss	-101.650	1.306	0.079	0.000	0.079	0.240	0.33
Column 131	Edge	rr	4.917	0.164	0.009	0.000	0.009	0.212	0.04
Column 131	End	ss	4.917	6.157	0.009	0.009	0.018	0.212	0.08
Column 132	Corner	rr	4.766	1.782	0.011	0.005	0.016	0.212	0.08
Column 132	Corner	ss	4.766	2.966	0.011	0.006	0.017	0.212	0.08
Column 133	End	rr	-106.005	-5.841	0.094	0.030	0.125	0.194	0.64
Column 133	Edge	ss	-106.005	-5.043	0.094	0.002	0.096	0.194	0.49
Column 134	End	rr	-163.354	0.139	0.145	0.043	0.188	0.194	0.97
Column 134	Edge	ss	-163.354	16.484	0.145	0.006	0.151	0.194	0.78
Column 135	Interior	rr	-411.830	5.823	0.174	0.001	0.175	0.106	1.65

Column 135	Interior	ss	-411.830	-5.289	0.174	0.001	0.175	0.106	1.65
Column 136	Corner	rr	-64.799	-20.881	0.093	0.019	0.113	0.191	0.59
Column 136	Corner	ss	-64.799	-2.276	0.060	0.044	0.104	0.159	0.65

Load Combination:Strength(Dead Load Only)

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-272.335	-18.044	0.211	0.007	0.218	0.240	0.91
Column 84	Interior	ss	-272.335	-10.019	0.211	0.004	0.215	0.240	0.89
Column 85	End	rr	-93.804	-14.291	0.060	0.028	0.089	0.162	0.55
Column 85	Edge	ss	-93.804	-9.777	0.079	0.004	0.082	0.191	0.43
Column 86	Interior	rr	-286.520	-18.103	0.222	0.007	0.229	0.240	0.95
Column 86	Interior	ss	-286.520	11.837	0.222	0.004	0.226	0.240	0.94
Column 87	Edge	rr	-112.686	-20.628	0.102	0.008	0.110	0.191	0.58
Column 87	End	ss	-112.686	24.265	0.072	0.037	0.109	0.162	0.67
Column 88	Corner	rr	-21.551	3.208	0.051	0.019	0.069	0.212	0.33
Column 88	Corner	ss	-21.551	18.113	0.051	0.002	0.053	0.212	0.25
Column 89	End	rr	-74.097	-24.646	0.111	0.010	0.120	0.202	0.60
Column 89	Edge	ss	-74.097	11.796	0.111	0.008	0.119	0.202	0.59
Column 90	Interior	rr	-365.676	-23.048	0.155	0.003	0.158	0.106	1.49
Column 90	Interior	ss	-365.676	-6.406	0.155	0.001	0.156	0.106	1.47
Column 91	Interior	rr	-353.873	-18.494	0.177	0.003	0.180	0.106	1.70
Column 91	Interior	ss	-353.873	4.755	0.177	0.001	0.178	0.106	1.68
Column 92	End	rr	-82.973	-26.808	0.124	0.012	0.136	0.202	0.67
Column 92	Edge	ss	-82.973	-12.164	0.124	0.008	0.132	0.202	0.66
Column 93	Interior	rr	-290.095	-17.059	0.225	0.007	0.231	0.240	0.96
Column 93	Interior	ss	-290.095	-13.997	0.225	0.005	0.230	0.240	0.96
Column 94	Interior	rr	-240.659	-4.458	0.186	0.002	0.188	0.240	0.78
Column 94	Interior	ss	-240.659	6.631	0.186	0.002	0.189	0.240	0.79
Column 96	End	rr	-244.234	-7.319	0.129	0.039	0.168	0.180	0.93
Column 96	Edge	ss	-244.234	14.281	0.129	0.003	0.132	0.180	0.73
Column 97	Interior	rr	-277.326	-8.716	0.215	0.003	0.218	0.240	0.91
Column 97	Interior	ss	-277.326	4.605	0.215	0.002	0.217	0.240	0.90
Column 98	Corner	rr	-122.054	8.833	0.147	0.048	0.196	0.204	0.96
Column 98	Corner	ss	-122.054	-28.269	0.147	0.055	0.202	0.204	0.99
Column 99	Edge	rr	-177.292	-6.541	0.123	0.002	0.125	0.180	0.69
Column 99	End	ss	-177.292	-20.515	0.123	0.031	0.154	0.180	0.85
Column 100	Interior	rr	-261.387	2.901	0.202	0.001	0.204	0.240	0.85
Column 100	Interior	ss	-261.387	0.916	0.202	0.000	0.203	0.240	0.85
Column 101	Interior	rr	-252.259	6.167	0.145	0.007	0.152	0.106	1.44
Column 101	Interior	ss	-252.259	-1.868	0.145	0.013	0.158	0.106	1.49
Column 102	Corner	rr	-106.915	-76.065	0.093	0.050	0.142	0.162	0.88
Column 102	Corner	ss	-106.915	-64.368	0.093	0.037	0.130	0.162	0.80
Column 103	Interior	rr	-313.880	19.353	0.157	0.003	0.160	0.106	1.51
Column 103	Interior	ss	-313.880	-6.247	0.157	0.001	0.158	0.106	1.49
Column 104	Interior	rr	-396.430	24.994	0.168	0.003	0.171	0.106	1.61
Column 104	Interior	ss	-396.430	-2.219	0.168	0.000	0.168	0.106	1.59
Column 105	Interior	rr	-400.836	33.365	0.170	0.004	0.174	0.106	1.64
Column 105	Interior	ss	-400.836	3.924	0.170	0.000	0.170	0.106	1.60
Column 106	Interior	rr	-375.523	10.534	0.180	0.002	0.182	0.106	1.71
Column 106	Interior	ss	-375.523	-14.152	0.180	0.002	0.182	0.106	1.72
Column 107	Interior	rr	-388.629	2.813	0.165	0.000	0.165	0.106	1.55
Column 107	Interior	ss	-388.629	7.853	0.165	0.001	0.165	0.106	1.56
Column 108	Edge	rr	-141.538	0.804	0.122	0.000	0.122	0.191	0.64
Column 108	End	ss	-141.538	37.755	0.091	0.045	0.136	0.162	0.84
Column 109	Edge	rr	-94.119	15.482	0.123	0.007	0.130	0.106	1.23
Column 109	End	ss	-94.119	-0.697	0.123	0.055	0.178	0.106	1.68
Column 110	Interior	rr	-301.875	23.760	0.151	0.004	0.155	0.106	1.46
Column 110	Interior	ss	-301.875	4.005	0.151	0.001	0.152	0.106	1.43
Column 111	Interior	rr	-235.826	24.345	0.183	0.009	0.192	0.240	0.80
Column 111	Interior	ss	-235.826	-12.341	0.183	0.005	0.187	0.240	0.78

Column 112	Interior	rr	-227.036	12.769	0.176	0.005	0.181	0.240	0.75
Column 112	Interior	ss	-227.036	4.010	0.176	0.002	0.177	0.240	0.74
Column 113	Edge	rr	-147.505	36.177	0.111	0.010	0.121	0.191	0.63
Column 113	End	ss	-147.505	-99.165	0.111	0.004	0.115	0.191	0.60
Column 114	Edge	rr	-129.425	-22.916	0.097	0.006	0.103	0.191	0.54
Column 114	End	ss	-129.425	-95.949	0.097	0.001	0.098	0.191	0.51
Column 115	Interior	rr	-299.964	-12.839	0.232	0.005	0.237	0.240	0.99
Column 115	Interior	ss	-299.964	-2.163	0.232	0.001	0.233	0.240	0.97
Column 116	Interior	rr	-285.396	0.377	0.160	0.000	0.160	0.106	1.51
Column 116	Interior	ss	-285.396	4.973	0.160	0.001	0.160	0.106	1.51
Column 117	Interior	rr	-191.671	-24.115	0.156	0.008	0.164	0.106	1.55
Column 117	Interior	ss	-191.671	-0.643	0.156	0.000	0.156	0.106	1.48
Column 118	Interior	rr	-217.773	-30.295	0.153	0.008	0.160	0.106	1.51
Column 118	Interior	ss	-217.773	-1.198	0.153	0.000	0.153	0.106	1.44
Column 119	Interior	rr	-227.598	-24.206	0.176	0.009	0.186	0.240	0.77
Column 119	Interior	ss	-227.598	-8.649	0.176	0.003	0.180	0.240	0.75
Column 120	Interior	rr	-63.284	1.673	0.061	0.006	0.066	0.240	0.28
Column 120	Interior	ss	-63.284	0.962	0.061	0.005	0.066	0.240	0.28
Column 121	Edge	rr	-0.240	0.760	0.001	0.001	0.002	0.212	0.01
Column 121	End	ss	-0.240	6.958	0.001	0.018	0.018	0.212	0.09
Column 122	Edge	rr	-146.012	33.915	0.110	0.009	0.119	0.191	0.62
Column 122	End	ss	-146.012	-103.612	0.089	0.034	0.123	0.165	0.75
Column 123	Interior	rr	-314.172	19.136	0.157	0.003	0.161	0.106	1.51
Column 123	Interior	ss	-314.172	-0.277	0.157	0.000	0.157	0.106	1.48

Column 124	Corner	rr	-63.765	-0.623	0.139	0.042	0.180	0.212	0.85
Column 124	Corner	ss	-63.765	-38.029	0.139	0.068	0.207	0.212	0.98
Column 125	End	rr	-174.529	-4.272	0.118	0.052	0.171	0.106	1.61
Column 125	Edge	ss	-174.529	2.724	0.118	0.001	0.119	0.106	1.12
Column 126	Interior	rr	-279.754	0.923	0.156	0.000	0.157	0.106	1.48
Column 126	Interior	ss	-279.754	10.334	0.156	0.002	0.158	0.106	1.49
Column 127	Interior	rr	-155.112	-7.241	0.182	0.005	0.187	0.240	0.78
Column 127	Interior	ss	-155.112	-2.582	0.182	0.002	0.184	0.240	0.77
Column 128	Interior	rr	-182.375	-2.550	0.215	0.002	0.216	0.240	0.90
Column 128	Interior	ss	-182.375	-0.966	0.215	0.001	0.215	0.240	0.90
Column 129	Interior	rr	-305.921	17.901	0.153	0.003	0.156	0.106	1.47
Column 129	Interior	ss	-305.921	10.436	0.153	0.002	0.155	0.106	1.46
Column 130	Interior	rr	-97.086	0.522	0.075	0.000	0.075	0.240	0.31
Column 130	Interior	ss	-97.086	1.305	0.075	0.000	0.076	0.240	0.32
Column 131	Edge	rr	4.887	0.170	0.009	0.000	0.009	0.212	0.04
Column 131	End	ss	4.887	6.228	0.009	0.009	0.018	0.212	0.08
Column 132	Corner	rr	4.750	1.730	0.011	0.005	0.016	0.212	0.08
Column 132	Corner	ss	4.750	3.038	0.011	0.006	0.017	0.212	0.08
Column 133	End	rr	-105.996	-5.578	0.094	0.030	0.124	0.194	0.64
Column 133	Edge	ss	-105.996	-5.150	0.094	0.002	0.096	0.194	0.49
Column 134	End	rr	-167.679	0.067	0.149	0.044	0.193	0.194	0.99
Column 134	Edge	ss	-167.679	17.265	0.149	0.006	0.155	0.194	0.80
Column 135	Interior	rr	-409.042	5.561	0.173	0.001	0.174	0.106	1.64
Column 135	Interior	ss	-409.042	-4.619	0.173	0.001	0.174	0.106	1.64
Column 136	Corner	rr	-69.684	-23.108	0.100	0.020	0.121	0.191	0.63
Column 136	Corner	ss	-69.684	-2.088	0.064	0.048	0.112	0.159	0.70

Load Combination:STRE1

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-200.227	-51.297	0.155	0.020	0.175	0.240	0.73
Column 84	Interior	ss	-200.227	-6.353	0.155	0.002	0.157	0.240	0.66
Column 85	End	rr	3.831	25.265	0.003	0.009	0.012	0.191	0.06
Column 85	Edge	ss	3.831	-3.041	0.003	0.001	0.004	0.191	0.02
Column 86	Interior	rr	-233.061	-46.363	0.181	0.018	0.198	0.240	0.83
Column 86	Interior	ss	-233.061	10.122	0.181	0.004	0.184	0.240	0.77
Column 87	Edge	rr	-104.550	-18.960	0.095	0.008	0.102	0.191	0.54

Column 87	End	ss	-104.550	24.021	0.067	0.034	0.101	0.162	0.62
Column 88	Corner	rr	-20.912	3.499	0.049	0.018	0.068	0.212	0.32
Column 88	Corner	ss	-20.912	18.584	0.049	0.003	0.052	0.212	0.25
Column 89	End	rr	-16.652	17.465	0.025	0.021	0.046	0.202	0.23
Column 89	Edge	ss	-16.652	6.893	0.025	0.005	0.030	0.202	0.15
Column 90	Interior	rr	-328.088	-48.673	0.164	0.008	0.173	0.106	1.63
Column 90	Interior	ss	-328.088	-2.922	0.164	0.000	0.165	0.106	1.55
Column 91	Interior	rr	-302.280	-48.973	0.151	0.008	0.160	0.106	1.51
Column 91	Interior	ss	-302.280	1.947	0.151	0.000	0.152	0.106	1.43
Column 92	End	rr	-31.091	12.158	0.046	0.022	0.069	0.202	0.34
Column 92	Edge	ss	-31.091	3.831	0.046	0.003	0.049	0.202	0.24
Column 93	Interior	rr	-243.919	-41.795	0.189	0.016	0.205	0.240	0.85
Column 93	Interior	ss	-243.919	-7.365	0.189	0.003	0.192	0.240	0.80
Column 94	Interior	rr	-139.108	-29.212	0.108	0.011	0.119	0.240	0.50
Column 94	Interior	ss	-139.108	-0.030	0.108	0.000	0.108	0.240	0.45
Column 96	End	rr	-48.096	34.535	0.025	0.014	0.040	0.180	0.22
Column 96	Edge	ss	-48.096	64.602	0.025	0.011	0.037	0.180	0.20
Column 97	Interior	rr	-318.353	-36.719	0.159	0.006	0.166	0.106	1.56
Column 97	Interior	ss	-318.353	5.601	0.159	0.001	0.160	0.106	1.51
Column 98	Corner	rr	-115.141	10.470	0.139	0.046	0.185	0.204	0.91
Column 98	Corner	ss	-115.141	-31.192	0.139	0.053	0.193	0.204	0.94
Column 99	Edge	rr	-164.219	-6.761	0.114	0.002	0.116	0.180	0.64
Column 99	End	ss	-164.219	-21.990	0.114	0.028	0.142	0.180	0.79
Column 100	Interior	rr	-252.012	8.333	0.195	0.003	0.198	0.240	0.83
Column 100	Interior	ss	-252.012	-0.530	0.195	0.000	0.195	0.240	0.81
Column 101	Interior	rr	-246.122	43.745	0.142	0.000	0.142	0.106	1.34
Column 101	Interior	ss	-246.122	-3.174	0.142	0.012	0.154	0.106	1.46
Column 102	Corner	rr	-96.720	-62.136	0.084	0.046	0.130	0.162	0.80
Column 102	Corner	ss	-96.720	-57.256	0.084	0.034	0.117	0.162	0.72
Column 103	Interior	rr	-337.103	44.876	0.169	0.008	0.176	0.106	1.66
Column 103	Interior	ss	-337.103	-13.567	0.169	0.002	0.171	0.106	1.61

Column 104	Interior	rr	-384.762	54.647	0.163	0.007	0.170	0.106	1.60
Column 104	Interior	ss	-384.762	-3.405	0.163	0.000	0.163	0.106	1.54
Column 105	Interior	rr	-413.336	61.049	0.175	0.008	0.183	0.106	1.72
Column 105	Interior	ss	-413.336	-3.995	0.175	0.000	0.175	0.106	1.65
Column 106	Interior	rr	-289.443	49.624	0.209	0.017	0.226	0.240	0.94
Column 106	Interior	ss	-289.443	-0.283	0.209	0.000	0.210	0.240	0.87
Column 107	Interior	rr	-352.300	8.421	0.176	0.001	0.178	0.106	1.68
Column 107	Interior	ss	-352.300	4.617	0.176	0.001	0.177	0.106	1.67
Column 108	Edge	rr	-128.800	3.736	0.111	0.001	0.112	0.191	0.59
Column 108	End	ss	-128.800	35.590	0.083	0.041	0.124	0.162	0.77
Column 109	Edge	rr	-83.279	13.242	0.154	0.012	0.166	0.212	0.78
Column 109	End	ss	-83.279	-2.808	0.154	0.045	0.199	0.212	0.94
Column 110	Interior	rr	-314.374	23.541	0.157	0.004	0.161	0.106	1.52
Column 110	Interior	ss	-314.374	10.382	0.157	0.002	0.159	0.106	1.50
Column 111	Interior	rr	-333.258	46.590	0.167	0.008	0.175	0.106	1.65
Column 111	Interior	ss	-333.258	-22.893	0.167	0.004	0.171	0.106	1.61
Column 112	Interior	rr	-225.327	17.861	0.175	0.007	0.181	0.240	0.76
Column 112	Interior	ss	-225.327	3.647	0.175	0.001	0.176	0.240	0.73
Column 113	Edge	rr	-136.442	28.092	0.102	0.008	0.110	0.191	0.58
Column 113	End	ss	-136.442	-88.043	0.102	0.005	0.107	0.191	0.56
Column 114	Edge	rr	-112.726	-11.845	0.085	0.003	0.088	0.191	0.46
Column 114	End	ss	-112.726	-81.309	0.085	0.002	0.086	0.191	0.45
Column 115	Interior	rr	-267.524	-9.823	0.207	0.004	0.211	0.240	0.88
Column 115	Interior	ss	-267.524	-3.032	0.207	0.001	0.208	0.240	0.87
Column 116	Interior	rr	-258.464	5.488	0.169	0.001	0.171	0.106	1.61
Column 116	Interior	ss	-258.464	5.405	0.169	0.001	0.171	0.106	1.61
Column 117	Interior	rr	-187.485	-8.167	0.221	0.005	0.226	0.240	0.94
Column 117	Interior	ss	-187.485	-0.071	0.221	0.000	0.221	0.240	0.92
Column 118	Interior	rr	-217.018	-16.026	0.177	0.005	0.182	0.106	1.72
Column 118	Interior	ss	-217.018	-1.346	0.177	0.000	0.177	0.106	1.67
Column 119	Interior	rr	-217.729	-46.043	0.169	0.018	0.186	0.240	0.78

Column 119	Interior	ss	-217.729	-9.292	0.169	0.003	0.172	0.240	0.72
Column 120	Interior	rr	-61.686	1.680	0.059	0.005	0.065	0.240	0.27
Column 120	Interior	ss	-61.686	1.811	0.059	0.005	0.064	0.240	0.27
Column 121	Edge	rr	1.745	0.431	0.004	0.001	0.005	0.212	0.02
Column 121	End	ss	1.745	6.647	0.004	0.011	0.016	0.212	0.07
Column 122	Edge	rr	-125.419	25.554	0.094	0.007	0.101	0.191	0.53
Column 122	End	ss	-125.419	-78.130	0.076	0.030	0.107	0.165	0.65
Column 123	Interior	rr	-315.161	13.954	0.158	0.002	0.160	0.106	1.51
Column 123	Interior	ss	-315.161	-11.232	0.158	0.002	0.160	0.106	1.51
Column 124	Corner	rr	-54.242	-0.837	0.118	0.036	0.154	0.212	0.72
Column 124	Corner	ss	-54.242	-27.223	0.118	0.054	0.172	0.212	0.81
Column 125	End	rr	-199.735	-2.456	0.120	0.059	0.179	0.106	1.69
Column 125	Edge	ss	-199.735	-18.268	0.120	0.003	0.123	0.106	1.16
Column 126	Interior	rr	-237.107	0.685	0.231	0.000	0.232	0.240	0.97
Column 126	Interior	ss	-237.107	9.419	0.231	0.005	0.236	0.240	0.98
Column 127	Interior	rr	-116.101	-13.193	0.137	0.009	0.145	0.240	0.61
Column 127	Interior	ss	-116.101	-1.143	0.137	0.001	0.137	0.240	0.57
Column 128	Interior	rr	-144.353	-7.679	0.170	0.005	0.175	0.240	0.73
Column 128	Interior	ss	-144.353	-2.755	0.170	0.002	0.172	0.240	0.72
Column 129	Interior	rr	-246.122	30.952	0.191	0.012	0.203	0.240	0.84
Column 129	Interior	ss	-246.122	2.502	0.191	0.001	0.192	0.240	0.80
Column 130	Interior	rr	-99.092	2.383	0.077	0.001	0.078	0.240	0.32
Column 130	Interior	ss	-99.092	1.487	0.077	0.001	0.077	0.240	0.32
Column 131	Edge	rr	5.907	0.192	0.011	0.000	0.011	0.212	0.05
Column 131	End	ss	5.907	6.311	0.011	0.009	0.020	0.212	0.10
Column 132	Corner	rr	5.612	1.558	0.013	0.006	0.019	0.212	0.09
Column 132	Corner	ss	5.612	3.072	0.013	0.006	0.020	0.212	0.09
Column 133	End	rr	-88.609	-7.334	0.079	0.026	0.105	0.194	0.54
Column 133	Edge	ss	-88.609	-7.685	0.079	0.003	0.082	0.194	0.42
Column 134	End	rr	-250.843	-8.185	0.124	0.071	0.195	0.106	1.84
Column 134	Edge	ss	-250.843	35.074	0.223	0.012	0.236	0.194	1.21
Column 135	Interior	rr	-375.927	4.826	0.159	0.001	0.160	0.106	1.51
Column 135	Interior	ss	-375.927	-5.225	0.159	0.001	0.160	0.106	1.51
Column 136	Corner	rr	-3.375	15.422	0.005	0.011	0.016	0.191	0.09
Column 136	Corner	ss	-3.375	-13.074	0.005	0.006	0.011	0.191	0.06

Load Combination:STRE2

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-313.340	15.549	0.157	0.003	0.160	0.106	1.51
Column 84	Interior	ss	-313.340	-11.426	0.157	0.002	0.159	0.106	1.50
Column 85	End	rr	-172.115	-48.014	0.111	0.050	0.160	0.162	0.99
Column 85	Edge	ss	-172.115	-14.081	0.145	0.005	0.150	0.191	0.78
Column 86	Interior	rr	-310.238	9.981	0.155	0.002	0.157	0.106	1.48
Column 86	Interior	ss	-310.238	11.061	0.155	0.002	0.157	0.106	1.48
Column 87	Edge	rr	-99.465	-19.534	0.090	0.008	0.098	0.191	0.51
Column 87	End	ss	-99.465	20.438	0.064	0.032	0.096	0.162	0.60
Column 88	Corner	rr	-18.374	4.268	0.043	0.017	0.061	0.212	0.29
Column 88	Corner	ss	-18.374	15.364	0.043	0.002	0.045	0.212	0.21
Column 89	End	rr	-116.425	-57.564	0.174	0.000	0.174	0.202	0.86
Column 89	Edge	ss	-116.425	13.423	0.174	0.009	0.183	0.202	0.91
Column 90	Interior	rr	-362.057	3.927	0.181	0.001	0.182	0.106	1.72
Column 90	Interior	ss	-362.057	-9.035	0.181	0.001	0.183	0.106	1.72
Column 91	Interior	rr	-364.619	12.446	0.183	0.002	0.185	0.106	1.74
Column 91	Interior	ss	-364.619	6.591	0.183	0.001	0.184	0.106	1.73
Column 92	End	rr	-117.965	-55.572	0.176	0.002	0.178	0.202	0.88
Column 92	Edge	ss	-117.965	-24.805	0.176	0.017	0.193	0.202	0.96
Column 93	Interior	rr	-303.696	7.127	0.152	0.001	0.153	0.106	1.45
Column 93	Interior	ss	-303.696	-18.010	0.152	0.003	0.155	0.106	1.46
Column 94	Interior	rr	-318.938	18.171	0.160	0.003	0.163	0.106	1.54
Column 94	Interior	ss	-318.938	11.793	0.160	0.002	0.162	0.106	1.53

Column 96	End	rr	-398.993	-42.967	0.211	0.057	0.268	0.180	1.49
Column 96	Edge	ss	-398.993	-33.561	0.211	0.006	0.217	0.180	1.20
Column 97	Interior	rr	-213.057	19.956	0.165	0.008	0.173	0.240	0.72
Column 97	Interior	ss	-213.057	4.556	0.165	0.002	0.167	0.240	0.69
Column 98	Corner	rr	-107.751	9.780	0.130	0.043	0.173	0.204	0.85
Column 98	Corner	ss	-107.751	-21.539	0.130	0.047	0.177	0.204	0.87
Column 99	Edge	rr	-162.104	-6.639	0.113	0.002	0.115	0.180	0.64
Column 99	End	ss	-162.104	-17.517	0.113	0.028	0.141	0.180	0.78
Column 100	Interior	rr	-243.627	-0.106	0.189	0.000	0.189	0.240	0.79
Column 100	Interior	ss	-243.627	0.359	0.189	0.000	0.189	0.240	0.79
Column 101	Interior	rr	-234.185	-32.225	0.211	0.027	0.238	0.240	0.99
Column 101	Interior	ss	-234.185	0.651	0.211	0.017	0.228	0.240	0.95
Column 102	Corner	rr	-98.694	-64.282	0.085	0.047	0.132	0.162	0.82
Column 102	Corner	ss	-98.694	-58.314	0.085	0.034	0.120	0.162	0.74
Column 103	Interior	rr	-259.835	-10.034	0.201	0.004	0.205	0.240	0.85
Column 103	Interior	ss	-259.835	2.331	0.201	0.001	0.202	0.240	0.84

Column 104	Interior	rr	-364.125	-9.959	0.182	0.002	0.184	0.106	1.74
Column 104	Interior	ss	-364.125	0.040	0.182	0.000	0.182	0.106	1.72
Column 105	Interior	rr	-344.791	0.103	0.173	0.000	0.173	0.106	1.63
Column 105	Interior	ss	-344.791	10.669	0.173	0.002	0.174	0.106	1.65
Column 106	Interior	rr	-420.125	-29.643	0.171	0.003	0.175	0.106	1.65
Column 106	Interior	ss	-420.125	-25.086	0.171	0.003	0.174	0.106	1.64
Column 107	Interior	rr	-382.200	-2.490	0.162	0.000	0.162	0.106	1.53
Column 107	Interior	ss	-382.200	10.980	0.162	0.001	0.163	0.106	1.54
Column 108	Edge	rr	-128.171	-1.079	0.110	0.000	0.111	0.191	0.58
Column 108	End	ss	-128.171	34.302	0.082	0.041	0.123	0.162	0.76
Column 109	Edge	rr	-89.375	14.368	0.165	0.013	0.178	0.212	0.84
Column 109	End	ss	-89.375	-0.854	0.165	0.046	0.211	0.212	1.00
Column 110	Interior	rr	-255.766	20.423	0.198	0.008	0.206	0.240	0.86
Column 110	Interior	ss	-255.766	-2.556	0.198	0.001	0.199	0.240	0.83
Column 111	Interior	rr	-116.746	-0.611	0.090	0.000	0.091	0.240	0.38
Column 111	Interior	ss	-116.746	1.846	0.090	0.001	0.091	0.240	0.38
Column 112	Interior	rr	-206.650	5.626	0.160	0.002	0.162	0.240	0.68
Column 112	Interior	ss	-206.650	3.101	0.160	0.001	0.161	0.240	0.67
Column 113	Edge	rr	-134.232	29.493	0.101	0.008	0.109	0.191	0.57
Column 113	End	ss	-134.232	-91.207	0.101	0.004	0.104	0.191	0.55
Column 114	Edge	rr	-125.230	-21.214	0.094	0.006	0.100	0.191	0.52
Column 114	End	ss	-125.230	-92.084	0.094	0.001	0.095	0.191	0.50
Column 115	Interior	rr	-302.347	-11.591	0.234	0.004	0.239	0.240	0.99
Column 115	Interior	ss	-302.347	-1.731	0.234	0.001	0.235	0.240	0.98
Column 116	Interior	rr	-226.698	1.542	0.221	0.001	0.222	0.240	0.93
Column 116	Interior	ss	-226.698	6.739	0.221	0.003	0.225	0.240	0.94
Column 117	Interior	rr	-113.360	-10.112	0.133	0.007	0.140	0.240	0.58
Column 117	Interior	ss	-113.360	-0.931	0.133	0.001	0.134	0.240	0.56
Column 118	Interior	rr	-135.318	-15.320	0.159	0.010	0.169	0.240	0.71
Column 118	Interior	ss	-135.318	-1.288	0.159	0.001	0.160	0.240	0.67
Column 119	Interior	rr	-216.474	0.764	0.168	0.000	0.168	0.240	0.70
Column 119	Interior	ss	-216.474	-4.684	0.168	0.002	0.169	0.240	0.71
Column 120	Interior	rr	-58.120	0.683	0.056	0.006	0.061	0.240	0.26
Column 120	Interior	ss	-58.120	-0.139	0.056	0.005	0.061	0.240	0.25
Column 121	Edge	rr	1.090	0.409	0.003	0.001	0.003	0.212	0.01
Column 121	End	ss	1.090	7.009	0.003	0.018	0.016	0.212	0.07
Column 122	Edge	rr	-142.786	34.974	0.107	0.010	0.117	0.191	0.61
Column 122	End	ss	-142.786	-108.952	0.087	0.032	0.119	0.165	0.72
Column 123	Interior	rr	-286.430	22.384	0.222	0.009	0.230	0.240	0.96
Column 123	Interior	ss	-286.430	9.829	0.222	0.004	0.226	0.240	0.94

Column 124	Corner	rr	-61.097	-1.123	0.133	0.040	0.173	0.212	0.82
Column 124	Corner	ss	-61.097	-39.233	0.133	0.068	0.200	0.212	0.95
Column 125	End	rr	-121.982	-7.986	0.108	0.035	0.144	0.194	0.74
Column 125	Edge	ss	-121.982	22.158	0.108	0.008	0.116	0.194	0.60

Column 126	Interior	rr	-238.074	-4.451	0.232	0.002	0.235	0.240	0.98
Column 126	Interior	ss	-238.074	11.856	0.232	0.006	0.238	0.240	0.99
Column 127	Interior	rr	-118.219	-12.112	0.139	0.008	0.147	0.240	0.61
Column 127	Interior	ss	-118.219	-1.895	0.139	0.001	0.140	0.240	0.58
Column 128	Interior	rr	-143.042	-8.262	0.168	0.005	0.174	0.240	0.72
Column 128	Interior	ss	-143.042	-1.203	0.168	0.001	0.169	0.240	0.70
Column 129	Interior	rr	-331.123	2.209	0.166	0.000	0.166	0.106	1.57
Column 129	Interior	ss	-331.123	16.192	0.166	0.003	0.169	0.106	1.59
Column 130	Interior	rr	-91.199	-0.613	0.071	0.000	0.071	0.240	0.30
Column 130	Interior	ss	-91.199	1.174	0.071	0.000	0.071	0.240	0.30
Column 131	Edge	rr	5.094	0.049	0.009	0.000	0.009	0.212	0.04
Column 131	End	ss	5.094	6.281	0.009	0.009	0.018	0.212	0.09
Column 132	Corner	rr	4.306	1.876	0.010	0.005	0.015	0.212	0.07
Column 132	Corner	ss	4.306	3.054	0.010	0.006	0.016	0.212	0.07
Column 133	End	rr	-110.595	-4.282	0.098	0.031	0.129	0.194	0.66
Column 133	Edge	ss	-110.595	-1.760	0.098	0.001	0.099	0.194	0.51
Column 134	End	rr	-57.169	7.018	0.051	0.012	0.063	0.194	0.32
Column 134	Edge	ss	-57.169	-4.658	0.051	0.002	0.053	0.194	0.27
Column 135	Interior	rr	-367.092	2.381	0.184	0.000	0.184	0.106	1.74
Column 135	Interior	ss	-367.092	-7.597	0.184	0.001	0.185	0.106	1.75
Column 136	Corner	rr	-120.386	-54.942	0.097	0.035	0.131	0.106	1.24
Column 136	Corner	ss	-120.386	7.861	0.097	0.041	0.137	0.106	1.29

Load Combination:STRE3

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-212.722	-44.714	0.165	0.017	0.182	0.240	0.76
Column 84	Interior	ss	-212.722	-7.449	0.165	0.003	0.168	0.240	0.70
Column 85	End	rr	-14.196	17.857	0.012	0.011	0.022	0.191	0.12
Column 85	Edge	ss	-14.196	-4.857	0.012	0.002	0.014	0.191	0.07
Column 86	Interior	rr	-238.973	-42.194	0.185	0.016	0.201	0.240	0.84
Column 86	Interior	ss	-238.973	10.240	0.185	0.004	0.189	0.240	0.79
Column 87	Edge	rr	-98.536	-15.934	0.089	0.006	0.096	0.191	0.50
Column 87	End	ss	-98.536	22.511	0.063	0.032	0.095	0.162	0.59
Column 88	Corner	rr	-21.341	2.840	0.050	0.018	0.068	0.212	0.32
Column 88	Corner	ss	-21.341	18.044	0.050	0.002	0.052	0.212	0.25
Column 89	End	rr	-23.533	11.993	0.035	0.019	0.054	0.202	0.27
Column 89	Edge	ss	-23.533	7.003	0.035	0.005	0.040	0.202	0.20
Column 90	Interior	rr	-330.763	-47.073	0.166	0.008	0.174	0.106	1.64
Column 90	Interior	ss	-330.763	-3.649	0.166	0.001	0.166	0.106	1.57
Column 91	Interior	rr	-300.211	-49.553	0.150	0.008	0.159	0.106	1.50
Column 91	Interior	ss	-300.211	1.999	0.150	0.000	0.151	0.106	1.42
Column 92	End	rr	-26.773	15.790	0.040	0.024	0.064	0.202	0.32
Column 92	Edge	ss	-26.773	5.296	0.040	0.004	0.044	0.202	0.22
Column 93	Interior	rr	-240.479	-44.448	0.186	0.017	0.203	0.240	0.85
Column 93	Interior	ss	-240.479	-6.883	0.186	0.003	0.189	0.240	0.79
Column 94	Interior	rr	-123.758	-33.327	0.096	0.013	0.109	0.240	0.45
Column 94	Interior	ss	-123.758	-0.775	0.096	0.000	0.096	0.240	0.40
Column 96	End	rr	-8.986	44.352	0.005	0.010	0.015	0.180	0.08
Column 96	Edge	ss	-8.986	72.546	0.005	0.013	0.017	0.180	0.10
Column 97	Interior	rr	-325.413	-42.773	0.163	0.007	0.170	0.106	1.61
Column 97	Interior	ss	-325.413	4.395	0.163	0.001	0.164	0.106	1.54
Column 98	Corner	rr	-115.217	11.193	0.139	0.047	0.186	0.204	0.91
Column 98	Corner	ss	-115.217	-30.857	0.139	0.053	0.193	0.204	0.94
Column 99	Edge	rr	-171.595	-7.887	0.119	0.002	0.122	0.180	0.67
Column 99	End	ss	-171.595	-20.537	0.119	0.029	0.149	0.180	0.83
Column 100	Interior	rr	-250.348	7.926	0.194	0.003	0.197	0.240	0.82
Column 100	Interior	ss	-250.348	0.161	0.194	0.000	0.194	0.240	0.81
Column 101	Interior	rr	-245.200	51.677	0.141	0.001	0.142	0.106	1.34
Column 101	Interior	ss	-245.200	-4.154	0.141	0.013	0.154	0.106	1.45
Column 102	Corner	rr	-100.501	-60.768	0.087	0.048	0.135	0.162	0.84
Column 102	Corner	ss	-100.501	-60.945	0.087	0.035	0.122	0.162	0.75
Column 103	Interior	rr	-340.879	48.142	0.171	0.008	0.179	0.106	1.69

Column 103	Interior	ss	-340.879	-14.720	0.171	0.002	0.173	0.106	1.63

Column 104	Interior	rr	-382.941	54.942	0.162	0.007	0.169	0.106	1.59
Column 104	Interior	ss	-382.941	-2.234	0.162	0.000	0.162	0.106	1.53
Column 105	Interior	rr	-415.269	59.447	0.176	0.007	0.183	0.106	1.73
Column 105	Interior	ss	-415.269	-4.625	0.176	0.001	0.176	0.106	1.66
Column 106	Interior	rr	-294.276	41.753	0.213	0.014	0.227	0.240	0.95
Column 106	Interior	ss	-294.276	-3.151	0.213	0.001	0.214	0.240	0.89
Column 107	Interior	rr	-357.313	7.735	0.179	0.001	0.180	0.106	1.70
Column 107	Interior	ss	-357.313	6.544	0.179	0.001	0.180	0.106	1.70
Column 108	Edge	rr	-123.630	-1.543	0.107	0.001	0.107	0.191	0.56
Column 108	End	ss	-123.630	34.041	0.080	0.039	0.119	0.162	0.73
Column 109	Edge	rr	-84.140	13.541	0.156	0.012	0.168	0.212	0.79
Column 109	End	ss	-84.140	-2.628	0.156	0.045	0.201	0.212	0.95
Column 110	Interior	rr	-307.630	23.149	0.154	0.004	0.158	0.106	1.49
Column 110	Interior	ss	-307.630	8.989	0.154	0.001	0.156	0.106	1.47
Column 111	Interior	rr	-309.024	41.520	0.155	0.007	0.162	0.106	1.53
Column 111	Interior	ss	-309.024	-20.221	0.155	0.003	0.158	0.106	1.49
Column 112	Interior	rr	-227.778	19.245	0.176	0.007	0.184	0.240	0.77
Column 112	Interior	ss	-227.778	3.382	0.176	0.001	0.178	0.240	0.74
Column 113	Edge	rr	-137.496	28.146	0.103	0.008	0.111	0.191	0.58
Column 113	End	ss	-137.496	-86.464	0.103	0.006	0.109	0.191	0.57
Column 114	Edge	rr	-106.573	-8.178	0.080	0.002	0.082	0.191	0.43
Column 114	End	ss	-106.573	-76.632	0.080	0.002	0.082	0.191	0.43
Column 115	Interior	rr	-263.815	-9.543	0.204	0.004	0.208	0.240	0.87
Column 115	Interior	ss	-263.815	-4.199	0.204	0.002	0.206	0.240	0.86
Column 116	Interior	rr	-261.859	5.094	0.172	0.001	0.173	0.106	1.63
Column 116	Interior	ss	-261.859	5.615	0.172	0.001	0.173	0.106	1.63
Column 117	Interior	rr	-188.400	-8.205	0.222	0.005	0.227	0.240	0.95
Column 117	Interior	ss	-188.400	0.057	0.222	0.000	0.222	0.240	0.92
Column 118	Interior	rr	-212.117	-15.188	0.173	0.005	0.178	0.106	1.68
Column 118	Interior	ss	-212.117	-0.615	0.173	0.000	0.173	0.106	1.63
Column 119	Interior	rr	-223.819	-42.274	0.173	0.016	0.190	0.240	0.79
Column 119	Interior	ss	-223.819	-9.038	0.173	0.003	0.177	0.240	0.74
Column 120	Interior	rr	-60.939	1.610	0.058	0.005	0.064	0.240	0.27
Column 120	Interior	ss	-60.939	1.591	0.058	0.005	0.063	0.240	0.26
Column 121	Edge	rr	1.679	0.428	0.004	0.001	0.005	0.212	0.02
Column 121	End	ss	1.679	6.695	0.004	0.011	0.015	0.212	0.07
Column 122	Edge	rr	-119.795	20.024	0.090	0.006	0.095	0.191	0.50
Column 122	End	ss	-119.795	-70.664	0.073	0.030	0.102	0.165	0.62
Column 123	Interior	rr	-317.971	12.991	0.159	0.002	0.161	0.106	1.52
Column 123	Interior	ss	-317.971	-15.248	0.159	0.003	0.162	0.106	1.53

Column 124	Corner	rr	-53.806	-0.601	0.117	0.035	0.152	0.212	0.72
Column 124	Corner	ss	-53.806	-25.531	0.117	0.053	0.170	0.212	0.80
Column 125	End	rr	-207.967	-1.887	0.125	0.061	0.186	0.106	1.76
Column 125	Edge	ss	-207.967	-23.105	0.125	0.003	0.129	0.106	1.21
Column 126	Interior	rr	-241.401	2.129	0.158	0.001	0.159	0.106	1.50
Column 126	Interior	ss	-241.401	9.798	0.158	0.002	0.160	0.106	1.51
Column 127	Interior	rr	-116.346	-13.182	0.137	0.009	0.146	0.240	0.61
Column 127	Interior	ss	-116.346	-1.246	0.137	0.001	0.138	0.240	0.57
Column 128	Interior	rr	-142.437	-8.222	0.168	0.005	0.173	0.240	0.72
Column 128	Interior	ss	-142.437	-2.010	0.168	0.001	0.169	0.240	0.70
Column 129	Interior	rr	-261.949	29.164	0.203	0.011	0.214	0.240	0.89
Column 129	Interior	ss	-261.949	4.756	0.203	0.002	0.205	0.240	0.85
Column 130	Interior	rr	-93.926	1.981	0.073	0.001	0.074	0.240	0.31
Column 130	Interior	ss	-93.926	1.530	0.073	0.001	0.073	0.240	0.31
Column 131	Edge	rr	5.556	0.132	0.010	0.000	0.010	0.212	0.05
Column 131	End	ss	5.556	6.300	0.010	0.009	0.019	0.212	0.09
Column 132	Corner	rr	5.097	1.673	0.012	0.005	0.017	0.212	0.08
Column 132	Corner	ss	5.097	3.071	0.012	0.006	0.018	0.212	0.09
Column 133	End	rr	-90.434	-7.209	0.081	0.027	0.107	0.194	0.55

Column 133	Edge	ss	-90.434	-7.115	0.081	0.003	0.083	0.194	0.43
Column 134	End	rr	-230.318	-6.632	0.125	0.067	0.192	0.106	1.81
Column 134	Edge	ss	-230.318	31.156	0.125	0.004	0.129	0.106	1.21
Column 135	Interior	rr	-370.262	3.548	0.157	0.000	0.157	0.106	1.48
Column 135	Interior	ss	-370.262	-6.525	0.157	0.001	0.158	0.106	1.49
Column 136	Corner	rr	6.992	21.467	0.010	0.010	0.020	0.191	0.11
Column 136	Corner	ss	6.992	-14.755	0.010	0.012	0.022	0.191	0.11

Load Combination:STRE4

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-300.841	8.966	0.233	0.003	0.236	0.240	0.99
Column 84	Interior	ss	-300.841	-10.330	0.233	0.004	0.237	0.240	0.99
Column 85	End	rr	-154.087	-40.606	0.099	0.045	0.144	0.162	0.89
Column 85	Edge	ss	-154.087	-12.266	0.130	0.004	0.134	0.191	0.70
Column 86	Interior	rr	-304.303	5.812	0.236	0.002	0.238	0.240	0.99
Column 86	Interior	ss	-304.303	10.943	0.236	0.004	0.240	0.240	1.00
Column 87	Edge	rr	-105.479	-22.559	0.096	0.009	0.105	0.191	0.55
Column 87	End	ss	-105.479	21.947	0.068	0.034	0.102	0.162	0.63
Column 88	Corner	rr	-17.945	4.926	0.042	0.018	0.060	0.212	0.28
Column 88	Corner	ss	-17.945	15.903	0.042	0.003	0.045	0.212	0.21
Column 89	End	rr	-109.543	-52.094	0.164	0.002	0.165	0.202	0.82
Column 89	Edge	ss	-109.543	13.314	0.164	0.009	0.173	0.202	0.86
Column 90	Interior	rr	-359.381	2.327	0.180	0.000	0.180	0.106	1.70
Column 90	Interior	ss	-359.381	-8.307	0.180	0.001	0.181	0.106	1.71
Column 91	Interior	rr	-366.710	13.026	0.155	0.002	0.157	0.106	1.48
Column 91	Interior	ss	-366.710	6.539	0.155	0.001	0.156	0.106	1.47
Column 92	End	rr	-122.285	-59.205	0.183	0.001	0.184	0.202	0.91
Column 92	Edge	ss	-122.285	-26.270	0.183	0.018	0.200	0.202	0.99
Column 93	Interior	rr	-307.135	9.780	0.154	0.002	0.155	0.106	1.47
Column 93	Interior	ss	-307.135	-18.493	0.154	0.003	0.157	0.106	1.48
Column 94	Interior	rr	-334.293	22.286	0.167	0.004	0.171	0.106	1.61
Column 94	Interior	ss	-334.293	12.537	0.167	0.002	0.170	0.106	1.60
Column 96	End	rr	-438.110	-52.784	0.232	0.062	0.294	0.180	1.63
Column 96	Edge	ss	-438.110	-41.505	0.232	0.007	0.239	0.180	1.33
Column 97	Interior	rr	-206.011	26.010	0.160	0.010	0.170	0.240	0.71
Column 97	Interior	ss	-206.011	5.763	0.160	0.002	0.162	0.240	0.67
Column 98	Corner	rr	-107.675	9.056	0.130	0.043	0.173	0.204	0.85
Column 98	Corner	ss	-107.675	-21.874	0.130	0.047	0.177	0.204	0.87
Column 99	Edge	rr	-154.726	-5.513	0.108	0.002	0.109	0.180	0.61
Column 99	End	ss	-154.726	-18.971	0.108	0.026	0.134	0.180	0.74
Column 100	Interior	rr	-245.290	0.301	0.190	0.000	0.190	0.240	0.79
Column 100	Interior	ss	-245.290	-0.333	0.190	0.000	0.190	0.240	0.79
Column 101	Interior	rr	-235.106	-40.158	0.135	0.015	0.150	0.106	1.41
Column 101	Interior	ss	-235.106	1.631	0.135	0.011	0.147	0.106	1.38
Column 102	Corner	rr	-94.915	-65.651	0.082	0.044	0.127	0.162	0.78
Column 102	Corner	ss	-94.915	-54.626	0.082	0.033	0.115	0.162	0.71
Column 103	Interior	rr	-256.059	-13.300	0.198	0.005	0.203	0.240	0.85
Column 103	Interior	ss	-256.059	3.484	0.198	0.001	0.200	0.240	0.83

Column 104	Interior	rr	-365.923	-10.253	0.183	0.002	0.185	0.106	1.75
Column 104	Interior	ss	-365.923	-1.130	0.183	0.000	0.183	0.106	1.73
Column 105	Interior	rr	-342.858	1.705	0.172	0.000	0.172	0.106	1.62
Column 105	Interior	ss	-342.858	11.299	0.172	0.002	0.174	0.106	1.64
Column 106	Interior	rr	-415.269	-21.773	0.169	0.003	0.172	0.106	1.62
Column 106	Interior	ss	-415.269	-22.218	0.169	0.002	0.172	0.106	1.62
Column 107	Interior	rr	-377.164	-1.803	0.160	0.000	0.160	0.106	1.51
Column 107	Interior	ss	-377.164	9.053	0.160	0.001	0.161	0.106	1.52
Column 108	Edge	rr	-133.342	4.200	0.115	0.002	0.116	0.191	0.61
Column 108	End	ss	-133.342	35.851	0.086	0.042	0.128	0.162	0.79
Column 109	Edge	rr	-88.514	14.069	0.164	0.013	0.176	0.212	0.83
Column 109	End	ss	-88.514	-1.033	0.164	0.046	0.210	0.212	0.99

Column 110	Interior	rr	-262.511	20.815	0.203	0.008	0.211	0.240	0.88
Column 110	Interior	ss	-262.511	-1.163	0.203	0.000	0.204	0.240	0.85
Column 111	Interior	rr	-140.992	4.459	0.109	0.002	0.111	0.240	0.46
Column 111	Interior	ss	-140.992	-0.826	0.109	0.000	0.110	0.240	0.46
Column 112	Interior	rr	-204.195	4.243	0.158	0.002	0.160	0.240	0.67
Column 112	Interior	ss	-204.195	3.366	0.158	0.001	0.159	0.240	0.66
Column 113	Edge	rr	-133.177	29.439	0.100	0.008	0.108	0.191	0.57
Column 113	End	ss	-133.177	-92.792	0.100	0.003	0.103	0.191	0.54
Column 114	Edge	rr	-131.383	-24.882	0.099	0.007	0.105	0.191	0.55
Column 114	End	ss	-131.383	-96.760	0.099	0.002	0.100	0.191	0.52
Column 115	Interior	rr	-306.034	-11.873	0.153	0.002	0.155	0.106	1.46
Column 115	Interior	ss	-306.034	-0.564	0.153	0.000	0.153	0.106	1.45
Column 116	Interior	rr	-223.297	1.936	0.218	0.001	0.219	0.240	0.91
Column 116	Interior	ss	-223.297	6.528	0.218	0.003	0.221	0.240	0.92
Column 117	Interior	rr	-112.448	-10.074	0.132	0.007	0.139	0.240	0.58
Column 117	Interior	ss	-112.448	-1.058	0.132	0.001	0.133	0.240	0.55
Column 118	Interior	rr	-140.219	-16.158	0.165	0.011	0.176	0.240	0.73
Column 118	Interior	ss	-140.219	-2.019	0.165	0.001	0.166	0.240	0.69
Column 119	Interior	rr	-210.386	-3.005	0.163	0.001	0.164	0.240	0.68
Column 119	Interior	ss	-210.386	-4.937	0.163	0.002	0.165	0.240	0.69
Column 120	Interior	rr	-58.867	0.753	0.056	0.006	0.062	0.240	0.26
Column 120	Interior	ss	-58.867	0.081	0.056	0.005	0.062	0.240	0.26
Column 121	Edge	rr	1.157	0.411	0.003	0.001	0.003	0.212	0.02
Column 121	End	ss	1.157	6.961	0.003	0.018	0.016	0.212	0.07
Column 122	Edge	rr	-148.408	40.505	0.111	0.011	0.122	0.191	0.64
Column 122	End	ss	-148.408	-116.416	0.090	0.033	0.123	0.165	0.75
Column 123	Interior	rr	-283.620	23.347	0.220	0.009	0.229	0.240	0.95
Column 123	Interior	ss	-283.620	13.846	0.220	0.005	0.225	0.240	0.94

Column 124	Corner	rr	-61.535	-1.359	0.134	0.041	0.175	0.212	0.82
Column 124	Corner	ss	-61.535	-40.925	0.134	0.069	0.203	0.212	0.96
Column 125	End	rr	-113.749	-8.556	0.101	0.033	0.134	0.194	0.69
Column 125	Edge	ss	-113.749	26.995	0.101	0.010	0.111	0.194	0.57
Column 126	Interior	rr	-233.780	-5.895	0.228	0.003	0.231	0.240	0.96
Column 126	Interior	ss	-233.780	11.476	0.228	0.006	0.234	0.240	0.97
Column 127	Interior	rr	-117.971	-12.123	0.139	0.008	0.147	0.240	0.61
Column 127	Interior	ss	-117.971	-1.792	0.139	0.001	0.140	0.240	0.58
Column 128	Interior	rr	-144.955	-7.721	0.171	0.005	0.176	0.240	0.73
Column 128	Interior	ss	-144.955	-1.949	0.171	0.001	0.172	0.240	0.72
Column 129	Interior	rr	-315.319	3.998	0.158	0.001	0.159	0.106	1.50
Column 129	Interior	ss	-315.319	13.938	0.158	0.002	0.160	0.106	1.51
Column 130	Interior	rr	-96.365	-0.211	0.075	0.000	0.075	0.240	0.31
Column 130	Interior	ss	-96.365	1.131	0.075	0.000	0.075	0.240	0.31
Column 131	Edge	rr	5.444	0.109	0.010	0.000	0.010	0.212	0.05
Column 131	End	ss	5.444	6.292	0.010	0.009	0.019	0.212	0.09
Column 132	Corner	rr	4.821	1.760	0.011	0.005	0.017	0.212	0.08
Column 132	Corner	ss	4.821	3.056	0.011	0.006	0.017	0.212	0.08
Column 133	End	rr	-108.770	-4.407	0.097	0.030	0.127	0.194	0.65
Column 133	Edge	ss	-108.770	-2.331	0.097	0.001	0.098	0.194	0.50
Column 134	End	rr	-77.699	5.465	0.069	0.018	0.087	0.194	0.45
Column 134	Edge	ss	-77.699	-0.739	0.069	0.000	0.069	0.194	0.36
Column 135	Interior	rr	-372.758	3.658	0.158	0.000	0.158	0.106	1.49
Column 135	Interior	ss	-372.758	-6.297	0.158	0.001	0.159	0.106	1.50
Column 136	Corner	rr	-130.754	-60.987	0.096	0.040	0.136	0.106	1.28
Column 136	Corner	ss	-130.754	9.542	0.096	0.045	0.142	0.106	1.34

Load Combination:STRE5

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-187.734	-57.877	0.145	0.022	0.168	0.240	0.70
Column 84	Interior	ss	-187.734	-5.257	0.145	0.002	0.147	0.240	0.61
Column 85	End	rr	21.859	32.675	0.018	0.007	0.025	0.191	0.13

Column 85	Edge	ss	21.859	-1.226	0.018	0.000	0.019	0.191	0.10
Column 86	Interior	rr	-227.126	-50.534	0.176	0.019	0.195	0.240	0.81
Column 86	Interior	ss	-227.126	10.005	0.176	0.004	0.180	0.240	0.75
Column 87	Edge	rr	-110.564	-21.986	0.100	0.009	0.109	0.191	0.57
Column 87	End	ss	-110.564	25.531	0.071	0.036	0.107	0.162	0.66
Column 88	Corner	rr	-20.483	4.158	0.048	0.019	0.067	0.212	0.32
Column 88	Corner	ss	-20.483	19.123	0.048	0.004	0.052	0.212	0.24
Column 89	End	rr	-9.771	22.935	0.015	0.023	0.037	0.202	0.18
Column 89	Edge	ss	-9.771	6.784	0.015	0.005	0.019	0.202	0.10
Column 90	Interior	rr	-325.413	-50.271	0.163	0.009	0.172	0.106	1.62
Column 90	Interior	ss	-325.413	-2.194	0.163	0.000	0.163	0.106	1.54
Column 91	Interior	rr	-304.370	-48.394	0.152	0.008	0.161	0.106	1.52
Column 91	Interior	ss	-304.370	1.895	0.152	0.000	0.153	0.106	1.44
Column 92	End	rr	-35.412	8.525	0.053	0.021	0.074	0.202	0.37
Column 92	Edge	ss	-35.412	2.366	0.053	0.002	0.055	0.202	0.27
Column 93	Interior	rr	-247.381	-39.142	0.192	0.015	0.207	0.240	0.86
Column 93	Interior	ss	-247.381	-7.848	0.192	0.003	0.195	0.240	0.81
Column 94	Interior	rr	-154.458	-25.095	0.120	0.010	0.129	0.240	0.54
Column 94	Interior	ss	-154.458	0.714	0.120	0.000	0.120	0.240	0.50
Column 96	End	rr	-87.206	24.717	0.046	0.019	0.065	0.180	0.36
Column 96	Edge	ss	-87.206	56.659	0.046	0.010	0.056	0.180	0.31
Column 97	Interior	rr	-311.317	-30.666	0.156	0.005	0.161	0.106	1.52
Column 97	Interior	ss	-311.317	6.807	0.156	0.001	0.157	0.106	1.48
Column 98	Corner	rr	-115.065	9.746	0.139	0.046	0.185	0.204	0.91
Column 98	Corner	ss	-115.065	-31.526	0.139	0.054	0.193	0.204	0.94
Column 99	Edge	rr	-156.841	-5.635	0.109	0.002	0.111	0.180	0.61
Column 99	End	ss	-156.841	-23.444	0.109	0.026	0.135	0.180	0.75
Column 100	Interior	rr	-253.676	8.740	0.196	0.003	0.200	0.240	0.83
Column 100	Interior	ss	-253.676	-1.222	0.196	0.000	0.197	0.240	0.82
Column 101	Interior	rr	-247.066	35.812	0.142	0.002	0.144	0.106	1.36
Column 101	Interior	ss	-247.066	-2.194	0.142	0.012	0.155	0.106	1.46
Column 102	Corner	rr	-92.941	-63.505	0.080	0.044	0.124	0.162	0.77
Column 102	Corner	ss	-92.941	-53.568	0.080	0.033	0.113	0.162	0.70
Column 103	Interior	rr	-333.326	41.608	0.167	0.007	0.174	0.106	1.64
Column 103	Interior	ss	-333.326	-12.414	0.167	0.002	0.169	0.106	1.59

Column 104	Interior	rr	-386.561	54.353	0.164	0.007	0.170	0.106	1.61
Column 104	Interior	ss	-386.561	-4.576	0.164	0.001	0.164	0.106	1.55
Column 105	Interior	rr	-411.425	62.648	0.174	0.008	0.182	0.106	1.72
Column 105	Interior	ss	-411.425	-3.365	0.174	0.000	0.175	0.106	1.65
Column 106	Interior	rr	-284.587	57.494	0.206	0.020	0.226	0.240	0.94
Column 106	Interior	ss	-284.587	2.585	0.206	0.001	0.207	0.240	0.86
Column 107	Interior	rr	-347.287	9.109	0.174	0.002	0.175	0.106	1.66
Column 107	Interior	ss	-347.287	2.690	0.174	0.000	0.174	0.106	1.64
Column 108	Edge	rr	-133.971	9.014	0.115	0.003	0.119	0.191	0.62
Column 108	End	ss	-133.971	37.140	0.086	0.043	0.129	0.162	0.80
Column 109	Edge	rr	-82.420	12.943	0.153	0.012	0.164	0.212	0.77
Column 109	End	ss	-82.420	-2.987	0.153	0.045	0.197	0.212	0.93
Column 110	Interior	rr	-321.096	23.935	0.161	0.004	0.165	0.106	1.56
Column 110	Interior	ss	-321.096	11.776	0.161	0.002	0.163	0.106	1.54
Column 111	Interior	rr	-357.515	51.662	0.151	0.006	0.158	0.106	1.49
Column 111	Interior	ss	-357.515	-25.565	0.151	0.003	0.154	0.106	1.46
Column 112	Interior	rr	-222.863	16.478	0.173	0.006	0.179	0.240	0.75
Column 112	Interior	ss	-222.863	3.912	0.173	0.001	0.174	0.240	0.73
Column 113	Edge	rr	-135.387	28.038	0.102	0.008	0.109	0.191	0.57
Column 113	End	ss	-135.387	-89.621	0.102	0.004	0.106	0.191	0.55
Column 114	Edge	rr	-118.880	-15.512	0.089	0.004	0.093	0.191	0.49
Column 114	End	ss	-118.880	-85.977	0.089	0.002	0.091	0.191	0.48
Column 115	Interior	rr	-271.211	-10.104	0.210	0.004	0.214	0.240	0.89
Column 115	Interior	ss	-271.211	-1.865	0.210	0.001	0.211	0.240	0.88
Column 116	Interior	rr	-255.047	5.882	0.167	0.001	0.169	0.106	1.59
Column 116	Interior	ss	-255.047	5.194	0.167	0.001	0.168	0.106	1.59
Column 117	Interior	rr	-186.572	-8.129	0.219	0.005	0.225	0.240	0.94

Column 117	Interior	ss	-186.572	-0.199	0.219	0.000	0.220	0.240	0.92
Column 118	Interior	rr	-221.919	-16.866	0.156	0.004	0.160	0.106	1.51
Column 118	Interior	ss	-221.919	-2.076	0.156	0.001	0.156	0.106	1.47
Column 119	Interior	rr	-211.638	-49.811	0.164	0.019	0.183	0.240	0.76
Column 119	Interior	ss	-211.638	-9.545	0.164	0.004	0.168	0.240	0.70
Column 120	Interior	rr	-62.432	1.749	0.060	0.006	0.065	0.240	0.27
Column 120	Interior	ss	-62.432	2.031	0.060	0.005	0.065	0.240	0.27
Column 121	Edge	rr	1.812	0.434	0.004	0.001	0.005	0.212	0.02
Column 121	End	ss	1.812	6.599	0.004	0.011	0.016	0.212	0.07
Column 122	Edge	rr	-131.042	31.084	0.098	0.009	0.107	0.191	0.56
Column 122	End	ss	-131.042	-85.601	0.080	0.031	0.111	0.165	0.67
Column 123	Interior	rr	-312.374	14.916	0.156	0.003	0.159	0.106	1.50
Column 123	Interior	ss	-312.374	-7.214	0.156	0.001	0.158	0.106	1.49

Column 124	Corner	rr	-54.678	-1.073	0.119	0.036	0.155	0.212	0.73
Column 124	Corner	ss	-54.678	-28.915	0.119	0.056	0.175	0.212	0.82
Column 125	End	rr	-191.500	-3.025	0.115	0.056	0.172	0.106	1.62
Column 125	Edge	ss	-191.500	-13.430	0.115	0.002	0.117	0.106	1.11
Column 126	Interior	rr	-232.813	-0.759	0.227	0.000	0.228	0.240	0.95
Column 126	Interior	ss	-232.813	9.041	0.227	0.005	0.232	0.240	0.97
Column 127	Interior	rr	-115.854	-13.204	0.136	0.009	0.145	0.240	0.60
Column 127	Interior	ss	-115.854	-1.039	0.136	0.001	0.137	0.240	0.57
Column 128	Interior	rr	-146.268	-7.138	0.172	0.005	0.177	0.240	0.74
Column 128	Interior	ss	-146.268	-3.501	0.172	0.002	0.174	0.240	0.73
Column 129	Interior	rr	-230.318	32.742	0.178	0.013	0.191	0.240	0.80
Column 129	Interior	ss	-230.318	0.248	0.178	0.000	0.178	0.240	0.74
Column 130	Interior	rr	-104.258	2.785	0.081	0.001	0.082	0.240	0.34
Column 130	Interior	ss	-104.258	1.444	0.081	0.001	0.081	0.240	0.34
Column 131	Edge	rr	6.258	0.253	0.012	0.000	0.012	0.212	0.06
Column 131	End	ss	6.258	6.322	0.012	0.009	0.021	0.212	0.10
Column 132	Corner	rr	6.127	1.442	0.014	0.006	0.020	0.212	0.10
Column 132	Corner	ss	6.127	3.074	0.014	0.007	0.021	0.212	0.10
Column 133	End	rr	-86.786	-7.458	0.077	0.026	0.103	0.194	0.53
Column 133	Edge	ss	-86.786	-8.256	0.077	0.003	0.080	0.194	0.41
Column 134	End	rr	-271.368	-9.737	0.123	0.074	0.197	0.106	1.86
Column 134	Edge	ss	-271.368	38.993	0.242	0.014	0.255	0.194	1.31
Column 135	Interior	rr	-381.593	6.104	0.162	0.001	0.162	0.106	1.53
Column 135	Interior	ss	-381.593	-3.924	0.162	0.000	0.162	0.106	1.53
Column 136	Corner	rr	-13.742	9.377	0.020	0.013	0.033	0.191	0.17
Column 136	Corner	ss	-13.742	-11.393	0.013	0.008	0.020	0.159	0.13

Load Combination:STRE6

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-325.840	22.129	0.163	0.004	0.167	0.106	1.57
Column 84	Interior	ss	-325.840	-12.522	0.163	0.002	0.165	0.106	1.56
Column 85	End	rr	-190.142	-55.425	0.121	0.031	0.152	0.106	1.44
Column 85	Edge	ss	-190.142	-15.897	0.121	0.002	0.123	0.106	1.16
Column 86	Interior	rr	-316.173	14.152	0.158	0.002	0.161	0.106	1.52
Column 86	Interior	ss	-316.173	11.178	0.158	0.002	0.160	0.106	1.51
Column 87	Edge	rr	-93.451	-16.508	0.085	0.007	0.091	0.191	0.48
Column 87	End	ss	-93.451	18.928	0.060	0.030	0.091	0.162	0.56
Column 88	Corner	rr	-18.803	3.609	0.044	0.017	0.061	0.212	0.29
Column 88	Corner	ss	-18.803	14.826	0.044	0.001	0.045	0.212	0.21
Column 89	End	rr	-123.304	-63.036	0.184	0.002	0.186	0.202	0.92
Column 89	Edge	ss	-123.304	13.533	0.184	0.009	0.193	0.202	0.96
Column 90	Interior	rr	-364.732	5.524	0.183	0.001	0.184	0.106	1.73
Column 90	Interior	ss	-364.732	-9.763	0.183	0.002	0.184	0.106	1.74
Column 91	Interior	rr	-362.551	11.867	0.182	0.002	0.184	0.106	1.73
Column 91	Interior	ss	-362.551	6.643	0.182	0.001	0.183	0.106	1.72
Column 92	End	rr	-113.644	-51.940	0.170	0.003	0.173	0.202	0.86
Column 92	Edge	ss	-113.644	-23.340	0.170	0.016	0.186	0.202	0.92

Column 93	Interior	rr	-300.234	4.474	0.233	0.002	0.234	0.240	0.98
Column 93	Interior	ss	-300.234	-17.527	0.233	0.007	0.239	0.240	1.00
Column 94	Interior	rr	-303.583	14.053	0.152	0.002	0.154	0.106	1.46
Column 94	Interior	ss	-303.583	11.049	0.152	0.002	0.154	0.106	1.45
Column 96	End	rr	-359.898	-33.149	0.190	0.053	0.243	0.180	1.35
Column 96	Edge	ss	-359.898	-25.618	0.118	0.001	0.119	0.106	1.12
Column 97	Interior	rr	-220.100	13.902	0.170	0.005	0.176	0.240	0.73
Column 97	Interior	ss	-220.100	3.350	0.170	0.001	0.172	0.240	0.72
Column 98	Corner	rr	-107.826	10.504	0.130	0.044	0.174	0.204	0.85
Column 98	Corner	ss	-107.826	-21.205	0.130	0.047	0.177	0.204	0.87
Column 99	Edge	rr	-169.480	-7.765	0.118	0.002	0.120	0.180	0.67
Column 99	End	ss	-169.480	-16.063	0.118	0.030	0.148	0.180	0.82
Column 100	Interior	rr	-241.963	-0.514	0.187	0.000	0.188	0.240	0.78
Column 100	Interior	ss	-241.963	1.050	0.187	0.000	0.188	0.240	0.78
Column 101	Interior	rr	-233.240	-24.293	0.210	0.023	0.234	0.240	0.97
Column 101	Interior	ss	-233.240	-0.328	0.210	0.017	0.227	0.240	0.95
Column 102	Corner	rr	-102.475	-62.914	0.089	0.049	0.138	0.162	0.85
Column 102	Corner	ss	-102.475	-62.003	0.089	0.035	0.124	0.162	0.77
Column 103	Interior	rr	-263.612	-6.766	0.204	0.003	0.207	0.240	0.86
Column 103	Interior	ss	-263.612	1.178	0.204	0.000	0.205	0.240	0.85

Column 104	Interior	rr	-362.304	-9.664	0.181	0.002	0.183	0.106	1.73
Column 104	Interior	ss	-362.304	1.211	0.181	0.000	0.182	0.106	1.71
Column 105	Interior	rr	-346.725	-1.497	0.174	0.000	0.174	0.106	1.64
Column 105	Interior	ss	-346.725	10.039	0.174	0.002	0.175	0.106	1.65
Column 106	Interior	rr	-424.958	-37.514	0.173	0.004	0.178	0.106	1.67
Column 106	Interior	ss	-424.958	-27.954	0.173	0.003	0.176	0.106	1.66
Column 107	Interior	rr	-387.213	-3.178	0.164	0.000	0.164	0.106	1.55
Column 107	Interior	ss	-387.213	12.908	0.164	0.002	0.165	0.106	1.56
Column 108	Edge	rr	-123.000	-6.357	0.106	0.002	0.108	0.191	0.57
Column 108	End	ss	-123.000	32.751	0.079	0.039	0.118	0.162	0.73
Column 109	Edge	rr	-90.237	14.667	0.118	0.006	0.125	0.106	1.18
Column 109	End	ss	-90.237	-0.674	0.118	0.053	0.171	0.106	1.61
Column 110	Interior	rr	-249.045	20.030	0.193	0.008	0.201	0.240	0.84
Column 110	Interior	ss	-249.045	-3.950	0.193	0.001	0.194	0.240	0.81
Column 111	Interior	rr	-92.500	-5.682	0.072	0.002	0.074	0.240	0.31
Column 111	Interior	ss	-92.500	4.518	0.072	0.002	0.073	0.240	0.31
Column 112	Interior	rr	-209.107	7.010	0.162	0.003	0.165	0.240	0.69
Column 112	Interior	ss	-209.107	2.836	0.162	0.001	0.163	0.240	0.68
Column 113	Edge	rr	-135.286	29.547	0.101	0.008	0.110	0.191	0.57
Column 113	End	ss	-135.286	-89.628	0.101	0.004	0.106	0.191	0.55
Column 114	Edge	rr	-119.077	-17.547	0.089	0.005	0.094	0.191	0.49
Column 114	End	ss	-119.077	-87.416	0.089	0.001	0.091	0.191	0.47
Column 115	Interior	rr	-298.660	-11.310	0.231	0.004	0.236	0.240	0.98
Column 115	Interior	ss	-298.660	-2.898	0.231	0.001	0.232	0.240	0.97
Column 116	Interior	rr	-230.116	1.148	0.224	0.001	0.225	0.240	0.94
Column 116	Interior	ss	-230.116	6.950	0.224	0.004	0.228	0.240	0.95
Column 117	Interior	rr	-114.275	-10.150	0.134	0.007	0.141	0.240	0.59
Column 117	Interior	ss	-114.275	-0.803	0.134	0.001	0.135	0.240	0.56
Column 118	Interior	rr	-130.417	-14.481	0.153	0.010	0.163	0.240	0.68
Column 118	Interior	ss	-130.417	-0.558	0.153	0.000	0.154	0.240	0.64
Column 119	Interior	rr	-222.566	4.532	0.172	0.002	0.174	0.240	0.73
Column 119	Interior	ss	-222.566	-4.431	0.172	0.002	0.174	0.240	0.73
Column 120	Interior	rr	-57.374	0.613	0.055	0.006	0.061	0.240	0.25
Column 120	Interior	ss	-57.374	-0.359	0.055	0.005	0.060	0.240	0.25
Column 121	Edge	rr	1.024	0.406	0.002	0.001	0.003	0.212	0.01
Column 121	End	ss	1.024	7.057	0.002	0.018	0.016	0.212	0.08
Column 122	Edge	rr	-137.161	29.444	0.103	0.008	0.111	0.191	0.58
Column 122	End	ss	-137.161	-101.481	0.083	0.032	0.115	0.165	0.70
Column 123	Interior	rr	-289.218	21.422	0.224	0.008	0.232	0.240	0.97
Column 123	Interior	ss	-289.218	5.812	0.224	0.002	0.226	0.240	0.94

Column 124	Corner	rr	-60.660	-0.887	0.132	0.040	0.172	0.212	0.81
Column 124	Corner	ss	-60.660	-37.541	0.132	0.066	0.198	0.212	0.93
Column 125	End	rr	-130.217	-7.418	0.116	0.037	0.153	0.194	0.79
Column 125	Edge	ss	-130.217	17.320	0.116	0.006	0.122	0.194	0.63
Column 126	Interior	rr	-242.368	-3.007	0.159	0.001	0.159	0.106	1.50
Column 126	Interior	ss	-242.368	12.234	0.159	0.003	0.162	0.106	1.52
Column 127	Interior	rr	-118.466	-12.102	0.139	0.008	0.147	0.240	0.61
Column 127	Interior	ss	-118.466	-1.999	0.139	0.001	0.141	0.240	0.59
Column 128	Interior	rr	-141.127	-8.804	0.166	0.006	0.172	0.240	0.72
Column 128	Interior	ss	-141.127	-0.458	0.166	0.000	0.166	0.240	0.69
Column 129	Interior	rr	-346.949	0.420	0.174	0.000	0.174	0.106	1.64
Column 129	Interior	ss	-346.949	18.446	0.174	0.003	0.177	0.106	1.67
Column 130	Interior	rr	-86.033	-1.015	0.067	0.000	0.067	0.240	0.28
Column 130	Interior	ss	-86.033	1.217	0.067	0.000	0.067	0.240	0.28
Column 131	Edge	rr	4.743	-0.012	0.009	0.000	0.009	0.212	0.04
Column 131	End	ss	4.743	6.270	0.009	0.009	0.017	0.212	0.08
Column 132	Corner	rr	3.791	1.992	0.009	0.005	0.014	0.212	0.06
Column 132	Corner	ss	3.791	3.053	0.009	0.005	0.014	0.212	0.07
Column 133	End	rr	-112.421	-4.158	0.100	0.031	0.131	0.194	0.68
Column 133	Edge	ss	-112.421	-1.189	0.100	0.000	0.101	0.194	0.52
Column 134	End	rr	-36.646	8.570	0.033	0.006	0.039	0.194	0.20
Column 134	Edge	ss	-36.646	-8.576	0.033	0.003	0.036	0.194	0.18
Column 135	Interior	rr	-361.405	1.103	0.181	0.000	0.181	0.106	1.71
Column 135	Interior	ss	-361.405	-8.897	0.181	0.001	0.182	0.106	1.72
Column 136	Corner	rr	-110.020	-48.897	0.097	0.029	0.126	0.106	1.19
Column 136	Corner	ss	-110.020	6.180	0.097	0.035	0.132	0.106	1.25

Load Combination:STRE7

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-267.479	-15.687	0.207	0.006	0.213	0.240	0.89
Column 84	Interior	ss	-267.479	-14.473	0.207	0.005	0.213	0.240	0.89
Column 85	End	rr	-90.077	-14.346	0.058	0.027	0.085	0.162	0.53
Column 85	Edge	ss	-90.077	-11.650	0.076	0.004	0.080	0.191	0.42
Column 86	Interior	rr	-285.351	-21.457	0.221	0.008	0.229	0.240	0.96
Column 86	Interior	ss	-285.351	15.135	0.221	0.006	0.227	0.240	0.94
Column 87	Edge	rr	-34.747	19.343	0.031	0.008	0.039	0.191	0.21
Column 87	End	ss	-34.747	8.013	0.022	0.011	0.034	0.162	0.21
Column 88	Corner	rr	-28.645	-5.467	0.067	0.015	0.083	0.212	0.39
Column 88	Corner	ss	-28.645	14.687	0.067	0.006	0.073	0.212	0.34
Column 89	End	rr	-64.705	-19.388	0.097	0.010	0.107	0.202	0.53
Column 89	Edge	ss	-64.705	11.358	0.097	0.008	0.104	0.202	0.52
Column 90	Interior	rr	-359.584	-27.102	0.180	0.005	0.185	0.106	1.74
Column 90	Interior	ss	-359.584	-12.521	0.180	0.002	0.182	0.106	1.72
Column 91	Interior	rr	-317.499	-12.964	0.159	0.002	0.161	0.106	1.52
Column 91	Interior	ss	-317.499	8.444	0.159	0.001	0.160	0.106	1.51
Column 92	End	rr	-73.012	-20.714	0.109	0.012	0.122	0.202	0.60
Column 92	Edge	ss	-73.012	-11.521	0.109	0.008	0.117	0.202	0.58
Column 93	Interior	rr	-272.290	-18.029	0.211	0.007	0.218	0.240	0.91
Column 93	Interior	ss	-272.290	-14.273	0.211	0.005	0.216	0.240	0.90
Column 94	Interior	rr	-236.927	-7.907	0.184	0.003	0.187	0.240	0.78
Column 94	Interior	ss	-236.927	9.470	0.184	0.004	0.187	0.240	0.78
Column 96	End	rr	-196.965	15.734	0.104	0.035	0.140	0.180	0.77
Column 96	Edge	ss	-196.965	-11.437	0.104	0.002	0.106	0.180	0.59
Column 97	Interior	rr	-210.582	-7.837	0.163	0.003	0.166	0.240	0.69
Column 97	Interior	ss	-210.582	-13.010	0.163	0.005	0.168	0.240	0.70
Column 98	Corner	rr	-101.821	20.113	0.123	0.045	0.168	0.204	0.82
Column 98	Corner	ss	-101.821	-9.427	0.123	0.041	0.164	0.204	0.80
Column 99	Edge	rr	-255.744	-23.910	0.178	0.007	0.185	0.180	1.02
Column 99	End	ss	-255.744	5.124	0.178	0.053	0.231	0.180	1.28
Column 100	Interior	rr	-240.254	-24.572	0.186	0.009	0.196	0.240	0.81
Column 100	Interior	ss	-240.254	17.513	0.186	0.007	0.193	0.240	0.80
Column 101	Interior	rr	-187.631	6.202	0.169	0.008	0.178	0.240	0.74

Column 101	Interior	ss	-187.631	-11.916	0.169	0.019	0.188	0.240	0.78
Column 102	Corner	rr	-175.266	-88.876	0.152	0.087	0.239	0.162	1.47
Column 102	Corner	ss	-175.266	-133.248	0.101	0.047	0.148	0.106	1.40
Column 103	Interior	rr	-314.846	21.598	0.158	0.004	0.161	0.106	1.52
Column 103	Interior	ss	-314.846	-7.765	0.158	0.001	0.159	0.106	1.50
Column 104	Interior	rr	-325.525	12.591	0.163	0.002	0.165	0.106	1.56
Column 104	Interior	ss	-325.525	21.400	0.163	0.004	0.167	0.106	1.57
Column 105	Interior	rr	-496.830	39.503	0.182	0.004	0.186	0.106	1.75
Column 105	Interior	ss	-496.830	-26.663	0.182	0.002	0.185	0.106	1.74
Column 106	Interior	rr	-156.902	4.742	0.114	0.002	0.115	0.240	0.48
Column 106	Interior	ss	-156.902	-21.037	0.114	0.007	0.120	0.240	0.50
Column 107	Interior	rr	-390.158	14.003	0.165	0.002	0.167	0.106	1.57
Column 107	Interior	ss	-390.158	33.535	0.165	0.004	0.169	0.106	1.60
Column 108	Edge	rr	-25.837	-38.653	0.022	0.014	0.036	0.191	0.19
Column 108	End	ss	-25.837	5.710	0.017	0.008	0.025	0.162	0.15
Column 109	Edge	rr	-43.645	-3.424	0.081	0.003	0.084	0.212	0.40
Column 109	End	ss	-43.645	-11.212	0.081	0.033	0.114	0.212	0.54
Column 110	Interior	rr	-259.453	15.175	0.201	0.006	0.207	0.240	0.86
Column 110	Interior	ss	-259.453	18.781	0.201	0.007	0.208	0.240	0.87
Column 111	Interior	rr	-253.226	21.410	0.196	0.008	0.204	0.240	0.85
Column 111	Interior	ss	-253.226	-18.667	0.196	0.007	0.203	0.240	0.85
Column 112	Interior	rr	-234.837	16.763	0.182	0.006	0.188	0.240	0.78
Column 112	Interior	ss	-234.837	27.136	0.182	0.010	0.192	0.240	0.80
Column 113	Edge	rr	-219.197	83.189	0.164	0.023	0.187	0.191	0.98
Column 113	End	ss	-219.197	-190.829	0.164	0.005	0.170	0.191	0.89
Column 114	Edge	rr	-214.761	-65.857	0.161	0.018	0.179	0.191	0.94
Column 114	End	ss	-214.761	-195.158	0.161	0.008	0.169	0.191	0.88
Column 115	Interior	rr	-266.760	-11.788	0.207	0.005	0.211	0.240	0.88
Column 115	Interior	ss	-266.760	28.490	0.207	0.011	0.217	0.240	0.91
Column 116	Interior	rr	-221.977	10.322	0.217	0.005	0.222	0.240	0.92
Column 116	Interior	ss	-221.977	4.542	0.217	0.002	0.219	0.240	0.91
Column 117	Interior	rr	-147.064	-8.312	0.173	0.006	0.179	0.240	0.74
Column 117	Interior	ss	-147.064	0.000	0.173	0.000	0.173	0.240	0.72
Column 118	Interior	rr	-199.323	-28.119	0.162	0.009	0.172	0.106	1.62
Column 118	Interior	ss	-199.323	-8.402	0.162	0.003	0.165	0.106	1.56
Column 119	Interior	rr	-86.255	1.470	0.067	0.001	0.067	0.240	0.28
Column 119	Interior	ss	-86.255	-3.368	0.067	0.001	0.068	0.240	0.28
Column 120	Interior	rr	-73.144	1.446	0.070	0.007	0.077	0.240	0.32
Column 120	Interior	ss	-73.144	2.607	0.070	0.006	0.076	0.240	0.32
Column 121	Edge	rr	-0.693	2.334	0.002	0.003	0.005	0.212	0.02
Column 121	End	ss	-0.693	5.277	0.002	0.013	0.015	0.212	0.07
Column 122	Edge	rr	-197.410	114.182	0.148	0.032	0.180	0.191	0.94
Column 122	End	ss	-197.410	-162.064	0.120	0.044	0.163	0.165	0.99
Column 123	Interior	rr	-309.788	17.450	0.155	0.003	0.158	0.106	1.49
Column 123	Interior	ss	-309.788	24.824	0.155	0.004	0.159	0.106	1.50
Column 124	Corner	rr	-50.971	-5.800	0.111	0.038	0.148	0.212	0.70
Column 124	Corner	ss	-50.971	-38.573	0.111	0.061	0.172	0.212	0.81
Column 125	End	rr	-164.927	-3.810	0.147	0.045	0.191	0.194	0.99
Column 125	Edge	ss	-164.927	7.791	0.147	0.003	0.149	0.194	0.77
Column 126	Interior	rr	-173.045	-14.112	0.169	0.007	0.176	0.240	0.73
Column 126	Interior	ss	-173.045	1.117	0.169	0.001	0.169	0.240	0.71
Column 127	Interior	rr	-116.074	-13.005	0.137	0.009	0.145	0.240	0.61
Column 127	Interior	ss	-116.074	0.673	0.137	0.000	0.137	0.240	0.57
Column 128	Interior	rr	-169.538	-0.132	0.199	0.000	0.200	0.240	0.83
Column 128	Interior	ss	-169.538	-11.954	0.199	0.008	0.207	0.240	0.86
Column 129	Interior	rr	-176.824	-6.119	0.137	0.002	0.139	0.240	0.58
Column 129	Interior	ss	-176.824	-2.770	0.137	0.001	0.138	0.240	0.58
Column 130	Interior	rr	-153.572	1.831	0.119	0.001	0.120	0.240	0.50
Column 130	Interior	ss	-153.572	0.643	0.119	0.000	0.119	0.240	0.50
Column 131	Edge	rr	6.201	0.015	0.011	0.000	0.011	0.212	0.05

Column 131	End	ss	6.201	6.186	0.011	0.009	0.021	0.212	0.10
Column 132	Corner	rr	4.623	1.799	0.011	0.005	0.016	0.212	0.08
Column 132	Corner	ss	4.623	3.058	0.011	0.006	0.017	0.212	0.08
Column 133	End	rr	-106.097	-2.896	0.094	0.029	0.123	0.194	0.64
Column 133	Edge	ss	-106.097	-3.041	0.094	0.001	0.096	0.194	0.49
Column 134	End	rr	-150.576	1.223	0.134	0.039	0.173	0.194	0.89
Column 134	Edge	ss	-150.576	9.559	0.134	0.003	0.137	0.194	0.71
Column 135	Interior	rr	-445.686	19.216	0.189	0.002	0.191	0.106	1.80
Column 135	Interior	ss	-445.686	10.615	0.189	0.001	0.190	0.106	1.79
Column 136	Corner	rr	-59.887	-18.634	0.086	0.018	0.104	0.191	0.55
Column 136	Corner	ss	-59.887	-1.460	0.055	0.041	0.096	0.159	0.61

Load Combination:STRE8

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-246.100	-20.060	0.191	0.008	0.198	0.240	0.83
Column 84	Interior	ss	-246.100	-3.306	0.191	0.001	0.192	0.240	0.80
Column 85	End	rr	-78.207	-8.404	0.050	0.024	0.074	0.162	0.46
Column 85	Edge	ss	-78.207	-5.472	0.066	0.002	0.068	0.191	0.35
Column 86	Interior	rr	-257.947	-14.926	0.200	0.006	0.206	0.240	0.86
Column 86	Interior	ss	-257.947	6.048	0.200	0.002	0.202	0.240	0.84
Column 87	Edge	rr	-169.266	-57.836	0.121	0.007	0.128	0.106	1.21
Column 87	End	ss	-169.266	36.446	0.121	0.024	0.145	0.106	1.37
Column 88	Corner	rr	-10.641	13.233	0.025	0.021	0.046	0.212	0.22
Column 88	Corner	ss	-10.641	19.261	0.025	0.010	0.035	0.212	0.17
Column 89	End	rr	-68.371	-20.711	0.102	0.011	0.113	0.202	0.56
Column 89	Edge	ss	-68.371	8.958	0.102	0.006	0.108	0.202	0.54
Column 90	Interior	rr	-330.561	-17.644	0.166	0.003	0.169	0.106	1.59
Column 90	Interior	ss	-330.561	0.564	0.166	0.000	0.166	0.106	1.56
Column 91	Interior	rr	-349.422	-23.563	0.175	0.004	0.179	0.106	1.69
Column 91	Interior	ss	-349.422	0.093	0.175	0.000	0.175	0.106	1.65
Column 92	End	rr	-76.044	-22.700	0.114	0.012	0.126	0.202	0.62
Column 92	Edge	ss	-76.044	-9.453	0.114	0.006	0.120	0.202	0.59
Column 93	Interior	rr	-275.325	-16.639	0.213	0.006	0.220	0.240	0.92
Column 93	Interior	ss	-275.325	-11.102	0.213	0.004	0.217	0.240	0.91
Column 94	Interior	rr	-221.123	-3.134	0.171	0.001	0.172	0.240	0.72
Column 94	Interior	ss	-221.123	2.293	0.171	0.001	0.172	0.240	0.72
Column 96	End	rr	-250.124	-24.166	0.132	0.036	0.169	0.180	0.94
Column 96	Edge	ss	-250.124	42.478	0.132	0.007	0.140	0.180	0.78
Column 97	Interior	rr	-320.826	-8.926	0.161	0.002	0.162	0.106	1.53
Column 97	Interior	ss	-320.826	23.167	0.161	0.004	0.165	0.106	1.55
Column 98	Corner	rr	-121.069	0.137	0.111	0.053	0.163	0.106	1.54
Column 98	Corner	ss	-121.069	-43.304	0.111	0.062	0.173	0.106	1.63
Column 99	Edge	rr	-70.588	10.510	0.049	0.003	0.052	0.180	0.29
Column 99	End	ss	-70.588	-44.630	0.049	0.003	0.052	0.180	0.29
Column 100	Interior	rr	-255.384	32.799	0.198	0.013	0.210	0.240	0.88
Column 100	Interior	ss	-255.384	-17.684	0.198	0.007	0.204	0.240	0.85
Column 101	Interior	rr	-292.680	5.317	0.169	0.009	0.177	0.106	1.67
Column 101	Interior	ss	-292.680	9.394	0.169	0.012	0.181	0.106	1.71
Column 102	Corner	rr	-20.148	-37.543	0.023	0.008	0.031	0.191	0.16
Column 102	Corner	ss	-20.148	17.679	0.023	0.014	0.037	0.191	0.19
Column 103	Interior	rr	-282.114	13.244	0.218	0.005	0.224	0.240	0.93
Column 103	Interior	ss	-282.114	-3.471	0.218	0.001	0.220	0.240	0.92
Column 104	Interior	rr	-423.362	32.098	0.179	0.004	0.183	0.106	1.73
Column 104	Interior	ss	-423.362	-24.765	0.179	0.003	0.182	0.106	1.72
Column 105	Interior	rr	-261.297	21.649	0.202	0.008	0.211	0.240	0.88
Column 105	Interior	ss	-261.297	33.336	0.202	0.013	0.215	0.240	0.90
Column 106	Interior	rr	-552.651	15.239	0.400	0.005	0.405	0.240	1.69
Column 106	Interior	ss	-552.651	-4.332	0.400	0.001	0.401	0.240	1.67
Column 107	Interior	rr	-344.342	-8.071	0.172	0.001	0.174	0.106	1.64
Column 107	Interior	ss	-344.342	-17.937	0.172	0.003	0.175	0.106	1.65

Column 108	Edge	rr	-231.127	41.309	0.199	0.015	0.214	0.191	1.12
Column 108	End	ss	-231.127	64.182	0.114	0.046	0.160	0.106	1.51
Column 109	Edge	rr	-129.009	31.034	0.130	0.008	0.138	0.106	1.30
Column 109	End	ss	-129.009	7.550	0.130	0.068	0.198	0.106	1.87
Column 110	Interior	rr	-310.687	28.789	0.156	0.005	0.160	0.106	1.51
Column 110	Interior	ss	-310.687	-10.955	0.156	0.002	0.157	0.106	1.48
Column 111	Interior	rr	-196.792	24.570	0.152	0.009	0.162	0.240	0.67
Column 111	Interior	ss	-196.792	-2.380	0.152	0.001	0.153	0.240	0.64
Column 112	Interior	rr	-197.134	6.725	0.153	0.003	0.155	0.240	0.65
Column 112	Interior	ss	-197.134	-20.388	0.153	0.008	0.160	0.240	0.67
Column 113	Edge	rr	-51.479	-25.606	0.039	0.007	0.046	0.191	0.24
Column 113	End	ss	-51.479	11.578	0.039	0.014	0.053	0.191	0.27
Column 114	Edge	rr	-23.196	32.798	0.017	0.009	0.026	0.191	0.14
Column 114	End	ss	-23.196	21.767	0.017	0.011	0.028	0.191	0.15
Column 115	Interior	rr	-303.111	-9.626	0.152	0.002	0.153	0.106	1.45
Column 115	Interior	ss	-303.111	-33.253	0.152	0.005	0.157	0.106	1.48
Column 116	Interior	rr	-263.185	-3.292	0.172	0.001	0.173	0.106	1.63
Column 116	Interior	ss	-263.185	7.602	0.172	0.002	0.174	0.106	1.64
Column 117	Interior	rr	-153.781	-9.967	0.181	0.007	0.188	0.240	0.78
Column 117	Interior	ss	-153.781	-1.002	0.181	0.001	0.182	0.240	0.76
Column 118	Interior	rr	-153.012	-3.228	0.180	0.002	0.182	0.240	0.76
Column 118	Interior	ss	-153.012	5.768	0.180	0.004	0.184	0.240	0.77
Column 119	Interior	rr	-347.938	-46.749	0.174	0.008	0.182	0.106	1.72
Column 119	Interior	ss	-347.938	-10.607	0.174	0.002	0.176	0.106	1.66
Column 120	Interior	rr	-46.662	0.917	0.045	0.004	0.049	0.240	0.20
Column 120	Interior	ss	-46.662	-0.935	0.045	0.005	0.049	0.240	0.21
Column 121	Edge	rr	3.529	-1.494	0.008	0.001	0.009	0.212	0.04
Column 121	End	ss	3.529	8.379	0.008	0.015	0.023	0.212	0.11
Column 122	Edge	rr	-70.793	-53.654	0.053	0.015	0.068	0.191	0.36
Column 122	End	ss	-70.793	-25.021	0.043	0.019	0.062	0.165	0.38
Column 123	Interior	rr	-291.803	18.889	0.226	0.007	0.233	0.240	0.97
Column 123	Interior	ss	-291.803	-26.227	0.226	0.010	0.236	0.240	0.98

Column 124	Corner	rr	-64.370	3.840	0.140	0.038	0.178	0.212	0.84
Column 124	Corner	ss	-64.370	-27.883	0.140	0.061	0.201	0.212	0.95
Column 125	End	rr	-156.789	-6.633	0.139	0.044	0.183	0.194	0.94
Column 125	Edge	ss	-156.789	-3.901	0.139	0.001	0.141	0.194	0.73
Column 126	Interior	rr	-302.122	10.346	0.169	0.002	0.171	0.106	1.61
Column 126	Interior	ss	-302.122	20.158	0.169	0.004	0.172	0.106	1.63
Column 127	Interior	rr	-118.246	-12.300	0.139	0.008	0.147	0.240	0.61
Column 127	Interior	ss	-118.246	-3.712	0.139	0.002	0.141	0.240	0.59
Column 128	Interior	rr	-117.854	-15.810	0.139	0.010	0.149	0.240	0.62
Column 128	Interior	ss	-117.854	7.995	0.139	0.005	0.144	0.240	0.60
Column 129	Interior	rr	-400.432	39.281	0.170	0.005	0.174	0.106	1.64
Column 129	Interior	ss	-400.432	21.464	0.170	0.003	0.172	0.106	1.62
Column 130	Interior	rr	-36.718	-0.061	0.028	0.000	0.028	0.240	0.12
Column 130	Interior	ss	-36.718	2.018	0.028	0.001	0.029	0.240	0.12
Column 131	Edge	rr	4.799	0.226	0.009	0.000	0.009	0.212	0.04
Column 131	End	ss	4.799	6.406	0.009	0.009	0.018	0.212	0.08
Column 132	Corner	rr	5.296	1.635	0.012	0.005	0.018	0.212	0.08
Column 132	Corner	ss	5.296	3.068	0.012	0.006	0.019	0.212	0.09
Column 133	End	rr	-93.107	-8.720	0.083	0.028	0.111	0.194	0.57
Column 133	Edge	ss	-93.107	-6.405	0.083	0.002	0.085	0.194	0.44
Column 134	End	rr	-157.443	-2.390	0.140	0.042	0.182	0.194	0.94
Column 134	Edge	ss	-157.443	20.857	0.140	0.007	0.148	0.194	0.76
Column 135	Interior	rr	-297.311	-12.009	0.230	0.005	0.235	0.240	0.98
Column 135	Interior	ss	-297.311	-23.437	0.230	0.009	0.239	0.240	1.00
Column 136	Corner	rr	-63.875	-20.885	0.092	0.019	0.111	0.191	0.58
Column 136	Corner	ss	-63.875	-3.752	0.059	0.044	0.102	0.159	0.64

Load Combination:STRE9

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio

			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-261.544	-18.310	0.203	0.007	0.210	0.240	0.87
Column 84	Interior	ss	-261.544	-13.512	0.203	0.005	0.208	0.240	0.87
Column 85	End	rr	-82.550	-11.273	0.053	0.025	0.078	0.162	0.48
Column 85	Edge	ss	-82.550	-10.363	0.069	0.004	0.073	0.191	0.38
Column 86	Interior	rr	-283.418	-22.417	0.220	0.009	0.228	0.240	0.95
Column 86	Interior	ss	-283.418	14.860	0.220	0.006	0.225	0.240	0.94
Column 87	Edge	rr	-42.114	15.318	0.038	0.006	0.044	0.191	0.23
Column 87	End	ss	-42.114	9.655	0.027	0.014	0.041	0.162	0.25
Column 88	Corner	rr	-27.836	-4.529	0.065	0.015	0.081	0.212	0.38
Column 88	Corner	ss	-27.836	15.085	0.065	0.005	0.070	0.212	0.33
Column 89	End	rr	-63.342	-18.092	0.095	0.011	0.105	0.202	0.52
Column 89	Edge	ss	-63.342	11.330	0.095	0.008	0.102	0.202	0.51
Column 90	Interior	rr	-358.280	-27.014	0.179	0.005	0.184	0.106	1.74
Column 90	Interior	ss	-358.280	-11.971	0.179	0.002	0.181	0.106	1.71
Column 91	Interior	rr	-318.960	-13.167	0.160	0.002	0.162	0.106	1.53
Column 91	Interior	ss	-318.960	8.160	0.160	0.001	0.161	0.106	1.52
Column 92	End	rr	-73.875	-21.509	0.110	0.012	0.123	0.202	0.61
Column 92	Edge	ss	-73.875	-11.777	0.110	0.008	0.118	0.202	0.59
Column 93	Interior	rr	-273.099	-17.434	0.212	0.007	0.218	0.240	0.91
Column 93	Interior	ss	-273.099	-14.264	0.212	0.005	0.217	0.240	0.90
Column 94	Interior	rr	-241.244	-6.504	0.187	0.003	0.189	0.240	0.79
Column 94	Interior	ss	-241.244	9.473	0.187	0.004	0.190	0.240	0.79
Column 96	End	rr	-215.276	10.113	0.114	0.037	0.151	0.180	0.84
Column 96	Edge	ss	-215.276	-12.784	0.114	0.002	0.116	0.180	0.64
Column 97	Interior	rr	-211.414	-5.265	0.164	0.002	0.166	0.240	0.69
Column 97	Interior	ss	-211.414	-11.324	0.164	0.004	0.168	0.240	0.70
Column 98	Corner	rr	-102.450	19.169	0.124	0.045	0.169	0.204	0.83
Column 98	Corner	ss	-102.450	-10.750	0.124	0.041	0.165	0.204	0.81
Column 99	Edge	rr	-246.055	-22.316	0.171	0.006	0.177	0.180	0.98
Column 99	End	ss	-246.055	2.807	0.171	0.051	0.222	0.180	1.23
Column 100	Interior	rr	-243.087	-23.167	0.188	0.009	0.197	0.240	0.82
Column 100	Interior	ss	-243.087	16.395	0.188	0.006	0.194	0.240	0.81
Column 101	Interior	rr	-190.430	2.965	0.172	0.010	0.182	0.240	0.76
Column 101	Interior	ss	-190.430	-10.937	0.172	0.018	0.190	0.240	0.79
Column 102	Corner	rr	-169.527	-90.351	0.103	0.048	0.151	0.106	1.42
Column 102	Corner	ss	-169.527	-127.723	0.103	0.045	0.148	0.106	1.40
Column 103	Interior	rr	-313.295	20.613	0.157	0.003	0.160	0.106	1.51
Column 103	Interior	ss	-313.295	-7.369	0.157	0.001	0.158	0.106	1.49
Column 104	Interior	rr	-329.144	13.116	0.165	0.002	0.167	0.106	1.58
Column 104	Interior	ss	-329.144	19.684	0.165	0.003	0.168	0.106	1.59
Column 105	Interior	rr	-488.917	39.128	0.179	0.004	0.183	0.106	1.73
Column 105	Interior	ss	-488.917	-24.612	0.179	0.002	0.181	0.106	1.71
Column 106	Interior	rr	-164.658	7.885	0.119	0.003	0.122	0.240	0.51
Column 106	Interior	ss	-164.658	-19.561	0.119	0.006	0.126	0.240	0.52
Column 107	Interior	rr	-386.359	13.824	0.164	0.002	0.165	0.106	1.56
Column 107	Interior	ss	-386.359	31.457	0.164	0.004	0.167	0.106	1.58
Column 108	Edge	rr	-33.128	-32.180	0.029	0.012	0.040	0.191	0.21
Column 108	End	ss	-33.128	7.794	0.021	0.011	0.032	0.162	0.20
Column 109	Edge	rr	-43.469	-3.544	0.080	0.003	0.084	0.212	0.39
Column 109	End	ss	-43.469	-11.186	0.080	0.033	0.114	0.212	0.54
Column 110	Interior	rr	-263.073	15.473	0.204	0.006	0.210	0.240	0.87
Column 110	Interior	ss	-263.073	19.273	0.204	0.007	0.211	0.240	0.88
Column 111	Interior	rr	-264.984	23.730	0.205	0.009	0.214	0.240	0.89
Column 111	Interior	ss	-264.984	-19.797	0.205	0.007	0.213	0.240	0.89
Column 112	Interior	rr	-233.375	16.128	0.181	0.006	0.187	0.240	0.78
Column 112	Interior	ss	-233.375	27.561	0.181	0.010	0.191	0.240	0.80
Column 113	Edge	rr	-217.126	82.747	0.163	0.023	0.186	0.191	0.97
Column 113	End	ss	-217.126	-192.688	0.163	0.006	0.169	0.191	0.89
Column 114	Edge	rr	-223.508	-71.088	0.168	0.020	0.187	0.191	0.98
Column 114	End	ss	-223.508	-201.383	0.168	0.007	0.175	0.191	0.92
Column 115	Interior	rr	-268.243	-12.010	0.208	0.005	0.212	0.240	0.89

Column 115	Interior	ss	-268.243	30.224	0.208	0.011	0.219	0.240	0.91
Column 116	Interior	rr	-218.572	11.200	0.213	0.006	0.219	0.240	0.91
Column 116	Interior	ss	-218.572	4.224	0.213	0.002	0.215	0.240	0.90
Column 117	Interior	rr	-146.682	-8.217	0.173	0.005	0.178	0.240	0.74
Column 117	Interior	ss	-146.682	0.089	0.173	0.000	0.173	0.240	0.72
Column 118	Interior	rr	-202.599	-29.333	0.165	0.010	0.175	0.106	1.65
Column 118	Interior	ss	-202.599	-9.243	0.165	0.003	0.168	0.106	1.58
Column 119	Interior	rr	-75.532	1.300	0.059	0.000	0.059	0.240	0.25
Column 119	Interior	ss	-75.532	-3.197	0.059	0.001	0.060	0.240	0.25
Column 120	Interior	rr	-73.767	1.427	0.071	0.007	0.078	0.240	0.32
Column 120	Interior	ss	-73.767	2.701	0.071	0.006	0.076	0.240	0.32
Column 121	Edge	rr	-0.617	2.322	0.001	0.003	0.004	0.212	0.02
Column 121	End	ss	-0.617	5.262	0.001	0.013	0.015	0.212	0.07
Column 122	Edge	rr	-204.856	122.619	0.128	0.013	0.141	0.106	1.33
Column 122	End	ss	-204.856	-170.782	0.128	0.012	0.140	0.106	1.32
Column 123	Interior	rr	-309.249	17.920	0.155	0.003	0.158	0.106	1.49
Column 123	Interior	ss	-309.249	28.829	0.155	0.005	0.160	0.106	1.51

Column 124	Corner	rr	-50.764	-6.188	0.110	0.038	0.148	0.212	0.70
Column 124	Corner	ss	-50.764	-39.841	0.110	0.062	0.172	0.212	0.81
Column 125	End	rr	-161.432	-3.989	0.144	0.044	0.187	0.194	0.97
Column 125	Edge	ss	-161.432	10.567	0.144	0.004	0.147	0.194	0.76
Column 126	Interior	rr	-165.235	-15.883	0.161	0.008	0.169	0.240	0.71
Column 126	Interior	ss	-165.235	0.095	0.161	0.000	0.161	0.240	0.67
Column 127	Interior	rr	-115.885	-13.044	0.136	0.009	0.145	0.240	0.60
Column 127	Interior	ss	-115.885	0.907	0.136	0.001	0.137	0.240	0.57
Column 128	Interior	rr	-172.463	0.692	0.203	0.000	0.203	0.240	0.85
Column 128	Interior	ss	-172.463	-13.091	0.203	0.008	0.211	0.240	0.88
Column 129	Interior	rr	-160.463	-7.033	0.124	0.003	0.127	0.240	0.53
Column 129	Interior	ss	-160.463	-4.845	0.124	0.002	0.126	0.240	0.53
Column 130	Interior	rr	-161.551	2.147	0.125	0.001	0.126	0.240	0.52
Column 130	Interior	ss	-161.551	0.536	0.125	0.000	0.125	0.240	0.52
Column 131	Edge	rr	6.490	0.042	0.012	0.000	0.012	0.212	0.06
Column 131	End	ss	6.490	6.185	0.012	0.009	0.021	0.212	0.10
Column 132	Corner	rr	4.929	1.732	0.012	0.005	0.017	0.212	0.08
Column 132	Corner	ss	4.929	3.058	0.012	0.006	0.018	0.212	0.08
Column 133	End	rr	-105.809	-2.712	0.094	0.029	0.123	0.194	0.63
Column 133	Edge	ss	-105.809	-3.179	0.094	0.001	0.095	0.194	0.49
Column 134	End	rr	-159.781	0.616	0.142	0.042	0.184	0.194	0.95
Column 134	Edge	ss	-159.781	10.914	0.142	0.004	0.146	0.194	0.75
Column 135	Interior	rr	-454.566	21.096	0.167	0.002	0.169	0.106	1.59
Column 135	Interior	ss	-454.566	12.606	0.167	0.001	0.168	0.106	1.58
Column 136	Corner	rr	-63.223	-20.549	0.091	0.019	0.110	0.191	0.57
Column 136	Corner	ss	-63.223	-1.010	0.058	0.044	0.102	0.159	0.64

Load Combination:STRE10

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-252.012	-17.437	0.195	0.007	0.202	0.240	0.84
Column 84	Interior	ss	-252.012	-4.267	0.195	0.002	0.197	0.240	0.82
Column 85	End	rr	-85.734	-11.476	0.055	0.026	0.081	0.162	0.50
Column 85	Edge	ss	-85.734	-6.759	0.072	0.002	0.075	0.191	0.39
Column 86	Interior	rr	-259.880	-13.966	0.201	0.005	0.207	0.240	0.86
Column 86	Interior	ss	-259.880	6.323	0.201	0.002	0.204	0.240	0.85
Column 87	Edge	rr	-161.899	-53.811	0.147	0.021	0.168	0.191	0.88
Column 87	End	ss	-161.899	34.803	0.104	0.053	0.157	0.162	0.97
Column 88	Corner	rr	-11.452	12.296	0.027	0.020	0.047	0.212	0.22
Column 88	Corner	ss	-11.452	18.862	0.027	0.009	0.036	0.212	0.17
Column 89	End	rr	-69.734	-22.008	0.104	0.010	0.114	0.202	0.57
Column 89	Edge	ss	-69.734	8.986	0.104	0.006	0.110	0.202	0.55
Column 90	Interior	rr	-331.865	-17.732	0.166	0.003	0.169	0.106	1.60
Column 90	Interior	ss	-331.865	0.015	0.166	0.000	0.166	0.106	1.57

Column 91	Interior	rr	-347.961	-23.359	0.174	0.004	0.178	0.106	1.68
Column 91	Interior	ss	-347.961	0.378	0.174	0.000	0.174	0.106	1.64
Column 92	End	rr	-75.181	-21.906	0.112	0.012	0.125	0.202	0.62
Column 92	Edge	ss	-75.181	-9.197	0.112	0.006	0.119	0.202	0.59
Column 93	Interior	rr	-274.516	-17.234	0.213	0.007	0.219	0.240	0.91
Column 93	Interior	ss	-274.516	-11.111	0.213	0.004	0.217	0.240	0.90
Column 94	Interior	rr	-216.793	-4.538	0.168	0.002	0.170	0.240	0.71
Column 94	Interior	ss	-216.793	2.290	0.168	0.001	0.169	0.240	0.70
Column 96	End	rr	-231.824	-18.545	0.123	0.034	0.157	0.180	0.87
Column 96	Edge	ss	-231.824	43.825	0.123	0.008	0.130	0.180	0.72
Column 97	Interior	rr	-319.995	-11.499	0.160	0.002	0.162	0.106	1.53
Column 97	Interior	ss	-319.995	21.482	0.160	0.004	0.164	0.106	1.55
Column 98	Corner	rr	-120.440	1.080	0.110	0.052	0.162	0.106	1.53
Column 98	Corner	ss	-120.440	-41.982	0.110	0.062	0.172	0.106	1.62
Column 99	Edge	rr	-80.266	8.916	0.056	0.003	0.058	0.180	0.32
Column 99	End	ss	-80.266	-42.314	0.056	0.005	0.061	0.180	0.34
Column 100	Interior	rr	-252.529	31.394	0.196	0.012	0.208	0.240	0.87
Column 100	Interior	ss	-252.529	-16.567	0.196	0.006	0.202	0.240	0.84
Column 101	Interior	rr	-289.870	8.554	0.167	0.008	0.175	0.106	1.65
Column 101	Interior	ss	-289.870	8.414	0.167	0.013	0.180	0.106	1.69
Column 102	Corner	rr	-25.887	-36.067	0.022	0.010	0.032	0.162	0.20
Column 102	Corner	ss	-25.887	12.156	0.030	0.014	0.044	0.191	0.23
Column 103	Interior	rr	-283.643	14.229	0.220	0.005	0.225	0.240	0.94
Column 103	Interior	ss	-283.643	-3.867	0.220	0.001	0.221	0.240	0.92

Column 104	Interior	rr	-419.720	31.573	0.178	0.004	0.182	0.106	1.71
Column 104	Interior	ss	-419.720	-23.048	0.178	0.003	0.180	0.106	1.70
Column 105	Interior	rr	-269.210	22.023	0.209	0.008	0.217	0.240	0.90
Column 105	Interior	ss	-269.210	31.285	0.209	0.012	0.220	0.240	0.92
Column 106	Interior	rr	-544.895	12.096	0.193	0.001	0.194	0.106	1.83
Column 106	Interior	ss	-544.895	-5.808	0.193	0.001	0.194	0.106	1.83
Column 107	Interior	rr	-348.141	-7.893	0.174	0.001	0.176	0.106	1.66
Column 107	Interior	ss	-348.141	-15.860	0.174	0.003	0.177	0.106	1.67
Column 108	Edge	rr	-223.843	34.837	0.115	0.002	0.118	0.106	1.11
Column 108	End	ss	-223.843	62.097	0.115	0.043	0.159	0.106	1.50
Column 109	Edge	rr	-129.185	31.154	0.130	0.008	0.138	0.106	1.31
Column 109	End	ss	-129.185	7.524	0.130	0.068	0.198	0.106	1.87
Column 110	Interior	rr	-307.068	28.492	0.154	0.005	0.159	0.106	1.50
Column 110	Interior	ss	-307.068	-11.448	0.154	0.002	0.156	0.106	1.47
Column 111	Interior	rr	-185.030	22.250	0.143	0.009	0.152	0.240	0.63
Column 111	Interior	ss	-185.030	-1.250	0.143	0.000	0.144	0.240	0.60
Column 112	Interior	rr	-198.604	7.359	0.154	0.003	0.157	0.240	0.65
Column 112	Interior	ss	-198.604	-20.812	0.154	0.008	0.162	0.240	0.67
Column 113	Edge	rr	-53.550	-25.163	0.040	0.007	0.047	0.191	0.25
Column 113	End	ss	-53.550	13.435	0.040	0.015	0.055	0.191	0.29
Column 114	Edge	rr	-14.448	38.029	0.011	0.011	0.021	0.191	0.11
Column 114	End	ss	-14.448	27.991	0.011	0.011	0.021	0.191	0.11
Column 115	Interior	rr	-301.628	-9.404	0.151	0.002	0.153	0.106	1.44
Column 115	Interior	ss	-301.628	-34.988	0.151	0.006	0.157	0.106	1.48
Column 116	Interior	rr	-266.602	-4.170	0.175	0.001	0.176	0.106	1.66
Column 116	Interior	ss	-266.602	7.919	0.175	0.002	0.177	0.106	1.66
Column 117	Interior	rr	-154.166	-10.062	0.181	0.007	0.188	0.240	0.78
Column 117	Interior	ss	-154.166	-1.090	0.181	0.001	0.182	0.240	0.76
Column 118	Interior	rr	-149.737	-2.013	0.176	0.001	0.177	0.240	0.74
Column 118	Interior	ss	-149.737	6.609	0.176	0.004	0.180	0.240	0.75
Column 119	Interior	rr	-358.662	-46.578	0.152	0.006	0.158	0.106	1.49
Column 119	Interior	ss	-358.662	-10.779	0.152	0.001	0.153	0.106	1.44
Column 120	Interior	rr	-46.039	0.936	0.044	0.004	0.048	0.240	0.20
Column 120	Interior	ss	-46.039	-1.030	0.044	0.005	0.049	0.240	0.20
Column 121	Edge	rr	3.453	-1.482	0.008	0.001	0.009	0.212	0.04
Column 121	End	ss	3.453	8.393	0.008	0.015	0.023	0.212	0.11
Column 122	Edge	rr	-63.347	-62.091	0.048	0.017	0.065	0.191	0.34
Column 122	End	ss	-63.347	-16.299	0.038	0.018	0.056	0.165	0.34

Column 123	Interior	rr	-292.343	18.418	0.226	0.007	0.234	0.240	0.97
Column 123	Interior	ss	-292.343	-30.232	0.226	0.011	0.238	0.240	0.99
Column 124	Corner	rr	-64.574	4.228	0.140	0.038	0.179	0.212	0.84
Column 124	Corner	ss	-64.574	-26.615	0.140	0.060	0.200	0.212	0.95
Column 125	End	rr	-160.285	-6.454	0.143	0.045	0.187	0.194	0.96
Column 125	Edge	ss	-160.285	-6.677	0.143	0.002	0.145	0.194	0.75
Column 126	Interior	rr	-309.946	12.118	0.173	0.002	0.175	0.106	1.66
Column 126	Interior	ss	-309.946	21.179	0.173	0.004	0.177	0.106	1.67
Column 127	Interior	rr	-118.434	-12.261	0.139	0.008	0.147	0.240	0.61
Column 127	Interior	ss	-118.434	-3.946	0.139	0.003	0.142	0.240	0.59
Column 128	Interior	rr	-114.930	-16.634	0.135	0.011	0.146	0.240	0.61
Column 128	Interior	ss	-114.930	9.132	0.135	0.006	0.141	0.240	0.59
Column 129	Interior	rr	-416.798	40.195	0.176	0.005	0.181	0.106	1.71
Column 129	Interior	ss	-416.798	23.539	0.176	0.003	0.179	0.106	1.69
Column 130	Interior	rr	-28.737	-0.378	0.022	0.000	0.022	0.240	0.09
Column 130	Interior	ss	-28.737	2.125	0.022	0.001	0.023	0.240	0.10
Column 131	Edge	rr	4.511	0.199	0.008	0.000	0.009	0.212	0.04
Column 131	End	ss	4.511	6.407	0.008	0.009	0.017	0.212	0.08
Column 132	Corner	rr	4.990	1.702	0.012	0.005	0.017	0.212	0.08
Column 132	Corner	ss	4.990	3.068	0.012	0.006	0.018	0.212	0.08
Column 133	End	rr	-93.395	-8.904	0.083	0.028	0.111	0.194	0.57
Column 133	Edge	ss	-93.395	-6.266	0.083	0.002	0.085	0.194	0.44
Column 134	End	rr	-148.237	-1.783	0.132	0.040	0.172	0.194	0.88
Column 134	Edge	ss	-148.237	19.503	0.132	0.007	0.139	0.194	0.71
Column 135	Interior	rr	-288.454	-13.889	0.223	0.005	0.229	0.240	0.95
Column 135	Interior	ss	-288.454	-25.427	0.223	0.010	0.233	0.240	0.97
Column 136	Corner	rr	-60.537	-18.970	0.087	0.018	0.105	0.191	0.55
Column 136	Corner	ss	-60.537	-4.203	0.056	0.041	0.097	0.159	0.61

Load Combination:STRE11

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-273.391	-13.064	0.212	0.005	0.217	0.240	0.90
Column 84	Interior	ss	-273.391	-15.433	0.212	0.006	0.218	0.240	0.91
Column 85	End	rr	-97.601	-17.417	0.063	0.029	0.092	0.162	0.57
Column 85	Edge	ss	-97.601	-12.937	0.082	0.005	0.087	0.191	0.45
Column 86	Interior	rr	-287.285	-20.497	0.223	0.008	0.230	0.240	0.96
Column 86	Interior	ss	-287.285	15.411	0.223	0.006	0.228	0.240	0.95
Column 87	Edge	rr	-27.382	23.365	0.025	0.009	0.034	0.191	0.18
Column 87	End	ss	-27.382	6.370	0.018	0.009	0.026	0.162	0.16
Column 88	Corner	rr	-29.457	-6.405	0.069	0.015	0.084	0.212	0.40
Column 88	Corner	ss	-29.457	14.289	0.069	0.006	0.076	0.212	0.36
Column 89	End	rr	-66.067	-20.686	0.099	0.010	0.108	0.202	0.54
Column 89	Edge	ss	-66.067	11.386	0.099	0.008	0.106	0.202	0.53
Column 90	Interior	rr	-360.910	-27.192	0.181	0.005	0.185	0.106	1.75
Column 90	Interior	ss	-360.910	-13.071	0.181	0.002	0.183	0.106	1.73
Column 91	Interior	rr	-316.015	-12.759	0.158	0.002	0.160	0.106	1.51
Column 91	Interior	ss	-316.015	8.730	0.158	0.001	0.160	0.106	1.51
Column 92	End	rr	-72.148	-19.919	0.108	0.013	0.121	0.202	0.60
Column 92	Edge	ss	-72.148	-11.265	0.108	0.008	0.115	0.202	0.57
Column 93	Interior	rr	-271.458	-18.624	0.210	0.007	0.217	0.240	0.91
Column 93	Interior	ss	-271.458	-14.281	0.210	0.005	0.216	0.240	0.90
Column 94	Interior	rr	-232.588	-9.310	0.180	0.004	0.184	0.240	0.77
Column 94	Interior	ss	-232.588	9.467	0.180	0.004	0.184	0.240	0.77
Column 96	End	rr	-178.654	21.354	0.095	0.033	0.128	0.180	0.71
Column 96	Edge	ss	-178.654	-10.087	0.095	0.002	0.096	0.180	0.53
Column 97	Interior	rr	-209.750	-10.411	0.162	0.004	0.166	0.240	0.69
Column 97	Interior	ss	-209.750	-14.695	0.162	0.006	0.168	0.240	0.70
Column 98	Corner	rr	-101.191	21.057	0.122	0.045	0.167	0.204	0.82
Column 98	Corner	ss	-101.191	-8.104	0.122	0.040	0.162	0.204	0.79
Column 99	Edge	rr	-265.411	-25.505	0.185	0.007	0.192	0.180	1.06

Column 99	End	ss	-265.411	7.438	0.185	0.056	0.240	0.180	1.33
Column 100	Interior	rr	-237.399	-25.975	0.184	0.010	0.194	0.240	0.81
Column 100	Interior	ss	-237.399	18.629	0.184	0.007	0.191	0.240	0.80
Column 101	Interior	rr	-184.832	9.439	0.167	0.007	0.174	0.240	0.72
Column 101	Interior	ss	-184.832	-12.895	0.167	0.019	0.186	0.240	0.77
Column 102	Corner	rr	-180.999	-87.401	0.157	0.090	0.247	0.162	1.52
Column 102	Corner	ss	-180.999	-138.772	0.099	0.049	0.148	0.106	1.40
Column 103	Interior	rr	-316.375	22.584	0.158	0.004	0.162	0.106	1.53
Column 103	Interior	ss	-316.375	-8.161	0.158	0.001	0.160	0.106	1.51
Column 104	Interior	rr	-321.905	12.066	0.161	0.002	0.163	0.106	1.54
Column 104	Interior	ss	-321.905	23.120	0.161	0.004	0.165	0.106	1.56
Column 105	Interior	rr	-504.766	39.877	0.185	0.004	0.189	0.106	1.78
Column 105	Interior	ss	-504.766	-28.716	0.185	0.003	0.188	0.106	1.77
Column 106	Interior	rr	-149.139	1.599	0.108	0.001	0.108	0.240	0.45
Column 106	Interior	ss	-149.139	-22.513	0.108	0.007	0.115	0.240	0.48
Column 107	Interior	rr	-393.957	14.180	0.167	0.002	0.169	0.106	1.59
Column 107	Interior	ss	-393.957	35.610	0.167	0.004	0.171	0.106	1.61
Column 108	Edge	rr	-18.547	-45.127	0.016	0.016	0.032	0.191	0.17
Column 108	End	ss	-18.547	3.625	0.012	0.006	0.018	0.162	0.11
Column 109	Edge	rr	-43.822	-3.305	0.081	0.003	0.084	0.212	0.40
Column 109	End	ss	-43.822	-11.237	0.081	0.033	0.114	0.212	0.54
Column 110	Interior	rr	-255.834	14.879	0.198	0.006	0.204	0.240	0.85
Column 110	Interior	ss	-255.834	18.289	0.198	0.007	0.205	0.240	0.85
Column 111	Interior	rr	-241.468	19.090	0.187	0.007	0.194	0.240	0.81
Column 111	Interior	ss	-241.468	-17.537	0.187	0.007	0.194	0.240	0.81
Column 112	Interior	rr	-236.298	17.396	0.183	0.007	0.190	0.240	0.79
Column 112	Interior	ss	-236.298	26.714	0.183	0.010	0.193	0.240	0.80
Column 113	Edge	rr	-221.267	83.632	0.166	0.023	0.189	0.191	0.99
Column 113	End	ss	-221.267	-188.978	0.166	0.004	0.170	0.191	0.89
Column 114	Edge	rr	-206.020	-60.626	0.155	0.017	0.171	0.191	0.90
Column 114	End	ss	-206.020	-188.933	0.155	0.008	0.162	0.191	0.85
Column 115	Interior	rr	-265.298	-11.566	0.205	0.004	0.210	0.240	0.87
Column 115	Interior	ss	-265.298	26.753	0.205	0.010	0.216	0.240	0.90
Column 116	Interior	rr	-225.372	9.444	0.220	0.005	0.225	0.240	0.94
Column 116	Interior	ss	-225.372	4.859	0.220	0.002	0.222	0.240	0.93
Column 117	Interior	rr	-147.448	-8.407	0.173	0.006	0.179	0.240	0.75
Column 117	Interior	ss	-147.448	-0.088	0.173	0.000	0.174	0.240	0.72
Column 118	Interior	rr	-196.048	-26.905	0.160	0.009	0.169	0.106	1.59
Column 118	Interior	ss	-196.048	-7.561	0.160	0.002	0.162	0.106	1.53
Column 119	Interior	rr	-96.979	1.640	0.075	0.001	0.076	0.240	0.32
Column 119	Interior	ss	-96.979	-3.540	0.075	0.001	0.076	0.240	0.32
Column 120	Interior	rr	-72.519	1.465	0.070	0.007	0.076	0.240	0.32
Column 120	Interior	ss	-72.519	2.513	0.070	0.006	0.075	0.240	0.31
Column 121	Edge	rr	-0.769	2.345	0.002	0.003	0.005	0.212	0.02
Column 121	End	ss	-0.769	5.291	0.002	0.013	0.015	0.212	0.07
Column 122	Edge	rr	-189.964	105.744	0.142	0.029	0.172	0.191	0.90
Column 122	End	ss	-189.964	-153.339	0.115	0.042	0.158	0.165	0.96
Column 123	Interior	rr	-310.328	16.979	0.155	0.003	0.158	0.106	1.49
Column 123	Interior	ss	-310.328	20.819	0.155	0.003	0.159	0.106	1.50
Column 124	Corner	rr	-51.176	-5.412	0.111	0.037	0.149	0.212	0.70
Column 124	Corner	ss	-51.176	-37.304	0.111	0.060	0.171	0.212	0.81
Column 125	End	rr	-168.423	-3.631	0.114	0.050	0.165	0.106	1.55
Column 125	Edge	ss	-168.423	5.014	0.114	0.001	0.115	0.106	1.08
Column 126	Interior	rr	-180.855	-12.340	0.176	0.006	0.183	0.240	0.76
Column 126	Interior	ss	-180.855	2.138	0.176	0.001	0.178	0.240	0.74
Column 127	Interior	rr	-116.263	-12.967	0.137	0.009	0.145	0.240	0.61
Column 127	Interior	ss	-116.263	0.440	0.137	0.000	0.137	0.240	0.57
Column 128	Interior	rr	-166.613	-0.956	0.196	0.001	0.197	0.240	0.82
Column 128	Interior	ss	-166.613	-10.816	0.196	0.007	0.203	0.240	0.85
Column 129	Interior	rr	-193.193	-5.207	0.150	0.002	0.152	0.240	0.63

Column 129	Interior	ss	-193.193	-0.696	0.150	0.000	0.150	0.240	0.62
Column 130	Interior	rr	-145.591	1.515	0.113	0.001	0.113	0.240	0.47
Column 130	Interior	ss	-145.591	0.750	0.113	0.000	0.113	0.240	0.47
Column 131	Edge	rr	5.913	-0.012	0.011	0.000	0.011	0.212	0.05
Column 131	End	ss	5.913	6.187	0.011	0.009	0.020	0.212	0.09
Column 132	Corner	rr	4.317	1.866	0.010	0.005	0.015	0.212	0.07
Column 132	Corner	ss	4.317	3.058	0.010	0.006	0.016	0.212	0.07
Column 133	End	rr	-106.385	-3.079	0.095	0.029	0.124	0.194	0.64
Column 133	Edge	ss	-106.385	-2.902	0.095	0.001	0.096	0.194	0.49
Column 134	End	rr	-141.370	1.830	0.126	0.036	0.162	0.194	0.83
Column 134	Edge	ss	-141.370	8.204	0.126	0.003	0.129	0.194	0.66
Column 135	Interior	rr	-436.828	17.336	0.185	0.002	0.187	0.106	1.76
Column 135	Interior	ss	-436.828	8.624	0.185	0.001	0.186	0.106	1.75
Column 136	Corner	rr	-56.549	-16.719	0.081	0.018	0.099	0.191	0.52
Column 136	Corner	ss	-56.549	-1.911	0.052	0.039	0.091	0.159	0.57

Load Combination:STRE12

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-240.165	-22.684	0.186	0.009	0.195	0.240	0.81
Column 84	Interior	ss	-240.165	-2.346	0.186	0.001	0.187	0.240	0.78
Column 85	End	rr	-70.680	-5.331	0.045	0.022	0.068	0.162	0.42
Column 85	Edge	ss	-70.680	-4.185	0.059	0.002	0.061	0.191	0.32
Column 86	Interior	rr	-256.014	-15.886	0.198	0.006	0.204	0.240	0.85
Column 86	Interior	ss	-256.014	5.773	0.198	0.002	0.200	0.240	0.84
Column 87	Edge	rr	-176.633	-61.858	0.119	0.007	0.127	0.106	1.19
Column 87	End	ss	-176.633	38.088	0.119	0.028	0.147	0.106	1.39
Column 88	Corner	rr	-9.830	14.171	0.023	0.021	0.044	0.212	0.21
Column 88	Corner	ss	-9.830	19.659	0.023	0.011	0.034	0.212	0.16
Column 89	End	rr	-67.009	-19.415	0.100	0.011	0.111	0.202	0.55
Column 89	Edge	ss	-67.009	8.930	0.100	0.006	0.106	0.202	0.53
Column 90	Interior	rr	-329.234	-17.555	0.165	0.003	0.168	0.106	1.58
Column 90	Interior	ss	-329.234	1.114	0.165	0.000	0.165	0.106	1.56
Column 91	Interior	rr	-350.906	-23.767	0.176	0.004	0.180	0.106	1.70
Column 91	Interior	ss	-350.906	-0.192	0.176	0.000	0.176	0.106	1.66
Column 92	End	rr	-76.908	-23.496	0.115	0.012	0.127	0.202	0.63
Column 92	Edge	ss	-76.908	-9.709	0.115	0.007	0.121	0.202	0.60
Column 93	Interior	rr	-276.157	-16.043	0.214	0.006	0.220	0.240	0.92
Column 93	Interior	ss	-276.157	-11.094	0.214	0.004	0.218	0.240	0.91
Column 94	Interior	rr	-225.462	-1.731	0.175	0.001	0.175	0.240	0.73
Column 94	Interior	ss	-225.462	2.296	0.175	0.001	0.175	0.240	0.73
Column 96	End	rr	-268.446	-29.786	0.088	0.018	0.106	0.106	1.00
Column 96	Edge	ss	-268.446	41.128	0.088	0.002	0.090	0.106	0.85
Column 97	Interior	rr	-321.658	-6.353	0.161	0.001	0.162	0.106	1.53
Column 97	Interior	ss	-321.658	24.852	0.161	0.004	0.165	0.106	1.56
Column 98	Corner	rr	-121.699	-0.807	0.111	0.053	0.164	0.106	1.54
Column 98	Corner	ss	-121.699	-44.627	0.111	0.063	0.174	0.106	1.64
Column 99	Edge	rr	-60.917	12.105	0.042	0.003	0.046	0.180	0.25
Column 99	End	ss	-60.917	-46.945	0.042	0.000	0.043	0.180	0.24
Column 100	Interior	rr	-258.239	34.201	0.200	0.013	0.213	0.240	0.89
Column 100	Interior	ss	-258.239	-18.801	0.200	0.007	0.207	0.240	0.86
Column 101	Interior	rr	-295.468	2.080	0.144	0.008	0.151	0.106	1.43
Column 101	Interior	ss	-295.468	10.373	0.144	0.011	0.154	0.106	1.46
Column 102	Corner	rr	-14.416	-39.018	0.017	0.011	0.028	0.191	0.15
Column 102	Corner	ss	-14.416	23.199	0.017	0.014	0.031	0.191	0.16
Column 103	Interior	rr	-280.563	12.258	0.217	0.005	0.222	0.240	0.93
Column 103	Interior	ss	-280.563	-3.075	0.217	0.001	0.218	0.240	0.91

Column 104	Interior	rr	-426.982	32.623	0.181	0.004	0.185	0.106	1.74
Column 104	Interior	ss	-426.982	-26.484	0.181	0.003	0.184	0.106	1.74
Column 105	Interior	rr	-253.361	21.274	0.196	0.008	0.204	0.240	0.85
Column 105	Interior	ss	-253.361	35.390	0.196	0.013	0.210	0.240	0.87

Column 106	Interior	rr	-560.429	18.381	0.405	0.006	0.412	0.240	1.72
Column 106	Interior	ss	-560.429	-2.856	0.405	0.001	0.406	0.240	1.69
Column 107	Interior	rr	-340.542	-8.250	0.171	0.001	0.172	0.106	1.62
Column 107	Interior	ss	-340.542	-20.013	0.171	0.003	0.174	0.106	1.64
Column 108	Edge	rr	-238.434	47.784	0.205	0.017	0.223	0.191	1.16
Column 108	End	ss	-238.434	66.266	0.114	0.047	0.161	0.106	1.52
Column 109	Edge	rr	-128.834	30.915	0.130	0.008	0.138	0.106	1.30
Column 109	End	ss	-128.834	7.576	0.130	0.068	0.198	0.106	1.87
Column 110	Interior	rr	-314.307	29.086	0.157	0.005	0.162	0.106	1.53
Column 110	Interior	ss	-314.307	-10.463	0.157	0.002	0.159	0.106	1.50
Column 111	Interior	rr	-208.552	26.890	0.162	0.010	0.172	0.240	0.72
Column 111	Interior	ss	-208.552	-3.509	0.162	0.001	0.163	0.240	0.68
Column 112	Interior	rr	-195.663	6.092	0.152	0.002	0.154	0.240	0.64
Column 112	Interior	ss	-195.663	-19.965	0.152	0.007	0.159	0.240	0.66
Column 113	Edge	rr	-49.409	-26.046	0.037	0.007	0.044	0.191	0.23
Column 113	End	ss	-49.409	9.724	0.037	0.013	0.050	0.191	0.26
Column 114	Edge	rr	-31.937	27.567	0.024	0.008	0.032	0.191	0.17
Column 114	End	ss	-31.937	15.543	0.024	0.011	0.035	0.191	0.18
Column 115	Interior	rr	-304.573	-9.849	0.153	0.002	0.154	0.106	1.45
Column 115	Interior	ss	-304.573	-31.516	0.153	0.005	0.158	0.106	1.49
Column 116	Interior	rr	-259.790	-2.414	0.170	0.001	0.171	0.106	1.61
Column 116	Interior	ss	-259.790	7.284	0.170	0.002	0.172	0.106	1.62
Column 117	Interior	rr	-153.399	-9.873	0.180	0.007	0.187	0.240	0.78
Column 117	Interior	ss	-153.399	-0.914	0.180	0.001	0.181	0.240	0.75
Column 118	Interior	rr	-156.288	-4.442	0.184	0.003	0.187	0.240	0.78
Column 118	Interior	ss	-156.288	4.927	0.184	0.003	0.187	0.240	0.78
Column 119	Interior	rr	-337.215	-46.919	0.169	0.008	0.177	0.106	1.67
Column 119	Interior	ss	-337.215	-10.436	0.169	0.002	0.171	0.106	1.61
Column 120	Interior	rr	-47.287	0.898	0.045	0.004	0.050	0.240	0.21
Column 120	Interior	ss	-47.287	-0.841	0.045	0.005	0.050	0.240	0.21
Column 121	Edge	rr	3.605	-1.506	0.008	0.001	0.009	0.212	0.04
Column 121	End	ss	3.605	8.365	0.008	0.015	0.023	0.212	0.11
Column 122	Edge	rr	-78.238	-45.219	0.059	0.012	0.071	0.191	0.37
Column 122	End	ss	-78.238	-33.743	0.047	0.021	0.068	0.165	0.41
Column 123	Interior	rr	-291.264	19.359	0.226	0.007	0.233	0.240	0.97
Column 123	Interior	ss	-291.264	-22.222	0.226	0.008	0.234	0.240	0.98

Column 124	Corner	rr	-64.163	3.452	0.139	0.039	0.178	0.212	0.84
Column 124	Corner	ss	-64.163	-29.151	0.139	0.062	0.201	0.212	0.95
Column 125	End	rr	-153.293	-6.811	0.136	0.043	0.179	0.194	0.92
Column 125	Edge	ss	-153.293	-1.124	0.136	0.000	0.137	0.194	0.70
Column 126	Interior	rr	-294.321	8.575	0.165	0.002	0.166	0.106	1.57
Column 126	Interior	ss	-294.321	19.137	0.165	0.003	0.168	0.106	1.58
Column 127	Interior	rr	-118.057	-12.339	0.139	0.008	0.147	0.240	0.61
Column 127	Interior	ss	-118.057	-3.478	0.139	0.002	0.141	0.240	0.59
Column 128	Interior	rr	-120.779	-14.986	0.142	0.010	0.152	0.240	0.63
Column 128	Interior	ss	-120.779	6.857	0.142	0.004	0.147	0.240	0.61
Column 129	Interior	rr	-384.065	38.369	0.163	0.005	0.167	0.106	1.58
Column 129	Interior	ss	-384.065	19.390	0.163	0.002	0.165	0.106	1.56
Column 130	Interior	rr	-44.699	0.255	0.035	0.000	0.035	0.240	0.14
Column 130	Interior	ss	-44.699	1.911	0.035	0.001	0.035	0.240	0.15
Column 131	Edge	rr	5.087	0.253	0.009	0.000	0.010	0.212	0.05
Column 131	End	ss	5.087	6.405	0.009	0.009	0.018	0.212	0.09
Column 132	Corner	rr	5.601	1.568	0.013	0.006	0.019	0.212	0.09
Column 132	Corner	ss	5.601	3.068	0.013	0.006	0.020	0.212	0.09
Column 133	End	rr	-92.820	-8.537	0.083	0.028	0.111	0.194	0.57
Column 133	Edge	ss	-92.820	-6.543	0.083	0.002	0.085	0.194	0.44
Column 134	End	rr	-166.652	-2.997	0.148	0.045	0.193	0.194	0.99
Column 134	Edge	ss	-166.652	22.212	0.148	0.008	0.156	0.194	0.80
Column 135	Interior	rr	-306.191	-10.130	0.153	0.002	0.155	0.106	1.46
Column 135	Interior	ss	-306.191	-21.446	0.153	0.004	0.157	0.106	1.48
Column 136	Corner	rr	-67.211	-22.800	0.097	0.019	0.116	0.191	0.61
Column 136	Corner	ss	-67.211	-3.301	0.062	0.046	0.108	0.159	0.68

Load Combination:STRE13

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-118.848	-43.478	0.092	0.017	0.109	0.240	0.45
Column 84	Interior	ss	-118.848	-0.249	0.092	0.000	0.092	0.240	0.38
Column 85	End	rr	27.224	32.278	0.023	0.005	0.028	0.191	0.15
Column 85	Edge	ss	27.224	2.647	0.023	0.001	0.024	0.191	0.12
Column 86	Interior	rr	-145.434	-38.636	0.113	0.015	0.128	0.240	0.53
Column 86	Interior	ss	-145.434	3.725	0.113	0.001	0.114	0.240	0.48
Column 87	Edge	rr	-75.869	-11.829	0.069	0.005	0.073	0.191	0.38
Column 87	End	ss	-75.869	18.321	0.049	0.024	0.073	0.162	0.45
Column 88	Corner	rr	-16.428	4.156	0.039	0.016	0.055	0.212	0.26
Column 88	Corner	ss	-16.428	15.687	0.039	0.003	0.042	0.212	0.20
Column 89	End	rr	0.317	28.087	0.000	0.023	0.023	0.202	0.11
Column 89	Edge	ss	0.317	0.975	0.000	0.001	0.001	0.202	0.01
Column 90	Interior	rr	-214.413	-37.718	0.166	0.015	0.181	0.240	0.75
Column 90	Interior	ss	-214.413	-0.349	0.166	0.000	0.166	0.240	0.69
Column 91	Interior	rr	-191.689	-39.683	0.148	0.015	0.164	0.240	0.68
Column 91	Interior	ss	-191.689	-0.925	0.148	0.000	0.149	0.240	0.62
Column 92	End	rr	-10.611	24.697	0.016	0.024	0.040	0.202	0.20
Column 92	Edge	ss	-10.611	9.519	0.016	0.006	0.022	0.202	0.11
Column 93	Interior	rr	-152.430	-34.901	0.118	0.013	0.131	0.240	0.55
Column 93	Interior	ss	-152.430	-0.986	0.118	0.000	0.118	0.240	0.49
Column 94	Interior	rr	-79.295	-27.851	0.061	0.011	0.072	0.240	0.30
Column 94	Interior	ss	-79.295	-3.537	0.061	0.001	0.063	0.240	0.26
Column 96	End	rr	24.001	55.764	0.013	0.007	0.019	0.180	0.11
Column 96	Edge	ss	24.001	60.536	0.013	0.011	0.023	0.180	0.13
Column 97	Interior	rr	-233.285	-34.516	0.181	0.013	0.194	0.240	0.81
Column 97	Interior	ss	-233.285	5.550	0.181	0.002	0.183	0.240	0.76
Column 98	Corner	rr	-82.606	11.192	0.100	0.035	0.134	0.204	0.66
Column 98	Corner	ss	-82.606	-18.571	0.100	0.037	0.137	0.204	0.67
Column 99	Edge	rr	-113.545	-5.471	0.079	0.002	0.081	0.180	0.45
Column 99	End	ss	-113.545	-13.095	0.079	0.020	0.099	0.180	0.55
Column 100	Interior	rr	-166.144	12.207	0.129	0.005	0.133	0.240	0.56
Column 100	Interior	ss	-166.144	-3.608	0.129	0.001	0.130	0.240	0.54
Column 101	Interior	rr	-181.604	41.494	0.164	0.008	0.172	0.240	0.72
Column 101	Interior	ss	-181.604	-1.770	0.164	0.014	0.178	0.240	0.74
Column 102	Corner	rr	-68.670	-16.076	0.059	0.037	0.096	0.162	0.59
Column 102	Corner	ss	-68.670	-34.086	0.059	0.025	0.084	0.162	0.52
Column 103	Interior	rr	-243.087	36.626	0.188	0.014	0.202	0.240	0.84
Column 103	Interior	ss	-243.087	-8.610	0.188	0.003	0.192	0.240	0.80
Column 104	Interior	rr	-263.410	42.901	0.204	0.017	0.221	0.240	0.92
Column 104	Interior	ss	-263.410	-3.539	0.204	0.001	0.205	0.240	0.86
Column 105	Interior	rr	-291.107	46.471	0.146	0.008	0.154	0.106	1.45
Column 105	Interior	ss	-291.107	-4.505	0.146	0.001	0.147	0.106	1.38
Column 106	Interior	rr	-175.916	44.248	0.127	0.015	0.142	0.240	0.59
Column 106	Interior	ss	-175.916	8.126	0.127	0.003	0.130	0.240	0.54
Column 107	Interior	rr	-228.879	6.599	0.177	0.003	0.180	0.240	0.75
Column 107	Interior	ss	-228.879	0.830	0.177	0.000	0.178	0.240	0.74
Column 108	Edge	rr	-91.486	3.514	0.079	0.001	0.080	0.191	0.42
Column 108	End	ss	-91.486	26.332	0.059	0.029	0.088	0.162	0.54
Column 109	Edge	rr	-60.957	8.003	0.113	0.007	0.120	0.212	0.57
Column 109	End	ss	-60.957	-6.411	0.113	0.037	0.150	0.212	0.71
Column 110	Interior	rr	-220.291	13.053	0.171	0.005	0.176	0.240	0.73
Column 110	Interior	ss	-220.291	7.702	0.171	0.003	0.174	0.240	0.72
Column 111	Interior	rr	-261.814	36.936	0.203	0.014	0.217	0.240	0.90
Column 111	Interior	ss	-261.814	-16.355	0.203	0.006	0.209	0.240	0.87
Column 112	Interior	rr	-159.228	9.411	0.123	0.004	0.127	0.240	0.53
Column 112	Interior	ss	-159.228	0.191	0.123	0.000	0.123	0.240	0.51
Column 113	Edge	rr	-94.589	-1.191	0.071	0.000	0.071	0.191	0.37

Column 113	End	ss	-94.589	-49.302	0.071	0.007	0.078	0.191	0.41
Column 114	Edge	rr	-76.478	12.696	0.057	0.004	0.061	0.191	0.32
Column 114	End	ss	-76.478	-43.059	0.057	0.004	0.062	0.191	0.32
Column 115	Interior	rr	-175.284	0.597	0.136	0.000	0.136	0.240	0.57
Column 115	Interior	ss	-175.284	-4.308	0.136	0.002	0.137	0.240	0.57
Column 116	Interior	rr	-197.675	8.219	0.193	0.004	0.197	0.240	0.82
Column 116	Interior	ss	-197.675	1.873	0.193	0.001	0.194	0.240	0.81
Column 117	Interior	rr	-159.157	-1.965	0.187	0.001	0.189	0.240	0.79
Column 117	Interior	ss	-159.157	0.438	0.187	0.000	0.188	0.240	0.78
Column 118	Interior	rr	-181.147	-7.343	0.213	0.005	0.218	0.240	0.91
Column 118	Interior	ss	-181.147	-0.151	0.213	0.000	0.213	0.240	0.89
Column 119	Interior	rr	-146.882	-34.807	0.114	0.013	0.127	0.240	0.53
Column 119	Interior	ss	-146.882	-4.816	0.114	0.002	0.116	0.240	0.48
Column 120	Interior	rr	-52.334	0.400	0.050	0.005	0.055	0.240	0.23
Column 120	Interior	ss	-52.334	0.943	0.050	0.004	0.055	0.240	0.23
Column 121	Edge	rr	5.440	-0.331	0.013	0.001	0.014	0.212	0.06
Column 121	End	ss	5.440	6.273	0.013	0.012	0.024	0.212	0.12
Column 122	Edge	rr	-83.429	2.428	0.063	0.001	0.063	0.191	0.33
Column 122	End	ss	-83.429	-38.371	0.051	0.022	0.072	0.165	0.44
Column 123	Interior	rr	-217.409	2.226	0.168	0.001	0.169	0.240	0.71
Column 123	Interior	ss	-217.409	-12.257	0.168	0.005	0.173	0.240	0.72
Column 124	Corner	rr	-37.537	-0.146	0.082	0.024	0.106	0.212	0.50
Column 124	Corner	ss	-37.537	-12.603	0.082	0.033	0.114	0.212	0.54
Column 125	End	rr	-151.099	-2.599	0.134	0.041	0.175	0.194	0.90
Column 125	Edge	ss	-151.099	-20.023	0.134	0.007	0.141	0.194	0.73
Column 126	Interior	rr	-179.491	-1.493	0.175	0.001	0.176	0.240	0.73
Column 126	Interior	ss	-179.491	2.715	0.175	0.001	0.176	0.240	0.74
Column 127	Interior	rr	-101.547	-15.276	0.119	0.010	0.130	0.240	0.54
Column 127	Interior	ss	-101.547	0.048	0.119	0.000	0.119	0.240	0.50
Column 128	Interior	rr	-123.690	-11.178	0.146	0.007	0.153	0.240	0.64
Column 128	Interior	ss	-123.690	-2.134	0.146	0.001	0.147	0.240	0.61
Column 129	Interior	rr	-156.490	22.490	0.121	0.009	0.130	0.240	0.54
Column 129	Interior	ss	-156.490	-3.901	0.121	0.001	0.123	0.240	0.51
Column 130	Interior	rr	-83.845	1.638	0.065	0.001	0.066	0.240	0.27
Column 130	Interior	ss	-83.845	1.834	0.065	0.001	0.066	0.240	0.27
Column 131	Edge	rr	7.185	0.022	0.013	0.000	0.013	0.212	0.06
Column 131	End	ss	7.185	6.541	0.013	0.010	0.023	0.212	0.11
Column 132	Corner	rr	5.690	1.616	0.013	0.006	0.019	0.212	0.09
Column 132	Corner	ss	5.690	3.188	0.013	0.007	0.020	0.212	0.09
Column 133	End	rr	-62.794	-5.043	0.056	0.019	0.074	0.194	0.38
Column 133	Edge	ss	-62.794	-5.803	0.056	0.002	0.058	0.194	0.30
Column 134	End	rr	-202.484	-9.973	0.122	0.061	0.183	0.106	1.73
Column 134	Edge	ss	-202.484	27.071	0.122	0.004	0.126	0.106	1.19
Column 135	Interior	rr	-261.926	1.169	0.203	0.000	0.203	0.240	0.85
Column 135	Interior	ss	-261.926	-1.632	0.203	0.001	0.203	0.240	0.85
Column 136	Corner	rr	14.494	23.371	0.021	0.007	0.028	0.191	0.15
Column 136	Corner	ss	14.494	-15.131	0.021	0.015	0.036	0.191	0.19

Load Combination:STRE14

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-231.959	23.367	0.180	0.009	0.189	0.240	0.79
Column 84	Interior	ss	-231.959	-5.321	0.180	0.002	0.182	0.240	0.76
Column 85	End	rr	-148.721	-41.002	0.096	0.043	0.139	0.162	0.86
Column 85	Edge	ss	-148.721	-8.393	0.125	0.003	0.128	0.191	0.67
Column 86	Interior	rr	-222.616	17.708	0.172	0.007	0.179	0.240	0.75
Column 86	Interior	ss	-222.616	4.664	0.172	0.002	0.174	0.240	0.73
Column 87	Edge	rr	-70.784	-12.402	0.064	0.005	0.069	0.191	0.36
Column 87	End	ss	-70.784	14.738	0.046	0.023	0.069	0.162	0.42
Column 88	Corner	rr	-13.890	4.925	0.033	0.015	0.047	0.212	0.22
Column 88	Corner	ss	-13.890	12.467	0.033	0.002	0.035	0.212	0.16

Column 89	End	rr	-99.456	-46.942	0.149	0.002	0.150	0.202	0.75
Column 89	Edge	ss	-99.456	7.505	0.149	0.005	0.154	0.202	0.76
Column 90	Interior	rr	-248.393	14.882	0.192	0.006	0.198	0.240	0.83
Column 90	Interior	ss	-248.393	-6.462	0.192	0.002	0.195	0.240	0.81
Column 91	Interior	rr	-254.035	21.737	0.197	0.008	0.205	0.240	0.85
Column 91	Interior	ss	-254.035	3.719	0.197	0.001	0.198	0.240	0.83
Column 92	End	rr	-97.484	-43.033	0.146	0.004	0.150	0.202	0.74
Column 92	Edge	ss	-97.484	-19.117	0.146	0.013	0.159	0.202	0.79
Column 93	Interior	rr	-212.203	14.022	0.164	0.005	0.170	0.240	0.71
Column 93	Interior	ss	-212.203	-11.631	0.164	0.004	0.169	0.240	0.70
Column 94	Interior	rr	-259.116	19.531	0.201	0.008	0.208	0.240	0.87
Column 94	Interior	ss	-259.116	8.286	0.201	0.003	0.204	0.240	0.85
Column 96	End	rr	-326.896	-21.737	0.173	0.049	0.222	0.180	1.23
Column 96	Edge	ss	-326.896	-37.627	0.107	0.002	0.109	0.106	1.03
Column 97	Interior	rr	-127.996	22.159	0.099	0.009	0.108	0.240	0.45
Column 97	Interior	ss	-127.996	4.504	0.099	0.002	0.101	0.240	0.42
Column 98	Corner	rr	-75.217	10.502	0.091	0.032	0.122	0.204	0.60
Column 98	Corner	ss	-75.217	-8.919	0.091	0.031	0.122	0.204	0.60
Column 99	Edge	rr	-111.429	-5.348	0.077	0.002	0.079	0.180	0.44
Column 99	End	ss	-111.429	-8.622	0.077	0.020	0.098	0.180	0.54
Column 100	Interior	rr	-157.763	3.768	0.122	0.001	0.124	0.240	0.52
Column 100	Interior	ss	-157.763	-2.719	0.122	0.001	0.123	0.240	0.51
Column 101	Interior	rr	-169.653	-34.476	0.153	0.024	0.177	0.240	0.74
Column 101	Interior	ss	-169.653	2.055	0.153	0.011	0.164	0.240	0.69
Column 102	Corner	rr	-70.644	-18.221	0.061	0.037	0.099	0.162	0.61
Column 102	Corner	ss	-70.644	-35.144	0.061	0.025	0.087	0.162	0.53
Column 103	Interior	rr	-165.811	-18.283	0.128	0.007	0.135	0.240	0.56
Column 103	Interior	ss	-165.811	7.288	0.128	0.003	0.131	0.240	0.55

Column 104	Interior	rr	-242.772	-21.705	0.188	0.008	0.196	0.240	0.82
Column 104	Interior	ss	-242.772	-0.094	0.188	0.000	0.188	0.240	0.78
Column 105	Interior	rr	-222.560	-14.475	0.172	0.006	0.178	0.240	0.74
Column 105	Interior	ss	-222.560	10.158	0.172	0.004	0.176	0.240	0.73
Column 106	Interior	rr	-306.596	-35.019	0.222	0.012	0.234	0.240	0.97
Column 106	Interior	ss	-306.596	-16.677	0.222	0.005	0.227	0.240	0.95
Column 107	Interior	rr	-258.756	-4.313	0.200	0.002	0.202	0.240	0.84
Column 107	Interior	ss	-258.756	7.193	0.200	0.003	0.203	0.240	0.85
Column 108	Edge	rr	-90.857	-1.300	0.078	0.000	0.079	0.191	0.41
Column 108	End	ss	-90.857	25.043	0.058	0.029	0.087	0.162	0.54
Column 109	Edge	rr	-67.054	9.129	0.124	0.008	0.132	0.212	0.62
Column 109	End	ss	-67.054	-4.458	0.124	0.038	0.162	0.212	0.77
Column 110	Interior	rr	-161.697	9.934	0.125	0.004	0.129	0.240	0.54
Column 110	Interior	ss	-161.697	-5.237	0.125	0.002	0.127	0.240	0.53
Column 111	Interior	rr	-45.297	-10.265	0.035	0.004	0.039	0.240	0.16
Column 111	Interior	ss	-45.297	8.384	0.035	0.003	0.038	0.240	0.16
Column 112	Interior	rr	-140.560	-2.824	0.109	0.001	0.110	0.240	0.46
Column 112	Interior	ss	-140.560	-0.355	0.109	0.000	0.109	0.240	0.45
Column 113	Edge	rr	-92.377	0.209	0.069	0.000	0.069	0.191	0.36
Column 113	End	ss	-92.377	-52.470	0.069	0.005	0.075	0.191	0.39
Column 114	Edge	rr	-88.982	3.328	0.067	0.001	0.068	0.191	0.35
Column 114	End	ss	-88.982	-53.839	0.067	0.004	0.071	0.191	0.37
Column 115	Interior	rr	-210.116	-1.172	0.163	0.000	0.163	0.240	0.68
Column 115	Interior	ss	-210.116	-3.008	0.163	0.001	0.164	0.240	0.68
Column 116	Interior	rr	-165.917	4.274	0.162	0.002	0.164	0.240	0.68
Column 116	Interior	ss	-165.917	3.207	0.162	0.002	0.163	0.240	0.68
Column 117	Interior	rr	-85.032	-3.910	0.100	0.003	0.103	0.240	0.43
Column 117	Interior	ss	-85.032	-0.422	0.100	0.000	0.100	0.240	0.42
Column 118	Interior	rr	-99.445	-6.637	0.117	0.004	0.121	0.240	0.51
Column 118	Interior	ss	-99.445	-0.093	0.117	0.000	0.117	0.240	0.49
Column 119	Interior	rr	-145.625	12.000	0.113	0.005	0.117	0.240	0.49
Column 119	Interior	ss	-145.625	-0.208	0.113	0.000	0.113	0.240	0.47
Column 120	Interior	rr	-48.770	-0.597	0.047	0.005	0.052	0.240	0.22
Column 120	Interior	ss	-48.770	-1.007	0.047	0.005	0.052	0.240	0.22

Column 121	Edge	rr	4.785	-0.354	0.011	0.001	0.012	0.212	0.06
Column 121	End	ss	4.785	6.636	0.011	0.012	0.023	0.212	0.11
Column 122	Edge	rr	-100.796	11.848	0.076	0.003	0.079	0.191	0.41
Column 122	End	ss	-100.796	-69.188	0.061	0.024	0.085	0.165	0.52
Column 123	Interior	rr	-188.665	10.656	0.146	0.004	0.150	0.240	0.63
Column 123	Interior	ss	-188.665	8.804	0.146	0.003	0.149	0.240	0.62

Column 124	Corner	rr	-44.391	-0.432	0.096	0.029	0.125	0.212	0.59
Column 124	Corner	ss	-44.391	-24.613	0.096	0.046	0.143	0.212	0.67
Column 125	End	rr	-73.347	-8.129	0.065	0.023	0.088	0.194	0.45
Column 125	Edge	ss	-73.347	20.402	0.065	0.007	0.072	0.194	0.37
Column 126	Interior	rr	-180.457	-6.629	0.176	0.003	0.179	0.240	0.75
Column 126	Interior	ss	-180.457	5.151	0.176	0.003	0.179	0.240	0.74
Column 127	Interior	rr	-103.664	-14.196	0.122	0.009	0.131	0.240	0.55
Column 127	Interior	ss	-103.664	-0.704	0.122	0.000	0.122	0.240	0.51
Column 128	Interior	rr	-122.380	-11.761	0.144	0.008	0.152	0.240	0.63
Column 128	Interior	ss	-122.380	-0.582	0.144	0.000	0.144	0.240	0.60
Column 129	Interior	rr	-241.491	-6.253	0.187	0.002	0.189	0.240	0.79
Column 129	Interior	ss	-241.491	9.790	0.187	0.004	0.191	0.240	0.79
Column 130	Interior	rr	-75.952	-1.358	0.059	0.001	0.059	0.240	0.25
Column 130	Interior	ss	-75.952	1.521	0.059	0.001	0.059	0.240	0.25
Column 131	Edge	rr	6.372	-0.122	0.012	0.000	0.012	0.212	0.06
Column 131	End	ss	6.372	6.511	0.012	0.010	0.021	0.212	0.10
Column 132	Corner	rr	4.384	1.934	0.010	0.005	0.015	0.212	0.07
Column 132	Corner	ss	4.384	3.170	0.010	0.006	0.016	0.212	0.08
Column 133	End	rr	-84.780	-1.992	0.075	0.023	0.099	0.194	0.51
Column 133	Edge	ss	-84.780	0.122	0.075	0.000	0.076	0.194	0.39
Column 134	End	rr	-8.802	5.229	0.008	0.000	0.008	0.194	0.04
Column 134	Edge	ss	-8.802	-12.660	0.008	0.004	0.012	0.194	0.06
Column 135	Interior	rr	-253.069	-1.276	0.196	0.000	0.196	0.240	0.82
Column 135	Interior	ss	-253.069	-4.004	0.196	0.002	0.198	0.240	0.82
Column 136	Corner	rr	-102.518	-46.992	0.097	0.023	0.120	0.106	1.14
Column 136	Corner	ss	-102.518	5.804	0.097	0.031	0.128	0.106	1.21

Load Combination:STRE15

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-131.343	-36.895	0.102	0.014	0.116	0.240	0.48
Column 84	Interior	ss	-131.343	-1.345	0.102	0.001	0.102	0.240	0.43
Column 85	End	rr	9.198	24.870	0.008	0.007	0.015	0.191	0.08
Column 85	Edge	ss	9.198	0.832	0.008	0.000	0.008	0.191	0.04
Column 86	Interior	rr	-151.369	-34.467	0.117	0.013	0.130	0.240	0.54
Column 86	Interior	ss	-151.369	3.843	0.117	0.001	0.119	0.240	0.49
Column 87	Edge	rr	-69.855	-8.804	0.063	0.004	0.067	0.191	0.35
Column 87	End	ss	-69.855	16.811	0.045	0.022	0.067	0.162	0.42
Column 88	Corner	rr	-16.857	3.498	0.040	0.016	0.055	0.212	0.26
Column 88	Corner	ss	-16.857	15.148	0.040	0.003	0.042	0.212	0.20
Column 89	End	rr	-6.563	22.617	0.010	0.021	0.031	0.202	0.15
Column 89	Edge	ss	-6.563	1.084	0.010	0.001	0.011	0.202	0.05
Column 90	Interior	rr	-217.083	-36.118	0.168	0.014	0.182	0.240	0.76
Column 90	Interior	ss	-217.083	-1.076	0.168	0.000	0.169	0.240	0.70
Column 91	Interior	rr	-189.609	-40.263	0.147	0.015	0.162	0.240	0.68
Column 91	Interior	ss	-189.609	-0.872	0.147	0.000	0.147	0.240	0.61
Column 92	End	rr	-6.292	28.330	0.009	0.026	0.035	0.202	0.17
Column 92	Edge	ss	-6.292	10.984	0.009	0.007	0.017	0.202	0.08
Column 93	Interior	rr	-148.979	-37.554	0.115	0.014	0.130	0.240	0.54
Column 93	Interior	ss	-148.979	-0.503	0.115	0.000	0.116	0.240	0.48
Column 94	Interior	rr	-63.945	-31.967	0.050	0.012	0.062	0.240	0.26
Column 94	Interior	ss	-63.945	-4.281	0.050	0.002	0.051	0.240	0.21
Column 96	End	rr	63.111	65.582	0.033	0.002	0.036	0.180	0.20
Column 96	Edge	ss	63.111	68.479	0.033	0.012	0.045	0.180	0.25
Column 97	Interior	rr	-240.344	-40.570	0.186	0.016	0.202	0.240	0.84

Column 97	Interior	ss	-240.344	4.343	0.186	0.002	0.188	0.240	0.78
Column 98	Corner	rr	-82.683	11.915	0.100	0.035	0.135	0.204	0.66
Column 98	Corner	ss	-82.683	-18.236	0.100	0.037	0.137	0.204	0.67
Column 99	Edge	rr	-120.923	-6.597	0.084	0.002	0.086	0.180	0.48
Column 99	End	ss	-120.923	-11.642	0.084	0.021	0.106	0.180	0.59
Column 100	Interior	rr	-164.480	11.799	0.127	0.005	0.132	0.240	0.55
Column 100	Interior	ss	-164.480	-2.916	0.127	0.001	0.128	0.240	0.54
Column 101	Interior	rr	-180.673	49.427	0.163	0.012	0.175	0.240	0.73
Column 101	Interior	ss	-180.673	-2.750	0.163	0.014	0.177	0.240	0.74
Column 102	Corner	rr	-72.450	-14.707	0.063	0.039	0.102	0.162	0.63
Column 102	Corner	ss	-72.450	-37.774	0.063	0.026	0.089	0.162	0.55
Column 103	Interior	rr	-246.864	39.892	0.191	0.015	0.207	0.240	0.86
Column 103	Interior	ss	-246.864	-9.762	0.191	0.004	0.195	0.240	0.81
Column 104	Interior	rr	-261.589	43.195	0.203	0.017	0.219	0.240	0.91
Column 104	Interior	ss	-261.589	-2.369	0.203	0.001	0.204	0.240	0.85
Column 105	Interior	rr	-293.040	44.869	0.147	0.008	0.154	0.106	1.46
Column 105	Interior	ss	-293.040	-5.135	0.147	0.001	0.148	0.106	1.39
Column 106	Interior	rr	-180.765	36.378	0.131	0.012	0.143	0.240	0.60
Column 106	Interior	ss	-180.765	5.258	0.131	0.002	0.133	0.240	0.55
Column 107	Interior	rr	-233.892	5.911	0.181	0.002	0.183	0.240	0.76
Column 107	Interior	ss	-233.892	2.757	0.181	0.001	0.182	0.240	0.76
Column 108	Edge	rr	-86.314	-1.764	0.074	0.001	0.075	0.191	0.39
Column 108	End	ss	-86.314	24.782	0.056	0.027	0.083	0.162	0.51
Column 109	Edge	rr	-61.818	8.301	0.114	0.007	0.122	0.212	0.57
Column 109	End	ss	-61.818	-6.232	0.114	0.037	0.152	0.212	0.72
Column 110	Interior	rr	-213.558	12.659	0.165	0.005	0.170	0.240	0.71
Column 110	Interior	ss	-213.558	6.308	0.165	0.002	0.168	0.240	0.70
Column 111	Interior	rr	-237.579	31.866	0.184	0.012	0.196	0.240	0.82
Column 111	Interior	ss	-237.579	-13.683	0.184	0.005	0.189	0.240	0.79
Column 112	Interior	rr	-161.683	10.795	0.125	0.004	0.129	0.240	0.54
Column 112	Interior	ss	-161.683	-0.074	0.125	0.000	0.125	0.240	0.52
Column 113	Edge	rr	-95.641	-1.137	0.072	0.000	0.072	0.191	0.38
Column 113	End	ss	-95.641	-47.722	0.072	0.007	0.079	0.191	0.41
Column 114	Edge	rr	-70.325	16.364	0.053	0.005	0.057	0.191	0.30
Column 114	End	ss	-70.325	-38.388	0.053	0.004	0.057	0.191	0.30
Column 115	Interior	rr	-171.591	0.878	0.133	0.000	0.133	0.240	0.56
Column 115	Interior	ss	-171.591	-5.476	0.133	0.002	0.135	0.240	0.56
Column 116	Interior	rr	-201.081	7.826	0.196	0.004	0.200	0.240	0.83
Column 116	Interior	ss	-201.081	2.084	0.196	0.001	0.197	0.240	0.82
Column 117	Interior	rr	-160.071	-2.003	0.188	0.001	0.190	0.240	0.79
Column 117	Interior	ss	-160.071	0.566	0.188	0.000	0.189	0.240	0.79
Column 118	Interior	rr	-176.247	-6.504	0.207	0.004	0.212	0.240	0.88
Column 118	Interior	ss	-176.247	0.580	0.207	0.000	0.208	0.240	0.87
Column 119	Interior	rr	-152.970	-31.038	0.118	0.012	0.130	0.240	0.54
Column 119	Interior	ss	-152.970	-4.563	0.118	0.002	0.120	0.240	0.50
Column 120	Interior	rr	-51.587	0.330	0.049	0.005	0.055	0.240	0.23
Column 120	Interior	ss	-51.587	0.723	0.049	0.004	0.054	0.240	0.22
Column 121	Edge	rr	5.373	-0.334	0.013	0.001	0.013	0.212	0.06
Column 121	End	ss	5.373	6.321	0.013	0.012	0.024	0.212	0.11
Column 122	Edge	rr	-77.805	-3.102	0.058	0.001	0.059	0.191	0.31
Column 122	End	ss	-77.805	-30.903	0.047	0.021	0.068	0.165	0.41
Column 123	Interior	rr	-220.210	1.263	0.171	0.000	0.171	0.240	0.71
Column 123	Interior	ss	-220.210	-16.274	0.171	0.006	0.177	0.240	0.74
Column 124	Corner	rr	-37.098	0.090	0.081	0.024	0.104	0.212	0.49
Column 124	Corner	ss	-37.098	-10.911	0.081	0.031	0.112	0.212	0.53
Column 125	End	rr	-159.332	-2.030	0.142	0.043	0.184	0.194	0.95
Column 125	Edge	ss	-159.332	-24.860	0.142	0.009	0.150	0.194	0.77
Column 126	Interior	rr	-183.780	-0.049	0.179	0.000	0.179	0.240	0.75
Column 126	Interior	ss	-183.780	3.094	0.179	0.002	0.181	0.240	0.75
Column 127	Interior	rr	-101.794	-15.266	0.120	0.010	0.130	0.240	0.54

Column 127	Interior	ss	-101.794	-0.055	0.120	0.000	0.120	0.240	0.50
Column 128	Interior	rr	-121.775	-11.720	0.143	0.008	0.151	0.240	0.63
Column 128	Interior	ss	-121.775	-1.389	0.143	0.001	0.144	0.240	0.60
Column 129	Interior	rr	-172.315	20.701	0.133	0.008	0.141	0.240	0.59
Column 129	Interior	ss	-172.315	-1.647	0.133	0.001	0.134	0.240	0.56
Column 130	Interior	rr	-78.679	1.237	0.061	0.000	0.061	0.240	0.26
Column 130	Interior	ss	-78.679	1.877	0.061	0.001	0.062	0.240	0.26
Column 131	Edge	rr	6.834	-0.038	0.013	0.000	0.013	0.212	0.06
Column 131	End	ss	6.834	6.530	0.013	0.010	0.023	0.212	0.11
Column 132	Corner	rr	5.175	1.732	0.012	0.005	0.018	0.212	0.08
Column 132	Corner	ss	5.175	3.187	0.012	0.006	0.018	0.212	0.09
Column 133	End	rr	-64.617	-4.919	0.058	0.019	0.077	0.194	0.39
Column 133	Edge	ss	-64.617	-5.232	0.058	0.002	0.059	0.194	0.31
Column 134	End	rr	-181.954	-8.421	0.123	0.056	0.179	0.106	1.69
Column 134	Edge	ss	-181.954	23.153	0.123	0.004	0.128	0.106	1.20
Column 135	Interior	rr	-256.261	-0.109	0.198	0.000	0.199	0.240	0.83
Column 135	Interior	ss	-256.261	-2.932	0.198	0.001	0.200	0.240	0.83
Column 136	Corner	rr	24.862	29.416	0.036	0.006	0.042	0.191	0.22
Column 136	Corner	ss	24.862	-16.812	0.036	0.021	0.057	0.191	0.30

Load Combination:STRE16

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-219.464	16.785	0.170	0.006	0.176	0.240	0.74
Column 84	Interior	ss	-219.464	-4.225	0.170	0.002	0.172	0.240	0.72
Column 85	End	rr	-130.693	-33.594	0.084	0.038	0.122	0.162	0.75
Column 85	Edge	ss	-130.693	-6.577	0.110	0.002	0.112	0.191	0.59
Column 86	Interior	rr	-216.683	13.539	0.168	0.005	0.173	0.240	0.72
Column 86	Interior	ss	-216.683	4.546	0.168	0.002	0.170	0.240	0.71
Column 87	Edge	rr	-76.797	-15.428	0.070	0.006	0.076	0.191	0.40
Column 87	End	ss	-76.797	16.247	0.049	0.025	0.074	0.162	0.46
Column 88	Corner	rr	-13.461	5.584	0.032	0.015	0.047	0.212	0.22
Column 88	Corner	ss	-13.461	13.006	0.032	0.003	0.035	0.212	0.16
Column 89	End	rr	-92.575	-41.472	0.138	0.003	0.142	0.202	0.70
Column 89	Edge	ss	-92.575	7.395	0.138	0.005	0.143	0.202	0.71
Column 90	Interior	rr	-245.717	13.282	0.190	0.005	0.195	0.240	0.81
Column 90	Interior	ss	-245.717	-5.734	0.190	0.002	0.192	0.240	0.80
Column 91	Interior	rr	-256.104	22.316	0.198	0.009	0.207	0.240	0.86
Column 91	Interior	ss	-256.104	3.667	0.198	0.001	0.200	0.240	0.83
Column 92	End	rr	-101.805	-46.665	0.152	0.003	0.155	0.202	0.77
Column 92	Edge	ss	-101.805	-20.582	0.152	0.014	0.166	0.202	0.82
Column 93	Interior	rr	-215.654	16.675	0.167	0.006	0.173	0.240	0.72
Column 93	Interior	ss	-215.654	-12.114	0.167	0.005	0.172	0.240	0.72
Column 94	Interior	rr	-274.471	23.647	0.213	0.009	0.222	0.240	0.92
Column 94	Interior	ss	-274.471	9.031	0.213	0.003	0.216	0.240	0.90
Column 96	End	rr	-366.013	-31.555	0.194	0.054	0.248	0.180	1.37
Column 96	Edge	ss	-366.013	-45.571	0.120	0.002	0.122	0.106	1.15
Column 97	Interior	rr	-120.952	28.213	0.094	0.011	0.105	0.240	0.44
Column 97	Interior	ss	-120.952	5.711	0.094	0.002	0.096	0.240	0.40
Column 98	Corner	rr	-75.141	9.779	0.091	0.031	0.122	0.204	0.60
Column 98	Corner	ss	-75.141	-9.253	0.091	0.031	0.122	0.204	0.60
Column 99	Edge	rr	-104.053	-4.222	0.072	0.001	0.074	0.180	0.41
Column 99	End	ss	-104.053	-10.076	0.072	0.018	0.091	0.180	0.50
Column 100	Interior	rr	-159.429	4.175	0.123	0.002	0.125	0.240	0.52
Column 100	Interior	ss	-159.429	-3.410	0.123	0.001	0.125	0.240	0.52
Column 101	Interior	rr	-170.584	-42.408	0.154	0.027	0.181	0.240	0.75
Column 101	Interior	ss	-170.584	3.035	0.154	0.011	0.165	0.240	0.69
Column 102	Corner	rr	-66.863	-19.590	0.058	0.035	0.093	0.162	0.57
Column 102	Corner	ss	-66.863	-31.455	0.058	0.024	0.082	0.162	0.51
Column 103	Interior	rr	-162.032	-21.549	0.125	0.008	0.134	0.240	0.56
Column 103	Interior	ss	-162.032	8.441	0.125	0.003	0.129	0.240	0.54

Column 104	Interior	rr	-244.571	-21.999	0.189	0.008	0.198	0.240	0.82
Column 104	Interior	ss	-244.571	-1.265	0.189	0.000	0.190	0.240	0.79
Column 105	Interior	rr	-220.631	-12.873	0.171	0.005	0.176	0.240	0.73
Column 105	Interior	ss	-220.631	10.788	0.171	0.004	0.175	0.240	0.73
Column 106	Interior	rr	-301.763	-27.148	0.218	0.009	0.228	0.240	0.95
Column 106	Interior	ss	-301.763	-13.809	0.218	0.005	0.223	0.240	0.93
Column 107	Interior	rr	-253.743	-3.626	0.197	0.001	0.198	0.240	0.82
Column 107	Interior	ss	-253.743	5.266	0.197	0.002	0.199	0.240	0.83
Column 108	Edge	rr	-96.028	3.978	0.083	0.001	0.084	0.191	0.44
Column 108	End	ss	-96.028	26.593	0.062	0.030	0.092	0.162	0.57
Column 109	Edge	rr	-66.193	8.829	0.123	0.008	0.130	0.212	0.62
Column 109	End	ss	-66.193	-4.637	0.123	0.038	0.161	0.212	0.76
Column 110	Interior	rr	-168.430	10.327	0.130	0.004	0.134	0.240	0.56
Column 110	Interior	ss	-168.430	-3.843	0.130	0.001	0.132	0.240	0.55
Column 111	Interior	rr	-69.543	-5.196	0.054	0.002	0.056	0.240	0.23
Column 111	Interior	ss	-69.543	5.711	0.054	0.002	0.056	0.240	0.23
Column 112	Interior	rr	-138.105	-4.207	0.107	0.002	0.109	0.240	0.45
Column 112	Interior	ss	-138.105	-0.090	0.107	0.000	0.107	0.240	0.45
Column 113	Edge	rr	-91.325	0.155	0.068	0.000	0.069	0.191	0.36
Column 113	End	ss	-91.325	-54.051	0.068	0.005	0.073	0.191	0.38
Column 114	Edge	rr	-95.135	-0.340	0.071	0.000	0.071	0.191	0.37
Column 114	End	ss	-95.135	-58.510	0.071	0.004	0.076	0.191	0.40
Column 115	Interior	rr	-213.810	-1.452	0.166	0.001	0.166	0.240	0.69
Column 115	Interior	ss	-213.810	-1.840	0.166	0.001	0.166	0.240	0.69
Column 116	Interior	rr	-162.511	4.668	0.159	0.002	0.161	0.240	0.67
Column 116	Interior	ss	-162.511	2.997	0.159	0.002	0.160	0.240	0.67
Column 117	Interior	rr	-84.117	-3.871	0.099	0.003	0.102	0.240	0.42
Column 117	Interior	ss	-84.117	-0.550	0.099	0.000	0.099	0.240	0.41
Column 118	Interior	rr	-104.346	-7.476	0.123	0.005	0.128	0.240	0.53
Column 118	Interior	ss	-104.346	-0.824	0.123	0.001	0.123	0.240	0.51
Column 119	Interior	rr	-139.537	8.231	0.108	0.003	0.111	0.240	0.46
Column 119	Interior	ss	-139.537	-0.462	0.108	0.000	0.108	0.240	0.45
Column 120	Interior	rr	-49.517	-0.527	0.047	0.005	0.053	0.240	0.22
Column 120	Interior	ss	-49.517	-0.787	0.047	0.005	0.052	0.240	0.22
Column 121	Edge	rr	4.851	-0.351	0.011	0.001	0.012	0.212	0.06
Column 121	End	ss	4.851	6.588	0.011	0.012	0.023	0.212	0.11
Column 122	Edge	rr	-106.421	17.378	0.080	0.005	0.085	0.191	0.44
Column 122	End	ss	-106.421	-76.655	0.065	0.025	0.089	0.165	0.54
Column 123	Interior	rr	-185.864	11.618	0.144	0.004	0.148	0.240	0.62
Column 123	Interior	ss	-185.864	12.820	0.144	0.005	0.149	0.240	0.62

Column 124	Corner	rr	-44.827	-0.668	0.097	0.029	0.127	0.212	0.60
Column 124	Corner	ss	-44.827	-26.304	0.097	0.048	0.145	0.212	0.68
Column 125	End	rr	-65.112	-8.698	0.058	0.021	0.079	0.194	0.40
Column 125	Edge	ss	-65.112	25.239	0.058	0.009	0.067	0.194	0.34
Column 126	Interior	rr	-176.168	-8.073	0.172	0.004	0.176	0.240	0.73
Column 126	Interior	ss	-176.168	4.772	0.172	0.002	0.174	0.240	0.73
Column 127	Interior	rr	-103.419	-14.206	0.122	0.009	0.131	0.240	0.55
Column 127	Interior	ss	-103.419	-0.601	0.122	0.000	0.122	0.240	0.51
Column 128	Interior	rr	-124.295	-11.219	0.146	0.007	0.154	0.240	0.64
Column 128	Interior	ss	-124.295	-1.327	0.146	0.001	0.147	0.240	0.61
Column 129	Interior	rr	-225.664	-4.465	0.175	0.002	0.176	0.240	0.74
Column 129	Interior	ss	-225.664	7.536	0.175	0.003	0.178	0.240	0.74
Column 130	Interior	rr	-81.118	-0.956	0.063	0.000	0.063	0.240	0.26
Column 130	Interior	ss	-81.118	1.479	0.063	0.001	0.063	0.240	0.26
Column 131	Edge	rr	6.722	-0.062	0.012	0.000	0.012	0.212	0.06
Column 131	End	ss	6.722	6.522	0.012	0.010	0.022	0.212	0.11
Column 132	Corner	rr	4.899	1.819	0.012	0.005	0.017	0.212	0.08
Column 132	Corner	ss	4.899	3.172	0.012	0.006	0.018	0.212	0.08
Column 133	End	rr	-82.955	-2.117	0.074	0.023	0.096	0.194	0.50
Column 133	Edge	ss	-82.955	-0.449	0.074	0.000	0.074	0.194	0.38
Column 134	End	rr	-29.331	3.676	0.026	0.006	0.032	0.194	0.17
Column 134	Edge	ss	-29.331	-8.742	0.026	0.003	0.029	0.194	0.15

Column 135	Interior	rr	-258.734	0.001	0.200	0.000	0.200	0.240	0.84
Column 135	Interior	ss	-258.734	-2.704	0.200	0.001	0.201	0.240	0.84
Column 136	Corner	rr	-112.884	-53.037	0.097	0.030	0.127	0.106	1.20
Column 136	Corner	ss	-112.884	7.485	0.097	0.037	0.133	0.106	1.26

Load Combination:STRE17

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-106.355	-50.058	0.082	0.019	0.102	0.240	0.42
Column 84	Interior	ss	-106.355	0.848	0.082	0.000	0.083	0.240	0.34
Column 85	End	rr	45.252	39.688	0.029	0.010	0.039	0.162	0.24
Column 85	Edge	ss	45.252	4.462	0.038	0.002	0.040	0.191	0.21
Column 86	Interior	rr	-139.501	-42.807	0.108	0.016	0.125	0.240	0.52
Column 86	Interior	ss	-139.501	3.608	0.108	0.001	0.109	0.240	0.46
Column 87	Edge	rr	-81.883	-14.854	0.074	0.006	0.080	0.191	0.42
Column 87	End	ss	-81.883	19.831	0.053	0.026	0.079	0.162	0.49
Column 88	Corner	rr	-15.999	4.815	0.038	0.016	0.054	0.212	0.25
Column 88	Corner	ss	-15.999	16.226	0.038	0.004	0.042	0.212	0.20
Column 89	End	rr	7.198	33.558	0.011	0.024	0.035	0.202	0.17
Column 89	Edge	ss	7.198	0.865	0.011	0.001	0.011	0.202	0.06
Column 90	Interior	rr	-211.737	-39.316	0.164	0.015	0.179	0.240	0.75
Column 90	Interior	ss	-211.737	0.379	0.164	0.000	0.164	0.240	0.68
Column 91	Interior	rr	-193.771	-39.103	0.150	0.015	0.165	0.240	0.69
Column 91	Interior	ss	-193.771	-0.977	0.150	0.000	0.150	0.240	0.63
Column 92	End	rr	-14.932	21.065	0.022	0.023	0.045	0.202	0.23
Column 92	Edge	ss	-14.932	8.054	0.022	0.005	0.028	0.202	0.14
Column 93	Interior	rr	-155.883	-32.248	0.121	0.012	0.133	0.240	0.55
Column 93	Interior	ss	-155.883	-1.469	0.121	0.001	0.121	0.240	0.51
Column 94	Interior	rr	-94.645	-23.734	0.073	0.009	0.082	0.240	0.34
Column 94	Interior	ss	-94.645	-2.792	0.073	0.001	0.074	0.240	0.31
Column 96	End	rr	-15.109	45.946	0.008	0.011	0.019	0.180	0.11
Column 96	Edge	ss	-15.109	52.592	0.008	0.009	0.017	0.180	0.10
Column 97	Interior	rr	-226.249	-28.462	0.175	0.011	0.186	0.240	0.78
Column 97	Interior	ss	-226.249	6.756	0.175	0.003	0.178	0.240	0.74
Column 98	Corner	rr	-82.530	10.468	0.100	0.034	0.134	0.204	0.66
Column 98	Corner	ss	-82.530	-18.906	0.100	0.037	0.137	0.204	0.67
Column 99	Edge	rr	-106.169	-4.345	0.074	0.001	0.075	0.180	0.42
Column 99	End	ss	-106.169	-14.548	0.074	0.018	0.092	0.180	0.51
Column 100	Interior	rr	-167.809	12.614	0.130	0.005	0.135	0.240	0.56
Column 100	Interior	ss	-167.809	-4.299	0.130	0.002	0.132	0.240	0.55
Column 101	Interior	rr	-182.537	33.562	0.165	0.004	0.169	0.240	0.70
Column 101	Interior	ss	-182.537	-0.791	0.165	0.014	0.178	0.240	0.74
Column 102	Corner	rr	-64.891	-17.444	0.056	0.034	0.091	0.162	0.56
Column 102	Corner	ss	-64.891	-30.397	0.056	0.024	0.080	0.162	0.49
Column 103	Interior	rr	-239.310	33.358	0.185	0.013	0.198	0.240	0.83
Column 103	Interior	ss	-239.310	-7.457	0.185	0.003	0.188	0.240	0.78

Column 104	Interior	rr	-265.208	42.607	0.205	0.016	0.222	0.240	0.92
Column 104	Interior	ss	-265.208	-4.710	0.205	0.002	0.207	0.240	0.86
Column 105	Interior	rr	-289.196	48.071	0.145	0.008	0.153	0.106	1.44
Column 105	Interior	ss	-289.196	-3.876	0.145	0.001	0.146	0.106	1.37
Column 106	Interior	rr	-171.071	52.119	0.124	0.018	0.142	0.240	0.59
Column 106	Interior	ss	-171.071	10.995	0.124	0.004	0.127	0.240	0.53
Column 107	Interior	rr	-223.846	7.286	0.173	0.003	0.176	0.240	0.73
Column 107	Interior	ss	-223.846	-1.098	0.173	0.000	0.174	0.240	0.72
Column 108	Edge	rr	-96.657	8.792	0.083	0.003	0.086	0.191	0.45
Column 108	End	ss	-96.657	27.882	0.062	0.031	0.093	0.162	0.57
Column 109	Edge	rr	-60.098	7.704	0.111	0.007	0.118	0.212	0.56
Column 109	End	ss	-60.098	-6.591	0.111	0.037	0.148	0.212	0.70
Column 110	Interior	rr	-227.036	13.445	0.176	0.005	0.181	0.240	0.75
Column 110	Interior	ss	-227.036	9.095	0.176	0.003	0.179	0.240	0.75
Column 111	Interior	rr	-286.071	42.007	0.222	0.016	0.238	0.240	0.99

Column 111	Interior	ss	-286.071	-19.028	0.222	0.007	0.229	0.240	0.95
Column 112	Interior	rr	-156.774	8.028	0.121	0.003	0.125	0.240	0.52
Column 112	Interior	ss	-156.774	0.456	0.121	0.000	0.122	0.240	0.51
Column 113	Edge	rr	-93.534	-1.245	0.070	0.000	0.070	0.191	0.37
Column 113	End	ss	-93.534	-50.882	0.070	0.006	0.076	0.191	0.40
Column 114	Edge	rr	-82.631	9.029	0.062	0.002	0.064	0.191	0.34
Column 114	End	ss	-82.631	-47.729	0.062	0.004	0.066	0.191	0.35
Column 115	Interior	rr	-178.976	0.316	0.139	0.000	0.139	0.240	0.58
Column 115	Interior	ss	-178.976	-3.141	0.139	0.001	0.140	0.240	0.58
Column 116	Interior	rr	-194.270	8.613	0.190	0.004	0.194	0.240	0.81
Column 116	Interior	ss	-194.270	1.663	0.190	0.001	0.190	0.240	0.79
Column 117	Interior	rr	-158.242	-1.926	0.186	0.001	0.187	0.240	0.78
Column 117	Interior	ss	-158.242	0.310	0.186	0.000	0.186	0.240	0.78
Column 118	Interior	rr	-186.048	-8.182	0.219	0.005	0.224	0.240	0.93
Column 118	Interior	ss	-186.048	-0.881	0.219	0.001	0.219	0.240	0.91
Column 119	Interior	rr	-140.790	-38.575	0.109	0.015	0.124	0.240	0.52
Column 119	Interior	ss	-140.790	-5.069	0.109	0.002	0.111	0.240	0.46
Column 120	Interior	rr	-53.080	0.469	0.051	0.005	0.056	0.240	0.23
Column 120	Interior	ss	-53.080	1.163	0.051	0.004	0.055	0.240	0.23
Column 121	Edge	rr	5.506	-0.328	0.013	0.001	0.014	0.212	0.06
Column 121	End	ss	5.506	6.226	0.013	0.012	0.025	0.212	0.12
Column 122	Edge	rr	-89.054	7.958	0.067	0.002	0.069	0.191	0.36
Column 122	End	ss	-89.054	-45.839	0.054	0.023	0.077	0.165	0.47
Column 123	Interior	rr	-214.608	3.188	0.166	0.001	0.167	0.240	0.70
Column 123	Interior	ss	-214.608	-8.240	0.166	0.003	0.169	0.240	0.71

Column 124	Corner	rr	-37.973	-0.382	0.083	0.025	0.107	0.212	0.51
Column 124	Corner	ss	-37.973	-14.295	0.083	0.034	0.117	0.212	0.55
Column 125	End	rr	-142.865	-3.168	0.127	0.039	0.166	0.194	0.85
Column 125	Edge	ss	-142.865	-15.186	0.127	0.005	0.132	0.194	0.68
Column 126	Interior	rr	-175.201	-2.937	0.171	0.002	0.172	0.240	0.72
Column 126	Interior	ss	-175.201	2.337	0.171	0.001	0.172	0.240	0.72
Column 127	Interior	rr	-101.299	-15.287	0.119	0.010	0.129	0.240	0.54
Column 127	Interior	ss	-101.299	0.152	0.119	0.000	0.119	0.240	0.50
Column 128	Interior	rr	-125.606	-10.636	0.148	0.007	0.155	0.240	0.65
Column 128	Interior	ss	-125.606	-2.879	0.148	0.002	0.150	0.240	0.62
Column 129	Interior	rr	-140.668	24.279	0.109	0.009	0.118	0.240	0.49
Column 129	Interior	ss	-140.668	-6.154	0.109	0.002	0.111	0.240	0.46
Column 130	Interior	rr	-89.011	2.041	0.069	0.001	0.070	0.240	0.29
Column 130	Interior	ss	-89.011	1.791	0.069	0.001	0.070	0.240	0.29
Column 131	Edge	rr	7.536	0.082	0.014	0.000	0.014	0.212	0.07
Column 131	End	ss	7.536	6.552	0.014	0.010	0.024	0.212	0.11
Column 132	Corner	rr	6.205	1.500	0.015	0.006	0.021	0.212	0.10
Column 132	Corner	ss	6.205	3.190	0.015	0.007	0.021	0.212	0.10
Column 133	End	rr	-60.968	-5.168	0.054	0.018	0.072	0.194	0.37
Column 133	Edge	ss	-60.968	-6.374	0.054	0.002	0.057	0.194	0.29
Column 134	End	rr	-223.007	-11.526	0.121	0.066	0.187	0.106	1.76
Column 134	Edge	ss	-223.007	30.989	0.121	0.004	0.125	0.106	1.18
Column 135	Interior	rr	-267.591	2.447	0.207	0.001	0.208	0.240	0.87
Column 135	Interior	ss	-267.591	-0.331	0.207	0.000	0.207	0.240	0.86
Column 136	Corner	rr	4.127	17.326	0.006	0.009	0.015	0.191	0.08
Column 136	Corner	ss	4.127	-13.450	0.006	0.010	0.016	0.191	0.08

Load Combination:STRE18

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-244.458	29.948	0.189	0.012	0.201	0.240	0.84
Column 84	Interior	ss	-244.458	-6.417	0.189	0.002	0.192	0.240	0.80
Column 85	End	rr	-166.748	-48.412	0.107	0.048	0.155	0.162	0.96
Column 85	Edge	ss	-166.748	-10.208	0.140	0.004	0.144	0.191	0.75
Column 86	Interior	rr	-228.542	21.879	0.177	0.008	0.185	0.240	0.77
Column 86	Interior	ss	-228.542	4.781	0.177	0.002	0.179	0.240	0.75

Column 87	Edge	rr	-64.770	-9.377	0.059	0.004	0.062	0.191	0.33
Column 87	End	ss	-64.770	13.228	0.042	0.021	0.063	0.162	0.39
Column 88	Corner	rr	-14.319	4.266	0.034	0.014	0.048	0.212	0.23
Column 88	Corner	ss	-14.319	11.928	0.034	0.001	0.035	0.212	0.17
Column 89	End	rr	-106.335	-52.412	0.159	0.000	0.159	0.202	0.79
Column 89	Edge	ss	-106.335	7.614	0.159	0.005	0.164	0.202	0.81
Column 90	Interior	rr	-251.068	16.479	0.194	0.006	0.201	0.240	0.84
Column 90	Interior	ss	-251.068	-7.190	0.194	0.003	0.197	0.240	0.82
Column 91	Interior	rr	-251.945	21.157	0.195	0.008	0.203	0.240	0.85
Column 91	Interior	ss	-251.945	3.772	0.195	0.001	0.197	0.240	0.82
Column 92	End	rr	-93.164	-39.400	0.139	0.005	0.145	0.202	0.72
Column 92	Edge	ss	-93.164	-17.651	0.139	0.012	0.151	0.202	0.75
Column 93	Interior	rr	-208.750	11.369	0.162	0.004	0.166	0.240	0.69
Column 93	Interior	ss	-208.750	-11.147	0.162	0.004	0.166	0.240	0.69
Column 94	Interior	rr	-243.784	15.415	0.189	0.006	0.195	0.240	0.81
Column 94	Interior	ss	-243.784	7.542	0.189	0.003	0.192	0.240	0.80
Column 96	End	rr	-287.802	-11.920	0.152	0.045	0.197	0.180	1.09
Column 96	Edge	ss	-287.802	-29.684	0.094	0.001	0.096	0.106	0.90
Column 97	Interior	rr	-135.041	16.105	0.105	0.006	0.111	0.240	0.46
Column 97	Interior	ss	-135.041	3.298	0.105	0.001	0.106	0.240	0.44
Column 98	Corner	rr	-75.293	11.226	0.091	0.032	0.123	0.204	0.60
Column 98	Corner	ss	-75.293	-8.584	0.091	0.031	0.122	0.204	0.60
Column 99	Edge	rr	-118.808	-6.474	0.083	0.002	0.084	0.180	0.47
Column 99	End	ss	-118.808	-7.168	0.083	0.022	0.105	0.180	0.58
Column 100	Interior	rr	-156.097	3.360	0.121	0.001	0.122	0.240	0.51
Column 100	Interior	ss	-156.097	-2.027	0.121	0.001	0.122	0.240	0.51
Column 101	Interior	rr	-168.720	-26.543	0.152	0.021	0.173	0.240	0.72
Column 101	Interior	ss	-168.720	1.075	0.152	0.012	0.164	0.240	0.68
Column 102	Corner	rr	-74.423	-16.853	0.064	0.040	0.104	0.162	0.64
Column 102	Corner	ss	-74.423	-38.833	0.064	0.027	0.091	0.162	0.56
Column 103	Interior	rr	-169.590	-15.015	0.131	0.006	0.137	0.240	0.57
Column 103	Interior	ss	-169.590	6.135	0.131	0.002	0.134	0.240	0.56

Column 104	Interior	rr	-240.951	-21.411	0.187	0.008	0.195	0.240	0.81
Column 104	Interior	ss	-240.951	1.076	0.187	0.000	0.187	0.240	0.78
Column 105	Interior	rr	-224.489	-16.074	0.174	0.006	0.180	0.240	0.75
Column 105	Interior	ss	-224.489	9.529	0.174	0.004	0.177	0.240	0.74
Column 106	Interior	rr	-311.452	-42.889	0.149	0.007	0.156	0.106	1.47
Column 106	Interior	ss	-311.452	-19.545	0.149	0.003	0.152	0.106	1.43
Column 107	Interior	rr	-263.792	-5.001	0.204	0.002	0.206	0.240	0.86
Column 107	Interior	ss	-263.792	9.121	0.204	0.003	0.208	0.240	0.87
Column 108	Edge	rr	-85.686	-6.579	0.074	0.002	0.076	0.191	0.40
Column 108	End	ss	-85.686	23.493	0.055	0.027	0.082	0.162	0.51
Column 109	Edge	rr	-67.915	9.427	0.126	0.008	0.134	0.212	0.63
Column 109	End	ss	-67.915	-4.278	0.126	0.039	0.164	0.212	0.77
Column 110	Interior	rr	-154.964	9.541	0.120	0.004	0.124	0.240	0.52
Column 110	Interior	ss	-154.964	-6.630	0.120	0.002	0.123	0.240	0.51
Column 111	Interior	rr	-21.051	-15.337	0.016	0.006	0.022	0.240	0.09
Column 111	Interior	ss	-21.051	11.056	0.016	0.004	0.020	0.240	0.09
Column 112	Interior	rr	-143.017	-1.440	0.111	0.001	0.111	0.240	0.46
Column 112	Interior	ss	-143.017	-0.620	0.111	0.000	0.111	0.240	0.46
Column 113	Edge	rr	-93.431	0.264	0.070	0.000	0.070	0.191	0.37
Column 113	End	ss	-93.431	-50.890	0.070	0.006	0.076	0.191	0.40
Column 114	Edge	rr	-82.829	6.995	0.062	0.002	0.064	0.191	0.34
Column 114	End	ss	-82.829	-49.168	0.062	0.004	0.066	0.191	0.35
Column 115	Interior	rr	-206.425	-0.891	0.160	0.000	0.160	0.240	0.67
Column 115	Interior	ss	-206.425	-4.175	0.160	0.002	0.161	0.240	0.67
Column 116	Interior	rr	-169.320	3.880	0.165	0.002	0.167	0.240	0.70
Column 116	Interior	ss	-169.320	3.418	0.165	0.002	0.167	0.240	0.70
Column 117	Interior	rr	-85.947	-3.948	0.101	0.003	0.104	0.240	0.43
Column 117	Interior	ss	-85.947	-0.294	0.101	0.000	0.101	0.240	0.42
Column 118	Interior	rr	-94.544	-5.798	0.111	0.004	0.115	0.240	0.48
Column 118	Interior	ss	-94.544	0.637	0.111	0.000	0.112	0.240	0.47

Column 119	Interior	rr	-151.718	15.768	0.118	0.006	0.124	0.240	0.52
Column 119	Interior	ss	-151.718	0.045	0.118	0.000	0.118	0.240	0.49
Column 120	Interior	rr	-48.024	-0.667	0.046	0.005	0.051	0.240	0.21
Column 120	Interior	ss	-48.024	-1.227	0.046	0.005	0.051	0.240	0.21
Column 121	Edge	rr	4.718	-0.356	0.011	0.001	0.012	0.212	0.06
Column 121	End	ss	4.718	6.683	0.011	0.012	0.023	0.212	0.11
Column 122	Edge	rr	-95.171	6.318	0.071	0.002	0.073	0.191	0.38
Column 122	End	ss	-95.171	-61.720	0.058	0.023	0.081	0.165	0.49
Column 123	Interior	rr	-191.464	9.693	0.148	0.004	0.152	0.240	0.63
Column 123	Interior	ss	-191.464	4.786	0.148	0.002	0.150	0.240	0.63

Column 124	Corner	rr	-43.955	-0.196	0.096	0.029	0.124	0.212	0.58
Column 124	Corner	ss	-43.955	-22.921	0.096	0.045	0.140	0.212	0.66
Column 125	End	rr	-81.579	-7.561	0.073	0.025	0.097	0.194	0.50
Column 125	Edge	ss	-81.579	15.565	0.073	0.006	0.078	0.194	0.40
Column 126	Interior	rr	-184.744	-5.185	0.180	0.003	0.183	0.240	0.76
Column 126	Interior	ss	-184.744	5.529	0.180	0.003	0.183	0.240	0.76
Column 127	Interior	rr	-103.912	-14.185	0.122	0.009	0.132	0.240	0.55
Column 127	Interior	ss	-103.912	-0.808	0.122	0.001	0.123	0.240	0.51
Column 128	Interior	rr	-120.464	-12.303	0.142	0.008	0.150	0.240	0.62
Column 128	Interior	ss	-120.464	0.163	0.142	0.000	0.142	0.240	0.59
Column 129	Interior	rr	-257.318	-8.042	0.199	0.003	0.202	0.240	0.84
Column 129	Interior	ss	-257.318	12.044	0.199	0.005	0.204	0.240	0.85
Column 130	Interior	rr	-70.786	-1.760	0.055	0.001	0.056	0.240	0.23
Column 130	Interior	ss	-70.786	1.564	0.055	0.001	0.055	0.240	0.23
Column 131	Edge	rr	6.021	-0.182	0.011	0.000	0.011	0.212	0.05
Column 131	End	ss	6.021	6.500	0.011	0.009	0.021	0.212	0.10
Column 132	Corner	rr	3.870	2.050	0.009	0.005	0.014	0.212	0.07
Column 132	Corner	ss	3.870	3.169	0.009	0.005	0.014	0.212	0.07
Column 133	End	rr	-86.604	-1.867	0.077	0.023	0.101	0.194	0.52
Column 133	Edge	ss	-86.604	0.693	0.077	0.000	0.077	0.194	0.40
Column 134	End	rr	11.721	6.782	0.010	0.006	0.016	0.194	0.08
Column 134	Edge	ss	11.721	-16.579	0.010	0.006	0.016	0.194	0.08
Column 135	Interior	rr	-247.403	-2.554	0.192	0.001	0.193	0.240	0.80
Column 135	Interior	ss	-247.403	-5.305	0.192	0.002	0.194	0.240	0.81
Column 136	Corner	rr	-92.150	-40.947	0.133	0.020	0.153	0.191	0.80
Column 136	Corner	ss	-92.150	4.123	0.085	0.064	0.149	0.159	0.94

Load Combination:STRE19

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-186.093	-7.868	0.144	0.003	0.147	0.240	0.61
Column 84	Interior	ss	-186.093	-8.368	0.144	0.003	0.147	0.240	0.61
Column 85	End	rr	-66.681	-7.333	0.043	0.021	0.063	0.162	0.39
Column 85	Edge	ss	-66.681	-5.962	0.056	0.002	0.058	0.191	0.30
Column 86	Interior	rr	-197.729	-13.730	0.153	0.005	0.158	0.240	0.66
Column 86	Interior	ss	-197.729	8.738	0.153	0.003	0.156	0.240	0.65
Column 87	Edge	rr	-6.066	26.473	0.005	0.011	0.016	0.191	0.08
Column 87	End	ss	-6.066	2.313	0.004	0.002	0.006	0.162	0.04
Column 88	Corner	rr	-24.160	-4.809	0.057	0.013	0.069	0.212	0.33
Column 88	Corner	ss	-24.160	11.790	0.057	0.005	0.062	0.212	0.29
Column 89	End	rr	-47.736	-8.767	0.071	0.012	0.083	0.202	0.41
Column 89	Edge	ss	-47.736	5.439	0.071	0.004	0.075	0.202	0.37
Column 90	Interior	rr	-245.920	-16.148	0.190	0.006	0.197	0.240	0.82
Column 90	Interior	ss	-245.920	-9.948	0.190	0.004	0.194	0.240	0.81
Column 91	Interior	rr	-206.890	-3.673	0.160	0.001	0.162	0.240	0.67
Column 91	Interior	ss	-206.890	5.573	0.160	0.002	0.162	0.240	0.68
Column 92	End	rr	-52.531	-8.174	0.078	0.014	0.093	0.202	0.46
Column 92	Edge	ss	-52.531	-5.833	0.078	0.004	0.082	0.202	0.41
Column 93	Interior	rr	-180.792	-11.135	0.140	0.004	0.144	0.240	0.60
Column 93	Interior	ss	-180.792	-7.893	0.140	0.003	0.143	0.240	0.60
Column 94	Interior	rr	-177.110	-6.546	0.137	0.003	0.140	0.240	0.58

Column 94	Interior	ss	-177.110	5.963	0.137	0.002	0.139	0.240	0.58
Column 96	End	rr	-124.866	36.964	0.066	0.028	0.094	0.180	0.52
Column 96	Edge	ss	-124.866	-15.503	0.066	0.003	0.069	0.180	0.38
Column 97	Interior	rr	-125.520	-5.635	0.097	0.002	0.099	0.240	0.41
Column 97	Interior	ss	-125.520	-13.061	0.097	0.005	0.102	0.240	0.43
Column 98	Corner	rr	-69.286	20.835	0.084	0.033	0.117	0.204	0.57
Column 98	Corner	ss	-69.286	3.194	0.084	0.024	0.108	0.204	0.53
Column 99	Edge	rr	-205.060	-22.620	0.143	0.006	0.149	0.180	0.83
Column 99	End	ss	-205.060	14.019	0.143	0.045	0.188	0.180	1.04
Column 100	Interior	rr	-154.386	-20.698	0.120	0.008	0.128	0.240	0.53
Column 100	Interior	ss	-154.386	14.435	0.120	0.005	0.125	0.240	0.52
Column 101	Interior	rr	-123.106	3.952	0.111	0.005	0.117	0.240	0.49
Column 101	Interior	ss	-123.106	-10.512	0.111	0.013	0.124	0.240	0.52
Column 102	Corner	rr	-147.217	-42.815	0.103	0.043	0.145	0.106	1.37
Column 102	Corner	ss	-147.217	-110.081	0.103	0.036	0.139	0.106	1.31
Column 103	Interior	rr	-220.817	13.348	0.171	0.005	0.176	0.240	0.73
Column 103	Interior	ss	-220.817	-2.808	0.171	0.001	0.172	0.240	0.72

Column 104	Interior	rr	-204.175	0.845	0.158	0.000	0.158	0.240	0.66
Column 104	Interior	ss	-204.175	21.266	0.158	0.008	0.166	0.240	0.69
Column 105	Interior	rr	-374.623	24.925	0.159	0.003	0.162	0.106	1.52
Column 105	Interior	ss	-374.623	-27.173	0.159	0.003	0.162	0.106	1.53
Column 106	Interior	rr	-43.382	-0.633	0.031	0.000	0.032	0.240	0.13
Column 106	Interior	ss	-43.382	-12.628	0.031	0.004	0.036	0.240	0.15
Column 107	Interior	rr	-266.737	12.179	0.207	0.005	0.211	0.240	0.88
Column 107	Interior	ss	-266.737	29.747	0.207	0.011	0.218	0.240	0.91
Column 108	Edge	rr	11.477	-38.874	0.010	0.014	0.024	0.191	0.13
Column 108	End	ss	11.477	-3.549	0.007	0.004	0.011	0.162	0.07
Column 109	Edge	rr	-21.324	-8.663	0.039	0.008	0.047	0.212	0.22
Column 109	End	ss	-21.324	-14.816	0.039	0.025	0.065	0.212	0.31
Column 110	Interior	rr	-165.379	4.687	0.128	0.002	0.130	0.240	0.54
Column 110	Interior	ss	-165.379	16.100	0.128	0.006	0.134	0.240	0.56
Column 111	Interior	rr	-181.770	11.754	0.141	0.005	0.145	0.240	0.61
Column 111	Interior	ss	-181.770	-12.129	0.141	0.005	0.145	0.240	0.61
Column 112	Interior	rr	-168.745	8.312	0.131	0.003	0.134	0.240	0.56
Column 112	Interior	ss	-168.745	23.680	0.131	0.009	0.140	0.240	0.58
Column 113	Edge	rr	-177.341	53.908	0.133	0.015	0.148	0.191	0.77
Column 113	End	ss	-177.341	-152.092	0.133	0.004	0.137	0.191	0.72
Column 114	Edge	rr	-178.513	-41.315	0.134	0.011	0.145	0.191	0.76
Column 114	End	ss	-178.513	-156.909	0.134	0.005	0.139	0.191	0.73
Column 115	Interior	rr	-174.531	-1.369	0.135	0.001	0.136	0.240	0.57
Column 115	Interior	ss	-174.531	27.213	0.135	0.010	0.145	0.240	0.61
Column 116	Interior	rr	-161.191	13.053	0.157	0.007	0.164	0.240	0.68
Column 116	Interior	ss	-161.191	1.010	0.157	0.001	0.158	0.240	0.66
Column 117	Interior	rr	-118.736	-2.110	0.140	0.001	0.141	0.240	0.59
Column 117	Interior	ss	-118.736	0.509	0.140	0.000	0.140	0.240	0.58
Column 118	Interior	rr	-163.453	-19.435	0.192	0.013	0.205	0.240	0.86
Column 118	Interior	ss	-163.453	-7.207	0.192	0.005	0.197	0.240	0.82
Column 119	Interior	rr	-15.408	12.706	0.012	0.005	0.017	0.240	0.07
Column 119	Interior	ss	-15.408	1.107	0.012	0.000	0.012	0.240	0.05
Column 120	Interior	rr	-63.792	0.166	0.061	0.006	0.068	0.240	0.28
Column 120	Interior	ss	-63.792	1.739	0.061	0.005	0.066	0.240	0.28
Column 121	Edge	rr	3.001	1.572	0.007	0.002	0.009	0.212	0.04
Column 121	End	ss	3.001	4.903	0.007	0.009	0.016	0.212	0.07
Column 122	Edge	rr	-155.422	91.059	0.117	0.025	0.142	0.191	0.74
Column 122	End	ss	-155.422	-122.302	0.094	0.035	0.129	0.165	0.79
Column 123	Interior	rr	-212.036	5.721	0.164	0.002	0.166	0.240	0.69
Column 123	Interior	ss	-212.036	23.799	0.164	0.009	0.173	0.240	0.72

Column 124	Corner	rr	-34.263	-5.109	0.074	0.026	0.101	0.212	0.47
Column 124	Corner	ss	-34.263	-23.952	0.074	0.039	0.114	0.212	0.54
Column 125	End	rr	-116.292	-3.953	0.103	0.032	0.136	0.194	0.70

Column 125	Edge	ss	-116.292	6.035	0.103	0.002	0.106	0.194	0.54
Column 126	Interior	rr	-115.429	-16.290	0.113	0.008	0.121	0.240	0.50
Column 126	Interior	ss	-115.429	-5.587	0.113	0.003	0.115	0.240	0.48
Column 127	Interior	rr	-101.520	-15.089	0.119	0.010	0.129	0.240	0.54
Column 127	Interior	ss	-101.520	1.865	0.119	0.001	0.121	0.240	0.50
Column 128	Interior	rr	-148.876	-3.630	0.175	0.002	0.178	0.240	0.74
Column 128	Interior	ss	-148.876	-11.332	0.175	0.007	0.182	0.240	0.76
Column 129	Interior	rr	-87.184	-14.582	0.068	0.006	0.073	0.240	0.30
Column 129	Interior	ss	-87.184	-9.173	0.068	0.003	0.071	0.240	0.30
Column 130	Interior	rr	-138.326	1.086	0.107	0.000	0.108	0.240	0.45
Column 130	Interior	ss	-138.326	0.990	0.107	0.000	0.108	0.240	0.45
Column 131	Edge	rr	7.479	-0.156	0.014	0.000	0.014	0.212	0.07
Column 131	End	ss	7.479	6.416	0.014	0.010	0.024	0.212	0.11
Column 132	Corner	rr	4.701	1.857	0.011	0.005	0.016	0.212	0.08
Column 132	Corner	ss	4.701	3.174	0.011	0.006	0.017	0.212	0.08
Column 133	End	rr	-80.282	-0.605	0.071	0.021	0.093	0.194	0.48
Column 133	Edge	ss	-80.282	-1.159	0.071	0.000	0.072	0.194	0.37
Column 134	End	rr	-102.210	-0.566	0.091	0.027	0.118	0.194	0.61
Column 134	Edge	ss	-102.210	1.556	0.091	0.001	0.092	0.194	0.47
Column 135	Interior	rr	-331.685	15.559	0.166	0.003	0.169	0.106	1.59
Column 135	Interior	ss	-331.685	14.208	0.166	0.002	0.168	0.106	1.59
Column 136	Corner	rr	-42.017	-10.685	0.060	0.014	0.075	0.191	0.39
Column 136	Corner	ss	-42.017	-3.518	0.039	0.029	0.067	0.159	0.42

Load Combination:STRE24

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-164.714	-12.241	0.128	0.005	0.132	0.240	0.55
Column 84	Interior	ss	-164.714	2.798	0.128	0.001	0.129	0.240	0.54
Column 85	End	rr	-54.813	-1.391	0.035	0.017	0.053	0.162	0.33
Column 85	Edge	ss	-54.813	0.216	0.046	0.000	0.046	0.191	0.24
Column 86	Interior	rr	-170.323	-7.198	0.132	0.003	0.135	0.240	0.56
Column 86	Interior	ss	-170.323	-0.349	0.132	0.000	0.132	0.240	0.55
Column 87	Edge	rr	-140.587	-50.705	0.127	0.020	0.148	0.191	0.77
Column 87	End	ss	-140.587	30.746	0.090	0.046	0.136	0.162	0.84
Column 88	Corner	rr	-6.157	13.890	0.014	0.018	0.033	0.212	0.15
Column 88	Corner	ss	-6.157	16.364	0.014	0.011	0.025	0.212	0.12
Column 89	End	rr	-51.403	-10.089	0.077	0.012	0.089	0.202	0.44
Column 89	Edge	ss	-51.403	3.040	0.077	0.002	0.079	0.202	0.39
Column 90	Interior	rr	-216.881	-6.689	0.168	0.003	0.171	0.240	0.71
Column 90	Interior	ss	-216.881	3.137	0.168	0.001	0.169	0.240	0.71
Column 91	Interior	rr	-238.816	-14.273	0.185	0.005	0.190	0.240	0.79
Column 91	Interior	ss	-238.816	-2.778	0.185	0.001	0.186	0.240	0.78
Column 92	End	rr	-55.564	-10.161	0.083	0.014	0.097	0.202	0.48
Column 92	Edge	ss	-55.564	-3.765	0.083	0.003	0.086	0.202	0.42
Column 93	Interior	rr	-183.841	-9.745	0.142	0.004	0.146	0.240	0.61
Column 93	Interior	ss	-183.841	-4.723	0.142	0.002	0.144	0.240	0.60
Column 94	Interior	rr	-161.310	-1.773	0.125	0.001	0.126	0.240	0.52
Column 94	Interior	ss	-161.310	-1.214	0.125	0.000	0.125	0.240	0.52
Column 96	End	rr	-178.036	-2.937	0.094	0.029	0.123	0.180	0.68
Column 96	Edge	ss	-178.036	38.411	0.094	0.007	0.101	0.180	0.56
Column 97	Interior	rr	-235.781	-6.723	0.183	0.003	0.185	0.240	0.77
Column 97	Interior	ss	-235.781	23.116	0.183	0.009	0.191	0.240	0.80
Column 98	Corner	rr	-88.535	0.858	0.107	0.033	0.140	0.204	0.68
Column 98	Corner	ss	-88.535	-30.684	0.107	0.044	0.151	0.204	0.74
Column 99	Edge	rr	-19.915	11.801	0.014	0.003	0.017	0.180	0.10
Column 99	End	ss	-19.915	-35.736	0.014	0.005	0.019	0.180	0.11
Column 100	Interior	rr	-169.520	36.672	0.131	0.014	0.145	0.240	0.61
Column 100	Interior	ss	-169.520	-20.762	0.131	0.008	0.139	0.240	0.58
Column 101	Interior	rr	-228.160	3.067	0.206	0.012	0.218	0.240	0.91
Column 101	Interior	ss	-228.160	10.797	0.206	0.012	0.218	0.240	0.91
Column 102	Corner	rr	7.903	8.519	0.007	0.003	0.010	0.162	0.06
Column 102	Corner	ss	7.903	40.848	0.009	0.013	0.022	0.191	0.12

Column 103	Interior	rr	-188.081	4.994	0.146	0.002	0.148	0.240	0.62
Column 103	Interior	ss	-188.081	1.486	0.146	0.001	0.146	0.240	0.61
Column 104	Interior	rr	-302.010	20.351	0.151	0.003	0.155	0.106	1.46
Column 104	Interior	ss	-302.010	-24.899	0.151	0.004	0.155	0.106	1.47
Column 105	Interior	rr	-139.063	7.071	0.108	0.003	0.110	0.240	0.46
Column 105	Interior	ss	-139.063	32.826	0.108	0.012	0.120	0.240	0.50
Column 106	Interior	rr	-439.144	9.863	0.179	0.001	0.180	0.106	1.70
Column 106	Interior	ss	-439.144	4.077	0.179	0.000	0.179	0.106	1.69
Column 107	Interior	rr	-220.905	-9.894	0.171	0.004	0.175	0.240	0.73
Column 107	Interior	ss	-220.905	-21.724	0.171	0.008	0.179	0.240	0.75
Column 108	Edge	rr	-193.820	41.088	0.118	0.004	0.122	0.106	1.15
Column 108	End	ss	-193.820	54.924	0.118	0.033	0.151	0.106	1.43
Column 109	Edge	rr	-106.688	25.795	0.127	0.009	0.137	0.106	1.29
Column 109	End	ss	-106.688	3.947	0.127	0.059	0.186	0.106	1.76
Column 110	Interior	rr	-216.611	18.300	0.168	0.007	0.175	0.240	0.73
Column 110	Interior	ss	-216.611	-13.636	0.168	0.005	0.173	0.240	0.72
Column 111	Interior	rr	-125.341	14.915	0.097	0.006	0.103	0.240	0.43
Column 111	Interior	ss	-125.341	4.158	0.097	0.002	0.099	0.240	0.41
Column 112	Interior	rr	-131.044	-1.725	0.101	0.001	0.102	0.240	0.43
Column 112	Interior	ss	-131.044	-23.844	0.101	0.009	0.110	0.240	0.46
Column 113	Edge	rr	-9.624	-54.890	0.007	0.015	0.022	0.191	0.12
Column 113	End	ss	-9.624	50.318	0.007	0.016	0.023	0.191	0.12
Column 114	Edge	rr	13.052	57.339	0.010	0.016	0.026	0.191	0.13
Column 114	End	ss	13.052	60.015	0.010	0.013	0.023	0.191	0.12
Column 115	Interior	rr	-210.870	0.794	0.163	0.000	0.164	0.240	0.68
Column 115	Interior	ss	-210.870	-34.530	0.163	0.013	0.176	0.240	0.73
Column 116	Interior	rr	-202.401	-0.561	0.197	0.000	0.198	0.240	0.82
Column 116	Interior	ss	-202.401	4.070	0.197	0.002	0.200	0.240	0.83
Column 117	Interior	rr	-125.453	-3.765	0.148	0.002	0.150	0.240	0.63
Column 117	Interior	ss	-125.453	-0.493	0.148	0.000	0.148	0.240	0.62
Column 118	Interior	rr	-117.140	5.455	0.138	0.004	0.141	0.240	0.59
Column 118	Interior	ss	-117.140	6.963	0.138	0.004	0.142	0.240	0.59
Column 119	Interior	rr	-277.101	-35.513	0.215	0.014	0.228	0.240	0.95
Column 119	Interior	ss	-277.101	-6.131	0.215	0.002	0.217	0.240	0.90
Column 120	Interior	rr	-37.312	-0.363	0.036	0.004	0.040	0.240	0.17
Column 120	Interior	ss	-37.312	-1.803	0.036	0.004	0.040	0.240	0.17
Column 121	Edge	rr	7.223	-2.256	0.017	0.001	0.018	0.212	0.08
Column 121	End	ss	7.223	8.005	0.017	0.015	0.032	0.212	0.15
Column 122	Edge	rr	-28.803	-76.780	0.022	0.021	0.043	0.191	0.22
Column 122	End	ss	-28.803	14.740	0.017	0.011	0.028	0.165	0.17
Column 123	Interior	rr	-194.036	7.160	0.150	0.003	0.153	0.240	0.64
Column 123	Interior	ss	-194.036	-27.252	0.150	0.010	0.161	0.240	0.67
Column 124	Corner	rr	-47.662	4.531	0.104	0.027	0.131	0.212	0.62
Column 124	Corner	ss	-47.662	-13.264	0.104	0.039	0.143	0.212	0.67
Column 125	End	rr	-108.154	-6.775	0.096	0.031	0.127	0.194	0.66
Column 125	Edge	ss	-108.154	-5.656	0.096	0.002	0.098	0.194	0.51
Column 126	Interior	rr	-244.526	8.168	0.160	0.002	0.162	0.106	1.53
Column 126	Interior	ss	-244.526	13.454	0.160	0.003	0.163	0.106	1.54
Column 127	Interior	rr	-103.691	-14.383	0.122	0.010	0.132	0.240	0.55
Column 127	Interior	ss	-103.691	-2.520	0.122	0.002	0.124	0.240	0.52
Column 128	Interior	rr	-97.194	-19.309	0.114	0.013	0.127	0.240	0.53
Column 128	Interior	ss	-97.194	8.616	0.114	0.006	0.120	0.240	0.50
Column 129	Interior	rr	-310.800	30.818	0.156	0.005	0.161	0.106	1.52
Column 129	Interior	ss	-310.800	15.062	0.156	0.002	0.158	0.106	1.49
Column 130	Interior	rr	-21.473	-0.806	0.017	0.000	0.017	0.240	0.07
Column 130	Interior	ss	-21.473	2.365	0.017	0.001	0.018	0.240	0.07
Column 131	Edge	rr	6.077	0.055	0.011	0.000	0.011	0.212	0.05
Column 131	End	ss	6.077	6.636	0.011	0.010	0.021	0.212	0.10
Column 132	Corner	rr	5.374	1.693	0.013	0.006	0.018	0.212	0.09
Column 132	Corner	ss	5.374	3.185	0.013	0.006	0.019	0.212	0.09

Column 133	End	rr	-67.292	-6.430	0.060	0.020	0.080	0.194	0.41
Column 133	Edge	ss	-67.292	-4.522	0.060	0.002	0.062	0.194	0.32
Column 134	End	rr	-109.078	-4.179	0.097	0.030	0.127	0.194	0.66
Column 134	Edge	ss	-109.078	12.855	0.097	0.005	0.102	0.194	0.52
Column 135	Interior	rr	-183.310	-15.667	0.142	0.006	0.148	0.240	0.62
Column 135	Interior	ss	-183.310	-19.844	0.142	0.007	0.149	0.240	0.62
Column 136	Corner	rr	-46.005	-12.936	0.066	0.015	0.081	0.191	0.42
Column 136	Corner	ss	-46.005	-5.810	0.042	0.031	0.073	0.159	0.46

Load Combination:STRE23

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-180.165	-10.491	0.140	0.004	0.144	0.240	0.60
Column 84	Interior	ss	-180.165	-7.407	0.140	0.003	0.142	0.240	0.59
Column 85	End	rr	-59.157	-4.261	0.038	0.018	0.057	0.162	0.35
Column 85	Edge	ss	-59.157	-4.675	0.050	0.002	0.051	0.191	0.27
Column 86	Interior	rr	-195.796	-14.690	0.152	0.006	0.157	0.240	0.66
Column 86	Interior	ss	-195.796	8.464	0.152	0.003	0.155	0.240	0.65
Column 87	Edge	rr	-13.433	22.448	0.012	0.009	0.021	0.191	0.11
Column 87	End	ss	-13.433	3.955	0.009	0.004	0.013	0.162	0.08
Column 88	Corner	rr	-23.351	-3.872	0.055	0.013	0.068	0.212	0.32
Column 88	Corner	ss	-23.351	12.188	0.055	0.004	0.059	0.212	0.28
Column 89	End	rr	-46.374	-7.469	0.069	0.013	0.082	0.202	0.41
Column 89	Edge	ss	-46.374	5.411	0.069	0.004	0.073	0.202	0.36
Column 90	Interior	rr	-244.616	-16.059	0.189	0.006	0.196	0.240	0.82
Column 90	Interior	ss	-244.616	-9.399	0.189	0.004	0.193	0.240	0.80
Column 91	Interior	rr	-208.363	-3.877	0.161	0.001	0.163	0.240	0.68
Column 91	Interior	ss	-208.363	5.288	0.161	0.002	0.163	0.240	0.68
Column 92	End	rr	-53.395	-8.969	0.080	0.014	0.094	0.202	0.47
Column 92	Edge	ss	-53.395	-6.089	0.080	0.004	0.084	0.202	0.42
Column 93	Interior	rr	-181.615	-10.540	0.141	0.004	0.145	0.240	0.60
Column 93	Interior	ss	-181.615	-7.885	0.141	0.003	0.144	0.240	0.60
Column 94	Interior	rr	-181.440	-5.143	0.141	0.002	0.143	0.240	0.59
Column 94	Interior	ss	-181.440	5.967	0.141	0.002	0.143	0.240	0.60
Column 96	End	rr	-143.179	31.343	0.076	0.029	0.105	0.180	0.58
Column 96	Edge	ss	-143.179	-16.850	0.076	0.003	0.079	0.180	0.44
Column 97	Interior	rr	-126.352	-3.062	0.098	0.001	0.099	0.240	0.41
Column 97	Interior	ss	-126.352	-11.376	0.098	0.004	0.102	0.240	0.43
Column 98	Corner	rr	-69.916	19.891	0.084	0.033	0.118	0.204	0.58
Column 98	Corner	ss	-69.916	1.872	0.084	0.025	0.109	0.204	0.54
Column 99	Edge	rr	-195.382	-21.026	0.136	0.006	0.142	0.180	0.79
Column 99	End	ss	-195.382	11.702	0.136	0.043	0.178	0.180	0.99
Column 100	Interior	rr	-157.230	-19.293	0.122	0.007	0.129	0.240	0.54
Column 100	Interior	ss	-157.230	13.318	0.122	0.005	0.127	0.240	0.53
Column 101	Interior	rr	-125.905	0.715	0.114	0.007	0.121	0.240	0.50
Column 101	Interior	ss	-125.905	-9.533	0.114	0.013	0.127	0.240	0.53
Column 102	Corner	rr	-141.477	-44.291	0.105	0.039	0.144	0.106	1.36
Column 102	Corner	ss	-141.477	-104.557	0.105	0.033	0.138	0.106	1.30
Column 103	Interior	rr	-219.280	12.363	0.170	0.005	0.175	0.240	0.73
Column 103	Interior	ss	-219.280	-2.411	0.170	0.001	0.171	0.240	0.71
Column 104	Interior	rr	-207.799	1.370	0.161	0.001	0.161	0.240	0.67
Column 104	Interior	ss	-207.799	19.549	0.161	0.007	0.168	0.240	0.70
Column 105	Interior	rr	-366.688	24.551	0.155	0.003	0.158	0.106	1.49
Column 105	Interior	ss	-366.688	-25.122	0.155	0.003	0.158	0.106	1.49
Column 106	Interior	rr	-51.138	2.509	0.037	0.001	0.038	0.240	0.16
Column 106	Interior	ss	-51.138	-11.152	0.037	0.004	0.041	0.240	0.17
Column 107	Interior	rr	-262.938	12.002	0.204	0.005	0.208	0.240	0.87
Column 107	Interior	ss	-262.938	27.670	0.204	0.010	0.214	0.240	0.89
Column 108	Edge	rr	4.187	-32.402	0.004	0.012	0.015	0.191	0.08
Column 108	End	ss	4.187	-1.464	0.003	0.001	0.004	0.162	0.02
Column 109	Edge	rr	-21.148	-8.783	0.039	0.008	0.047	0.212	0.22

Column 109	End	ss	-21.148	-14.790	0.039	0.025	0.064	0.212	0.30
Column 110	Interior	rr	-169.001	4.984	0.131	0.002	0.133	0.240	0.55
Column 110	Interior	ss	-169.001	16.593	0.131	0.006	0.137	0.240	0.57
Column 111	Interior	rr	-193.532	14.075	0.150	0.005	0.155	0.240	0.65
Column 111	Interior	ss	-193.532	-13.259	0.150	0.005	0.155	0.240	0.65
Column 112	Interior	rr	-167.274	7.678	0.130	0.003	0.133	0.240	0.55
Column 112	Interior	ss	-167.274	24.105	0.130	0.009	0.139	0.240	0.58
Column 113	Edge	rr	-175.271	53.465	0.131	0.015	0.146	0.191	0.76
Column 113	End	ss	-175.271	-153.944	0.131	0.005	0.136	0.191	0.71
Column 114	Edge	rr	-187.260	-46.546	0.140	0.013	0.153	0.191	0.80
Column 114	End	ss	-187.260	-163.134	0.140	0.005	0.145	0.191	0.76
Column 115	Interior	rr	-176.004	-1.591	0.136	0.001	0.137	0.240	0.57
Column 115	Interior	ss	-176.004	28.948	0.136	0.011	0.147	0.240	0.61
Column 116	Interior	rr	-157.785	13.932	0.154	0.007	0.161	0.240	0.67
Column 116	Interior	ss	-157.785	0.693	0.154	0.000	0.154	0.240	0.64
Column 117	Interior	rr	-118.351	-2.015	0.139	0.001	0.141	0.240	0.59
Column 117	Interior	ss	-118.351	0.597	0.139	0.000	0.140	0.240	0.58
Column 118	Interior	rr	-166.728	-20.649	0.196	0.014	0.210	0.240	0.87
Column 118	Interior	ss	-166.728	-8.048	0.196	0.005	0.201	0.240	0.84
Column 119	Interior	rr	-4.684	12.536	0.004	0.005	0.008	0.240	0.04
Column 119	Interior	ss	-4.684	1.279	0.004	0.000	0.004	0.240	0.02
Column 120	Interior	rr	-64.415	0.147	0.062	0.006	0.068	0.240	0.28
Column 120	Interior	ss	-64.415	1.834	0.062	0.005	0.067	0.240	0.28
Column 121	Edge	rr	3.077	1.560	0.007	0.002	0.009	0.212	0.04
Column 121	End	ss	3.077	4.889	0.007	0.009	0.016	0.212	0.08
Column 122	Edge	rr	-162.868	99.489	0.122	0.027	0.150	0.191	0.78
Column 122	End	ss	-162.868	-131.020	0.099	0.036	0.135	0.165	0.82
Column 123	Interior	rr	-211.497	6.192	0.164	0.002	0.166	0.240	0.69
Column 123	Interior	ss	-211.497	27.804	0.164	0.010	0.174	0.240	0.73

Column 124	Corner	rr	-34.059	-5.497	0.074	0.026	0.100	0.212	0.47
Column 124	Corner	ss	-34.059	-25.221	0.074	0.040	0.114	0.212	0.54
Column 125	End	rr	-112.796	-4.132	0.100	0.031	0.132	0.194	0.68
Column 125	Edge	ss	-112.796	8.812	0.100	0.003	0.103	0.194	0.53
Column 126	Interior	rr	-107.621	-18.061	0.105	0.009	0.114	0.240	0.48
Column 126	Interior	ss	-107.621	-6.609	0.105	0.003	0.108	0.240	0.45
Column 127	Interior	rr	-101.331	-15.127	0.119	0.010	0.129	0.240	0.54
Column 127	Interior	ss	-101.331	2.099	0.119	0.001	0.121	0.240	0.50
Column 128	Interior	rr	-151.801	-2.806	0.179	0.002	0.180	0.240	0.75
Column 128	Interior	ss	-151.801	-12.470	0.179	0.008	0.187	0.240	0.78
Column 129	Interior	rr	-70.822	-15.495	0.055	0.006	0.061	0.240	0.25
Column 129	Interior	ss	-70.822	-11.248	0.055	0.004	0.059	0.240	0.25
Column 130	Interior	rr	-146.306	1.403	0.113	0.001	0.114	0.240	0.47
Column 130	Interior	ss	-146.306	0.884	0.113	0.000	0.114	0.240	0.47
Column 131	Edge	rr	7.768	-0.128	0.014	0.000	0.014	0.212	0.07
Column 131	End	ss	7.768	6.415	0.014	0.010	0.025	0.212	0.12
Column 132	Corner	rr	5.007	1.790	0.012	0.005	0.017	0.212	0.08
Column 132	Corner	ss	5.007	3.174	0.012	0.006	0.018	0.212	0.08
Column 133	End	rr	-79.994	-0.422	0.071	0.021	0.092	0.194	0.48
Column 133	Edge	ss	-79.994	-1.297	0.071	0.000	0.072	0.194	0.37
Column 134	End	rr	-111.416	-1.173	0.099	0.030	0.129	0.194	0.66
Column 134	Edge	ss	-111.416	2.911	0.099	0.001	0.100	0.194	0.52
Column 135	Interior	rr	-340.565	17.438	0.171	0.003	0.174	0.106	1.64
Column 135	Interior	ss	-340.565	16.198	0.171	0.003	0.173	0.106	1.63
Column 136	Corner	rr	-45.355	-12.600	0.065	0.015	0.080	0.191	0.42
Column 136	Corner	ss	-45.355	-3.067	0.042	0.031	0.073	0.159	0.46

Load Combination:STRE22

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-170.642	-9.619	0.132	0.004	0.136	0.240	0.57
Column 84	Interior	ss	-170.642	1.838	0.132	0.001	0.133	0.240	0.55

Column 85	End	rr	-62.340	-4.463	0.040	0.019	0.060	0.162	0.37
Column 85	Edge	ss	-62.340	-1.071	0.052	0.000	0.053	0.191	0.28
Column 86	Interior	rr	-172.254	-6.238	0.133	0.002	0.136	0.240	0.57
Column 86	Interior	ss	-172.254	-0.074	0.133	0.000	0.133	0.240	0.56
Column 87	Edge	rr	-133.218	-46.680	0.121	0.019	0.139	0.191	0.73
Column 87	End	ss	-133.218	29.103	0.086	0.043	0.129	0.162	0.80
Column 88	Corner	rr	-6.968	12.953	0.016	0.018	0.034	0.212	0.16
Column 88	Corner	ss	-6.968	15.966	0.016	0.010	0.026	0.212	0.12
Column 89	End	rr	-52.763	-11.386	0.079	0.012	0.091	0.202	0.45
Column 89	Edge	ss	-52.763	3.068	0.079	0.002	0.081	0.202	0.40
Column 90	Interior	rr	-218.194	-6.778	0.169	0.003	0.172	0.240	0.72
Column 90	Interior	ss	-218.194	2.588	0.169	0.001	0.170	0.240	0.71
Column 91	Interior	rr	-237.354	-14.069	0.184	0.005	0.189	0.240	0.79
Column 91	Interior	ss	-237.354	-2.493	0.184	0.001	0.185	0.240	0.77
Column 92	End	rr	-54.703	-9.366	0.082	0.014	0.096	0.202	0.48
Column 92	Edge	ss	-54.703	-3.509	0.082	0.002	0.084	0.202	0.42
Column 93	Interior	rr	-183.018	-10.340	0.142	0.004	0.146	0.240	0.61
Column 93	Interior	ss	-183.018	-4.732	0.142	0.002	0.144	0.240	0.60
Column 94	Interior	rr	-156.980	-3.177	0.122	0.001	0.123	0.240	0.51
Column 94	Interior	ss	-156.980	-1.217	0.122	0.000	0.122	0.240	0.51
Column 96	End	rr	-159.725	2.684	0.085	0.027	0.111	0.180	0.62
Column 96	Edge	ss	-159.725	39.759	0.085	0.007	0.092	0.180	0.51
Column 97	Interior	rr	-234.949	-9.295	0.182	0.004	0.186	0.240	0.77
Column 97	Interior	ss	-234.949	21.431	0.182	0.008	0.190	0.240	0.79
Column 98	Corner	rr	-87.907	1.802	0.106	0.033	0.139	0.204	0.68
Column 98	Corner	ss	-87.907	-29.361	0.106	0.043	0.149	0.204	0.73
Column 99	Edge	rr	-29.594	10.206	0.021	0.003	0.023	0.180	0.13
Column 99	End	ss	-29.594	-33.419	0.021	0.003	0.023	0.180	0.13
Column 100	Interior	rr	-166.676	35.267	0.129	0.014	0.143	0.240	0.59
Column 100	Interior	ss	-166.676	-19.645	0.129	0.007	0.136	0.240	0.57
Column 101	Interior	rr	-225.350	6.304	0.203	0.010	0.214	0.240	0.89
Column 101	Interior	ss	-225.350	9.818	0.203	0.012	0.215	0.240	0.90
Column 102	Corner	rr	2.164	9.995	0.002	0.003	0.006	0.191	0.03
Column 102	Corner	ss	2.164	35.325	0.002	0.013	0.015	0.191	0.08
Column 103	Interior	rr	-189.621	5.980	0.147	0.002	0.149	0.240	0.62
Column 103	Interior	ss	-189.621	1.090	0.147	0.000	0.147	0.240	0.61

Column 104	Interior	rr	-298.368	19.826	0.231	0.008	0.239	0.240	0.99
Column 104	Interior	ss	-298.368	-23.183	0.231	0.009	0.240	0.240	1.00
Column 105	Interior	rr	-146.981	7.445	0.114	0.003	0.117	0.240	0.49
Column 105	Interior	ss	-146.981	30.775	0.114	0.012	0.125	0.240	0.52
Column 106	Interior	rr	-431.388	6.721	0.176	0.001	0.177	0.106	1.67
Column 106	Interior	ss	-431.388	2.602	0.176	0.000	0.176	0.106	1.66
Column 107	Interior	rr	-224.700	-9.716	0.174	0.004	0.178	0.240	0.74
Column 107	Interior	ss	-224.700	-19.646	0.174	0.007	0.181	0.240	0.76
Column 108	Edge	rr	-186.529	34.616	0.119	0.004	0.123	0.106	1.16
Column 108	End	ss	-186.529	52.840	0.119	0.030	0.149	0.106	1.41
Column 109	Edge	rr	-106.863	25.914	0.127	0.010	0.137	0.106	1.29
Column 109	End	ss	-106.863	3.920	0.127	0.059	0.187	0.106	1.76
Column 110	Interior	rr	-212.990	18.003	0.165	0.007	0.172	0.240	0.72
Column 110	Interior	ss	-212.990	-14.129	0.165	0.005	0.170	0.240	0.71
Column 111	Interior	rr	-113.581	12.595	0.088	0.005	0.093	0.240	0.39
Column 111	Interior	ss	-113.581	5.287	0.088	0.002	0.090	0.240	0.37
Column 112	Interior	rr	-132.514	-1.091	0.103	0.000	0.103	0.240	0.43
Column 112	Interior	ss	-132.514	-24.269	0.103	0.009	0.112	0.240	0.47
Column 113	Edge	rr	-11.694	-54.447	0.009	0.015	0.024	0.191	0.12
Column 113	End	ss	-11.694	52.174	0.009	0.017	0.025	0.191	0.13
Column 114	Edge	rr	21.799	62.570	0.016	0.017	0.034	0.191	0.18
Column 114	End	ss	21.799	66.239	0.016	0.013	0.030	0.191	0.16
Column 115	Interior	rr	-209.397	1.016	0.162	0.000	0.163	0.240	0.68
Column 115	Interior	ss	-209.397	-36.264	0.162	0.014	0.176	0.240	0.73
Column 116	Interior	rr	-205.805	-1.439	0.201	0.001	0.202	0.240	0.84
Column 116	Interior	ss	-205.805	4.388	0.201	0.002	0.203	0.240	0.85

Column 117	Interior	rr	-125.835	-3.859	0.148	0.003	0.151	0.240	0.63
Column 117	Interior	ss	-125.835	-0.581	0.148	0.000	0.148	0.240	0.62
Column 118	Interior	rr	-113.864	6.670	0.134	0.004	0.138	0.240	0.58
Column 118	Interior	ss	-113.864	7.804	0.134	0.005	0.139	0.240	0.58
Column 119	Interior	rr	-287.824	-35.342	0.223	0.014	0.237	0.240	0.99
Column 119	Interior	ss	-287.824	-6.303	0.223	0.002	0.225	0.240	0.94
Column 120	Interior	rr	-36.689	-0.344	0.035	0.004	0.039	0.240	0.16
Column 120	Interior	ss	-36.689	-1.897	0.035	0.004	0.039	0.240	0.16
Column 121	Edge	rr	7.147	-2.245	0.017	0.001	0.018	0.212	0.08
Column 121	End	ss	7.147	8.020	0.017	0.015	0.032	0.212	0.15
Column 122	Edge	rr	-21.358	-85.218	0.016	0.024	0.040	0.191	0.21
Column 122	End	ss	-21.358	23.463	0.016	0.011	0.027	0.191	0.14
Column 123	Interior	rr	-194.578	6.689	0.151	0.003	0.153	0.240	0.64
Column 123	Interior	ss	-194.578	-31.257	0.151	0.012	0.162	0.240	0.68

Column 124	Corner	rr	-47.869	4.919	0.104	0.027	0.131	0.212	0.62
Column 124	Corner	ss	-47.869	-11.995	0.104	0.039	0.143	0.212	0.67
Column 125	End	rr	-111.650	-6.597	0.099	0.032	0.131	0.194	0.68
Column 125	Edge	ss	-111.650	-8.433	0.099	0.003	0.102	0.194	0.53
Column 126	Interior	rr	-252.327	9.940	0.165	0.002	0.168	0.106	1.58
Column 126	Interior	ss	-252.327	14.475	0.165	0.003	0.169	0.106	1.59
Column 127	Interior	rr	-103.880	-14.345	0.122	0.010	0.132	0.240	0.55
Column 127	Interior	ss	-103.880	-2.754	0.122	0.002	0.124	0.240	0.52
Column 128	Interior	rr	-94.270	-20.132	0.111	0.013	0.124	0.240	0.52
Column 128	Interior	ss	-94.270	9.753	0.111	0.006	0.117	0.240	0.49
Column 129	Interior	rr	-327.166	31.732	0.164	0.005	0.169	0.106	1.60
Column 129	Interior	ss	-327.166	17.136	0.164	0.003	0.167	0.106	1.57
Column 130	Interior	rr	-13.493	-1.122	0.010	0.000	0.011	0.240	0.05
Column 130	Interior	ss	-13.493	2.472	0.010	0.001	0.011	0.240	0.05
Column 131	Edge	rr	5.789	0.028	0.011	0.000	0.011	0.212	0.05
Column 131	End	ss	5.789	6.637	0.011	0.009	0.020	0.212	0.10
Column 132	Corner	rr	5.068	1.760	0.012	0.005	0.017	0.212	0.08
Column 132	Corner	ss	5.068	3.185	0.012	0.006	0.018	0.212	0.09
Column 133	End	rr	-67.578	-6.613	0.060	0.020	0.081	0.194	0.41
Column 133	Edge	ss	-67.578	-4.384	0.060	0.002	0.062	0.194	0.32
Column 134	End	rr	-99.872	-3.572	0.089	0.028	0.117	0.194	0.60
Column 134	Edge	ss	-99.872	11.499	0.089	0.004	0.093	0.194	0.48
Column 135	Interior	rr	-174.441	-17.546	0.135	0.007	0.142	0.240	0.59
Column 135	Interior	ss	-174.441	-21.834	0.135	0.008	0.143	0.240	0.60
Column 136	Corner	rr	-42.669	-11.021	0.061	0.014	0.076	0.191	0.40
Column 136	Corner	ss	-42.669	-6.260	0.039	0.029	0.068	0.159	0.43

Load Combination:STRE21

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-192.019	-5.245	0.149	0.002	0.151	0.240	0.63
Column 84	Interior	ss	-192.019	-9.329	0.149	0.003	0.152	0.240	0.63
Column 85	End	rr	-74.208	-10.405	0.048	0.023	0.070	0.162	0.43
Column 85	Edge	ss	-74.208	-7.249	0.062	0.003	0.065	0.191	0.34
Column 86	Interior	rr	-199.661	-12.769	0.155	0.005	0.160	0.240	0.67
Column 86	Interior	ss	-199.661	9.013	0.155	0.003	0.158	0.240	0.66
Column 87	Edge	rr	1.300	30.496	0.001	0.012	0.013	0.191	0.07
Column 87	End	ss	1.300	0.670	0.001	0.001	0.002	0.191	0.01
Column 88	Corner	rr	-24.972	-5.748	0.059	0.012	0.071	0.212	0.33
Column 88	Corner	ss	-24.972	11.392	0.059	0.006	0.065	0.212	0.31
Column 89	End	rr	-49.099	-10.063	0.073	0.012	0.085	0.202	0.42
Column 89	Edge	ss	-49.099	5.467	0.073	0.004	0.077	0.202	0.38
Column 90	Interior	rr	-247.224	-16.237	0.191	0.006	0.198	0.240	0.82
Column 90	Interior	ss	-247.224	-10.498	0.191	0.004	0.195	0.240	0.81
Column 91	Interior	rr	-205.416	-3.469	0.159	0.001	0.160	0.240	0.67
Column 91	Interior	ss	-205.416	5.858	0.159	0.002	0.161	0.240	0.67
Column 92	End	rr	-51.668	-7.379	0.077	0.015	0.092	0.202	0.46

Column 92	Edge	ss	-51.668	-5.577	0.077	0.004	0.081	0.202	0.40
Column 93	Interior	rr	-179.969	-11.730	0.139	0.005	0.144	0.240	0.60
Column 93	Interior	ss	-179.969	-7.902	0.139	0.003	0.142	0.240	0.59
Column 94	Interior	rr	-172.780	-7.949	0.134	0.003	0.137	0.240	0.57
Column 94	Interior	ss	-172.780	5.961	0.134	0.002	0.136	0.240	0.57
Column 96	End	rr	-106.555	42.583	0.056	0.026	0.082	0.180	0.45
Column 96	Edge	ss	-106.555	-14.153	0.056	0.002	0.059	0.180	0.33
Column 97	Interior	rr	-124.691	-8.208	0.097	0.003	0.100	0.240	0.42
Column 97	Interior	ss	-124.691	-14.747	0.097	0.006	0.102	0.240	0.43
Column 98	Corner	rr	-68.659	21.778	0.083	0.033	0.116	0.204	0.57
Column 98	Corner	ss	-68.659	4.517	0.083	0.023	0.106	0.204	0.52
Column 99	Edge	rr	-214.732	-24.214	0.149	0.007	0.156	0.180	0.87
Column 99	End	ss	-214.732	16.333	0.149	0.048	0.197	0.180	1.09
Column 100	Interior	rr	-151.540	-22.101	0.117	0.009	0.126	0.240	0.52
Column 100	Interior	ss	-151.540	15.552	0.117	0.006	0.123	0.240	0.51
Column 101	Interior	rr	-120.307	7.189	0.109	0.004	0.113	0.240	0.47
Column 101	Interior	ss	-120.307	-11.492	0.109	0.014	0.122	0.240	0.51
Column 102	Corner	rr	-152.950	-41.340	0.101	0.046	0.146	0.106	1.38
Column 102	Corner	ss	-152.950	-115.598	0.101	0.039	0.140	0.106	1.32
Column 103	Interior	rr	-222.357	14.334	0.172	0.006	0.178	0.240	0.74
Column 103	Interior	ss	-222.357	-3.204	0.172	0.001	0.173	0.240	0.72

Column 104	Interior	rr	-200.549	0.320	0.155	0.000	0.155	0.240	0.65
Column 104	Interior	ss	-200.549	22.985	0.155	0.009	0.164	0.240	0.68
Column 105	Interior	rr	-382.537	25.300	0.162	0.003	0.165	0.106	1.56
Column 105	Interior	ss	-382.537	-29.227	0.162	0.004	0.165	0.106	1.56
Column 106	Interior	rr	-35.619	-3.776	0.026	0.001	0.027	0.240	0.11
Column 106	Interior	ss	-35.619	-14.104	0.026	0.005	0.030	0.240	0.13
Column 107	Interior	rr	-270.514	12.358	0.210	0.005	0.214	0.240	0.89
Column 107	Interior	ss	-270.514	31.823	0.210	0.012	0.221	0.240	0.92
Column 108	Edge	rr	18.768	-45.348	0.016	0.016	0.033	0.191	0.17
Column 108	End	ss	18.768	-5.633	0.012	0.006	0.018	0.162	0.11
Column 109	Edge	rr	-21.500	-8.544	0.040	0.008	0.047	0.212	0.22
Column 109	End	ss	-21.500	-14.842	0.040	0.026	0.065	0.212	0.31
Column 110	Interior	rr	-161.758	4.389	0.125	0.002	0.127	0.240	0.53
Column 110	Interior	ss	-161.758	15.608	0.125	0.006	0.131	0.240	0.55
Column 111	Interior	rr	-170.010	9.435	0.132	0.004	0.135	0.240	0.56
Column 111	Interior	ss	-170.010	-11.000	0.132	0.004	0.136	0.240	0.57
Column 112	Interior	rr	-170.215	8.946	0.132	0.003	0.135	0.240	0.56
Column 112	Interior	ss	-170.215	23.257	0.132	0.009	0.141	0.240	0.59
Column 113	Edge	rr	-179.412	54.348	0.135	0.015	0.150	0.191	0.78
Column 113	End	ss	-179.412	-150.234	0.135	0.003	0.137	0.191	0.72
Column 114	Edge	rr	-169.772	-36.084	0.127	0.010	0.137	0.191	0.72
Column 114	End	ss	-169.772	-150.691	0.127	0.005	0.132	0.191	0.69
Column 115	Interior	rr	-173.057	-1.146	0.134	0.000	0.134	0.240	0.56
Column 115	Interior	ss	-173.057	25.476	0.134	0.010	0.144	0.240	0.60
Column 116	Interior	rr	-164.595	12.175	0.161	0.006	0.167	0.240	0.70
Column 116	Interior	ss	-164.595	1.328	0.161	0.001	0.161	0.240	0.67
Column 117	Interior	rr	-119.118	-2.204	0.140	0.001	0.142	0.240	0.59
Column 117	Interior	ss	-119.118	0.421	0.140	0.000	0.140	0.240	0.59
Column 118	Interior	rr	-160.177	-18.221	0.188	0.012	0.200	0.240	0.84
Column 118	Interior	ss	-160.177	-6.367	0.188	0.004	0.193	0.240	0.80
Column 119	Interior	rr	-26.132	12.876	0.020	0.005	0.025	0.240	0.11
Column 119	Interior	ss	-26.132	0.936	0.020	0.000	0.021	0.240	0.09
Column 120	Interior	rr	-63.169	0.185	0.061	0.006	0.067	0.240	0.28
Column 120	Interior	ss	-63.169	1.645	0.061	0.005	0.066	0.240	0.27
Column 121	Edge	rr	2.925	1.583	0.007	0.002	0.009	0.212	0.04
Column 121	End	ss	2.925	4.918	0.007	0.009	0.016	0.212	0.07
Column 122	Edge	rr	-147.974	82.621	0.111	0.023	0.134	0.191	0.70
Column 122	End	ss	-147.974	-113.577	0.090	0.034	0.123	0.165	0.75
Column 123	Interior	rr	-212.578	5.250	0.165	0.002	0.167	0.240	0.69
Column 123	Interior	ss	-212.578	19.794	0.165	0.007	0.172	0.240	0.72

Column 124	Corner	rr	-34.470	-4.721	0.075	0.026	0.101	0.212	0.48
Column 124	Corner	ss	-34.470	-22.684	0.075	0.039	0.113	0.212	0.54
Column 125	End	rr	-119.788	-3.774	0.107	0.033	0.139	0.194	0.72
Column 125	Edge	ss	-119.788	3.259	0.107	0.001	0.108	0.194	0.55
Column 126	Interior	rr	-123.239	-14.518	0.120	0.008	0.128	0.240	0.53
Column 126	Interior	ss	-123.239	-4.566	0.120	0.002	0.123	0.240	0.51
Column 127	Interior	rr	-101.709	-15.051	0.120	0.010	0.130	0.240	0.54
Column 127	Interior	ss	-101.709	1.631	0.120	0.001	0.121	0.240	0.50
Column 128	Interior	rr	-145.953	-4.454	0.172	0.003	0.175	0.240	0.73
Column 128	Interior	ss	-145.953	-10.195	0.172	0.007	0.178	0.240	0.74
Column 129	Interior	rr	-103.552	-13.669	0.080	0.005	0.085	0.240	0.36
Column 129	Interior	ss	-103.552	-7.098	0.080	0.003	0.083	0.240	0.35
Column 130	Interior	rr	-130.347	0.770	0.101	0.000	0.101	0.240	0.42
Column 130	Interior	ss	-130.347	1.097	0.101	0.000	0.101	0.240	0.42
Column 131	Edge	rr	7.191	-0.183	0.013	0.000	0.013	0.212	0.06
Column 131	End	ss	7.191	6.417	0.013	0.010	0.023	0.212	0.11
Column 132	Corner	rr	4.395	1.924	0.010	0.005	0.015	0.212	0.07
Column 132	Corner	ss	4.395	3.174	0.010	0.006	0.016	0.212	0.08
Column 133	End	rr	-80.570	-0.789	0.072	0.021	0.093	0.194	0.48
Column 133	Edge	ss	-80.570	-1.020	0.072	0.000	0.072	0.194	0.37
Column 134	End	rr	-93.002	0.042	0.083	0.024	0.107	0.194	0.55
Column 134	Edge	ss	-93.002	0.201	0.083	0.000	0.083	0.194	0.43
Column 135	Interior	rr	-322.805	13.679	0.162	0.002	0.164	0.106	1.55
Column 135	Interior	ss	-322.805	12.218	0.162	0.002	0.164	0.106	1.54
Column 136	Corner	rr	-38.681	-8.770	0.056	0.014	0.070	0.191	0.36
Column 136	Corner	ss	-38.681	-3.969	0.036	0.026	0.062	0.159	0.39

Load Combination:STRE20

Label	Condition	Axis	Factored shear	Factored moment	Stress due to shear	Stress due to moment	Total stress	Allowable stress	Stress ratio
			k	k-ft	ksi	ksi	ksi	ksi	
Column 84	Interior	rr	-158.786	-14.865	0.123	0.006	0.129	0.240	0.54
Column 84	Interior	ss	-158.786	3.759	0.123	0.001	0.124	0.240	0.52
Column 85	End	rr	-47.287	1.681	0.030	0.015	0.046	0.162	0.28
Column 85	Edge	ss	-47.287	1.503	0.040	0.001	0.040	0.191	0.21
Column 86	Interior	rr	-168.392	-8.158	0.130	0.003	0.134	0.240	0.56
Column 86	Interior	ss	-168.392	-0.624	0.130	0.000	0.131	0.240	0.54
Column 87	Edge	rr	-147.952	-54.728	0.134	0.022	0.156	0.191	0.82
Column 87	End	ss	-147.952	32.388	0.095	0.048	0.143	0.162	0.89
Column 88	Corner	rr	-5.346	14.829	0.013	0.018	0.031	0.212	0.15
Column 88	Corner	ss	-5.346	16.763	0.013	0.011	0.024	0.212	0.11
Column 89	End	rr	-50.040	-8.792	0.075	0.013	0.088	0.202	0.43
Column 89	Edge	ss	-50.040	3.012	0.075	0.002	0.077	0.202	0.38
Column 90	Interior	rr	-215.570	-6.600	0.167	0.003	0.170	0.240	0.71
Column 90	Interior	ss	-215.570	3.687	0.167	0.001	0.168	0.240	0.70
Column 91	Interior	rr	-240.299	-14.477	0.186	0.006	0.192	0.240	0.80
Column 91	Interior	ss	-240.299	-3.063	0.186	0.001	0.187	0.240	0.78
Column 92	End	rr	-56.427	-10.955	0.084	0.014	0.098	0.202	0.49
Column 92	Edge	ss	-56.427	-4.021	0.084	0.003	0.087	0.202	0.43
Column 93	Interior	rr	-184.663	-9.149	0.143	0.004	0.147	0.240	0.61
Column 93	Interior	ss	-184.663	-4.714	0.143	0.002	0.145	0.240	0.60
Column 94	Interior	rr	-165.640	-0.370	0.128	0.000	0.128	0.240	0.54
Column 94	Interior	ss	-165.640	-1.211	0.128	0.000	0.129	0.240	0.54
Column 96	End	rr	-196.347	-8.556	0.104	0.031	0.134	0.180	0.75
Column 96	Edge	ss	-196.347	37.062	0.104	0.007	0.110	0.180	0.61
Column 97	Interior	rr	-236.613	-4.150	0.183	0.002	0.185	0.240	0.77
Column 97	Interior	ss	-236.613	24.800	0.183	0.009	0.193	0.240	0.80
Column 98	Corner	rr	-89.164	-0.085	0.108	0.033	0.141	0.204	0.69
Column 98	Corner	ss	-89.164	-32.006	0.108	0.044	0.152	0.204	0.74
Column 99	Edge	rr	-10.244	13.395	0.007	0.004	0.011	0.180	0.06
Column 99	End	ss	-10.244	-38.050	0.007	0.008	0.015	0.180	0.08
Column 100	Interior	rr	-172.366	38.075	0.134	0.015	0.148	0.240	0.62
Column 100	Interior	ss	-172.366	-21.879	0.134	0.008	0.142	0.240	0.59

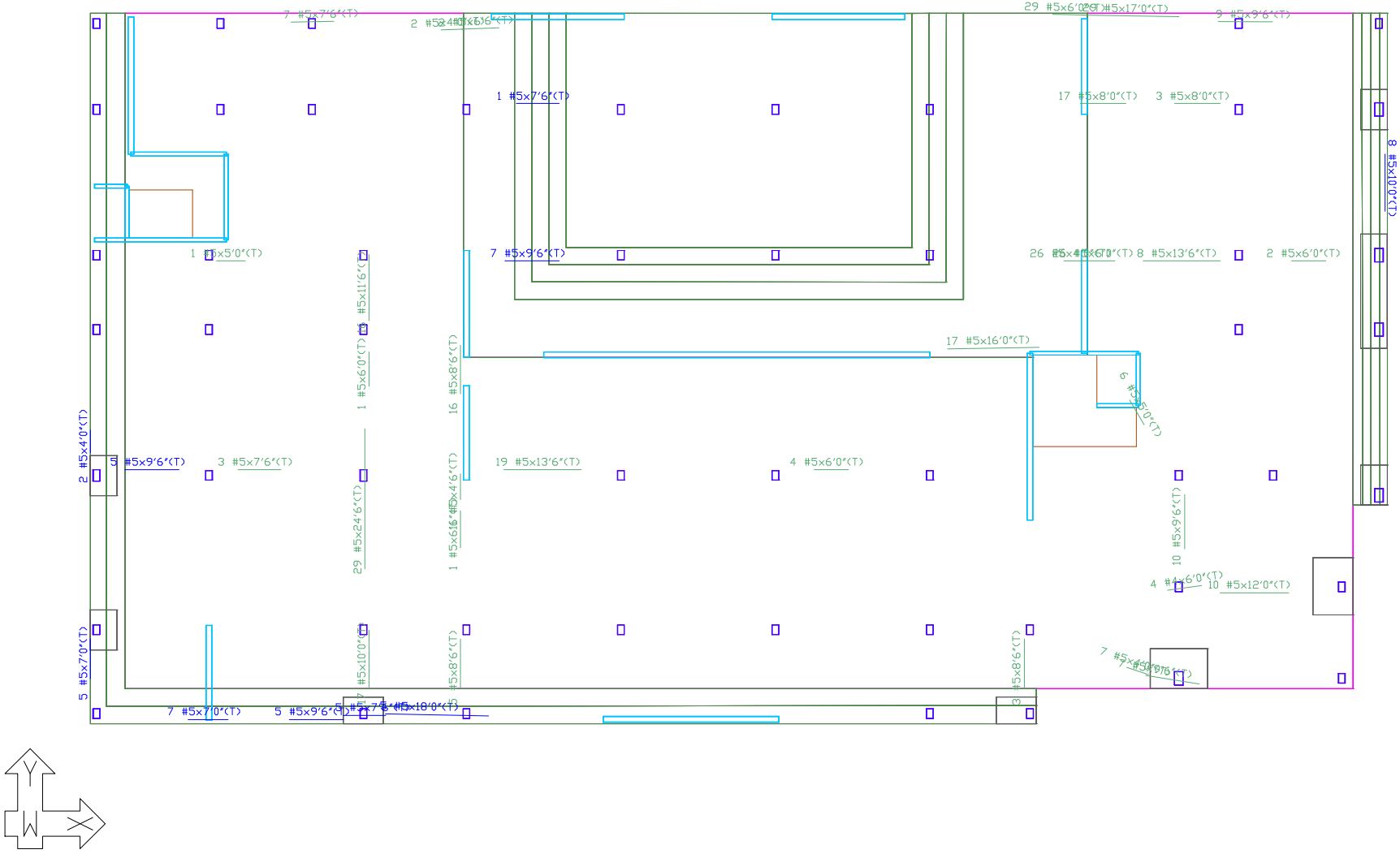
Column 101	Interior	rr	-230.947	-0.170	0.208	0.013	0.222	0.240	0.92
Column 101	Interior	ss	-230.947	11.777	0.208	0.012	0.220	0.240	0.92
Column 102	Corner	rr	13.636	7.043	0.012	0.007	0.019	0.162	0.11
Column 102	Corner	ss	13.636	46.369	0.016	0.013	0.029	0.191	0.15
Column 103	Interior	rr	-186.543	4.008	0.144	0.002	0.146	0.240	0.61
Column 103	Interior	ss	-186.543	1.883	0.144	0.001	0.145	0.240	0.61
Column 104	Interior	rr	-305.629	20.877	0.153	0.004	0.157	0.106	1.48
Column 104	Interior	ss	-305.629	-26.619	0.153	0.004	0.157	0.106	1.49
Column 105	Interior	rr	-131.145	6.697	0.102	0.003	0.104	0.240	0.43
Column 105	Interior	ss	-131.145	34.879	0.102	0.013	0.115	0.240	0.48
Column 106	Interior	rr	-446.900	13.006	0.182	0.002	0.184	0.106	1.73
Column 106	Interior	ss	-446.900	5.553	0.182	0.001	0.183	0.106	1.72
Column 107	Interior	rr	-217.110	-10.072	0.168	0.004	0.172	0.240	0.72
Column 107	Interior	ss	-217.110	-23.800	0.168	0.009	0.177	0.240	0.74
Column 108	Edge	rr	-201.111	47.562	0.117	0.004	0.122	0.106	1.15
Column 108	End	ss	-201.111	57.008	0.117	0.036	0.153	0.106	1.44
Column 109	Edge	rr	-106.513	25.675	0.127	0.009	0.136	0.106	1.29
Column 109	End	ss	-106.513	3.972	0.127	0.059	0.186	0.106	1.75
Column 110	Interior	rr	-220.233	18.597	0.171	0.007	0.178	0.240	0.74
Column 110	Interior	ss	-220.233	-13.143	0.171	0.005	0.176	0.240	0.73
Column 111	Interior	rr	-137.103	17.235	0.106	0.007	0.113	0.240	0.47
Column 111	Interior	ss	-137.103	3.028	0.106	0.001	0.107	0.240	0.45
Column 112	Interior	rr	-129.574	-2.358	0.100	0.001	0.101	0.240	0.42
Column 112	Interior	ss	-129.574	-23.421	0.100	0.009	0.109	0.240	0.45
Column 113	Edge	rr	-7.553	-55.330	0.006	0.015	0.021	0.191	0.11
Column 113	End	ss	-7.553	48.464	0.006	0.015	0.020	0.191	0.11
Column 114	Edge	rr	4.311	52.109	0.003	0.014	0.018	0.191	0.09
Column 114	End	ss	4.311	53.790	0.003	0.014	0.017	0.191	0.09
Column 115	Interior	rr	-212.342	0.571	0.164	0.000	0.165	0.240	0.69
Column 115	Interior	ss	-212.342	-32.793	0.164	0.012	0.177	0.240	0.74
Column 116	Interior	rr	-198.997	0.318	0.194	0.000	0.194	0.240	0.81
Column 116	Interior	ss	-198.997	3.753	0.194	0.002	0.196	0.240	0.82
Column 117	Interior	rr	-125.071	-3.670	0.147	0.002	0.150	0.240	0.62
Column 117	Interior	ss	-125.071	-0.405	0.147	0.000	0.147	0.240	0.61
Column 118	Interior	rr	-120.415	4.241	0.142	0.003	0.144	0.240	0.60
Column 118	Interior	ss	-120.415	6.122	0.142	0.004	0.146	0.240	0.61
Column 119	Interior	rr	-266.377	-35.683	0.206	0.014	0.220	0.240	0.92
Column 119	Interior	ss	-266.377	-5.960	0.206	0.002	0.209	0.240	0.87
Column 120	Interior	rr	-37.934	-0.382	0.036	0.004	0.040	0.240	0.17
Column 120	Interior	ss	-37.934	-1.709	0.036	0.004	0.041	0.240	0.17
Column 121	Edge	rr	7.299	-2.268	0.017	0.001	0.018	0.212	0.09
Column 121	End	ss	7.299	7.991	0.017	0.015	0.032	0.212	0.15
Column 122	Edge	rr	-36.251	-68.345	0.027	0.019	0.046	0.191	0.24
Column 122	End	ss	-36.251	6.018	0.022	0.012	0.034	0.165	0.21
Column 123	Interior	rr	-193.496	7.632	0.150	0.003	0.153	0.240	0.64
Column 123	Interior	ss	-193.496	-23.247	0.150	0.009	0.159	0.240	0.66
Column 124	Corner	rr	-47.457	4.143	0.103	0.027	0.130	0.212	0.61
Column 124	Corner	ss	-47.457	-14.532	0.103	0.040	0.143	0.212	0.68
Column 125	End	rr	-104.658	-6.954	0.093	0.030	0.123	0.194	0.64
Column 125	Edge	ss	-104.658	-2.880	0.093	0.001	0.094	0.194	0.48
Column 126	Interior	rr	-236.702	6.397	0.231	0.003	0.234	0.240	0.98
Column 126	Interior	ss	-236.702	12.432	0.231	0.006	0.237	0.240	0.99
Column 127	Interior	rr	-103.503	-14.422	0.122	0.010	0.131	0.240	0.55
Column 127	Interior	ss	-103.503	-2.287	0.122	0.001	0.123	0.240	0.51
Column 128	Interior	rr	-100.119	-18.485	0.118	0.012	0.130	0.240	0.54
Column 128	Interior	ss	-100.119	7.478	0.118	0.005	0.123	0.240	0.51
Column 129	Interior	rr	-294.434	29.906	0.228	0.012	0.240	0.240	1.00
Column 129	Interior	ss	-294.434	12.987	0.228	0.005	0.233	0.240	0.97
Column 130	Interior	rr	-29.452	-0.489	0.023	0.000	0.023	0.240	0.10
Column 130	Interior	ss	-29.452	2.258	0.023	0.001	0.024	0.240	0.10

Column 131	Edge	rr	6.365	0.082	0.012	0.000	0.012	0.212	0.06
Column 131	End	ss	6.365	6.635	0.012	0.010	0.022	0.212	0.10
Column 132	Corner	rr	5.679	1.626	0.013	0.006	0.019	0.212	0.09
Column 132	Corner	ss	5.679	3.185	0.013	0.007	0.020	0.212	0.09
Column 133	End	rr	-67.005	-6.247	0.060	0.020	0.080	0.194	0.41
Column 133	Edge	ss	-67.005	-4.661	0.060	0.002	0.061	0.194	0.32
Column 134	End	rr	-118.284	-4.786	0.105	0.033	0.138	0.194	0.71
Column 134	Edge	ss	-118.284	14.210	0.105	0.005	0.110	0.194	0.57
Column 135	Interior	rr	-192.183	-13.787	0.149	0.005	0.154	0.240	0.64
Column 135	Interior	ss	-192.183	-17.853	0.149	0.007	0.156	0.240	0.65
Column 136	Corner	rr	-49.344	-14.852	0.071	0.015	0.086	0.191	0.45
Column 136	Corner	ss	-49.344	-5.359	0.045	0.033	0.079	0.159	0.49

Legend:

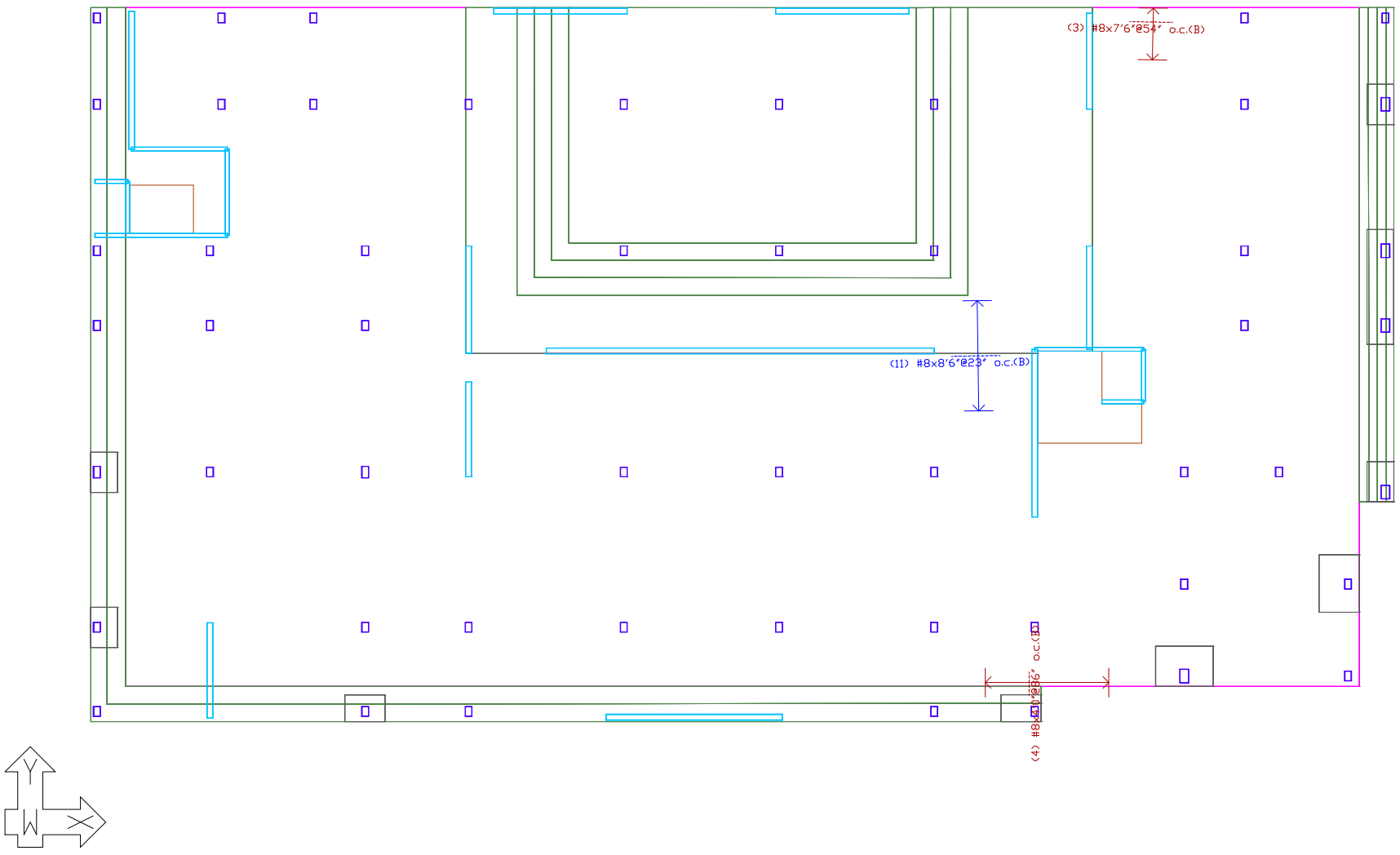
CONDITION.....(a)= Intersecting beam, wall, or other non-conforming geometry.
Perform shear check manually.

REQUIRED TOP REINFORCEMENT (ENVELOPED STRENGTH DESIGN)



03/19/26 12:36:01	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

REQUIRED ADDITIONAL BOTTOM REINFORCEMENT
(ENVELOPED STRENGTH DESIGN)



03/19/26 12:39:19	Puyallup Bell Place Level 2 PT Slab Design	
20260319BellPuyallup.adm		

Bell Place
Puyallup, Washington
March 19th, 2026

STONEWOOD
STRUCTURAL ENGINEERS

C. LATERAL DESIGN

Model Settings

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in^2)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes
Approximate Mesh Size (in)	24
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	Yes
Maximum Number of Iterations	5
Single	No
Multiple (Optimum)	Yes
Maximum	No

Global Axis corresponding to vertical direction	Y
Convert Existing Data	Yes
Default Global Plane for z-axis	XZ
Plate Local Axis Orientation	Global

Hot Rolled Steel	AISC 16th (360-22): ASD
Stiffness Adjustment	Yes (Iterative)
Notional Annex	None
Connections	AISC 16th (360-22): ASD
Cold Formed Steel	AISI S100-20: ASD
Stiffness Adjustment	Yes (Iterative)
Wood	AWC NDS-24 (w. 18 Supplement) / SDPWS-21 ASD
Temperature	< 100F
Concrete	ACI 318-19 (22)
Masonry	TMS 402-22: ASD
Aluminum	AA ADM1-20: ASD
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	AISC 14th (360-10): ASD
Stiffness Adjustment	Yes (Iterative)

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	No
List forces which were ignored for design in the Detail Report	Yes

Column Min Steel	1
Column Max Steel	8
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No
Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Code	ASCE 7-16
Risk Category	I or II
Drift Cat	Other

Model Settings (Continued)

Base Elevation (ft)	0
Include the weight of the structure in base shear calcs	Yes
S_1 (g)	0.438
SD_1 (g)	0.544
SD_S (g)	0.849
T_L (sec)	5
T Z (sec)	
T X (sec)	
C_tZ	0.02
C_tX	0.02
C_tExp. Z	0.75
C_tExp. X	0.75
R Z	6.5
R X	6.5
Ω_0Z	3
Ω_0X	3
C_dZ	4
C_dX	4
ρ Z	1
ρ X	1

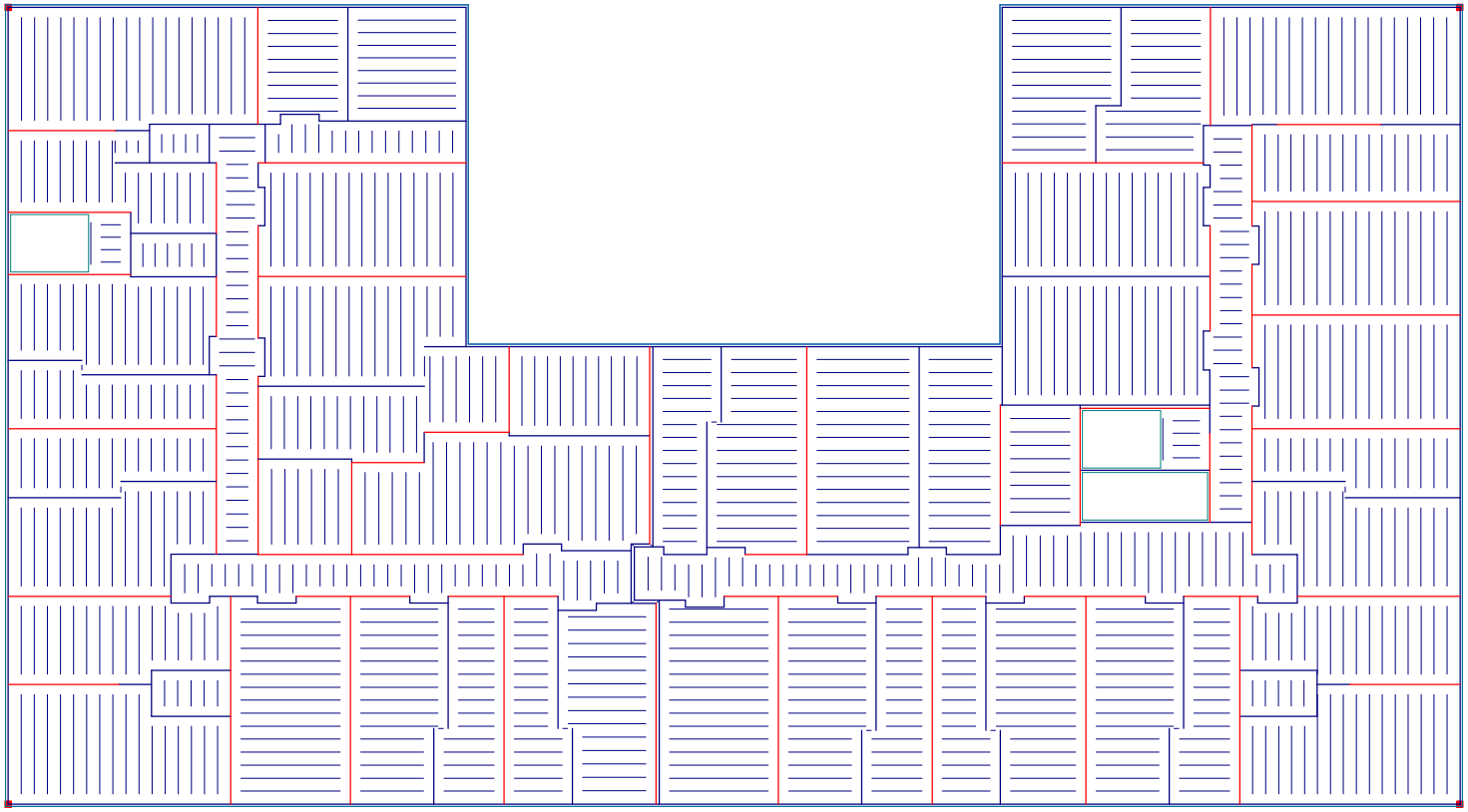
Diaphragm Mass Self Weight Options	
Use Gravity Self Wt in Diaphragm Mass	No
Use Deck Self Wt in Diaphragm Mass	No
Use Lateral Self Wt in Diaphragm Mass	No

Uniform Area Loads

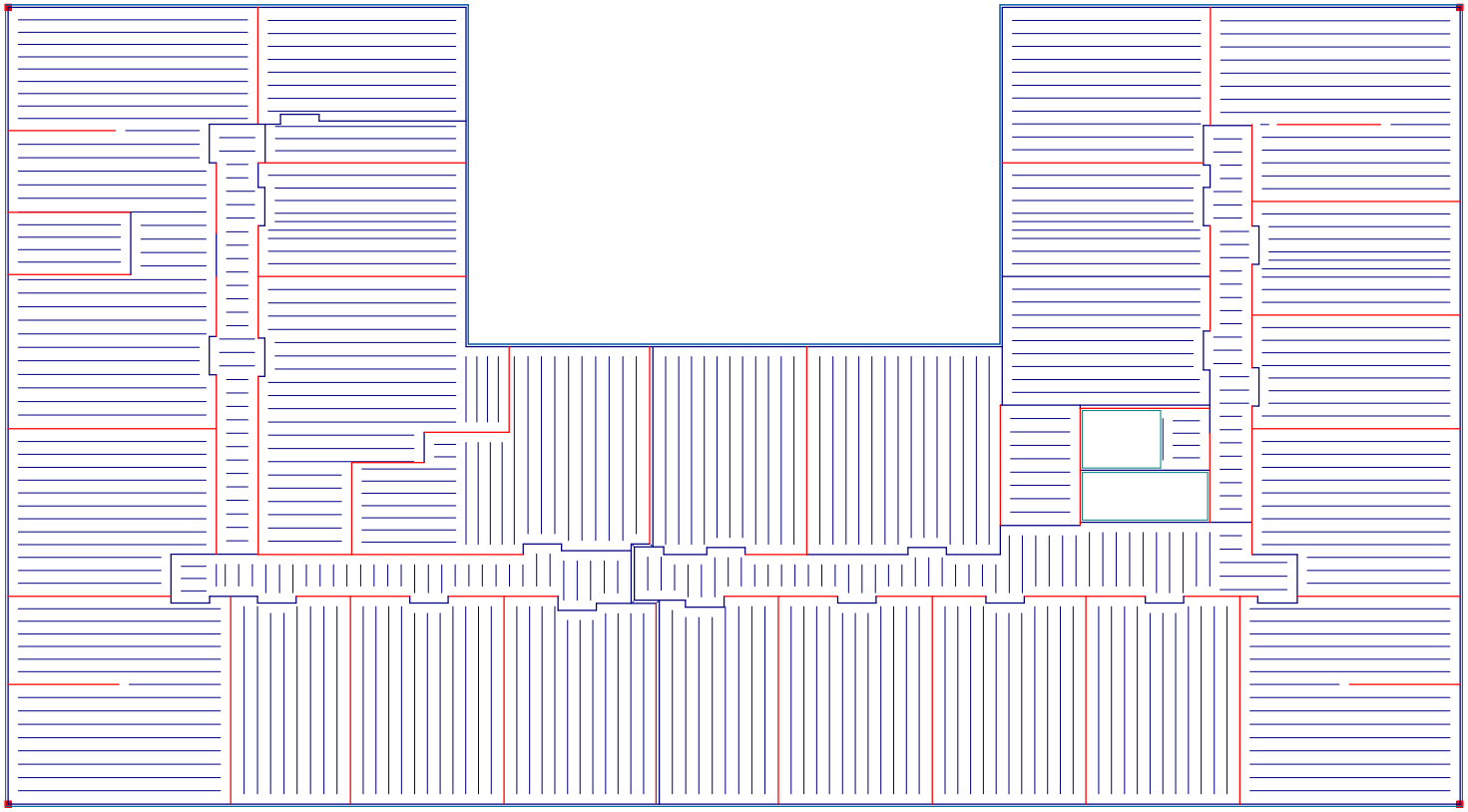
Standard | Other

	Label	Additive	PreDL[ksf]	PostDL[ksf]	LL[ksf]	LL Type	VL[ksf]	Dyn Loa...
1	L3	☐		0.025	0.04	LL-Reduce	0.011	0.052
2	L4	☐		0.025	0.04	LL-Reduce	0.011	0.052
3	L5	☐		0.025	0.04	LL-Reduce	0.004	0.051
4	Roof	☐		0.02	0.025	SL	0.011	0.039

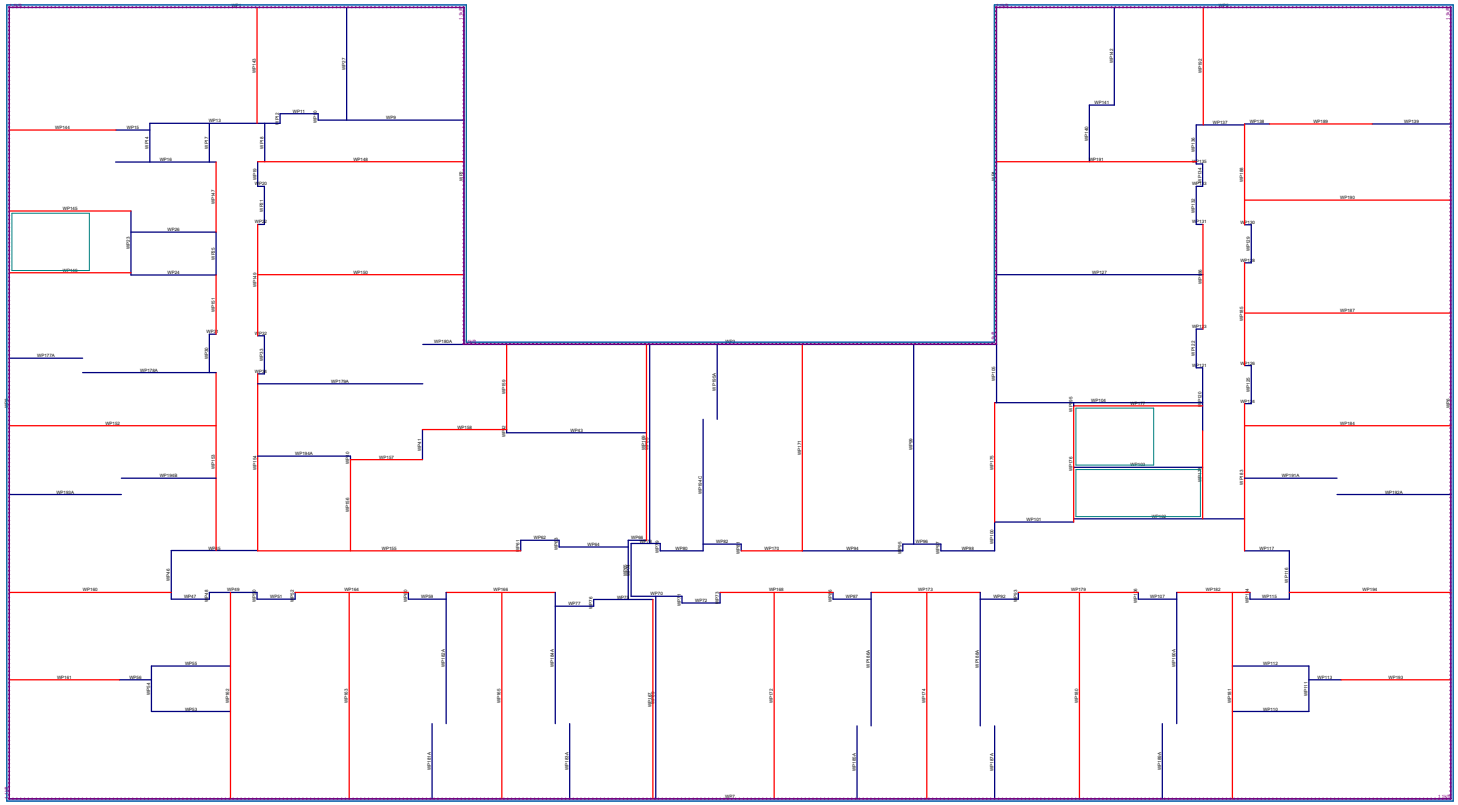
DEFAULT AREA DEAD, LIVE, AND
SEISMIC MASS LOAD TO EACH FLOOR



Stonewood Structural Engineers	Level 3	SK - 1
AAS	Puyallup Bell	Mar 5, 2026 at 9:34 AM
25-063	Typical Floor Framing Layout	2026_03_04_ - 25-063 - Puyallup Bell.rfl

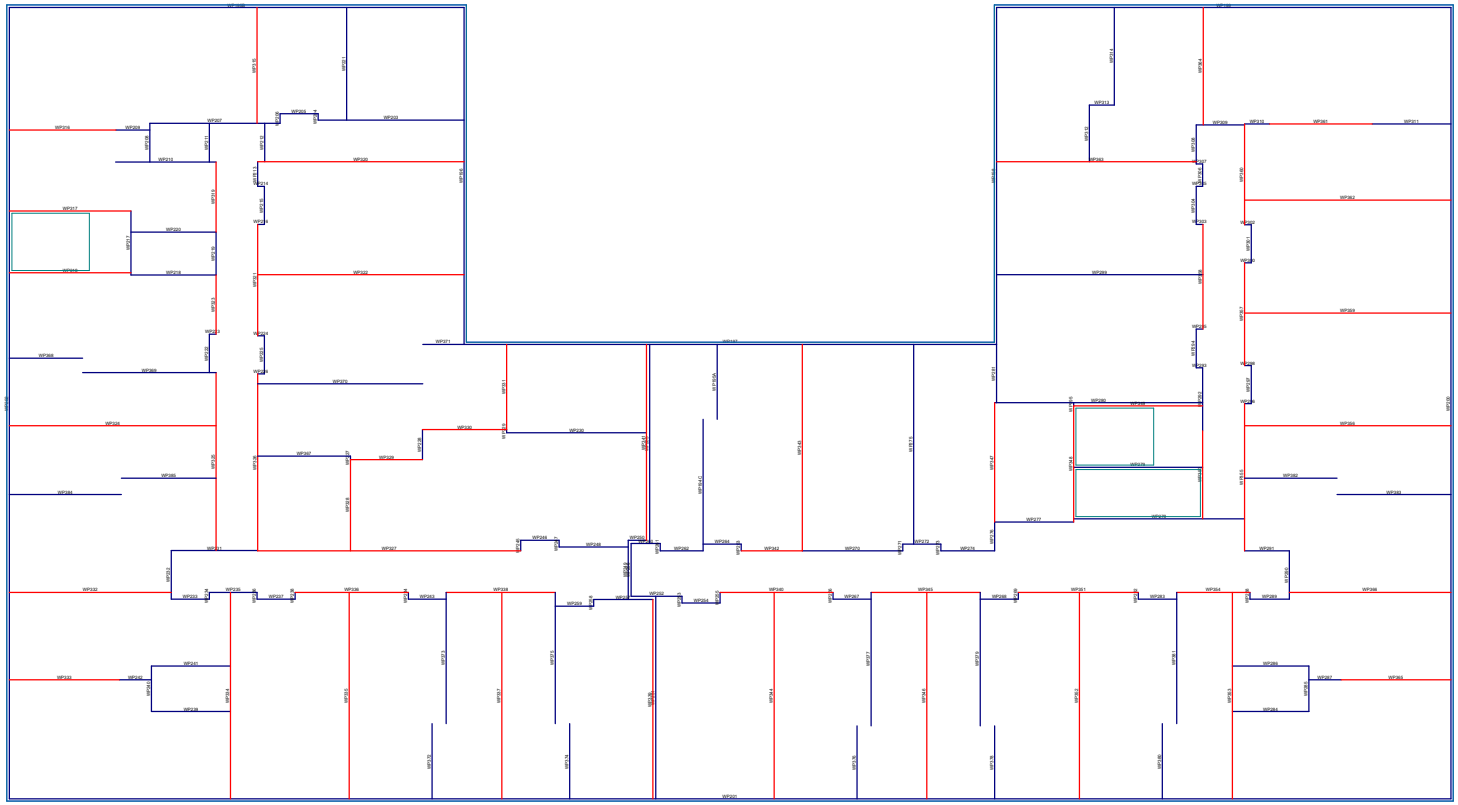


Stonewood Structural Engineers	Roof	SK - 2
AAS	Puyallup Bell	Mar 5, 2026 at 9:38 AM
25-063	Roof Framing Layout	2026_03_04_ - 25-063 - Puyallup Bell.rfl



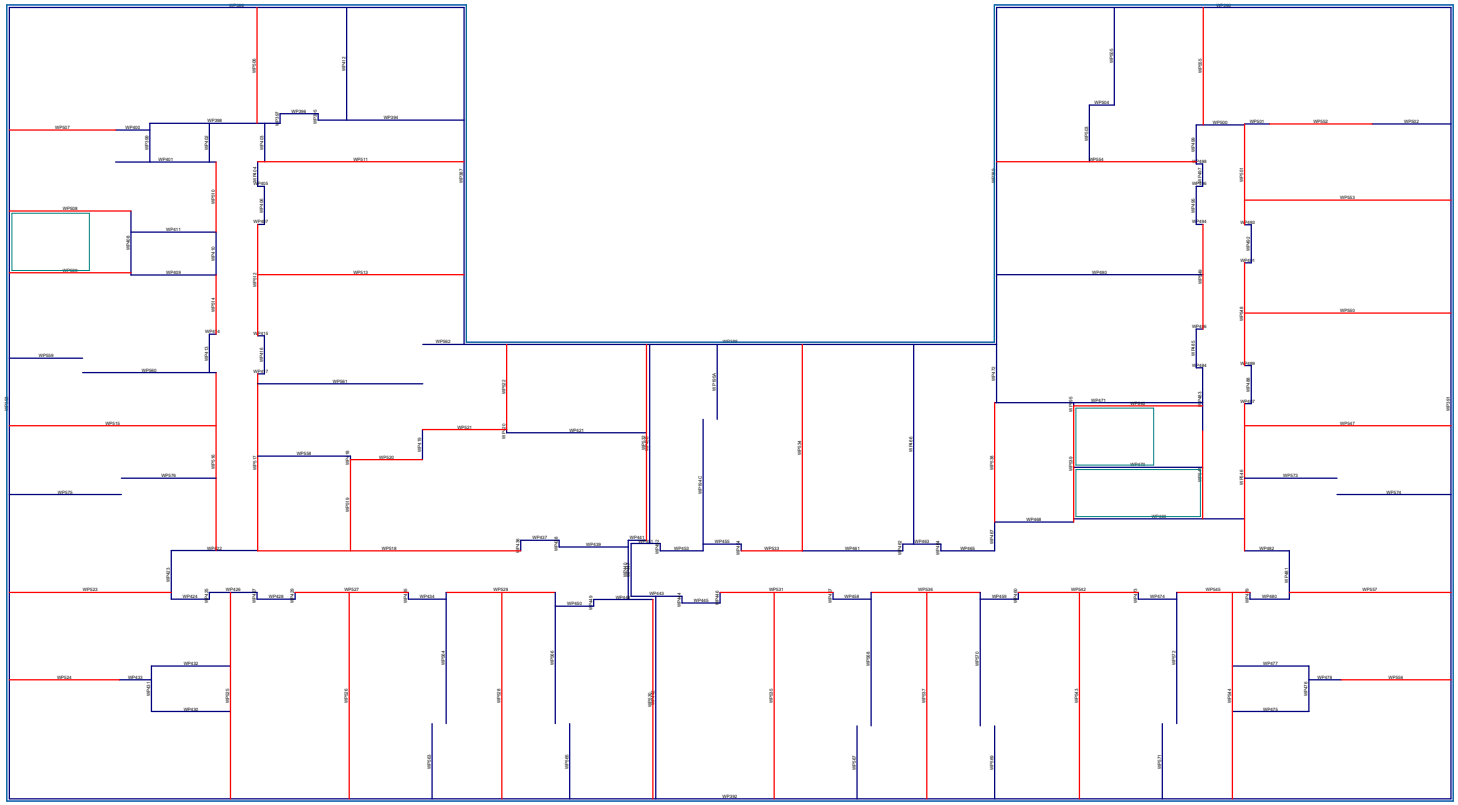
Loads: DL PreComp - PreComposite Dead Load
Results for LC 1, Service Dead

Stonewood Structural Engineers		SK - 2
AAS	Puyallup Bell	Mar 5, 2026 at 10:18 AM
25-063	Level 2 Shear Walls Labels	2026_03_04_ - 25-063 - Puyallup Bell.rfl



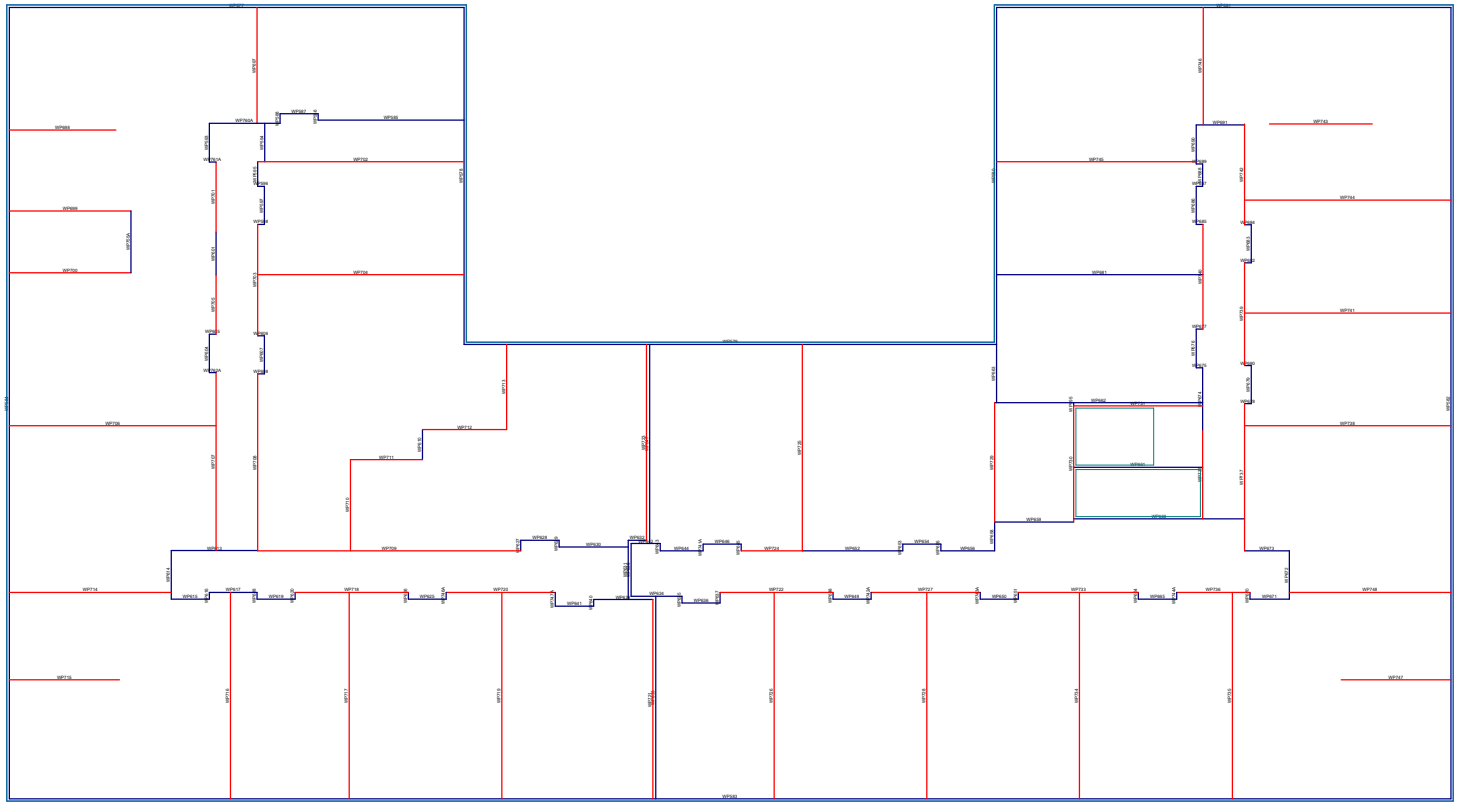
Loads: DL PreComp - PreComposite Dead Load
Results for LC 1, Service Dead

Stonewood Structural Engineers		SK - 3
AAS	Puyallup Bell	Mar 5, 2026 at 10:19 AM
25-063	Level 3 Shear Wall Labels	2026_03_04_ - 25-063 - Puyallup Bell.rfl



Loads: DL PreComp - PreComposite Dead Load
Results for LC 1, Service Dead

Stonewood Structural Engineers		SK - 4
AAS	Puyallup Bell	Mar 5, 2026 at 10:19 AM
25-063	Level 4 Shear Wall Labels	2026_03_04_ - 25-063 - Puyallup Bell.rfl



Stonewood Structural Engineers		SK - 5
AAS	Puyallup Bell	Mar 5, 2026 at 10:20 AM
25-063	Level 5 Shear Wall Labels	2026_03_04_ - 25-063 - Puyallup Bell.rfl

Wind Generation Input

Wind Code:	**ASCE 7-16**	Topographic Factor K1:	**0**
Wind Speed, V(mph):	**98**	Topographic Factor K2:	**0**
		Topographic Factor K3:	**0**
Exposure Category:	**B**	Directionality Factor Kd:	**0.85**
Base Elevation(ft):	**0**	Parapet Height :	**None**

Wind Generation Detail Results

		Kzt:	**1**
Exposure Constant Alpha:	**7**	h (ft):	**40.167**
Exposure Constant zg:	**1200**	Kh:	**0.762**
Gust Effect Factor, G:	**0.85**	Windward Cp:	**0.8**
		qh (ksf):	**0.016**
		GCpn (windward):	**+1.5**
		GCpn (leeward):	**-1.0**

Wind Generation Floor Geometry Results

Floor Level	Height (ft)	Kz	Width (X) (ft)	Length (Z) (ft)	Leeward Cp(X)	Leeward Cp(Z)
Roof	**40.167**	**0.762**	**118.104**	**214.604**	**0.5**	**0.337**
Level 5	**31**	**0.707**	**118.104**	**214.604**	**0.5**	**0.337**
Level 4	**20.667**	**0.63**	**118.104**	**214.604**	**0.5**	**0.337**
Level 3	**10.33**	**0.575**	**118.104**	**214.604**	**0.5**	**0.337**

Wind Force in Z Direction Governed by 16psf Minimum (Forces Scaled Up)

Wind Generation Floor Force Results

Floor Level	qz (ksf)	Windward Pres. (ksf)	Leeward Pres. X (ksf)	Leeward Pres. Z (ksf)	Force X (k)	Force Z (k)
Roof	**0.016**	**0.011**	**0.007**	**0.005**	**17.298**	**8.323**
Total					**17.298**	**9.633**
Level 5	**0.015**	**0.01**	**0.007**	**0.005**	**35.18**	**16.815**
Total					**35.18**	**19.463**
Level 4	**0.013**	**0.009**	**0.007**	**0.005**	**34.853**	**16.482**
Total					**34.853**	**19.078**
Level 3	**0.012**	**0.008**	**0.007**	**0.005**	**33.111**	**15.524**
Total					**33.111**	**17.968**

Seismic Generation Input

Seismic Code:	**ASCE 7-16**				
Ct_X:	**0.02**	T_X (sec):	**Not Entered**	R_X:	**6.5**
Ct_Z:	**0.02**	T_Z (sec):	**Not Entered**	R_Z:	**6.5**
Ct Exp. X:	**0.75**	Ct Exp. Z:	**0.75**		
Risk Cat	**I or II**	TL (sec):	**5**		
SD1 (g):	**0.544**	SDS (g):	**0.849**	S1 (g):	**0.438**
Base Elev (ft):	**0**	Parapet Ht :	**None**		

Seismic Generation Detail Results

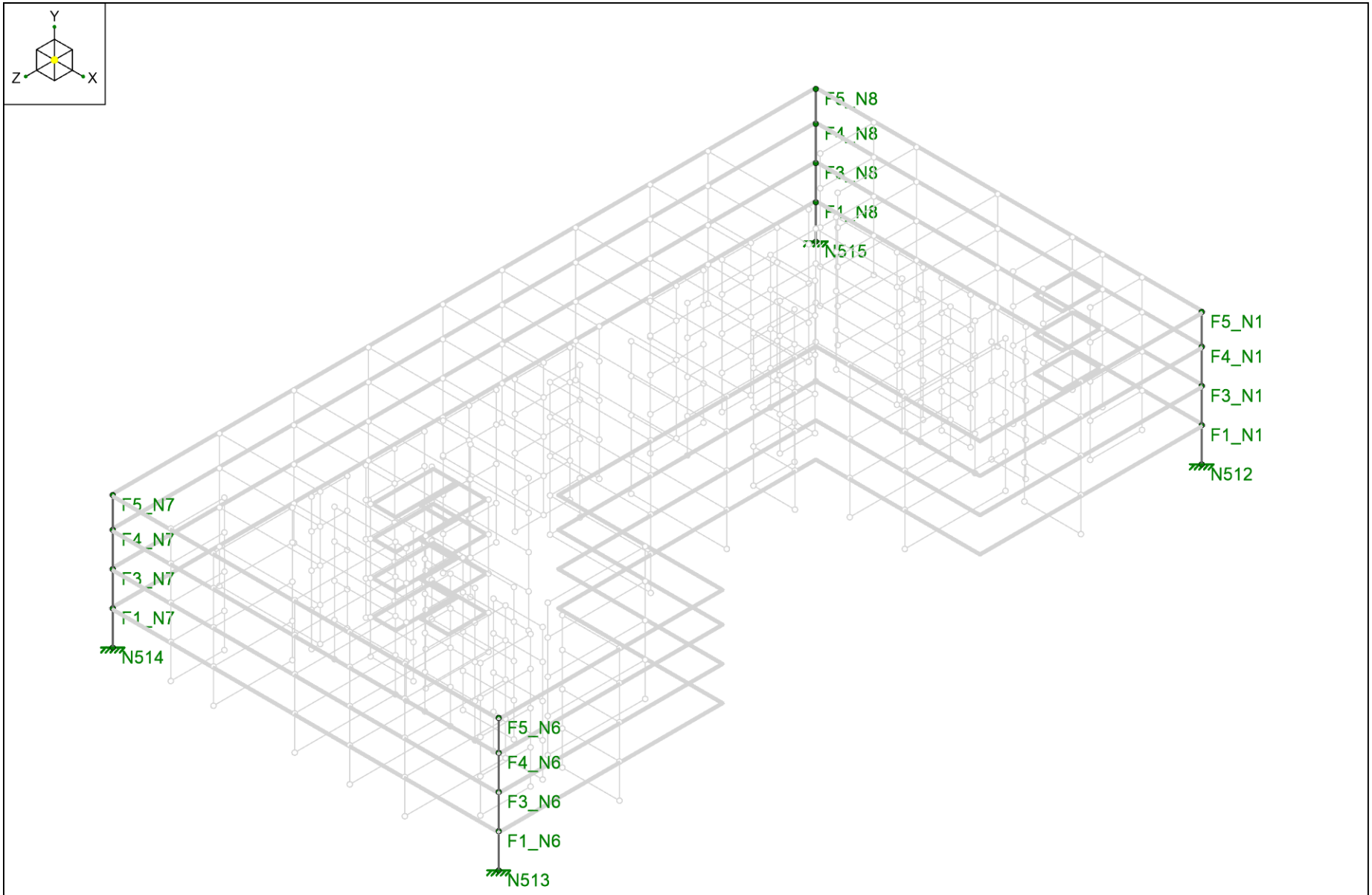
T_X Used (sec):	**0.319**	T_X Method A:	**0.319**	T_X Upper Limit:	**0.447**
T_Z Used (sec):	**0.319**	T_Z Method A:	**0.319**	T_Z Upper Limit:	**0.447**
Importance Fac.:	**1**	Design Cat.:	**D**		
V_X (k):	**533.631**	Gov. Eqn.	**ASCE Eqn 12.8-2**	Cs_X:	**0.131**
V_Z (k):	**533.631**	Gov. Eqn.	**ASCE Eqn 12.8-2**	Cs_Z:	**0.131**

Seismic Generation Force Results

Floor Level	Height (ft)	Weight (k)	Force X (k)	Force Z (k)	CG X (ft)	CG Z (ft)
Roof	**40.167**	**822.671**	**175.58**	**175.58**	**73.64**	**-138.733**
Level 5	**31**	**1084.801**	**178.687**	**178.687**	**73.5**	**-138.269**
Level 4	**20.667**	**1089.022**	**119.59**	**119.59**	**73.5**	**-138.269**
Level 3	**10.33**	**1089.022**	**59.775**	**59.775**	**73.5**	**-138.269**
Base		**0**				
Totals		**4085.516**	**533.631**	**533.631**		

Seismic Generation Diaphragm Results

Floor Level	Width (X) (ft)	Length (Z) (ft)	X Plus (ft)	X Minus (ft)	Z Plus (ft)	Z Minus (ft)
Roof	**118.104**	**214.604**	**6.85**	**6.85**	**12.018**	**12.018**
Level 5	**118.104**	**214.604**	**6.531**	**6.531**	**12.125**	**12.125**
Level 4	**118.104**	**214.604**	**6.401**	**6.401**	**12.254**	**12.254**
Level 3	**118.104**	**214.604**	**6**	**6**	**12.511**	**12.511**



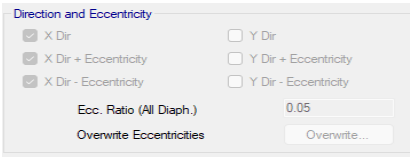
Envelope Only Solution

RISA A NEMETSCHEK COMPANY	Stonewood Structural Engineers	Puyallup Bell	SK-1
	AAS		Mar 05, 2026 at 10:33 AM
	25-063	NODES USED TO CHECK TORSION	2026_03_04_ - 25-063 - Puyallup Bell.rfl

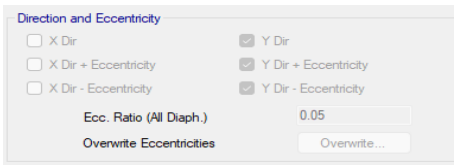
STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyallup, WA	Job No.: 25-063
	Client: C2K Architecture	Date: 3/3/2026
	Seismic Analysis	
	Check for Torsional Irregularity - Level 2	
	Relative Displacement of Wood Level Corners - Left of Seismic Joint	Last Update: 10-Oct-25

Load Combinations

EQ-x step 1, 2, and 3



EQ-y step 1, 2, and 3



Torsional Amplification		
DIRECTION	AMPLIFICATION	TORSION
Z	1.17	0.0583
X	1.02	0.0508

EQX (Load Case 44)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	onal Irregularity	Amplification
NW (F1_N1)	0.272	0.285	0.759	NO	1.05	N/A	0.76
NE (F1_N6)	0.298						
SW (F1_N8)	0.269	0.282	0.760	NO	1.05	N/A	0.76
SE (F1_N7)	0.295						

EQX Minus 5% Eccentricity (Load Case 45)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F1_N1)	0.342	0.2835	1.011	YES	1.21	Torsional Irregularity	1.01
NE (F1_N6)	0.225						
SW (F1_N8)	0.339	0.28	1.018	YES	1.21	Torsional Irregularity	1.02
SE (F1_N7)	0.221						

EQX Plus 5% Eccentricity (Load Case 46)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F1_N1)	0.203	0.287	1.160	YES	1.29	Torsional Irregularity	1.16
NE (F1_N6)	0.371						
SW (F1_N8)	0.2	0.284	1.166	YES	1.30	Torsional Irregularity	1.17
SE (F1_N7)	0.368						

EQY (Load Case 47)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F1_N1)	0.285	0.291	0.723	NO	1.02	N/A	0.72
SW (F1_N8)	0.297						
SE (F1_N7)	0.299	0.2835	0.772	NO	1.05	N/A	0.77
NE (F1_N6)	0.268						

EQY Minus 5% Eccentricity (Load Case 48)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F1_N1)	0.335	0.2965	0.886	NO	1.13	N/A	0.89
SW (F1_N8)	0.258						
SE (F1_N7)	0.316	0.288	0.836	NO	1.10	N/A	0.84
NE (F1_N6)	0.26						

EQX Plus 5% Eccentricity (Load Case 49)

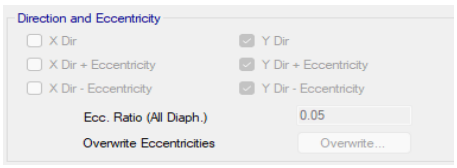
Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F1_N1)	0.235	0.2855	0.962	NO	1.18	N/A	0.96
SW (F1_N8)	0.336						
SE (F1_N7)	0.337	0.2785	1.017	YES	1.21	Torsional Irregularity	1.02
NE (F1_N6)	0.22						

STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyallup, WA	Job No.: 25-063
	Client: C2K Architecture	Date: 3/3/2026
	Seismic Analysis	
	Check for Torsional Irregularity - Level 4	
	Relative Displacement of Wood Level Corners - Left of Seismic Joint	Last Update: 10-Oct-25

Load Combinations

EQ-x step 1, 2, and 3

EQ-y step 1, 2, and 3



Torsional Amplification		
DIRECTION	AMPLIFICATION	TORSION
Z	1.14	0.0571
X	1.08	0.0542

EQX (Load Case 44)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	onal Irregularity	Amplification
NW (F3_N1)	0.628	0.6445	0.730	NO	1.03	N/A	0.73
NE (F3_N6)	0.661						
SW (F3_N8)	0.617	0.636	0.737	NO	1.03	N/A	0.74
SE (F3_N7)	0.655						

EQX Minus 5% Eccentricity (Load Case 45)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F3_N1)	0.786	0.642	1.041	YES	1.22	Torsional Irregularity	1.04
NE (F3_N6)	0.498						
SW (F3_N8)	0.777	0.634	1.043	YES	1.23	Torsional Irregularity	1.04
SE (F3_N7)	0.491						

EQX Plus 5% Eccentricity (Load Case 46)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F3_N1)	0.469	0.6465	1.128	YES	1.27	Torsional Irregularity	1.13
NE (F3_N6)	0.824						
SW (F3_N8)	0.458	0.6385	1.143	YES	1.28	Torsional Irregularity	1.14
SE (F3_N7)	0.819						

EQY (Load Case 47)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F3_N1)	0.619	0.6595	0.782	NO	1.06	N/A	0.78
SW (F3_N8)	0.7						
SE (F3_N7)	0.58	0.641	0.833	NO	1.10	N/A	0.83
NE (F3_N6)	0.702						

EQY Minus 5% Eccentricity (Load Case 48)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F3_N1)	0.73	0.6705	0.823	NO	1.09	N/A	0.82
SW (F3_N8)	0.611						
SE (F3_N7)	0.686	0.65	0.773	NO	1.06	N/A	0.77
NE (F3_N6)	0.614						

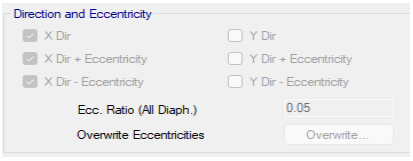
EQX Plus 5% Eccentricity (Load Case 49)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F3_N1)	0.508	0.6485	1.028	YES	1.22	Torsional Irregularity	1.03
SW (F3_N8)	0.789						
SE (F3_N7)	0.475	0.633	1.084	YES	1.25	Torsional Irregularity	1.08
NE (F3_N6)	0.791						

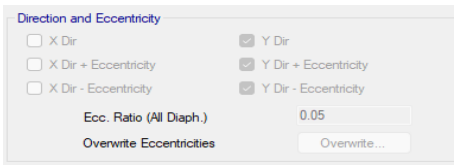
STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyallup, WA	Job No.: 25-063
	Client: C2K Architecture	Date: 3/3/2026
	Seismic Analysis	
	Check for Torsional Irregularity - Level 5	
	Relative Displacement of Wood Level Corners - Left of Seismic Joint	Last Update: 10-Oct-25

Load Combinations

EQ-x step 1, 2, and 3



EQ-y step 1, 2, and 3



Torsional Amplification		
DIRECTION	AMPLIFICATION	TORSION
Z	1.13	0.0565
X	1.11	0.0553

EQX (Load Case 44)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	onal Irregularity	Amplification
NW (F4_N1)	1.294	1.3175	0.719	NO	1.02	N/A	0.72
NE (F4_N6)	1.341						
SW (F4_N8)	1.28	1.304	0.720	NO	1.02	N/A	0.72
SE (F4_N7)	1.328						

EQX Minus 5% Eccentricity (Load Case 45)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F4_N1)	1.238	1.004	1.056	YES	1.23	Torsional Irregularity	1.06
NE (F4_N6)	0.77						
SW (F4_N8)	1.222	0.9905	1.057	YES	1.23	Torsional Irregularity	1.06
SE (F4_N7)	0.759						

EQX Plus 5% Eccentricity (Load Case 46)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F4_N1)	0.738	1.008	1.116	YES	1.27	Torsional Irregularity	1.12
NE (F4_N6)	1.278						
SW (F4_N8)	0.721	0.995	1.130	YES	1.28	Torsional Irregularity	1.13
SE (F4_N7)	1.269						

EQY (Load Case 47)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F4_N1)	0.932	1.015	0.813	NO	1.08	N/A	0.81
SW (F4_N8)	1.098						
SE (F4_N7)	1.103	0.9945	0.854	NO	1.11	N/A	0.85
NE (F4_N6)	0.886						

EQY Minus 5% Eccentricity (Load Case 48)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F4_N1)	1.099	1.03	0.791	NO	1.07	N/A	0.79
SW (F4_N8)	0.961						
SE (F4_N7)	0.966	1.006	0.751	NO	1.04	N/A	0.75
NE (F4_N6)	1.046						

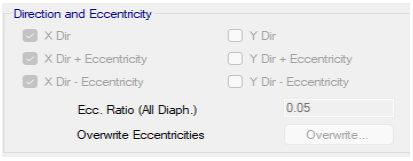
EQX Plus 5% Eccentricity (Load Case 49)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F4_N1)	0.764	1	1.061	YES	1.24	Torsional Irregularity	1.06
SW (F4_N8)	1.236						
SE (F4_N7)	1.24	0.983	1.105	YES	1.26	Torsional Irregularity	1.11
NE (F4_N6)	0.726						

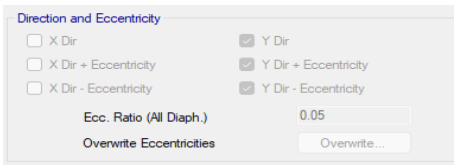
STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: AAS
	Location: Puyallup, WA	Job No.: 25-063
	Client: C2K Architecture	Date: 3/3/2026
	Seismic Analysis	
	Check for Torsional Irregularity - Roof	
	Relative Displacement of Wood Level Corners - Left of Seismic Joint	Last Update: 10-Oct-25

Load Combinations

EQ-x step 1, 2, and 3



EQ-y step 1, 2, and 3



Torsional Amplification		
DIRECTION	AMPLIFICATION	TORSION
Z	1.16	0.0580
X	1.12	0.0560

EQX (Load Case 44)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	onal Irregularity	Amplification
NW (F5_N1)	1.294	1.3175	0.719	NO	1.02	N/A	0.72
NE (F5_N6)	1.341						
SW (F5_N8)	1.28	1.304	0.720	NO	1.02	N/A	0.72
SE (F5_N7)	1.328						

EQX Minus 5% Eccentricity (Load Case 45)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F5_N1)	1.551	1.262	1.049	YES	1.23	Torsional Irregularity	1.05
NE (F5_N6)	0.973						
SW (F5_N8)	1.54	1.2495	1.055	YES	1.23	Torsional Irregularity	1.05
SE (F5_N7)	0.959						

EQX Plus 5% Eccentricity (Load Case 46)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F5_N1)	0.92	1.3	1.160	YES	1.29	Torsional Irregularity	1.16
NE (F5_N6)	1.68						
SW (F5_N8)	0.947	1.3075	1.130	YES	1.28	Torsional Irregularity	1.13
SE (F5_N7)	1.668						

EQY (Load Case 47)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F5_N1)	1.141	1.2715	0.844	NO	1.10	N/A	0.84
SW (F5_N8)	1.402						
SE (F5_N7)	1.409	1.2505	0.882	NO	1.13	N/A	0.88
NE (F5_N6)	1.092						

EQY Minus 5% Eccentricity (Load Case 48)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F5_N1)	1.398	1.313	0.787	NO	1.06	N/A	0.79
SW (F5_N8)	1.228						
SE (F5_N7)	1.235	1.2635	0.726	NO	1.02	N/A	0.73
NE (F5_N6)	1.292						

EQX Plus 5% Eccentricity (Load Case 49)

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW (F5_N1)	0.931	1.24	1.084	YES	1.25	Torsional Irregularity	1.08
SW (F5_N8)	1.549						
SE (F5_N7)	1.55	1.22	1.121	YES	1.27	Torsional Irregularity	1.12
NE (F5_N6)	0.89						

Wood Properties

	Label	Type	Database	Species	Grade	Cm	Ci	Emod	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]
1	DF #2	Solid Sawn	Visually Graded	Douglas Fir-Larch	No.2			1	0.3	0.3	0.035
2	24F-1.8E DF Balanced	Glulam	NDS Table 5A	24F-1.8E_DF_BAL	na			1	0.3	0.3	0.035
3	24F-1.8E DF Unbalanced	Glulam	NDS Table 5A	24F-1.8E_DF_UNBAL	na			1	0.3	0.3	0.035
4	24F-1.8E SP Balanced	Glulam	NDS Table 5A	24F-1.8E_SP_BAL	na			1	0.3	0.3	0.035
5	24F-1.8E SP Unbalanced	Glulam	NDS Table 5A	24F-1.8E_SP_UNBAL	na			1	0.3	0.3	0.035
6	1.3E-1600F_VERSALAM	SCL	Boise Cascade	1.3E-1600F_VERSALAM	na			1	0.3	0.3	0.035
7	1.35E LSL_SolidStart	SCL	Louisiana Pacific	1.35E LSL_SolidStart	na			1	0.3	0.3	0.035
8	1.4E_RIGIDLAM LVL	SCL	Roseburg Forest Products_2023	1.4E_RIGIDLAM LVL	na			1	0.3	0.3	0.035
9	2.0E_DF Parallam PSL	SCL	TrusJoist	2.0E_DF Parallam PSL	na			1	0.3	0.3	0.035
10	LVL_PRL_1.5E_2250F	Custom	N/A	LVL_PRL_1.5E_2250F	na			1	0.3	0.3	0.035
11	LVL_Microlam_1.9E_2600F	Custom	N/A	LVL_Microllam_1.9E_2600F	na			1	0.3	0.3	0.035
12	PSL_Parallam_2.0E_2900F	Custom	N/A	PSL_Parallam_2.0E_2900F	na			1	0.3	0.3	0.035
13	LSL_TimberStrand_1.55E_2325F	Custom	N/A	LSL_TimberStrand_1.55E_2325F	na			1	0.3	0.3	0.035

General Materials Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Plate Methodology
1	gen_Conc3NW	3155	1372	0.15	0.6	0.145	Isotropic
2	gen_Conc4NW	3644	1584	0.15	0.6	0.145	Isotropic
3	gen_Conc3LW	2085	906	0.15	0.6	0.11	Isotropic
4	gen_Conc4LW	2408	1047	0.15	0.6	0.11	Isotropic
5	gen_Alum	10100	4077	0.3	1.29	0.173	Isotropic
6	gen_Steel	29000	11154	0.3	0.65	0.49	Isotropic
7	gen_Plywood	1800	38	0	0.3	0.035	Isotropic
8	RIGID	1e+6		0.3	0	0	Isotropic
9	gen_Ortho				0.65	0.49	Orthotropic
10	COLUMN_RIGID	1e+6		0.3	0	0	Isotropic

Custom Wood Properties

	Label	Fb	Ft	Fv	Fc	E	E05	Type
1	LVL_PRL_1.5E_2250F	2.25	1.5	0.22	1.95	1500	0.5	SCL
2	LVL_PRL_2.0E_2900F	2.9	1.9	0.285	2.75	2000	0.5	SCL
3	LVL_Microllam_1.9E_2600F	2.6	1.555	0.285	2.51	1900	0.5	SCL
4	PSL_Parallam_2.0E_2900F	2.9	2.025	0.29	2.9	2000	0.5	SCL
5	PSL_Parallam_1.8E	2.4	1.755	0.18	2.5	1800	0.5	SCL
6	LSL_TimberStrand_1.55E_2325F	2.325	1.07	0.31	2.05	1550	0.5	SCL
7	LSL_TimberStrand_1.3E_1700F	1.7	1.075	0.4	1.4	1300	0.5	SCL

Wall Panel Data

	Label	A Node	B Node	C Node	D Node	Material Type	Material Set	Thickness [in]	Design Rule	Panel/Spacing
1	WP143	F1_N205	F1_N206	N398	N397	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
2	WP144	F1_N16	F1_N207	N400	N399	Wood	DF #2	3.5 (stud)	2x4 - 4x6	S1_15/32_10d@2 | 16
3	WP145	F1_N29	F1_N208	N402	N401	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
4	WP146	F1_N209	F1_N210	N404	N403	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
5	WP147	F1_N18	F1_N32	N406	N405	Wood	DF #2	3.5 (stud)	2x6 - (2) 4"oc	S1_(2)15/32_10d@4 | 16
6	WP148	F1_N24	F1_N211	N408	N407	Wood	DF #2	3.5 (stud)	2x6 - (2) 4"oc	S1_(2)15/32_10d@3 | 16
7	WP149	F1_N43	F1_N28	N410	N409	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
8	WP150	F1_N212	F1_N213	N412	N411	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
9	WP151	F1_N31	F1_N42	N414	N413	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
10	WP152	F1_N214	F1_N215	N416	N415	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
11	WP153	F1_N39	F1_N216	N418	N417	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
12	WP154	F1_N217	F1_N46	N420	N419	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16

Wall Panel Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material Type	Material Set	Thickness [in]	Design Rule	Panel/Spacing
13	WP155	F1_N217	F1_N86	N421	N419	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@2 | 16
14	WP156	F1_N218	F1_N56	N423	N422	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
15	WP157	F1_N56	F1_N57	N424	N423	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
16	WP158	F1_N58	F1_N59	N426	N425	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
17	WP159	F1_N59	F1_N219	N427	N426	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
18	WP160	F1_N220	F1_N221	N429	N428	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
19	WP161	F1_N77	F1_N222	N431	N430	Wood	DF #2	3.5 (stud)	2x4 - 4x6	S1_15/32_10d@2 | 16
20	WP162	F1_N223	F1_N224	N433	N432	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
21	WP163	F1_N225	F1_N226	N435	N434	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
22	WP164	F1_N72	F1_N85	N437	N436	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
23	WP165	F1_N227	F1_N228	N439	N438	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
24	WP166	F1_N94	F1_N82	N441	N440	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
25	WP167	F1_N106	F1_N229	N443	N442	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
26	WP168	F1_N104	F1_N121	N445	N444	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
27	WP169	F1_N93	F1_N230	N447	N446	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
28	WP170	F1_N113	F1_N135	N449	N448	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
29	WP171	F1_N135	F1_N231	N450	N449	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
30	WP172	F1_N232	F1_N233	N452	N451	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
31	WP173	F1_N124	F1_N131	N454	N453	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
32	WP174	F1_N234	F1_N235	N456	N455	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
33	WP175	F1_N143	F1_N150	N458	N457	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
34	WP176	F1_N144	F1_N236	N460	N459	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@4 | 16
35	WP177	F1_N236	F1_N237	N461	N460	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
36	WP178	F1_N238	F1_N174	N463	N462	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
37	WP179	F1_N134	F1_N152	N465	N464	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
38	WP180	F1_N239	F1_N240	N467	N466	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
39	WP181	F1_N241	F1_N242	N469	N468	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@2 | 16
40	WP182	F1_N165	F1_N155	N471	N470	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
41	WP183	F1_N169	F1_N179	N473	N472	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
42	WP184	F1_N243	F1_N244	N475	N474	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
43	WP185	F1_N182	F1_N185	N477	N476	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@4 | 16
44	WP186	F1_N178	F1_N189	N479	N478	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
45	WP187	F1_N245	F1_N246	N481	N480	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
46	WP188	F1_N197	F1_N188	N483	N482	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
47	WP189	F1_N198	F1_N199	N485	N484	Wood	DF #2	3.5 (stud)	2x4 - 4x6	S1_15/32_10d@2 | 16
48	WP190	F1_N247	F1_N248	N487	N486	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
49	WP191	F1_N249	F1_N250	N489	N488	Wood	DF #2	3.5 (stud)	2x6 - (2) 4"oc	S1_(2)15/32_10d@4 | 16
50	WP192	F1_N251	F1_N252	N491	N490	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
51	WP193	F1_N164	F1_N253	N493	N492	Wood	DF #2	3.5 (stud)	2x4 - 4x6	S1_15/32_10d@2 | 16
52	WP194	F1_N254	F1_N255	N495	N494	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
53	WP315	F3_N205	F3_N206	F1_N206	F1_N205	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
54	WP316	F3_N16	F3_N207	F1_N207	F1_N16	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@4 | 16
55	WP317	F3_N29	F3_N208	F1_N208	F1_N29	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
56	WP318	F3_N209	F3_N210	F1_N210	F1_N209	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
57	WP319	F3_N18	F3_N32	F1_N32	F1_N18	Wood	DF #2	3.5 (stud)	2x6 - (2) 4"oc	S1_(2)15/32_10d@4 | 16
58	WP320	F3_N24	F3_N211	F1_N211	F1_N24	Wood	DF #2	3.5 (stud)	2x6 - (2) 4"oc	S1_(2)15/32_10d@4 | 16
59	WP321	F3_N43	F3_N28	F1_N28	F1_N43	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
60	WP322	F3_N212	F3_N213	F1_N213	F1_N212	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
61	WP323	F3_N31	F3_N42	F1_N42	F1_N31	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
62	WP324	F3_N214	F3_N215	F1_N215	F1_N214	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
63	WP325	F3_N39	F3_N216	F1_N216	F1_N39	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
64	WP326	F3_N217	F3_N46	F1_N46	F1_N217	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
65	WP327	F3_N217	F3_N86	F1_N86	F1_N217	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@2 | 16
66	WP328	F3_N218	F3_N56	F1_N56	F1_N218	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
67	WP329	F3_N56	F3_N57	F1_N57	F1_N56	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16

Wall Panel Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material Type	Material Set	Thickness [in]	Design Rule	Panel/Spacing
68	WP330	F3_N58	F3_N59	F1_N59	F1_N58	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
69	WP331	F3_N59	F3_N219	F1_N219	F1_N59	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
70	WP332	F3_N220	F3_N221	F1_N221	F1_N220	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
71	WP333	F3_N77	F3_N222	F1_N222	F1_N77	Wood	DF #2	3.5 (stud)	2x4 - (2) 4"oc	S1_(2)15/32_10d@4 | 16
72	WP334	F3_N223	F3_N224	F1_N224	F1_N223	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
73	WP335	F3_N225	F3_N226	F1_N226	F1_N225	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
74	WP336	F3_N72	F3_N85	F1_N85	F1_N72	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
75	WP337	F3_N227	F3_N228	F1_N228	F1_N227	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
76	WP338	F3_N94	F3_N82	F1_N82	F1_N94	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
77	WP339	F3_N106	F3_N229	F1_N229	F1_N106	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
78	WP340	F3_N104	F3_N121	F1_N121	F1_N104	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
79	WP341	F3_N93	F3_N230	F1_N230	F1_N93	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
80	WP342	F3_N113	F3_N135	F1_N135	F1_N113	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
81	WP343	F3_N135	F3_N231	F1_N231	F1_N135	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
82	WP344	F3_N232	F3_N233	F1_N233	F1_N232	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
83	WP345	F3_N124	F3_N131	F1_N131	F1_N124	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
84	WP346	F3_N234	F3_N235	F1_N235	F1_N234	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
85	WP347	F3_N143	F3_N150	F1_N150	F1_N143	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
86	WP348	F3_N144	F3_N236	F1_N236	F1_N144	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
87	WP349	F3_N236	F3_N237	F1_N237	F1_N236	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
88	WP350	F3_N238	F3_N174	F1_N174	F1_N238	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
89	WP351	F3_N134	F3_N152	F1_N152	F1_N134	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
90	WP352	F3_N239	F3_N240	F1_N240	F1_N239	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
91	WP353	F3_N241	F3_N242	F1_N242	F1_N241	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@2 | 16
92	WP354	F3_N165	F3_N155	F1_N155	F1_N165	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
93	WP355	F3_N169	F3_N179	F1_N179	F1_N169	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
94	WP356	F3_N243	F3_N244	F1_N244	F1_N243	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
95	WP357	F3_N182	F3_N185	F1_N185	F1_N182	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
96	WP358	F3_N178	F3_N189	F1_N189	F1_N178	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
97	WP359	F3_N245	F3_N246	F1_N246	F1_N245	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
98	WP360	F3_N197	F3_N188	F1_N188	F1_N197	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
99	WP361	F3_N198	F3_N199	F1_N199	F1_N198	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@4 | 16
100	WP362	F3_N247	F3_N248	F1_N248	F1_N247	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
101	WP363	F3_N249	F3_N250	F1_N250	F1_N249	Wood	DF #2	3.5 (stud)	2x6 - (2) 4"oc	S1_(2)15/32_10d@4 | 16
102	WP364	F3_N251	F3_N252	F1_N252	F1_N251	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
103	WP365	F3_N164	F3_N253	F1_N253	F1_N164	Wood	DF #2	3.5 (stud)	2x4 - (2) 4"oc	S1_(2)15/32_10d@4 | 16
104	WP366	F3_N254	F3_N255	F1_N255	F1_N254	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
105	WP506	F4_N205	F4_N206	F3_N206	F3_N205	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
106	WP507	F4_N16	F4_N207	F3_N207	F3_N16	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@6 | 16
107	WP508	F4_N29	F4_N208	F3_N208	F3_N29	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
108	WP509	F4_N209	F4_N210	F3_N210	F3_N209	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
109	WP510	F4_N18	F4_N32	F3_N32	F3_N18	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
110	WP511	F4_N24	F4_N211	F3_N211	F3_N24	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
111	WP512	F4_N43	F4_N28	F3_N28	F3_N43	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
112	WP513	F4_N212	F4_N213	F3_N213	F3_N212	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
113	WP514	F4_N31	F4_N42	F3_N42	F3_N31	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
114	WP515	F4_N214	F4_N215	F3_N215	F3_N214	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
115	WP516	F4_N39	F4_N216	F3_N216	F3_N39	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
116	WP517	F4_N217	F4_N46	F3_N46	F3_N217	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
117	WP518	F4_N217	F4_N86	F3_N86	F3_N217	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
118	WP519	F4_N218	F4_N56	F3_N56	F3_N218	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
119	WP520	F4_N56	F4_N57	F3_N57	F3_N56	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
120	WP521	F4_N58	F4_N59	F3_N59	F3_N58	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
121	WP522	F4_N59	F4_N219	F3_N219	F3_N59	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
122	WP523	F4_N220	F4_N221	F3_N221	F3_N220	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16

Wall Panel Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material Type	Material Set	Thickness [in]	Design Rule	Panel/Spacing
123	WP524	F4_N77	F4_N222	F3_N222	F3_N77	Wood	DF #2	3.5 (stud)	2x4 - 2"oc	S1_15/32_10d@2 | 16
124	WP525	F4_N223	F4_N224	F3_N224	F3_N223	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
125	WP526	F4_N225	F4_N226	F3_N226	F3_N225	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
126	WP527	F4_N72	F4_N85	F3_N85	F3_N72	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
127	WP528	F4_N227	F4_N228	F3_N228	F3_N227	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
128	WP529	F4_N94	F4_N82	F3_N82	F3_N94	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
129	WP530	F4_N106	F4_N229	F3_N229	F3_N106	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
130	WP531	F4_N104	F4_N121	F3_N121	F3_N104	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
131	WP532	F4_N93	F4_N230	F3_N230	F3_N93	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
132	WP533	F4_N113	F4_N135	F3_N135	F3_N113	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
133	WP534	F4_N135	F4_N231	F3_N231	F3_N135	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
134	WP535	F4_N232	F4_N233	F3_N233	F3_N232	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
135	WP536	F4_N124	F4_N131	F3_N131	F3_N124	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
136	WP537	F4_N234	F4_N235	F3_N235	F3_N234	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
137	WP538	F4_N143	F4_N150	F3_N150	F3_N143	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
138	WP539	F4_N144	F4_N236	F3_N236	F3_N144	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
139	WP540	F4_N236	F4_N237	F3_N237	F3_N236	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
140	WP541	F4_N238	F4_N174	F3_N174	F3_N238	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
141	WP542	F4_N134	F4_N152	F3_N152	F3_N134	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
142	WP543	F4_N239	F4_N240	F3_N240	F3_N239	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@2 | 16
143	WP544	F4_N241	F4_N242	F3_N242	F3_N241	Wood	DF #2	5.5 (stud)	2x6	S1_(2)15/32_10d@3 | 16
144	WP545	F4_N165	F4_N155	F3_N155	F3_N165	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
145	WP546	F4_N169	F4_N179	F3_N179	F3_N169	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
146	WP547	F4_N243	F4_N244	F3_N244	F3_N243	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
147	WP548	F4_N182	F4_N185	F3_N185	F3_N182	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
148	WP549	F4_N178	F4_N189	F3_N189	F3_N178	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
149	WP550	F4_N245	F4_N246	F3_N246	F3_N245	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
150	WP551	F4_N197	F4_N188	F3_N188	F3_N197	Wood	DF #2	3.5 (stud)	2x6 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
151	WP552	F4_N198	F4_N199	F3_N199	F3_N198	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@6 | 16
152	WP553	F4_N247	F4_N248	F3_N248	F3_N247	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
153	WP554	F4_N249	F4_N250	F3_N250	F3_N249	Wood	DF #2	3.5 (stud)	2x6 - 2"oc	S1_15/32_10d@2 | 16
154	WP555	F4_N251	F4_N252	F3_N252	F3_N251	Wood	DF #2	3.5 (stud)	2x4 - (2) 2"oc	S1_(2)15/32_10d@2 | 16
155	WP556	F4_N164	F4_N253	F3_N253	F3_N164	Wood	DF #2	3.5 (stud)	2x4 - 2"oc	S1_15/32_10d@2 | 16
156	WP557	F4_N254	F4_N255	F3_N255	F3_N254	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@3 | 16
157	WP697	F5_N205	F5_N206	F4_N206	F4_N205	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
158	WP698	F5_N16	F5_N207	F4_N207	F4_N16	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@6 | 16
159	WP699	F5_N29	F5_N208	F4_N208	F4_N29	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
160	WP700	F5_N209	F5_N210	F4_N210	F4_N209	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
161	WP701	F5_N18	F5_N32	F4_N32	F4_N18	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
162	WP702	F5_N24	F5_N211	F4_N211	F4_N24	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
163	WP703	F5_N43	F5_N28	F4_N28	F4_N43	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
164	WP704	F5_N212	F5_N213	F4_N213	F4_N212	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
165	WP705	F5_N31	F5_N42	F4_N42	F4_N31	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
166	WP706	F5_N214	F5_N215	F4_N215	F4_N214	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
167	WP707	F5_N39	F5_N216	F4_N216	F4_N39	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
168	WP708	F5_N217	F5_N46	F4_N46	F4_N217	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
169	WP709	F5_N217	F5_N86	F4_N86	F4_N217	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
170	WP710	F5_N218	F5_N56	F4_N56	F4_N218	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
171	WP711	F5_N56	F5_N57	F4_N57	F4_N56	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
172	WP712	F5_N58	F5_N59	F4_N59	F4_N58	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
173	WP713	F5_N59	F5_N219	F4_N219	F4_N59	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
174	WP714	F5_N220	F5_N221	F4_N221	F4_N220	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
175	WP715	F5_N77	F5_N222	F4_N222	F4_N77	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@6 | 16
176	WP716	F5_N223	F5_N224	F4_N224	F4_N223	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
177	WP717	F5_N225	F5_N226	F4_N226	F4_N225	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16

Wall Panel Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material Type	Material Set	Thickness [in]	Design Rule	Panel/Spacing
178	WP718	F5_N72	F5_N85	F4_N85	F4_N72	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
179	WP719	F5_N227	F5_N228	F4_N228	F4_N227	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
180	WP720	F5_N94	F5_N82	F4_N82	F4_N94	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
181	WP721	F5_N106	F5_N229	F4_N229	F4_N106	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
182	WP722	F5_N104	F5_N121	F4_N121	F4_N104	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
183	WP723	F5_N93	F5_N230	F4_N230	F4_N93	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
184	WP724	F5_N113	F5_N135	F4_N135	F4_N113	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
185	WP725	F5_N135	F5_N231	F4_N231	F4_N135	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
186	WP726	F5_N232	F5_N233	F4_N233	F4_N232	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
187	WP727	F5_N124	F5_N131	F4_N131	F4_N124	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
188	WP728	F5_N234	F5_N235	F4_N235	F4_N234	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
189	WP729	F5_N143	F5_N150	F4_N150	F4_N143	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
190	WP730	F5_N144	F5_N236	F4_N236	F4_N144	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
191	WP731	F5_N236	F5_N237	F4_N237	F4_N236	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
192	WP732	F5_N238	F5_N174	F4_N174	F4_N238	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
193	WP733	F5_N134	F5_N152	F4_N152	F4_N134	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
194	WP734	F5_N239	F5_N240	F4_N240	F4_N239	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
195	WP735	F5_N241	F5_N242	F4_N242	F4_N241	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
196	WP736	F5_N165	F5_N155	F4_N155	F4_N165	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
197	WP737	F5_N169	F5_N179	F4_N179	F4_N169	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
198	WP738	F5_N243	F5_N244	F4_N244	F4_N243	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@4 | 16
199	WP739	F5_N182	F5_N185	F4_N185	F4_N182	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
200	WP740	F5_N178	F5_N189	F4_N189	F4_N178	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
201	WP741	F5_N245	F5_N246	F4_N246	F4_N245	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
202	WP742	F5_N197	F5_N188	F4_N188	F4_N197	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
203	WP743	F5_N198	F5_N199	F4_N199	F4_N198	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@6 | 16
204	WP744	F5_N247	F5_N248	F4_N248	F4_N247	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
205	WP745	F5_N249	F5_N250	F4_N250	F4_N249	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
206	WP746	F5_N251	F5_N252	F4_N252	F4_N251	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16
207	WP747	F5_N164	F5_N253	F4_N253	F4_N164	Wood	DF #2	3.5 (stud)	2x4	S1_15/32_10d@6 | 16
208	WP748	F5_N254	F5_N255	F4_N255	F4_N254	Wood	DF #2	5.5 (stud)	2x6	S1_15/32_10d@6 | 16

Floor Diaphragms

Amplified eccentricity based on torsional irregularity spreadsheet

	Elevation [ft]	Mass [k]	Mass MOI [k-ft²]	Center Of Mass [ft]	Plus X Eccentricity [ft]	Minus X Eccentricity [ft]	Plus Z Eccentricity [ft]	Minus Z Eccentricity [ft]	Inactive	Diaphragm	Type	Design Rule	SGAF	Material	Thickness [in]	No Wind/Drift
1	40.167	822.671	4.568e+6	73.64, -138.733	%5.8	%5.8	%5.6	%5.6		D4	Semi-Rigid	N/A	N/A	gen_Plywood	0.875	
2	31	1084.801	5.996e+6	73.5, -138.269	%5.53	%5.53	%5.65	%5.65		D3	Semi-Rigid	N/A	N/A	gen_Plywood	0.875	
3	20.667	1089.022	6.019e+6	73.5, -138.269	%5.42	%5.42	%5.71	%5.71		D2	Semi-Rigid	N/A	N/A	gen_Plywood	0.875	
4	10.33	1089.022	6.019e+6	73.5, -138.269	%5.08	%5.08	%5.83	%5.83		D1	Semi-Rigid	N/A	N/A	gen_Plywood	0.875	

Drift Definitions

Drift definitions set to check worst case stacking nodes throughout the entirety of the structure per section 12.8.6 with Seismic category D and horizontal irregularity Type 1a

	Type	Floor/Diaphragm	Node Label	Elevation [ft]
1	Elevation	-	-	40.167
2	Elevation	-	-	31
3	Elevation	-	-	20.667
4	Elevation	-	-	10.33
5	Elevation	-	-	0

Basic Load Cases

	BLC Description	Category	Y Gravity	Point	Distributed	Surface(Plate/Wall)
1	Dead Load	DL	-1	2766	1784	
2	Live Load	LL		2373	1119	
3	Live Load Special (public assemb	LLS				

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Point	Distributed	Surface(Plate/Wall)
4	Roof Live Load	RLL				
5	Snow Load	SL		393	617	
6	Snow Load Nonshedding	SLN				
7	Rain Load	RL				
8	Wind Load X	WLX				
9	Partial X Wind Load 1	WLXP1				
10	Partial X Wind Load 2	WLXP2				
11	Wind Load Z	WLZ				
12	Partial Z Wind Load 1	WLZP1				
13	Partial Z Wind Load 2	WLZP2				
14	Earthquake Load X	ELX				154
15	Earthquake Load X Plus Z Eccentr	ELX+Z				173
16	Earthquake Load X Minus Z Eccent	ELX-Z				173
17	Earthquake Load Z	ELZ				154
18	Earthquake Load Z Plus X Eccentr	ELZ+X				187
19	Earthquake Load Z Minus X Eccent	ELZ-X				187
20	Other Load 1	OL1				
21	Other Load 2	OL2				
22	Other Load 3	OL3				
23	Other Load 4	OL4				
24	Wind Load Roof +X	WLX+R				
25	Wind Load Roof -X	WLX-R				
26	Wind Load Roof +Z	WLZ+R				
27	Wind Load Roof -Z	WLZ-R				
28	Semi-Rigid Wind Load +X	WL+X			16	
29	Semi-Rigid Wind Load -X	WL-X			16	
30	Semi-Rigid Wind Load +Z	WL+Z			8	
31	Semi-Rigid Wind Load -Z	WL-Z			8	
32	Semi-Rigid Wind Load +XP1	WL+XP1			16	
33	Semi-Rigid Wind Load +XP2	WL+XP2			16	
34	Semi-Rigid Wind Load -XP1	WL-XP1			16	
35	Semi-Rigid Wind Load -XP2	WL-XP2			16	
36	Semi-Rigid Wind Load +ZP1	WL+ZP1			8	
37	Semi-Rigid Wind Load +ZP2	WL+ZP2			8	
38	Semi-Rigid Wind Load -ZP1	WL-ZP1			8	
39	Semi-Rigid Wind Load -ZP2	WL-ZP2			8	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	Deflection 1		Y	DL	1												
2	Deflection 2		Y	LL	1												
3	Deflection 3		Y	DL	1	LL	1										
4	IBC 16-8	Yes	Y	DL	1												
5	IBC 16-9	Yes	Y	DL	1	LL	1	LLS	1								
6	IBC 16-10 (b)	Yes	Y	DL	1	SL	1	SLN	1								
7	IBC 16-11 (b)	Yes	Y	DL	1	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75				
8	IBC 16-12 (b) (a)	Yes	Y	DL	1	Sds*DL	0.14	ELX	0.7								
9	IBC 16-12 (b) (b)	Yes	Y	DL	1	Sds*DL	0.14	ELX+Z	0.7								
10	IBC 16-12 (b) (c)	Yes	Y	DL	1	Sds*DL	0.14	ELX-Z	0.7								
11	IBC 16-12 (b) (d)	Yes	Y	DL	1	Sds*DL	0.14	ELZ	0.7								
12	IBC 16-12 (b) (e)	Yes	Y	DL	1	Sds*DL	0.14	ELZ+X	0.7								
13	IBC 16-12 (b) (f)	Yes	Y	DL	1	Sds*DL	0.14	ELZ-X	0.7								
14	IBC 16-12 (b) (g)	Yes	Y	DL	1	Sds*DL	0.14	ELX	-0.7								
15	IBC 16-12 (b) (h)	Yes	Y	DL	1	Sds*DL	0.14	ELX+Z	-0.7								
16	IBC 16-12 (b) (i)	Yes	Y	DL	1	Sds*DL	0.14	ELX-Z	-0.7								

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
17	IBC 16-12 (b) (j)	Yes	Y	DL	1	Sds*DL	0.14	ELZ	-0.7								
18	IBC 16-12 (b) (k)	Yes	Y	DL	1	Sds*DL	0.14	ELZ+X	-0.7								
19	IBC 16-12 (b) (l)	Yes	Y	DL	1	Sds*DL	0.14	ELZ-X	-0.7								
20	IBC 16-14 (a)	Yes	Y	DL	1	Sds*DL	0.105	ELX	0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
21	IBC 16-14 (b)	Yes	Y	DL	1	Sds*DL	0.105	ELX+Z	0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
22	IBC 16-14 (c)	Yes	Y	DL	1	Sds*DL	0.105	ELX-Z	0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
23	IBC 16-14 (d)	Yes	Y	DL	1	Sds*DL	0.105	ELZ	0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
24	IBC 16-14 (e)	Yes	Y	DL	1	Sds*DL	0.105	ELZ+X	0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
25	IBC 16-14 (f)	Yes	Y	DL	1	Sds*DL	0.105	ELZ-X	0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
26	IBC 16-14 (g)	Yes	Y	DL	1	Sds*DL	0.105	ELX	-0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
27	IBC 16-14 (h)	Yes	Y	DL	1	Sds*DL	0.105	ELX+Z	-0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
28	IBC 16-14 (i)	Yes	Y	DL	1	Sds*DL	0.105	ELX-Z	-0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
29	IBC 16-14 (j)	Yes	Y	DL	1	Sds*DL	0.105	ELZ	-0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
30	IBC 16-14 (k)	Yes	Y	DL	1	Sds*DL	0.105	ELZ+X	-0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
31	IBC 16-14 (l)	Yes	Y	DL	1	Sds*DL	0.105	ELZ-X	-0.525	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75
32	IBC 16-16 (a)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELX	0.7								
33	IBC 16-16 (b)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELX+Z	0.7								
34	IBC 16-16 (c)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELX-Z	0.7								
35	IBC 16-16 (d)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELZ	0.7								
36	IBC 16-16 (e)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELZ+X	0.7								
37	IBC 16-16 (f)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELZ-X	0.7								
38	IBC 16-16 (g)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELX	-0.7								
39	IBC 16-16 (h)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELX+Z	-0.7								
40	IBC 16-16 (i)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELX-Z	-0.7								
41	IBC 16-16 (j)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELZ	-0.7								
42	IBC 16-16 (k)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELZ+X	-0.7								
43	IBC 16-16 (l)	Yes	Y	DL	0.6	Sds*DL	-0.14	ELZ-X	-0.7								
44	ELX		Y	DL		Sds*DL	-0.14	ELX	0.7								
45	ELX-Eccentricity		Y	DL		Sds*DL	-0.14	ELX-Z	0.7								
46	ELX+Eccentricity		Y	DL		Sds*DL	-0.14	ELX+Z	0.7								
47	ELZ		Y	DL		Sds*DL	-0.14	ELZ	0.7								
48	ELZ-Eccentricity		Y	DL		Sds*DL	-0.14	ELZ+X	0.7								
49	ELZ+Eccentricity		Y	DL		Sds*DL	-0.14	ELZ-X	0.7								
50	IBC 16-5 (a)	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
51	IBC 16-5 (b)	Yes	Y	DL	1.2	Sds*DL	0.2	ELX+Z	1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
52	IBC 16-5 (c)	Yes	Y	DL	1.2	Sds*DL	0.2	ELX-Z	1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
53	IBC 16-5 (d)	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
54	IBC 16-5 (e)	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ+X	1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
55	IBC 16-5 (f)	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ-X	1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
56	IBC 16-5 (g)	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	-1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
57	IBC 16-5 (h)	Yes	Y	DL	1.2	Sds*DL	0.2	ELX+Z	-1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
58	IBC 16-5 (i)	Yes	Y	DL	1.2	Sds*DL	0.2	ELX-Z	-1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
59	IBC 16-5 (j)	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	-1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
60	IBC 16-5 (k)	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ+X	-1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
61	IBC 16-5 (l)	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ-X	-1	LL	0.5	LLS	1	SL	0.2	SLN	0.7
62	IBC 16-7 (a)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELX	1								
63	IBC 16-7 (b)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELX+Z	1								
64	IBC 16-7 (c)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELX-Z	1								
65	IBC 16-7 (d)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELZ	1								
66	IBC 16-7 (e)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELZ+X	1								
67	IBC 16-7 (f)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELZ-X	1								
68	IBC 16-7 (g)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELX	-1								
69	IBC 16-7 (h)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELX+Z	-1								
70	IBC 16-7 (i)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELX-Z	-1								
71	IBC 16-7 (j)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELZ	-1								

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
72	IBC 16-7 (k)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELZ+X	-1								
73	IBC 16-7 (l)	Yes	Y	DL	0.9	Sds*DL	-0.2	ELZ-X	-1								

Load Combination Design

	Description	CD	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
1	Deflection 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	Deflection 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	Deflection 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	IBC 16-8	0.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	IBC 16-9		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	IBC 16-10 (b)	1.15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	IBC 16-11 (b)	1.15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	IBC 16-12 (b) (a)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	IBC 16-12 (b) (b)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	IBC 16-12 (b) (c)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	IBC 16-12 (b) (d)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	IBC 16-12 (b) (e)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	IBC 16-12 (b) (f)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	IBC 16-12 (b) (g)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15	IBC 16-12 (b) (h)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16	IBC 16-12 (b) (i)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17	IBC 16-12 (b) (j)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	IBC 16-12 (b) (k)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19	IBC 16-12 (b) (l)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20	IBC 16-14 (a)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21	IBC 16-14 (b)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
22	IBC 16-14 (c)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
23	IBC 16-14 (d)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	IBC 16-14 (e)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25	IBC 16-14 (f)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
26	IBC 16-14 (g)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
27	IBC 16-14 (h)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
28	IBC 16-14 (i)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
29	IBC 16-14 (j)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
30	IBC 16-14 (k)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
31	IBC 16-14 (l)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
32	IBC 16-16 (a)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
33	IBC 16-16 (b)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
34	IBC 16-16 (c)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
35	IBC 16-16 (d)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
36	IBC 16-16 (e)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
37	IBC 16-16 (f)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
38	IBC 16-16 (g)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
39	IBC 16-16 (h)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
40	IBC 16-16 (i)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
41	IBC 16-16 (j)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
42	IBC 16-16 (k)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
43	IBC 16-16 (l)	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
44	ELX	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
45	ELX-Eccentricity	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
46	ELX+Eccentricity	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
47	ELZ	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
48	ELZ-Eccentricity	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
49	ELZ+Eccentricity	1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
50	IBC 16-5 (a)			Yes	Yes		Yes	Yes	Yes	Yes	Yes

Load Combination Design (Continued)

	Description	CD	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
51	IBC 16-5 (b)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
52	IBC 16-5 (c)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
53	IBC 16-5 (d)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
54	IBC 16-5 (e)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
55	IBC 16-5 (f)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
56	IBC 16-5 (g)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
57	IBC 16-5 (h)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
58	IBC 16-5 (i)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
59	IBC 16-5 (j)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
60	IBC 16-5 (k)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
61	IBC 16-5 (l)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
62	IBC 16-7 (a)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
63	IBC 16-7 (b)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
64	IBC 16-7 (c)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
65	IBC 16-7 (d)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
66	IBC 16-7 (e)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
67	IBC 16-7 (f)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
68	IBC 16-7 (g)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
69	IBC 16-7 (h)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
70	IBC 16-7 (i)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
71	IBC 16-7 (j)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
72	IBC 16-7 (k)			Yes	Yes		Yes	Yes	Yes	Yes	Yes
73	IBC 16-7 (l)			Yes	Yes		Yes	Yes	Yes	Yes	Yes

Wood Diaphragm Parameters

	Label	Database	Panel Grade	Min. Panel Thickness [in]	Max. Panel Thickness [in]	Min. Nail Spacing	Max. Nail Spacing	Nail Spacing Increment [in]
1	Typical	AWC 2015 OSB	Structural-I	0.35	0.75	2-in.	6-in.	1

Represent point along diaphragm where worse case drift occurs

All drifts with 5% of allowable per table 12.12-1

Envelope X-Direction Story Drift - Strength

	Story (Elevation)		Story Drift[in]	Loc (Z,X)	LC	Drift Ratio (%)	Loc (Z,X)	LC	2nd/1st Ratio	Loc (Z,X)	LC
1	40.167 ft	max	2.005	-31.133, 138.546	63	1.845	-31.133, 138.546	57	1	-31.133, 51.765	59
2		min	-2.03	-31.133, 138.546	57	0.051	-245.07, 99.202	60	1	-245.07, 99.202	60
3	31 ft	max	2.493	-245.07, 138.546	52	2.025	-31.133, 138.546	57	1	-245.07, 120.4	60
4		min	-2.511	-31.133, 138.546	57	0.112	-245.07, 120.4	60	1	-31.133, 138.546	62
5	20.667 ft	max	2.546	-245.07, 138.546	52	2.053	-31.133, 138.546	57	1	-245.07, 138.546	54
6		min	-2.546	-31.133, 138.546	57	0.118	-245.07, 138.546	60	1	-31.133, 138.546	68
7	10.33 ft	max	2.096	-31.133, 138.546	63	1.691	-31.133, 138.546	63	1	-245.07, 138.546	60
8		min	-2.096	-31.133, 138.546	57	0.064	-245.07, 138.546	54	1	-31.133, 138.546	62
9	0 ft	max	0	-61.779, 106.317	73	NC			1	-61.779, 106.317	73
10		min	0	-67.893, 138.546	50	NC			1	-67.893, 138.546	50

Envelope Z-Direction Story Drift - Strength

	Story (Elevation)		Story Drift[in]	Loc (Z,X)	LC	Drift Ratio (%)	Loc (Z,X)	LC	2nd/1st Ratio	Loc (Z,X)	LC
1	40.167 ft	max	1.856	-31.133, 21.108	55	1.688	-31.133, 21.108	73	1	-31.133, 38.765	60
2		min	-1.857	-31.133, 21.108	73	0.24	67.893, 138.546	62	1	-208.31, 138.546	50
3	31 ft	max	2.5	-31.133, 21.108	55	2.016	-31.133, 21.108	55	1	-245.07, 138.546	50
4		min	-2.495	-31.133, 21.108	73	0.23	31.133, 138.546	62	1	-31.133, 21.108	65
5	20.667 ft	max	2.459	-31.133, 21.108	55	1.982	-31.133, 21.108	55	1	-245.07, 138.546	50
6		min	-2.452	-31.133, 21.108	73	0.227	31.133, 138.546	68	1	-31.133, 21.108	65
7	10.33 ft	max	2.129	-31.133, 21.108	55	1.718	-31.133, 21.108	55	1	-31.133, 138.546	50
8		min	-2.122	-31.133, 21.108	73	0.174	31.133, 138.546	50	1	-245.07, 138.546	66
9	0 ft	max	0	-194.456, 57.921	73	NC			1	-194.456, 57.921	73

Envelope Z-Direction Story Drift - Strength (Continued)

Story (Elevation)			Story Drift[in]	Loc (Z,X)	LC	Drift Ratio (%)	Loc (Z,X)	LC	2nd/1st Ratio	Loc (Z,X)	LC
10		min	0	-177.612, 115.66	50	NC			1	-177.612, 115.66	50

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (In-Plane)

	Wall Panel	Shear Panel Label	Region	Shear Check	Shear Force[k/ft]	Gov LC	Hold-Down Label	Chord Strap Label	Tension Check	Tie-Down Force[k]	Gov LC
1	WP143	S1_(2)15/32_10d@2	R1	0.639	1.023	10	HD19_7.25_1.125_DF-SP	NC	0.978	16.372	40
2	WP144	S1_15/32_10d@2	R1	0.759	0.607	18	HDU11-SDS2.5_5.5_SPF-HF	NC	0.98	7.871	36
3	WP145	S1_15/32_10d@3	R1	0.805	0.492	18	HD9B_4.5_SPF-HF	NC	0.958	8.079	36
4	WP146	S1_15/32_10d@3	R1	0.824	0.504	18	HD9B_3.5_DF-SP	NC	0.972	7.524	36
5	WP147	S1_(2)15/32_10d@4	R1	0.685	0.644	10	HD12_4.5_1_SPF-HF	NC	0.974	10.49	40
6	WP148	S1_(2)15/32_10d@3	R1	0.834	1.02	12	HD9B_4.5_DF-SP	NC	0.969	9.615	42
7	WP149	S1_(2)15/32_10d@2	R1	0.643	1.029	10	HD19_7.25_1.25_DF-SP	NC	1.07	20.712	34
8	WP150	S1_15/32_10d@2	R1	0.923	0.738	12	HD7B_3.5_DF-SP	NC	0.989	7.229	42
9	WP151	S1_15/32_10d@4	R1	0.762	0.358	10	HTT5_16d_DF-SP	NC	0.975	4.961	34
10	WP152	S1_15/32_10d@2	R1	0.915	0.732	19	HD12_3.5_1_DF-SP	NC	0.986	11.191	37
11	WP153	S1_(2)15/32_10d@3	R1	0.794	0.97	16	HD19_5.5_1.25_DF-SP	NC	0.898	17.126	34
12	WP154	S1_(2)15/32_10d@3	R1	0.85	1.039	16	HD19_7.25_1.25_DF-SP	NC	1.127	21.82	40
13	WP155	S1_(2)15/32_10d@2	R1	0.931	1.49	19	HD19_7.25_1.25_DF-SP	NC	1.437	27.823	43
14	WP156	S1_(2)15/32_10d@3	R1	0.84	1.027	10	HDU8-SDS2.5_3_DF-SP	NC	0.999	6.758	40
15	WP157	S1_15/32_10d@3	R1	0.822	0.502	19	HD9B_3.5_DF-SP	NC	0.963	7.453	43
16	WP158	S1_15/32_10d@2	R1	0.793	0.635	13	HD7B_3.5_DF-SP	NC	0.986	7.208	37
17	WP159	S1_15/32_10d@2	R1	0.771	0.617	10	HD12_4.5_1_SPF-HF	NC	0.955	10.278	40
18	WP160	S1_(2)15/32_10d@3	R1	0.846	1.034	19	HD12_5.5_1.125_SPF-HF	NC	0.999	12.675	37
19	WP161	S1_15/32_10d@2	R1	0.888	0.711	19	HDU14-SDS2.5_7.25_DF-SP	NC	1	14.386	37
20	WP162	S1_(2)15/32_10d@3	R1	0.801	0.979	16	HD12_3.5_1.125_DF-SP	NC	0.981	11.55	34
21	WP163	S1_(2)15/32_10d@3	R1	0.875	1.069	10	HD19_5.5_1.25_SPF-HF	NC	0.986	15.981	34
22	WP164	S1_15/32_10d@2	R1	0.819	0.655	19	HD12_4.5_1.125_SPF-HF	NC	0.989	10.935	37
23	WP165	S1_15/32_10d@2	R1	0.869	0.695	10	HD12_3.5_1_SPF-HF	NC	0.988	9.105	34
24	WP166	S1_15/32_10d@2	R1	0.815	0.652	19	HD12_4.5_1_SPF-HF	NC	0.965	10.387	37
25	WP167	S1_15/32_10d@3	R1	0.791	0.483	16	HD5B_3.5_SPF-HF	NC	1	4.195	34
26	WP168	S1_15/32_10d@2	R1	0.824	0.659	13	HD9B_7.25_DF-SP	NC	0.993	9.965	43
27	WP169	S1_15/32_10d@3	R1	0.793	0.485	10	HD9B_3.5_DF-SP	NC	0.998	7.728	40
28	WP170	S1_15/32_10d@3	R1	0.831	0.508	19	HD12_3.5_1_SPF-HF	NC	0.983	9.06	37
29	WP171	S1_15/32_10d@2	R1	0.777	0.622	9	LTT20B_0.148x3_3_DF-SP	NC	0.97	1.455	39
30	WP172	S1_15/32_10d@2	R1	0.781	0.625	15	LTT20B_0.148x3_3_SPF-HF	NC	0.968	1.249	33
31	WP173	S1_15/32_10d@2	R1	0.817	0.654	13	HD12_4.5_1_SPF-HF	NC	0.962	10.355	43
32	WP174	S1_15/32_10d@2	R1	0.861	0.689	9	HD12_3.5_1_SPF-HF	NC	0.957	8.818	33
33	WP175	S1_15/32_10d@3	R1	0.774	0.473	9	HTT5KT_SPF-HF	NC	0.958	5.138	39
34	WP176	S1_(2)15/32_10d@4	R1	0.924	0.868	9	HD12_5.5_1_DF-SP	NC	0.994	14.138	33
35	WP177	S1_15/32_10d@2	R1	0.83	0.664	13	HD19_7.25_1.125_DF-SP	NC	0.97	16.23	43
36	WP178	S1_15/32_10d@4	R1	0.889	0.418	15	HD12_3.5_1_SPF-HF	NC	0.959	8.841	33
37	WP179	S1_15/32_10d@2	R1	0.833	0.666	13	HD12_4.5_1_SPF-HF	NC	0.999	10.758	43
38	WP180	S1_(2)15/32_10d@3	R1	0.88	1.076	15	HD19_5.5_1.25_DF-SP	NC	0.895	17.062	33
39	WP181	S1_(2)15/32_10d@2	R1	0.887	1.419	9	HD19_7.25_1.25_DF-SP	NC	1.579	30.56	33
40	WP182	S1_15/32_10d@4	R1	0.931	0.438	19	HD19_7.25_1.25_SPF-HF	NC	0.96	14.662	39
41	WP183	S1_(2)15/32_10d@3	R1	0.817	0.998	15	HD19_7.25_1.25_DF-SP	NC	0.988	19.129	33
42	WP184	S1_15/32_10d@2	R1	0.909	0.727	13	HD12_3.5_1_SPF-HF	NC	0.927	8.545	43
43	WP185	S1_(2)15/32_10d@4	R1	0.884	0.831	9	HDU14-SDS2.5_7.25_SPF-HF	NC	0.999	12.363	39
44	WP186	S1_15/32_10d@3	R1	0.773	0.472	9	HD12_3.5_1_SPF-HF	NC	0.943	8.692	39
45	WP187	S1_15/32_10d@2	R1	0.898	0.718	18	HTT5KT_DF-SP	NC	0.991	5.394	42
46	WP188	S1_(2)15/32_10d@2	R1	0.672	1.074	9	HD19_7.25_1.25_DF-SP	NC	1.238	23.973	39
47	WP189	S1_15/32_10d@2	R1	0.702	0.561	12	HD12_3.5_1_SPF-HF	NC	0.967	8.911	42
48	WP190	S1_(2)15/32_10d@3	R1	0.819	1.001	12	HD12_4.5_1_SPF-HF	NC	0.995	10.711	42
49	WP191	S1_(2)15/32_10d@4	R1	0.936	0.88	18	HDU14-SDS2.5_7.25_DF-SP	NC	0.996	14.332	36
50	WP192	S1_(2)15/32_10d@2	R1	0.678	1.084	9	HD19_5.5_1.25_DF-SP	NC	0.912	17.388	39
51	WP193	S1_15/32_10d@2	R1	0.89	0.712	13	HD19_7.25_1.25_SPF-HF	NC	0.948	14.469	43

HOLD DOWNS WILL BE DEFERRED SUBMITTAL BUT ENVELOPED TIE DOWN RESULTS FROM FLEXIBLE AND RIGID ANALYSIS TO PROVIDE LOADING IN STRUCTURAL PLANS

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (In-Plane) (Continued)

	Wall Panel	Shear Panel Label	Region	Shear Check	Shear Force[k/ft]	Gov LC	Hold-Down Label	Chord Strap Label	Tension Check	Tie-Down Force[k]	Gov LC
52	WP194	S1_(2)15/32_10d@3	R1	0.848	1.037	13	HD12_4.5_1.125_DF-SP	NC	0.996	13.279	43
53	WP315	S1_(2)15/32_10d@2	R1	0.499	0.868	10	NC	HST5_DF/SP_Bolt	0.952	10.14	40
54	WP316	S1_15/32_10d@4	R1	0.825	0.421	18	NC	HST2_DF/SP_Bolt	0.94	4.906	36
55	WP317	S1_15/32_10d@4	R1	0.814	0.416	12	NC	HST3_DF/SP_Bolt	0.965	7.379	36
56	WP318	S1_15/32_10d@4	R1	0.802	0.41	18	NC	HST3_DF/SP_Bolt	0.892	6.822	36
57	WP319	S1_(2)15/32_10d@4	R1	0.471	0.482	16	NC	MST60_18_DF/SP_Nail	0.991	6.181	40
58	WP320	S1_(2)15/32_10d@4	R1	0.906	0.925	12	NC	HST6_SPF/HF_Bolt	0.944	12.524	42
59	WP321	S1_(2)15/32_10d@2	R1	0.493	0.857	16	NC	HST6_DF/SP_Bolt	0.874	13.476	34
60	WP322	S1_15/32_10d@2	R1	0.843	0.733	12	NC	HST5_SPF/HF_Bolt	0.903	8.913	42
61	WP323	S1_15/32_10d@6	R1	0.726	0.246	16	NC	MST48_SPF/HF_Bolt	0.948	3.219	40
62	WP324	S1_15/32_10d@2	R1	0.844	0.734	13	NC	HST6_SPF/HF_Bolt	0.876	11.622	37
63	WP325	S1_15/32_10d@2	R1	0.859	0.747	10	NC	HST6_SPF/HF_Bolt	0.946	12.552	34
64	WP326	S1_(2)15/32_10d@3	R1	0.835	1.11	16	NC	HST6_DF/SP_Bolt	1.091	16.831	40
65	WP327	S1_(2)15/32_10d@2	R1	0.88	1.531	19	NC	HST6_DF/SP_Bolt	1.447	22.325	43
66	WP328	S1_15/32_10d@2	R1	0.781	0.679	16	NC	MST48_16_DF/SP_Nail	0.992	4.165	40
67	WP329	S1_15/32_10d@4	R1	0.786	0.401	19	NC	MST72_30_SPF/HF_Nail	0.981	5.531	43
68	WP330	S1_15/32_10d@4	R1	0.835	0.427	13	NC	MST60_24_SPF/HF_Nail	0.991	4.658	37
69	WP331	S1_15/32_10d@4	R1	0.81	0.414	10	NC	HST3_DF/SP_Bolt	0.907	6.939	40
70	WP332	S1_15/32_10d@2	R1	0.814	0.708	19	NC	HST5_SPF/HF_Bolt	0.915	9.034	37
71	WP333	S1_(2)15/32_10d@4	R1	0.761	0.778	19	NC	HST5_DF/SP_Bolt	0.978	10.415	37
72	WP334	S1_15/32_10d@2	R1	0.875	0.761	10	NC	HST5_SPF/HF_Bolt	0.963	9.504	34
73	WP335	S1_(2)15/32_10d@3	R1	0.802	1.065	10	NC	HST6_DF/SP_Bolt	0.924	14.256	34
74	WP336	S1_15/32_10d@4	R1	0.913	0.466	13	NC	HST3_DF/SP_Bolt	0.982	7.512	37
75	WP337	S1_15/32_10d@2	R1	0.792	0.689	16	NC	HST5_DF/SP_Bolt	0.929	9.891	34
76	WP338	S1_15/32_10d@4	R1	0.894	0.457	19	NC	HST3_DF/SP_Bolt	0.926	7.084	37
77	WP339	S1_15/32_10d@4	R1	0.871	0.445	16	NC	MST72_30_DF/SP_Nail	0.969	6.306	34
78	WP340	S1_15/32_10d@4	R1	0.927	0.473	13	NC	HST3_DF/SP_Bolt	0.897	6.865	43
79	WP341	S1_15/32_10d@4	R1	0.871	0.445	16	NC	HST5_SPF/HF_Bolt	0.872	8.605	40
80	WP342	S1_15/32_10d@4	R1	0.789	0.403	19	NC	MST60_18_DF/SP_Nail	0.958	5.976	37
81	WP343	S1_15/32_10d@3	R1	0.795	0.528	15	NC	MSTC52_18_DF/SP_Nail	0.995	4.205	39
82	WP344	S1_15/32_10d@3	R1	0.802	0.532	15	NC	MST60_SPF/HF_Bolt	0.987	4.098	33
83	WP345	S1_15/32_10d@4	R1	0.92	0.47	13	NC	HST3_DF/SP_Bolt	0.926	7.084	43
84	WP346	S1_15/32_10d@2	R1	0.787	0.684	15	NC	HST5_SPF/HF_Bolt	0.979	9.664	33
85	WP347	S1_15/32_10d@4	R1	0.789	0.403	15	NC	HST2_DF/SP_Bolt	0.987	5.152	39
86	WP348	S1_15/32_10d@3	R1	0.773	0.513	9	NC	HST5_SPF/HF_Bolt	0.924	9.118	33
87	WP349	S1_15/32_10d@3	R1	0.8	0.531	13	NC	HST5_DF/SP_Bolt	0.943	10.044	43
88	WP350	S1_15/32_10d@4	R1	0.727	0.371	15	NC	HST3_DF/SP_Bolt	0.947	7.246	33
89	WP351	S1_15/32_10d@3	R1	0.803	0.534	13	NC	HST5_SPF/HF_Bolt	0.783	7.727	43
90	WP352	S1_(2)15/32_10d@3	R1	0.801	1.064	15	NC	HST6_DF/SP_Bolt	0.963	14.858	33
91	WP353	S1_(2)15/32_10d@2	R1	0.831	1.446	15	NC	HST6_DF/SP_Bolt	1.506	23.223	33
92	WP354	S1_15/32_10d@4	R1	0.765	0.391	13	NC	HST5_DF/SP_Bolt	0.966	10.284	39
93	WP355	S1_15/32_10d@2	R1	0.808	0.702	15	NC	HST6_SPF/HF_Bolt	0.988	13.107	33
94	WP356	S1_15/32_10d@2	R1	0.836	0.727	19	NC	HST5_SPF/HF_Bolt	0.995	9.821	43
95	WP357	S1_15/32_10d@4	R1	0.856	0.437	9	NC	HST3_DF/SP_Bolt	0.939	7.185	39
96	WP358	S1_15/32_10d@4	R1	0.82	0.419	15	NC	HST3_DF/SP_Bolt	0.936	7.163	39
97	WP359	S1_15/32_10d@2	R1	0.822	0.715	12	NC	HST3_DF/SP_Bolt	0.986	7.543	42
98	WP360	S1_(2)15/32_10d@2	R1	0.53	0.922	15	NC	HST6_DF/SP_Bolt	1.02	15.733	39
99	WP361	S1_15/32_10d@4	R1	0.775	0.396	12	NC	MSTC66_30_DF/SP_Nail	0.994	4.744	42
100	WP362	S1_15/32_10d@2	R1	0.87	0.757	12	NC	HST5_SPF/HF_Bolt	0.948	9.361	42
101	WP363	S1_(2)15/32_10d@4	R1	0.86	0.879	12	NC	HST6_SPF/HF_Bolt	0.97	12.87	36
102	WP364	S1_(2)15/32_10d@2	R1	0.539	0.938	9	NC	HST6_SPF/HF_Bolt	0.808	10.722	39
103	WP365	S1_(2)15/32_10d@4	R1	0.769	0.785	13	NC	HST5_DF/SP_Bolt	0.986	10.5	43
104	WP366	S1_15/32_10d@2	R1	0.842	0.732	13	NC	HST5_SPF/HF_Bolt	0.977	9.643	43
105	WP506	S1_(2)15/32_10d@2	R1	0.354	0.616	10	NC	MST37_18_DF/SP_Nail	0.894	2.2	40
106	WP507	S1_15/32_10d@6	R1	0.896	0.304	18	NC	MST37_18_DF/SP_Nail	0.981	2.413	36

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (In-Plane) (Continued)

	Wall Panel	Shear Panel Label	Region	Shear Check	Shear Force[k/ft]	Gov LC	Hold-Down Label	Chord Strap Label	Tension Check	Tie-Down Force[k]	Gov LC
107	WP508	S1_15/32_10d@4	R1	0.706	0.36	18	NC	MST60_SPF/HF_Bolt	0.99	4.107	36
108	WP509	S1_15/32_10d@4	R1	0.694	0.355	18	NC	MST48_18_DF/SP_Nail	0.945	3.731	36
109	WP510	S1_(2)15/32_10d@2	R1	0.189	0.329	16	NC	MSTC40_24_DF/SP_Nail	0.934	1.793	40
110	WP511	S1_15/32_10d@2	R1	0.729	0.634	12	NC	MSTC66_18_DF/SP_Nail	0.966	5.649	42
111	WP512	S1_(2)15/32_10d@2	R1	0.36	0.626	16	NC	HST2_DF/SP_Bolt	0.997	5.203	34
112	WP513	S1_15/32_10d@3	R1	0.872	0.579	12	NC	HST2_DF/SP_Bolt	0.947	4.945	42
113	WP514	S1_15/32_10d@2	R1	0.271	0.235	10	NC	MSTC28_16_SPF/HF_Nail	0.9	1.197	40
114	WP515	S1_15/32_10d@3	R1	0.862	0.573	13	NC	MST72_30_DF/SP_Nail	0.976	6.352	37
115	WP516	S1_15/32_10d@2	R1	0.722	0.628	10	NC	MSTC66_18_DF/SP_Nail	0.985	5.763	34
116	WP517	S1_15/32_10d@2	R1	0.807	0.702	16	NC	MST72_24_DF/SP_Nail	0.99	6.659	40
117	WP518	S1_(2)15/32_10d@3	R1	0.873	1.159	19	NC	HST5_DF/SP_Bolt	0.93	9.903	43
118	WP519	S1_15/32_10d@3	R1	0.817	0.543	10	NC	MST37_24_DF/SP_Nail	0.973	1.674	40
119	WP520	S1_15/32_10d@6	R1	0.835	0.283	19	NC	MST48_24_SPF/HF_Nail	0.979	2.723	43
120	WP521	S1_15/32_10d@4	R1	0.732	0.374	13	NC	MSTA49_18_DF/SP_Nail	0.996	2.013	37
121	WP522	S1_15/32_10d@6	R1	0.891	0.302	10	NC	MST48_18_SPF/HF_Nail	0.992	3.398	40
122	WP523	S1_15/32_10d@4	R1	0.903	0.461	19	NC	MST60_DF/SP_Bolt	0.941	4.226	37
123	WP524	S1_15/32_10d@2	R1	0.569	0.495	19	NC	MST60_DF/SP_Bolt	0.967	4.343	37
124	WP525	S1_15/32_10d@2	R1	0.75	0.652	10	NC	MST60_SPF/HF_Bolt	0.965	4.007	34
125	WP526	S1_15/32_10d@2	R1	0.842	0.732	16	NC	HST3_DF/SP_Bolt	0.896	6.853	34
126	WP527	S1_15/32_10d@4	R1	0.769	0.393	13	NC	MST48_SPF/HF_Bolt	0.962	3.266	37
127	WP528	S1_15/32_10d@3	R1	0.807	0.536	16	NC	HST2_DF/SP_Bolt	0.97	5.061	34
128	WP529	S1_15/32_10d@4	R1	0.739	0.377	19	NC	MSTC40_16_DF/SP_Nail	0.99	3.039	37
129	WP530	S1_15/32_10d@4	R1	0.719	0.367	16	NC	MST48_18_SPF/HF_Nail	0.993	3.4	34
130	WP531	S1_15/32_10d@4	R1	0.773	0.395	13	NC	MST37_DF/SP_Bolt	0.953	2.887	43
131	WP532	S1_15/32_10d@4	R1	0.717	0.366	16	NC	MST60_30_DF/SP_Nail	0.989	4.554	40
132	WP533	S1_15/32_10d@6	R1	0.784	0.266	19	NC	MST37_18_DF/SP_Nail	0.976	2.402	37
133	WP534	S1_15/32_10d@4	R1	0.81	0.414	15	NC	MST37_18_DF/SP_Nail	0.914	2.247	39
134	WP535	S1_15/32_10d@4	R1	0.829	0.423	15	NC	MST37_18_DF/SP_Nail	0.89	2.19	33
135	WP536	S1_15/32_10d@4	R1	0.759	0.387	13	NC	MST37_DF/SP_Bolt	0.978	2.964	43
136	WP537	S1_15/32_10d@3	R1	0.791	0.526	15	NC	HST2_DF/SP_Bolt	0.94	4.905	33
137	WP538	S1_15/32_10d@4	R1	0.67	0.342	15	NC	MSTC40_18_DF/SP_Nail	0.99	2.664	39
138	WP539	S1_15/32_10d@4	R1	0.865	0.442	9	NC	HST2_SPF/HF_Bolt	0.996	4.814	33
139	WP540	S1_15/32_10d@4	R1	0.901	0.46	13	NC	MST60_18_SPF/HF_Nail	0.996	5.381	43
140	WP541	S1_15/32_10d@2	R1	0.403	0.351	15	NC	MST60_30_SPF/HF_Nail	0.994	3.97	33
141	WP542	S1_15/32_10d@4	R1	0.809	0.413	13	NC	MSTC40_16_DF/SP_Nail	0.998	3.062	43
142	WP543	S1_15/32_10d@2	R1	0.838	0.729	15	NC	HST3_DF/SP_Bolt	0.928	7.102	33
143	WP544	S1_(2)15/32_10d@3	R1	0.803	1.067	15	NC	HST5_DF/SP_Bolt	0.928	9.885	33
144	WP545	S1_15/32_10d@6	R1	0.757	0.257	13	NC	MST60_DF/SP_Bolt	0.991	4.45	39
145	WP546	S1_15/32_10d@2	R1	0.664	0.578	15	NC	MST72_30_DF/SP_Nail	0.977	6.354	33
146	WP547	S1_15/32_10d@3	R1	0.857	0.569	13	NC	MSTC66_18_SPF/HF_Nail	0.983	5.411	43
147	WP548	S1_15/32_10d@2	R1	0.489	0.425	9	NC	MST48_DF/SP_Bolt	0.96	3.529	39
148	WP549	S1_15/32_10d@2	R1	0.478	0.415	15	NC	MST48_DF/SP_Bolt	0.973	3.576	39
149	WP550	S1_15/32_10d@3	R1	0.846	0.562	12	NC	MST60_SPF/HF_Bolt	0.965	4.005	42
150	WP551	S1_(2)15/32_10d@2	R1	0.346	0.601	15	NC	MST60_18_DF/SP_Nail	0.98	6.112	39
151	WP552	S1_15/32_10d@6	R1	0.847	0.287	12	NC	MST37_18_DF/SP_Nail	0.946	2.328	42
152	WP553	S1_15/32_10d@3	R1	0.873	0.58	12	NC	HST2_DF/SP_Bolt	0.932	4.867	42
153	WP554	S1_15/32_10d@2	R1	0.702	0.61	12	NC	MST60_18_DF/SP_Nail	0.951	5.928	36
154	WP555	S1_(2)15/32_10d@2	R1	0.361	0.629	9	NC	MST37_18_DF/SP_Nail	0.938	2.307	39
155	WP556	S1_15/32_10d@2	R1	0.572	0.497	13	NC	MST60_DF/SP_Bolt	0.972	4.366	43
156	WP557	S1_15/32_10d@3	R1	0.773	0.513	13	NC	MST60_24_SPF/HF_Nail	0.988	4.645	43
157	WP697	S1_15/32_10d@6	R1	0.467	0.158	10	NC	Not Req'd	NC	NC	NC
158	WP698	S1_15/32_10d@6	R1	0.534	0.181	18	NC	MSTC28_16_SPF/HF_Nail	0.875	1.164	36
159	WP699	S1_15/32_10d@6	R1	0.549	0.186	18	NC	MST37_24_SPF/HF_Nail	0.947	1.42	36
160	WP700	S1_15/32_10d@6	R1	0.527	0.179	18	NC	MSTC28_16_SPF/HF_Nail	0.959	1.275	42
161	WP701	S1_15/32_10d@6	R1	0.163	0.055	16	NC	Not Req'd	NC	NC	NC

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (In-Plane) (Continued)

	Wall Panel	Shear Panel Label	Region	Shear Check	Shear Force[k/ft]	Gov LC	Hold-Down Label	Chord Strap Label	Tension Check	Tie-Down Force[k]	Gov LC
162	WP702	S1_15/32_10d@6	R1	0.789	0.268	12	NC	MSTC40_24_DF/SP_Nail	0.941	1.807	42
163	WP703	S1_15/32_10d@6	R1	0.421	0.143	16	NC	Not Req'd	NC	NC	NC
164	WP704	S1_15/32_10d@4	R1	0.734	0.375	12	NC	MSTC40_18_DF/SP_Nail	0.987	2.654	42
165	WP705	S1_15/32_10d@6	R1	0.231	0.078	10	NC	Not Req'd	NC	NC	NC
166	WP706	S1_15/32_10d@4	R1	0.743	0.379	19	NC	MST48_24_SPF/HF_Nail	0.989	2.751	37
167	WP707	S1_15/32_10d@4	R1	0.729	0.373	10	NC	MSTC28_18_SPF/HF_Nail	0.082	0.082	34
168	WP708	S1_15/32_10d@4	R1	0.818	0.418	16	NC	MSTC28_18_SPF/HF_Nail	0.658	0.655	40
169	WP709	S1_15/32_10d@4	R1	0.924	0.472	19	NC	MST37_24_SPF/HF_Nail	0.982	1.473	34
170	WP710	S1_15/32_10d@4	R1	0.732	0.374	10	NC	Not Req'd	NC	NC	NC
171	WP711	S1_15/32_10d@6	R1	0.521	0.177	19	NC	MSTC28_16_SPF/HF_Nail	0.89	1.184	43
172	WP712	S1_15/32_10d@6	R1	0.571	0.194	13	NC	Not Req'd	NC	NC	NC
173	WP713	S1_15/32_10d@6	R1	0.582	0.197	10	NC	MSTC28_18_DF/SP_Nail	0.935	1.075	40
174	WP714	S1_15/32_10d@6	R1	0.808	0.274	19	NC	MST27_SPF/HF_Bolt	0.992	1.985	37
175	WP715	S1_15/32_10d@6	R1	0.554	0.188	19	NC	MSTC28_16_SPF/HF_Nail	0.926	1.231	37
176	WP716	S1_15/32_10d@4	R1	0.744	0.38	10	NC	Not Req'd	NC	NC	NC
177	WP717	S1_15/32_10d@4	R1	0.79	0.403	16	NC	MST37_DF/SP_Bolt	0.971	2.943	34
178	WP718	S1_15/32_10d@6	R1	0.683	0.232	13	NC	Not Req'd	NC	NC	NC
179	WP719	S1_15/32_10d@6	R1	0.866	0.294	16	NC	MSTC40_24_DF/SP_Nail	0.995	1.91	34
180	WP720	S1_15/32_10d@6	R1	0.644	0.219	19	NC	Not Req'd	NC	NC	NC
181	WP721	S1_15/32_10d@6	R1	0.579	0.197	16	NC	MSTC28_16_SPF/HF_Nail	0.985	1.31	34
182	WP722	S1_15/32_10d@6	R1	0.665	0.226	13	NC	Not Req'd	NC	NC	NC
183	WP723	S1_15/32_10d@6	R1	0.576	0.195	16	NC	MSTC28_16_SPF/HF_Nail	0.988	1.314	40
184	WP724	S1_15/32_10d@6	R1	0.479	0.162	19	NC	MSTC28_18_SPF/HF_Nail	0.235	0.234	37
185	WP725	S1_15/32_10d@6	R1	0.677	0.23	15	NC	MST37_24_SPF/HF_Nail	0.974	1.461	39
186	WP726	S1_15/32_10d@6	R1	0.702	0.238	15	NC	MST37_24_SPF/HF_Nail	0.979	1.469	33
187	WP727	S1_15/32_10d@6	R1	0.63	0.214	19	NC	Not Req'd	NC	NC	NC
188	WP728	S1_15/32_10d@6	R1	0.851	0.289	15	NC	MSTC40_24_DF/SP_Nail	0.98	1.881	33
189	WP729	S1_15/32_10d@6	R1	0.523	0.178	15	NC	MSTC28_18_SPF/HF_Nail	0.806	0.802	39
190	WP730	S1_15/32_10d@6	R1	0.83	0.282	9	NC	MST37_24_SPF/HF_Nail	0.978	1.467	33
191	WP731	S1_15/32_10d@6	R1	0.816	0.277	13	NC	MST37_24_DF/SP_Nail	0.928	1.596	43
192	WP732	S1_15/32_10d@6	R1	0.527	0.179	9	NC	MSTC28_18_SPF/HF_Nail	0.961	0.956	39
193	WP733	S1_15/32_10d@6	R1	0.68	0.231	19	NC	Not Req'd	NC	NC	NC
194	WP734	S1_15/32_10d@4	R1	0.805	0.411	15	NC	MST37_DF/SP_Bolt	0.97	2.94	33
195	WP735	S1_15/32_10d@4	R1	0.981	0.501	15	NC	MSTC28_18_SPF/HF_Nail	0.653	0.65	33
196	WP736	S1_15/32_10d@6	R1	0.457	0.155	13	NC	MSTC28_18_SPF/HF_Nail	0.824	0.82	39
197	WP737	S1_15/32_10d@4	R1	0.759	0.388	15	NC	MSTC28_18_SPF/HF_Nail	0.892	0.888	33
198	WP738	S1_15/32_10d@4	R1	0.72	0.368	19	NC	MSTC40_18_DF/SP_Nail	0.987	2.655	43
199	WP739	S1_15/32_10d@6	R1	0.672	0.228	9	NC	Not Req'd	NC	NC	NC
200	WP740	S1_15/32_10d@6	R1	0.65	0.221	15	NC	MSTC28_18_SPF/HF_Nail	0.011	0.011	39
201	WP741	S1_15/32_10d@6	R1	0.903	0.306	12	NC	MST37_18_SPF/HF_Nail	0.98	2.097	42
202	WP742	S1_15/32_10d@6	R1	0.497	0.169	15	NC	Not Req'd	NC	NC	NC
203	WP743	S1_15/32_10d@6	R1	0.489	0.166	12	NC	MSTC28_18_DF/SP_Nail	0.908	1.044	36
204	WP744	S1_15/32_10d@6	R1	0.962	0.326	12	NC	MST37_18_DF/SP_Nail	0.908	2.234	42
205	WP745	S1_15/32_10d@6	R1	0.754	0.256	18	NC	MSTC40_24_DF/SP_Nail	0.913	1.754	36
206	WP746	S1_15/32_10d@6	R1	0.559	0.19	9	NC	Not Req'd	NC	NC	NC
207	WP747	S1_15/32_10d@6	R1	0.543	0.184	13	NC	MSTC28_16_SPF/HF_Nail	0.92	1.224	43
208	WP748	S1_15/32_10d@6	R1	0.785	0.266	13	NC	MSTC40_24_DF/SP_Nail	0.998	1.917	43

CHECK OF SHEAR WALL COMPRESSION POSTS

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (Axial)

	Wall Panel	Region	Stud Size	Stud Spacing[in]	Axial Check	Gov LC	Chord Size	Chord Axial Check	Gov LC
1	WP143	R1	2X4	16	2.26	7	6-2X6	0.787	34
2	WP144	R1	2X4	16	2.21	5	2-4X6	0.523	12
3	WP145	R1	2X6	16	0.423	5	6-2X6	0.424	36
4	WP146	R1	2X6	16	0.463	5	6-2X6	0.422	36
5	WP147	R1	2X4	16	1.413	7	6-2X6	0.438	34

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (Axial) (Continued)

	Wall Panel	Region	Stud Size	Stud Spacing[in]	Axial Check	Gov LC	Chord Size	Chord Axial Check	Gov LC
6	WP148	R1	2X4	16	2.447	5	6-2X6	0.813	42
7	WP149	R1	2X4	16	1.526	7	6-2X6	0.789	16
8	WP150	R1	2X6	16	0.751	5	6-2X6	0.403	12
9	WP151	R1	2X6	16	0.396	7	6-2X6	0.246	10
10	WP152	R1	2X6	16	0.512	5	6-2X6	0.446	41
11	WP153	R1	2X6	16	0.417	7	6-2X6	0.76	40
12	WP154	R1	2X6	16	0.4	7	6-2X6	0.629	34
13	WP155	R1	2X6	16	0.597	5	6-2X6	0.856	13
14	WP156	R1	2X6	16	0.384	5	6-2X6	0.243	10
15	WP157	R1	2X6	16	0.555	5	6-2X6	0.268	13
16	WP158	R1	2X6	16	0.749	5	6-2X6	0.336	19
17	WP159	R1	2X6	16	0.344	5	6-2X6	0.252	40
18	WP160	R1	2X6	16	0.707	5	6-2X6	0.732	37
19	WP161	R1	2X4	16	2.255	5	2-4X6	0.834	13
20	WP162	R1	2X6	16	0.628	5	6-2X6	0.808	40
21	WP163	R1	2X6	16	0.742	5	6-2X6	0.636	40
22	WP164	R1	2X6	16	0.431	7	6-2X6	0.503	43
23	WP165	R1	2X6	16	0.513	5	6-2X6	0.428	40
24	WP166	R1	2X6	16	0.423	7	6-2X6	0.489	37
25	WP167	R1	2X6	16	0.446	5	6-2X6	0.421	34
26	WP168	R1	2X6	16	0.439	7	6-2X6	0.488	43
27	WP169	R1	2X6	16	0.225	5	6-2X6	0.422	40
28	WP170	R1	2X6	16	0.404	5	6-2X6	0.287	19
29	WP171	R1	2X6	16	0.738	5	6-2X6	0.351	8
30	WP172	R1	2X6	16	0.746	5	6-2X6	0.309	27
31	WP173	R1	2X6	16	0.422	7	6-2X6	0.489	43
32	WP174	R1	2X6	16	0.514	5	6-2X6	0.424	39
33	WP175	R1	2X6	16	0.64	5	6-2X6	0.38	9
34	WP176	R1	2X6	16	0.37	5	6-2X6	0.451	15
35	WP177	R1	2X6	16	0.135	5	6-2X6	0.34	43
36	WP178	R1	2X6	16	0.328	5	6-2X6	0.38	33
37	WP179	R1	2X6	16	0.53	5	6-2X6	0.534	37
38	WP180	R1	2X6	16	0.69	5	6-2X6	0.625	39
39	WP181	R1	2X6	16	0.48	7	6-2X6	0.888	39
40	WP182	R1	2X6	16	0.483	7	6-2X6	0.375	19
41	WP183	R1	2X6	16	0.413	7	6-2X6	0.678	39
42	WP184	R1	2X6	16	0.651	5	6-2X6	0.414	12
43	WP185	R1	2X6	16	0.469	5	6-2X6	0.543	33
44	WP186	R1	2X6	16	0.417	7	6-2X6	0.447	33
45	WP187	R1	2X6	16	0.785	5	6-2X6	0.414	12
46	WP188	R1	2X4	16	1.456	7	6-2X6	0.712	33
47	WP189	R1	2X4	16	1.892	5	2-4X6	0.524	42
48	WP190	R1	2X6	16	0.689	5	6-2X6	0.456	12
49	WP191	R1	2X4	16	1.801	5	6-2X6	0.683	35
50	WP192	R1	2X4	16	2.405	7	6-2X6	0.823	39
51	WP193	R1	2X4	16	2.236	5	2-4X6	0.832	19
52	WP194	R1	2X6	16	0.708	5	6-2X6	0.746	43
53	WP315	R1	2X4	16	1.541	7	6-2X6	0.419	16
54	WP316	R1	2X4	16	1.344	5	8-2X4	0.642	12
55	WP317	R1	2X6	16	0.196	5	6-2X6	0.239	12
56	WP318	R1	2X6	16	0.223	5	6-2X6	0.238	12
57	WP319	R1	2X4	16	0.831	7	6-2X6	0.212	10
58	WP320	R1	2X4	16	1.038	5	6-2X6	0.438	12
59	WP321	R1	2X4	16	0.907	7	6-2X6	0.38	16
60	WP322	R1	2X6	16	0.407	5	6-2X6	0.261	12

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (Axial) (Continued)

	Wall Panel	Region	Stud Size	Stud Spacing[in]	Axial Check	Gov LC	Chord Size	Chord Axial Check	Gov LC
61	WP323	R1	2X6	16	0.242	7	6-2X6	0.143	16
62	WP324	R1	2X6	16	0.251	5	6-2X6	0.256	19
63	WP325	R1	2X6	16	0.242	7	6-2X6	0.402	16
64	WP326	R1	2X6	16	0.223	7	6-2X6	0.37	10
65	WP327	R1	2X6	16	0.32	5	6-2X6	0.569	13
66	WP328	R1	2X6	16	0.206	7	6-2X6	0.122	10
67	WP329	R1	2X6	16	0.279	5	6-2X6	0.149	13
68	WP330	R1	2X6	16	0.434	5	6-2X6	0.188	31
69	WP331	R1	2X6	16	0.153	5	6-2X6	0.124	16
70	WP332	R1	2X6	16	0.382	5	6-2X6	0.361	13
71	WP333	R1	2X4	16	1.37	5	8-2X4	0.972	13
72	WP334	R1	2X6	16	0.362	7	6-2X6	0.436	16
73	WP335	R1	2X6	16	0.402	5	6-2X6	0.355	16
74	WP336	R1	2X6	16	0.258	7	6-2X6	0.263	19
75	WP337	R1	2X6	16	0.252	5	6-2X6	0.241	16
76	WP338	R1	2X6	16	0.247	7	6-2X6	0.253	13
77	WP339	R1	2X6	16	0.205	5	6-2X6	0.246	10
78	WP340	R1	2X6	16	0.264	7	6-2X6	0.263	19
79	WP341	R1	2X6	16	0.059	5	6-2X6	0.233	16
80	WP342	R1	2X6	16	0.237	7	6-2X6	0.138	19
81	WP343	R1	2X6	16	0.399	5	6-2X6	0.211	8
82	WP344	R1	2X6	16	0.404	5	6-2X6	0.202	15
83	WP345	R1	2X6	16	0.246	7	6-2X6	0.253	13
84	WP346	R1	2X6	16	0.252	5	6-2X6	0.238	15
85	WP347	R1	2X6	16	0.344	5	6-2X6	0.235	9
86	WP348	R1	2X6	16	0.17	5	6-2X6	0.202	15
87	WP349	R1	2X6	16	0.098	5	6-2X6	0.181	12
88	WP350	R1	2X6	16	0.147	5	6-2X6	0.211	15
89	WP351	R1	2X6	16	0.317	7	6-2X6	0.287	13
90	WP352	R1	2X6	16	0.368	5	6-2X6	0.339	15
91	WP353	R1	2X6	16	0.277	7	6-2X6	0.493	15
92	WP354	R1	2X6	16	0.283	7	6-2X6	0.188	19
93	WP355	R1	2X6	16	0.239	7	6-2X6	0.336	15
94	WP356	R1	2X6	16	0.341	5	6-2X6	0.27	12
95	WP357	R1	2X6	16	0.282	7	6-2X6	0.261	15
96	WP358	R1	2X6	16	0.247	7	6-2X6	0.259	15
97	WP359	R1	2X6	16	0.43	5	6-2X6	0.268	12
98	WP360	R1	2X4	16	0.841	7	6-2X6	0.351	9
99	WP361	R1	2X4	16	1.284	5	8-2X4	0.574	18
100	WP362	R1	2X6	16	0.367	5	6-2X6	0.265	12
101	WP363	R1	2X4	16	0.897	5	6-2X6	0.419	12
102	WP364	R1	2X4	16	1.639	7	6-2X6	0.442	15
103	WP365	R1	2X4	16	1.358	5	8-2X4	0.971	19
104	WP366	R1	2X6	16	0.383	5	6-2X6	0.372	19
105	WP506	R1	2X4	16	1.274	7	6-2X6	0.214	16
106	WP507	R1	2X4	16	0.701	5	8-2X4	0.334	12
107	WP508	R1	2X6	16	0.104	5	6-2X6	0.133	12
108	WP509	R1	2X6	16	0.118	5	6-2X6	0.13	12
109	WP510	R1	2X4	16	0.642	7	6-2X6	0.1	10
110	WP511	R1	2X4	16	0.544	5	6-2X6	0.213	12
111	WP512	R1	2X4	16	0.704	7	6-2X6	0.184	16
112	WP513	R1	2X6	16	0.209	5	6-2X6	0.143	12
113	WP514	R1	2X4	16	0.681	6	6-2X6	0.085	16
114	WP515	R1	2X6	16	0.134	5	6-2X6	0.136	19
115	WP516	R1	2X4	16	0.656	7	6-2X6	0.233	16

AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (Axial) (Continued)

	Wall Panel	Region	Stud Size	Stud Spacing[in]	Axial Check	Gov LC	Chord Size	Chord Axial Check	Gov LC
116	WP517	R1	2X4	16	0.575	7	6-2X6	0.195	10
117	WP518	R1	2X6	16	0.187	7	6-2X6	0.305	13
118	WP519	R1	2X6	16	0.159	7	6-2X6	0.073	10
119	WP520	R1	2X6	16	0.142	5	6-2X6	0.073	13
120	WP521	R1	2X6	16	0.289	7	6-2X6	0.106	31
121	WP522	R1	2X6	16	0.097	7	6-2X6	0.065	16
122	WP523	R1	2X6	16	0.199	5	6-2X6	0.18	13
123	WP524	R1	2X4	16	0.716	5	8-2X4	0.451	13
124	WP525	R1	2X4	16	0.87	7	6-2X6	0.253	16
125	WP526	R1	2X6	16	0.207	5	6-2X6	0.172	16
126	WP527	R1	2X6	16	0.2	7	6-2X6	0.153	19
127	WP528	R1	2X6	16	0.135	5	6-2X6	0.123	16
128	WP529	R1	2X6	16	0.196	7	6-2X6	0.145	13
129	WP530	R1	2X6	16	0.109	5	6-2X6	0.134	10
130	WP531	R1	2X6	16	0.205	7	6-2X6	0.152	19
131	WP532	R1	2X6	16	0.037	7	6-2X6	0.128	16
132	WP533	R1	2X6	16	0.182	7	6-2X6	0.074	19
133	WP534	R1	2X6	16	0.206	5	6-2X6	0.113	8
134	WP535	R1	2X6	16	0.208	5	6-2X6	0.1	27
135	WP536	R1	2X6	16	0.196	7	6-2X6	0.145	13
136	WP537	R1	2X6	16	0.135	5	6-2X6	0.121	15
137	WP538	R1	2X6	16	0.189	5	6-2X6	0.131	15
138	WP539	R1	2X6	16	0.103	7	6-2X6	0.111	15
139	WP540	R1	2X6	16	0.059	7	6-2X6	0.099	12
140	WP541	R1	2X4	16	0.335	7	6-2X6	0.125	15
141	WP542	R1	2X6	16	0.236	7	6-2X6	0.161	13
142	WP543	R1	2X6	16	0.192	5	6-2X6	0.164	15
143	WP544	R1	2X6	16	0.21	7	6-2X6	0.253	15
144	WP545	R1	2X6	16	0.208	7	6-2X6	0.075	39
145	WP546	R1	2X4	16	0.653	7	6-2X6	0.195	15
146	WP547	R1	2X6	16	0.177	5	6-2X6	0.145	12
147	WP548	R1	2X4	16	0.745	7	6-2X6	0.159	15
148	WP549	R1	2X4	16	0.669	7	6-2X6	0.159	15
149	WP550	R1	2X6	16	0.221	5	6-2X6	0.138	12
150	WP551	R1	2X4	16	0.644	7	6-2X6	0.159	9
151	WP552	R1	2X4	16	0.672	5	8-2X4	0.303	12
152	WP553	R1	2X6	16	0.19	5	6-2X6	0.14	12
153	WP554	R1	2X4	16	0.474	5	6-2X6	0.205	12
154	WP555	R1	2X4	16	1.329	7	8-2X4	0.594	15
155	WP556	R1	2X4	16	0.71	5	8-2X4	0.45	19
156	WP557	R1	2X6	16	0.199	5	6-2X6	0.188	19
157	WP697	R1	2X6	16	0.276	6	6-2X6	0.063	28
158	WP698	R1	2X4	16	0.079	6	8-2X4	0.08	12
159	WP699	R1	2X6	16	0.013	6	6-2X6	0.032	18
160	WP700	R1	2X6	16	0.015	6	6-2X6	0.031	18
161	WP701	R1	2X6	16	0.126	6	6-2X6	0.027	6
162	WP702	R1	2X6	16	0.019	6	6-2X6	0.046	12
163	WP703	R1	2X6	16	0.136	6	6-2X6	0.036	22
164	WP704	R1	2X6	16	0.022	6	6-2X6	0.045	42
165	WP705	R1	2X6	16	0.146	6	6-2X6	0.03	28
166	WP706	R1	2X6	16	0.024	6	6-2X6	0.046	37
167	WP707	R1	2X6	16	0.136	6	6-2X6	0.076	16
168	WP708	R1	2X6	16	0.109	6	6-2X6	0.077	22
169	WP709	R1	2X6	16	0.068	6	6-2X6	0.088	25
170	WP710	R1	2X6	16	0.102	6	6-2X6	0.032	22

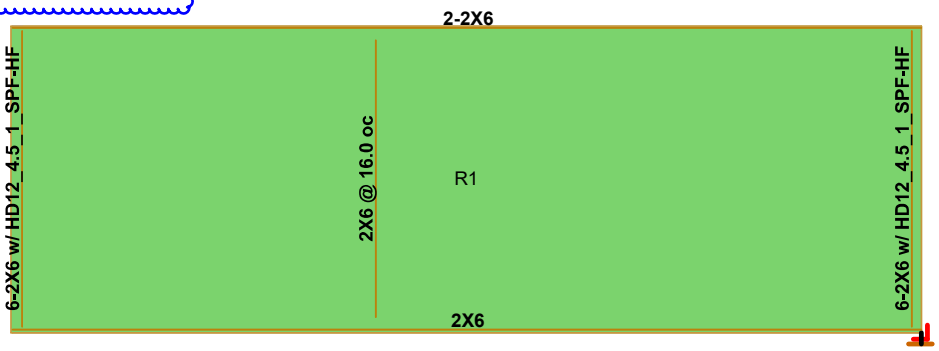
AWC NDS-24 (W. 18 SUPPLEMENT) / SDPWS-21 ASD Wall Panel Wood Code Checks (Axial) (Continued)

	Wall Panel	Region	Stud Size	Stud Spacing[in]	Axial Check	Gov LC	Chord Size	Chord Axial Check	Gov LC
171	WP711	R1	2X6	16	0.014	6	6-2X6	0.02	43
172	WP712	R1	2X6	16	0.144	6	6-2X6	0.036	6
173	WP713	R1	2X6	16	0.034	7	6-2X6	0.02	16
174	WP714	R1	2X6	16	0.02	6	6-2X6	0.047	19
175	WP715	R1	2X4	16	0.085	6	8-2X4	0.087	13
176	WP716	R1	2X6	16	0.139	6	6-2X6	0.077	16
177	WP717	R1	2X6	16	0.022	6	6-2X6	0.05	34
178	WP718	R1	2X6	16	0.133	6	6-2X6	0.051	19
179	WP719	R1	2X6	16	0.023	6	6-2X6	0.032	34
180	WP720	R1	2X6	16	0.138	6	6-2X6	0.047	13
181	WP721	R1	2X6	16	0.015	6	6-2X6	0.034	16
182	WP722	R1	2X6	16	0.136	6	6-2X6	0.05	31
183	WP723	R1	2X6	16	0.015	6	6-2X6	0.034	16
184	WP724	R1	2X6	16	0.116	6	6-2X6	0.031	31
185	WP725	R1	2X6	16	0.021	6	6-2X6	0.028	9
186	WP726	R1	2X6	16	0.022	6	6-2X6	0.026	15
187	WP727	R1	2X6	16	0.139	6	6-2X6	0.047	25
188	WP728	R1	2X6	16	0.023	6	6-2X6	0.032	33
189	WP729	R1	2X6	16	0.051	6	6-2X6	0.034	15
190	WP730	R1	2X6	16	0.044	6	6-2X6	0.031	15
191	WP731	R1	2X6	16	0.022	6	6-2X6	0.027	43
192	WP732	R1	2X6	16	0.047	6	6-2X6	0.036	15
193	WP733	R1	2X6	16	0.148	6	6-2X6	0.053	25
194	WP734	R1	2X6	16	0.023	6	6-2X6	0.05	33
195	WP735	R1	2X6	16	0.135	6	6-2X6	0.058	27
196	WP736	R1	2X6	16	0.125	6	6-2X6	0.048	6
197	WP737	R1	2X6	16	0.135	6	6-2X6	0.069	15
198	WP738	R1	2X6	16	0.022	6	6-2X6	0.045	43
199	WP739	R1	2X6	16	0.144	6	6-2X6	0.051	27
200	WP740	R1	2X6	16	0.137	6	6-2X6	0.05	15
201	WP741	R1	2X6	16	0.021	6	6-2X6	0.035	42
202	WP742	R1	2X6	16	0.122	6	6-2X6	0.038	21
203	WP743	R1	2X4	16	0.084	6	8-2X4	0.08	12
204	WP744	R1	2X6	16	0.021	6	6-2X6	0.038	42
205	WP745	R1	2X6	16	0.02	6	6-2X6	0.044	18
206	WP746	R1	2X6	16	0.28	6	6-2X6	0.069	27
207	WP747	R1	2X4	16	0.085	6	8-2X4	0.087	19
208	WP748	R1	2X6	16	0.02	6	6-2X6	0.046	13

EXAMPLE DETAIL REPORT OF WALL "WP190" FOR REFERENCE. EXPANDED DETAILED REPORTS FOR ALL WALLS CAN BE PROVIDED IF REQUIRED

Detail Report: WP190

Wood Wall



GENERAL

Code:	AWC NDS-24 / SDPWS-21:ASD
Design Method:	Segmented
Wall Material:	DF #2
Panel Schedule:	AWC 2021 PLY 0.469 (10d)
Sel. Shear Panel:	S1_(2)15/32_10d@3

GEOMETRY

Total Height (ft):	10.33
Total Length (ft):	30.646
Max H/W Ratio:	0.34

MATERIALS

Top Pl.	DF #2	2-2X6
Sill	DF #2	2X6
Wall Stud	DF #2	2X6
Chord	DF #2	6-2X6

ENVELOPED RESULTS

Controlling Shear Region	Shear Panel	Shear UC	Shear LC	Controlling Hold Down	Hold Down UC	Hold Down LC	Chord UC	Chord LC	Stud UC	Stud LC
R1	S1_(2)15/32_10d@3	0.819	12 (S)	HD12_4.5_1_SPF-HF	0.995	42 (S)	0.456	12 (S)	0.689	5

REGION INFORMATION

Region Label	H/W Ratio	Shear UC	Shear LC	Hold-Down	Hold-Down UC	Hold-Down LC	Chord UC	Chord LC	Stud UC	Stud LC
R1	0.34	0.819	12 (S)	HD12_4.5_1_SPF-HF	0.995	42 (S)	0.456	12 (S)	0.689	5

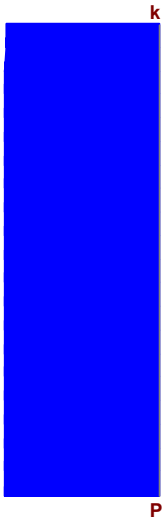
DEFLECTION RESULTS

Maximum Region Deflection (in)	Deflection LC	Finite Element Deflection (in)	Shear Stiffness Adjustment Factor
0.239 (R1)	12		1

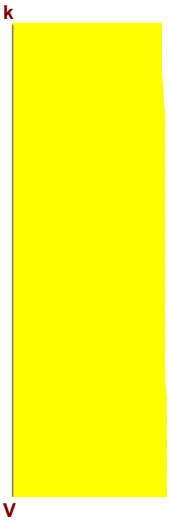
Detail Report: WP190 (Region R1)

CRITERIA		GEOMETRY		MATERIALS	
Code:	AWC NDS-24 / SDPWS-21:ASD	**Total Height (ft):**	10.33	**Wall Studs:**	DF #2
Wall Material:	DF #2	**Total Length (ft):**	30.646	**Stud Size:**	2X6
Panel Schedule:	AWC 2021 PLY 0.469 (10d)	**Region H/W:**	0.34	**Chord Material:**	DF #2
Optimize HD:	Yes	**Cap. Adj. (2w/h):**	1.00	**Chord Size:**	6-2X6
HD Manufacturer:	SIMPSON	**Aspect Ratio:**	1.00	**Top Pl. & Sill:**	DF #2
		Gov. H/W Factor:	1.00	**Top Pl. Size:**	2-2X6
		HD Eccentricity (in):	0	**Sill Pl. Size:**	2X6
				Specific Gravity:	0.5

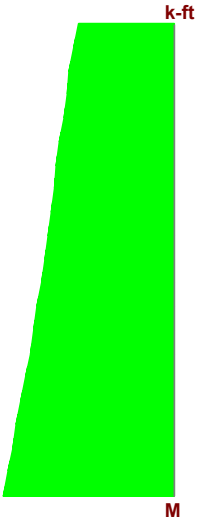
ENVELOPE DIAGRAMS



Min: 110.973 at 10.33 ft
Max: 111.621 at 0 ft



Min: -30.684 at 0 ft
Max: -29.699 at 9.814 ft



Min: 281.637 at 10.33 ft
Max: 506.469 at 0 ft

DESIGN SUMMARY

STUDS

Required Cap (k):	4.651	**Governing LC:**	5	**K:**	1.00
Provided Cap (k):	6.748	**Stud Spacing (in):**	16		
Ratio:	0.689	**Studs in Region:**	24		

CHORDS

Max Comp Force (k):	20.453	**Gov Comp LC:**	12	**Tens Ratio:**	0.224
Comp Capacity (k):	36.206	**Max Tens Force (k):**	10.711	**Gov Tens LC:**	42
Comp Ratio:	0.456	**Tens Capacity (k):**	47.765		

SHEAR PANEL

Selected Shear Panel:	S1_(2)15/32_10d@3	**Ratio:**	0.819	**Gov. H/W Factor:**	1.00
Reqd. Shear Cap. (k/ft):	1.001	**Panel Grade:**	St-I	**SGAF:**	1
Shear Cap. (k/ft):	1.329	**Panel Thick (in):**	0.469	**Hold-Down Factor:**	0.92
Adj. Shear Cap. (k/ft):	1.222	**Reqd Pen (in):**	1.500		
Governing LC:	12 (Seismic)	**Nail Size:**	10d		
Num. Sides:	Two	**Reqd. Spacing (in):**	3		
		Over Gyp. Board:	No		

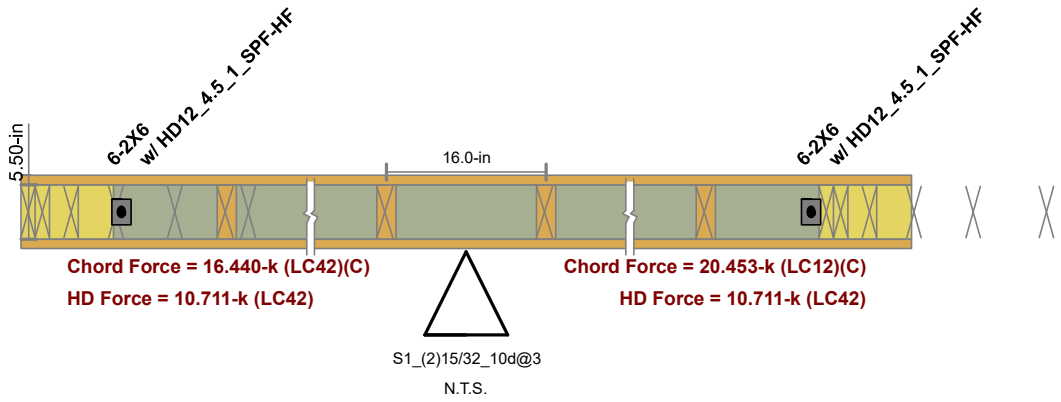
DEFLECTIONS

Flexure Comp (in):	0.004	**HD Elong (in):**	0	**Governing LC:**	12
Shear Comp (in):	0.235	**Tot Deflection (in):**	0.239		

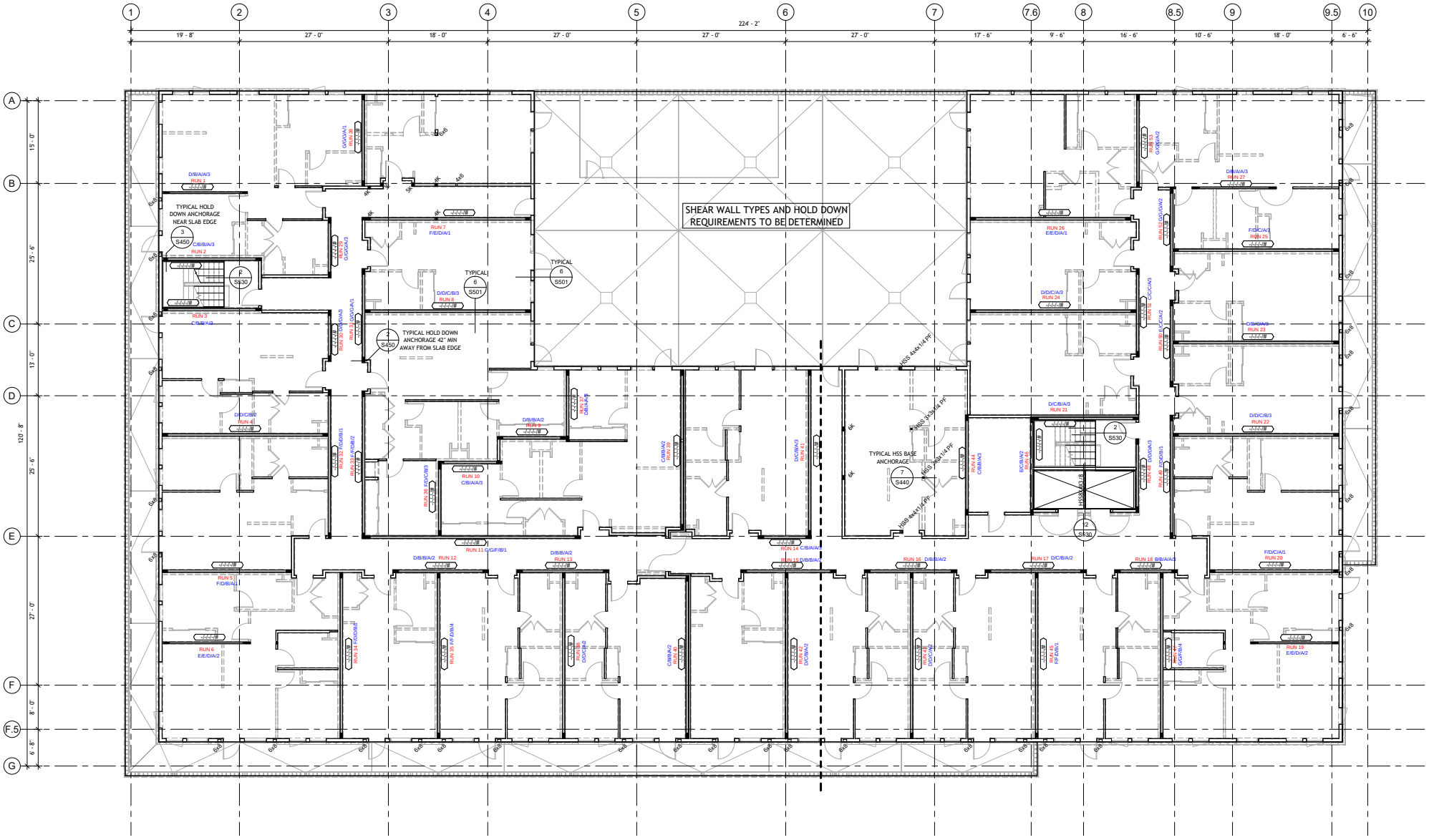
HOLD-DOWNS

Selected Hold-Down:	HD12_4.5_1_SPF-HF	**Ratio:**	0.995	**Min. Chord Thk. (in):**	4.50
Required Cap. (k):	10.711	**Governing LC:**	42	**Bolt Size (in):**	1
Base Cap.(CD=1) (k):	6.728	**CD factor:**	1.6		
Adjusted Cap. (k):	10.765	**Reqd. Chord Mat.:**	Hem Fir		

CROSS SECTION DETAILING



SHEAR WALL RUN ID"s



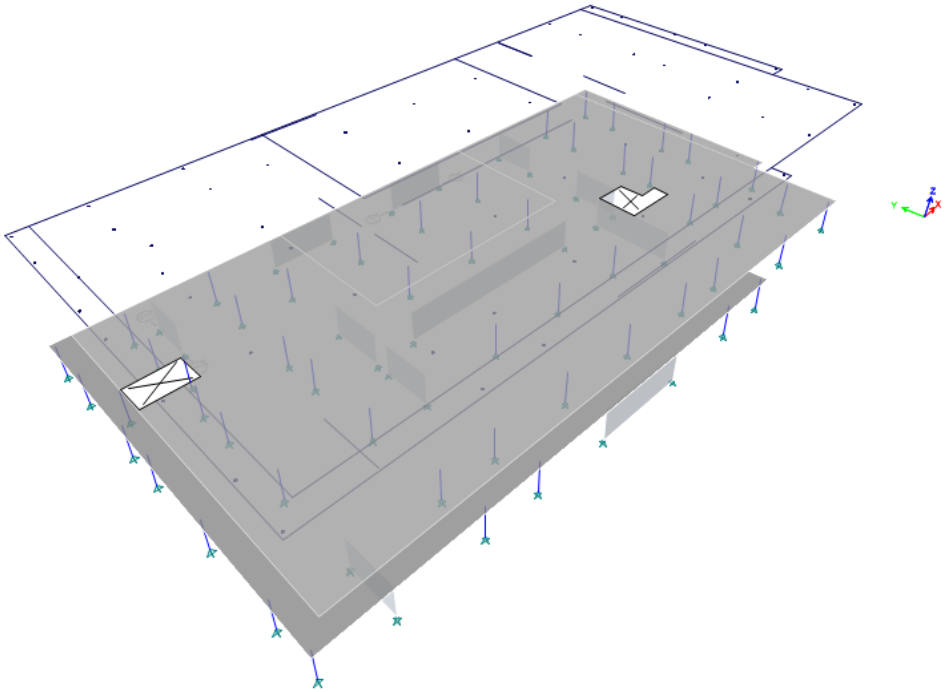
STONEWOOD STRUCTURAL ENGINEERS	Project:	Puyallup Bell	By:	AAS	
	Location:	Puyallup, WA	Job No.:	25-063	
	Client:	C2K	Date:	3/4/2026	
			Last Update:	15-Jun-21	
		Puyallup Bell			
		COMPILED RISA PLYWOOD SHEAR WALL RESULTS			

RUN Number	WALL NUMBER	SEMI-RIGID DIAPHRAGM PLYWOOD NAILING		GOVERNING SHEAR WALL TYPE	SEMI-RIGID HD TENSION	RIGID HD TENSION	GOVERNING HOLD DOWN FORCE (kips)	SHEAR WALL LABEL	Girder Truss Loading if Applicable (kip)
1	WP144	S1_15/32_10d@2	4	D	16.58	15.789	16.6	D/B/A/A/3	2.861
	WP316	S1_15/32_10d@4	2	B	9.668	9.002	9.7		
	WP507	S1_15/32_10d@6	1	A	5.023	4.489	5.0		
	WP698	S1_15/32_10d@6	1	A	1.611	1.342	1.6		
2	WP145	S1_15/32_10d@3	3	C	16.387	16.057	16.4	C/B/B/A/3	3.361
	WP317	S1_15/32_10d@4	2	B	10.278	10.059	10.3		
	WP508	S1_15/32_10d@4	2	B	5.732	5.444	5.7		
	WP699	S1_15/32_10d@6	1	A	1.768	1.523	1.8		
3	WP146	S1_15/32_10d@3	3	C	16.217	16.161	16.2	C/B/B/A/3	3.225
	WP318	S1_15/32_10d@4	2	B	10.004	10.123	10.1		
	WP509	S1_15/32_10d@4	2	B	5.54	5.489	5.5		
	WP700	S1_15/32_10d@6	1	A	1.669	1.543	1.7		
4	WP152	S1_15/32_10d@2	4	D	27.375	26.149	27.4	D/D/C/B/2	11.624
	WP324	S1_15/32_10d@2	4	D	17.984	16.899	18.0		
	WP515	S1_15/32_10d@3	3	C	9.916	10.029	10.0		
	WP706	S1_15/32_10d@4	2	B	3.512	3.542	3.5		
5	WP160	S1_(2)15/32_10d@3	6	F	28.119	22.943	28.1	F/D/B/A/1	6.576
	WP332	S1_15/32_10d@2	4	D	15.852	13.959	15.9		
	WP523	S1_15/32_10d@4	2	B	7.944	7.58	7.9		
	WP714	S1_15/32_10d@6	1	A	2.599	2.284	2.6		
6	WP161	S1_15/32_10d@2	4	D	23.465	22.088	23.5	D/E/D/A/2	3.062
	WP333	S1_(2)15/32_10d@4	5	E	15.407	14.566	15.4		
	WP524	S1_15/32_10d@2	4	D	7.07	6.1	7.1		
	WP715	S1_15/32_10d@6	1	A	1.681	1.178	1.7		
7	WP148	S1_(2)15/32_10d@3	6	F	33.306	35.359	35.4	F/E/D/A/1	8.198
	WP320	S1_(2)15/32_10d@4	5	E	19.579	19.109	19.6		
	WP511	S1_15/32_10d@2	4	D	9.505	8.808	9.5		
	WP702	S1_15/32_10d@6	1	A	2.461	2.105	2.5		
8	WP150	S1_15/32_10d@2	4	D	8.084	8.317	8.3	D/D/C/B/3	11.491
	WP322	S1_15/32_10d@2	4	D	8.913	7.75	8.9		
	WP513	S1_15/32_10d@3	3	C	4.945	5.008	5.0		
	WP704	S1_15/32_10d@4	2	B	2.654	2.694	2.7		
9	wp158	S1_15/32_10d@2	4	D	17.037	16.082	17.0	D/B/B/A/2	2.421
	wp330	S1_15/32_10d@4	2	B	9.851	10.207	10.2		
	wp521	S1_15/32_10d@4	2	B	5.481	5.629	5.6		
	wp712	S1_15/32_10d@6	1	A	1.763	1.742	1.8		
10	WP157	S1_15/32_10d@3	3	C	7.453	7.46	7.5	C/B/A/A/3	1.890
	WP329	S1_15/32_10d@4	2	B	5.531	5.667	5.7		
	WP520	S1_15/32_10d@6	1	A	2.723	2.711	2.7		
	WP711	S1_15/32_10d@6	1	A	1.184	1.1	1.2		
11	WP155	S1_(2)15/32_10d@2	7	G	35.664	30.738	35.7	G/G/F/B/1	18.433
	WP327	S1_(2)15/32_10d@2	7	G	22.34	18.957	22.3		
	WP518	S1_(2)15/32_10d@3	6	F	11.41	9.942	11.4		
	WP709	S1_15/32_10d@4	2	B	3.405	3.147	3.4		
12	WP164	S1_15/32_10d@2	4	D	19.901	18.837	19.9	D/B/B/A/2	3.893
	WP336	S1_15/32_10d@4	2	B	12.054	11.887	12.1		
	WP527	S1_15/32_10d@4	2	B	6.873	6.67	6.9		
	WP718	S1_15/32_10d@6	1	A	2.584	2.311	2.6		
13	WP166	S1_15/32_10d@2	4	D	18.601	17.602	18.6	D/B/B/A/2	3.539
	WP338	S1_15/32_10d@4	2	B	11.09	11.126	11.1		
	WP529	S1_15/32_10d@4	2	B	6.261	6.228	6.3		
	WP720	S1_15/32_10d@6	1	A	2.312	2.12	2.3		
14	wp170	S1_15/32_10d@3	3	C	13.767	13.466	13.8	C/B/A/A/3	1.476
	wp342	S1_15/32_10d@4	2	B	8.314	7.998	8.3		
	wp533	S1_15/32_10d@6	1	A	4.261	3.988	4.3		
	wp724	S1_15/32_10d@6	1	A	1.624	1.363	1.6		
15	wp168	S1_15/32_10d@2	4	D	18.849	16.789	18.8	D/B/B/A/2	3.780
	wp340	S1_15/32_10d@4	2	B	11.333	10.559	11.3		
	WP531	S1_15/32_10d@4	2	B	6.428	5.896	6.4		
	WP722	S1_15/32_10d@6	1	A	2.402	2.012	2.4		
16	WP173	S1_15/32_10d@2	4	D	18.116	15.945	18.1	D/B/B/A/2	3.463
	WP345	S1_15/32_10d@4	2	B	10.804	9.954	10.8		
	WP536	S1_15/32_10d@4	2	B	6.065	5.499	6.1		
	WP727	S1_15/32_10d@6	1	A	2.202	1.824	2.2		
17	WP179	S1_15/32_10d@2	4	D	18.98	16.595	19.0	D/C/B/A/2	4.110
	WP351	S1_15/32_10d@3	3	C	11.626	10.588	11.6		
	WP542	S1_15/32_10d@4	2	B	6.378	5.966	6.4		
	WP733	S1_15/32_10d@6	1	A	2.328	2.031	2.3		
18	WP182	S1_15/32_10d@4	2	B	14.662	13.152	14.7	B/B/A/A/3	1.680
	WP354	S1_15/32_10d@4	2	B	10.284	7.884	10.3		
	WP545	S1_15/32_10d@6	1	A	4.45	3.953	4.5		
	WP736	S1_15/32_10d@6	1	A	1.614	1.396	1.6		
19	WP193	S1_15/32_10d@2	4	D	23.582	22.163	23.6	D/E/D/A/2	3.001
	WP365	S1_(2)15/32_10d@4	5	E	15.501	14.605	15.5		
	WP556	S1_15/32_10d@2	4	D	7.094	6.128	7.1		
	WP747	S1_15/32_10d@6	1	A	1.676	1.198	1.7		
20	WP194	S1_(2)15/32_10d@3	6	F	28.483	23.048	28.5	F/D/C/A/1	6.396
	WP366	S1_15/32_10d@2	4	D	16.273	14.019	16.3		
	WP557	S1_15/32_10d@3	3	C	8.219	7.604	8.2		

	WP748	S1_15/32_10d@6	1	A	2.431	2.272	2.4		
21	WP177	S1_15/32_10d@2	4	D	16.23	15.757	16.2	D/C/B/A/3	5.295
	WP349	S1_15/32_10d@3	3	C	10.044	10.84	10.8		
	WP540	S1_15/32_10d@4	2	B	5.381	5.776	5.8		
	WP731	S1_15/32_10d@6	1	A	1.596	1.707	1.7		
22	WP184	S1_15/32_10d@2	4	D	9.103	9.317	9.3	D/D/C/B/3	11.265
	WP356	S1_15/32_10d@2	4	D	9.821	8.96	9.8		
	WP547	S1_15/32_10d@3	3	C	5.411	5.691	5.7		
	WP738	S1_15/32_10d@4	2	B	2.655	2.8	2.8		
23	WP187	S1_15/32_10d@2	4	D	9.243	9.69	9.7	D/D/C/A/3	9.388
	WP359	S1_15/32_10d@2	4	D	7.543	7.111	7.5		
	WP550	S1_15/32_10d@3	3	C	4.005	4.692	4.7		
	WP741	S1_15/32_10d@6	1	A	2.097	2.686	2.7		
24	WP187	S1_15/32_10d@2	4	D	9.243	9.69	9.7	D/D/C/A/3	9.388
	WP359	S1_15/32_10d@2	4	D	7.543	7.111	7.5		
	WP550	S1_15/32_10d@3	3	C	4.005	4.692	4.7		
	WP741	S1_15/32_10d@6	1	A	2.097	2.686	2.7		
25	WP190	S1_(2)15/32_10d@3	6	F	11.944	11.607	11.9	F/D/C/A/3	10.000
	WP362	S1_15/32_10d@2	4	D	9.361	8.288	9.4		
	WP553	S1_15/32_10d@3	3	C	4.867	5.257	5.3		
	WP744	S1_15/32_10d@6	1	A	2.234	2.671	2.7		
26	WP191	S1_(2)15/32_10d@4	5	E	29.785	33.349	33.3	E/E/D/A/1	7.584
	WP363	S1_(2)15/32_10d@4	5	E	18.886	18.608	18.9		
	WP554	S1_15/32_10d@2	4	D	9.303	8.543	9.3		
	WP745	S1_15/32_10d@6	1	A	2.481	2.051	2.5		
27	WP189	S1_15/32_10d@2	4	D	14.917	15.073	15.1	D/B/A/A/3	2.531
	WP361	S1_15/32_10d@4	2	B	8.869	8.715	8.9		
	WP552	S1_15/32_10d@6	1	A	4.589	4.305	4.6		
	WP743	S1_15/32_10d@6	1	A	1.427	1.255	1.4		
28	WP143	S1_(2)15/32_10d@2	7	G	29.326	31.024	31.0	G/G/G/A/1	2.722
	WP315	S1_(2)15/32_10d@2	7	G	17.969	18.405	18.4		
	WP506	S1_(2)15/32_10d@2	7	G	8.886	8.091	8.9		
	WP697	S1_15/32_10d@6	1	A	2.448	1.903	2.4		
29	WP147	S1_(2)15/32_10d@4	5	E	15.794	16.433	16.4	E/E/G/A/3	0.576
	WP319	S1_(2)15/32_10d@4	5	E	8.744	8.543	8.7		
	WP510	S1_(2)15/32_10d@2	7	G	3.847	3.215	3.8		
	WP701	S1_15/32_10d@6	1	A	0.59	0.432	0.6		
30	WP151	S1_15/32_10d@4	2	B	9.75	10.034	10.0	B/A/D/A/3	0.687
	WP323	S1_15/32_10d@6	1	A	5.729	5.509	5.7		
	WP514	S1_15/32_10d@2	4	D	3.251	2.818	3.3		
	WP705	S1_15/32_10d@6	1	A	0.896	0.629	0.9		
31	WP149	S1_(2)15/32_10d@2	7	G	29.209	30.34	30.3	G/G/G/A/1	2.360
	WP321	S1_(2)15/32_10d@2	7	G	17.709	17.827	17.8		
	WP512	S1_(2)15/32_10d@2	7	G	8.546	7.546	8.5		
	WP703	S1_15/32_10d@6	1	A	1.787	1.81	1.8		
32	WP153	S1_(2)15/32_10d@3	6	F	30.434	25.576	30.4	F/D/D/B/1	9.849
	WP325	S1_15/32_10d@2	4	D	19.079	16.885	19.1		
	WP516	S1_15/32_10d@2	4	D	11.068	10.182	11.1		
	WP707	S1_15/32_10d@4	2	B	4.27	3.434	4.3		
33	WP154	S1_(2)15/32_10d@3	6	F	22.187	19.015	22.2	F/F/D/B/2	10.972
	WP326	S1_(2)15/32_10d@3	6	F	16.831	12.984	16.8		
	WP517	S1_15/32_10d@2	4	D	7.178	5.662	7.2		
	WP708	S1_15/32_10d@4	2	B	2.112	1.889	2.1		
34	WP162	S1_(2)15/32_10d@3	6	F	32.066	27.177	32.1	F/D/D/B/1	11.647
	WP334	S1_15/32_10d@2	4	D	20.067	17.851	20.1		
	WP525	S1_15/32_10d@2	4	D	11.661	10.764	11.7		
	WP716	S1_15/32_10d@4	2	B	4.402	3.578	4.4		
35	WP163	S1_(2)15/32_10d@3	6	F	36.892	33.257	36.9	F/F/D/B/4	12.357
	WP335	S1_(2)15/32_10d@3	6	F	23.759	19.597	23.8		
	WP526	S1_15/32_10d@2	4	D	11.984	10.282	12.0		
	WP717	S1_15/32_10d@4	2	B	3.694	3.795	3.8		
36	WP156	S1_(2)15/32_10d@3	6	F	10.772	10.716	10.8	F/D/C/B/3	5.072
	WP328	S1_15/32_10d@2	4	D	6.331	6.479	6.5		
	WP519	S1_15/32_10d@3	3	C	3.405	3.475	3.5		
	WP710	S1_15/32_10d@4	2	B	1.268	1.292	1.3		
37	WP159	S1_15/32_10d@2	4	D	10.278	10.018	10.3	D/B/A/A/3	2.495
	WP331	S1_15/32_10d@4	2	B	6.939	7.908	7.9		
	WP522	S1_15/32_10d@6	1	A	3.398	3.98	4.0		
	WP713	S1_15/32_10d@6	1	A	1.075	1.205	1.2		
38	WP165	S1_15/32_10d@2	4	D	25.26	24.944	25.3	D/D/C/A/2	9.002
	WP337	S1_15/32_10d@2	4	D	16.264	16.053	16.3		
	WP528	S1_15/32_10d@3	3	C	8.636	9.168	9.2		
	WP719	S1_15/32_10d@6	1	A	2.68	3.661	3.7		
39	WP169	S1_15/32_10d@3	3	C	16.827	18.534	18.5	C/B/B/A/2	5.684
	WP341	S1_15/32_10d@4	2	B	10.423	12.145	12.1		
	WP532	S1_15/32_10d@4	2	B	5.741	6.609	6.6		
	WP723	S1_15/32_10d@6	1	A	1.868	2.341	2.3		
40	WP167	S1_15/32_10d@3	3	C	17.802	19.441	19.4	C/B/B/A/2	5.815
	WP339	S1_15/32_10d@4	2	B	11.076	12.75	12.8		
	WP530	S1_15/32_10d@4	2	B	6.08	6.923	6.9		
	WP721	S1_15/32_10d@6	1	A	1.897	2.355	2.4		
41	WP171	S1_15/32_10d@2	4	D	11.353	11.839	11.8	D/C/B/A/3	7.038
	WP343	S1_15/32_10d@3	3	C	6.415	7.331	7.3		
	WP534	S1_15/32_10d@4	2	B	3.424	3.985	4.0		
	WP725	S1_15/32_10d@6	1	A	1.461	2.001	2.0		
42	WP172	S1_15/32_10d@2	4	D	22.161	22.356	22.4	D/C/B/A/2	7.295
	WP344	S1_15/32_10d@3	3	C	13.615	15.011	15.0		
	WP535	S1_15/32_10d@4	2	B	7.328	8.421	8.4		
	WP726	S1_15/32_10d@6	1	A	2.225	2.787	2.8		
43	WP174	S1_15/32_10d@2	4	D	24.981	25.087	25.1		

	WP346	S1_15/32_10d@2	4	D	16.039	16.303	16.3	D/D/C/A/2	8.849
	WP537	S1_15/32_10d@3	3	C	8.476	9.762	9.8		
	WP728	S1_15/32_10d@6	1	A	2.647	3.636	3.6		
44	WP175	S1_15/32_10d@3	3	C	16.167	16.59	16.6	C/B/B/A/3	3.149
	WP347	S1_15/32_10d@4	2	B	10.122	10.496	10.5		
	WP538	S1_15/32_10d@4	2	B	5.635	5.845	5.8		
	WP729	S1_15/32_10d@6	1	A	1.773	1.86	1.9		
45	WP180	S1_(2)15/32_10d@3	6	F	36.566	36.355	36.6	F/F/D/B/1	12.592
	WP352	S1_(2)15/32_10d@3	6	F	23.457	23.081	23.5		
	WP543	S1_15/32_10d@2	4	D	11.794	10.244	11.8		
	WP734	S1_15/32_10d@4	2	B	3.721	3.74	3.7		
46	WP176	S1_(2)15/32_10d@4	5	E	21.774	20.008	21.8	E/C/B/A/2	4.862
	WP348	S1_15/32_10d@3	3	C	12.099	12.414	12.4		
	WP539	S1_15/32_10d@4	2	B	6.737	6.899	6.9		
	WP730	S1_15/32_10d@6	1	A	2.343	2.36	2.4		
47	WP181	S1_(2)15/32_10d@2	7	G	47.782	37.426	47.8	G/G/F/B/4	15.358
	WP353	S1_(2)15/32_10d@2	7	G	31.54	23.969	31.5		
	WP544	S1_(2)15/32_10d@3	6	F	16.331	11.052	16.3		
	WP735	S1_15/32_10d@4	2	B	5.22	4.657	5.2		
48	WP178	S1_15/32_10d@4	2	B	14.237	14.108	14.2	B/B/D/A/3	2.337
	WP350	S1_15/32_10d@4	2	B	9.295	9	9.3		
	WP541	S1_15/32_10d@2	4	D	5.405	5.212	5.4		
	WP732	S1_15/32_10d@6	1	A	1.739	1.17	1.7		
49	WP183	S1_(2)15/32_10d@3	6	F	29.714	27.818	29.7	F/D/D/B/1	8.476
	WP355	S1_15/32_10d@2	4	D	18.242	15.737	18.2		
	WP546	S1_15/32_10d@2	4	D	10.605	9.902	10.6		
	WP737	S1_15/32_10d@4	2	B	4.312	3.149	4.3		
50	WP185	S1_(2)15/32_10d@4	5	E	19.923	17.778	19.9	E/B/C/A/2	3.418
	WP357	S1_15/32_10d@4	2	B	10.916	10.626	10.9		
	WP348	S1_15/32_10d@3	3	C	12.099	12.414	12.4		
	WP739	S1_15/32_10d@6	1	A	2.359	1.987	2.4		
51	WP186	S1_15/32_10d@3	3	C	16.759	16.741	16.8	C/B/C/A/3	3.421
	WP358	S1_15/32_10d@4	2	B	11.156	10.877	11.2		
	WP349	S1_15/32_10d@3	3	C	10.044	10.84	10.8		
	WP740	S1_15/32_10d@6	1	A	2.433	1.873	2.4		
52	WP188	S1_(2)15/32_10d@2	7	G	23.973	23.412	24.0	G/G/G/A/2	2.482
	WP360	S1_(2)15/32_10d@2	7	G	15.733	14.745	15.7		
	WP551	S1_(2)15/32_10d@2	7	G	6.112	6.071	6.1		
	WP742	S1_15/32_10d@6	1	A	1.521	1.791	1.8		
53	WP192	S1_(2)15/32_10d@2	7	G	30.488	31.254	31.3	G/G/G/A/1	3.300
	WP364	S1_(2)15/32_10d@2	7	G	18.585	18.521	18.6		
	WP555	S1_(2)15/32_10d@2	7	G	8.963	9.157	9.2		
	WP746	S1_15/32_10d@6	1	A	2.614	1.984	2.6		

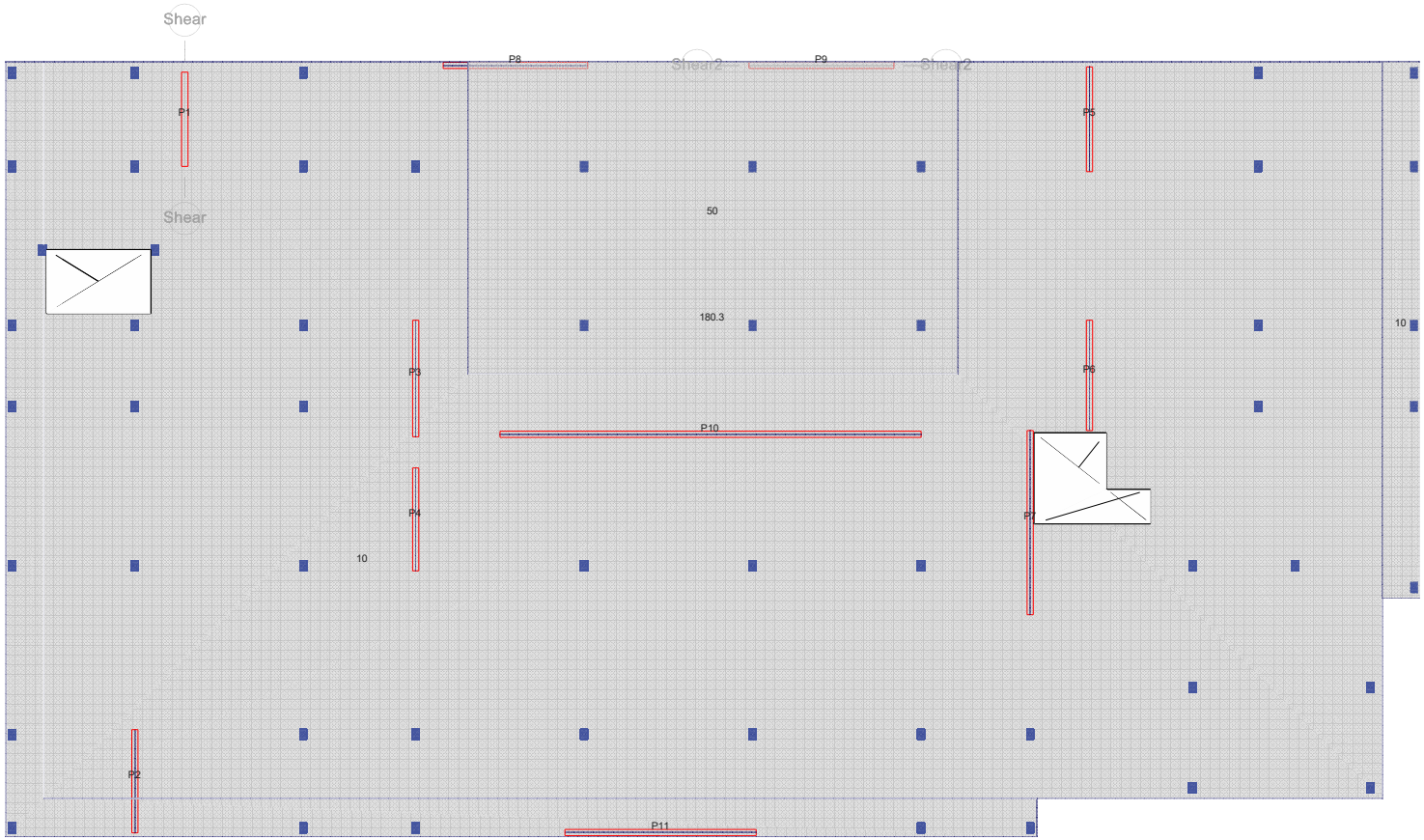
ETABS®



Puyallup Bell Concrete Shear Wall Desig

Model File: Puyallup Bell Concrete Lateral Mode, Revision 0
3/19/2026

Pier labels shown for reference in results pages

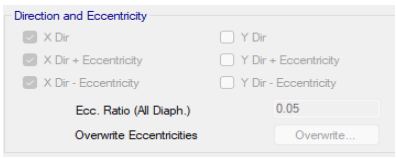


Puyallup Bell Concrete Lateral Model (R1).EDB Plan View - Story1 - Z = 11 (ft) Uniform Loads Gravity (Dead) [lb/ft²]

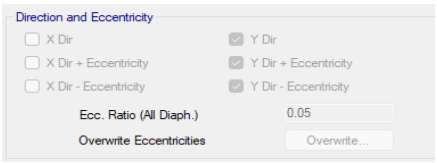
STONEWOOD STRUCTURAL ENGINEERS	Project: Puyallup Bell	By: RRA
	Location: Puyallup, WA	Job No.: 25-063
	Client: C2K Architecture	Date: 10/10/2025
	Seismic Analysis	
	Check for Torsional Irregularity	
	Relative Displacement of Level 2 Slab Corners - Right of Seismic Joint	Last Update: 10-Oct-25

Load Combinations

EQ-x step 1, 2, and 3



EQ-y step 1, 2, and 3



Torsional Amplification

Y - Direction 1.08
X - Direction 1.0

Y-Direction Worst Case

Corner	Deflection	Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	onal Irregularity	Amplification
NW	0.009425	0.0125475	1.083	YES	1.25	Torsional Irregularity	1.08
NE	0.01567						
SW	0.009425	0.012465	1.074	YES	1.24	Torsional Irregularity	1.07
SE	0.015505						

X-Direction Worst Case

Corner		Average	Equation 12.8-14	Torsional Irregularity	Max/Avg	Torsional Irregularity	Amplification
NW	0.007774	0.00941	0.957	NO	1.17	N/A	0.96
SW	0.011046						
SE	0.010884	0.009329	0.945	NO	1.17	N/A	0.95
NE	0.007774						

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1 Structure Data

This chapter provides model geometry information, including items such as story levels, point coordinates, and element connectivity.

1.1 Story Data

Table 1.1 - Story Definitions

Tower	Name	Height ft	Master Story	Similar To	Splice Story	Color
T1	Story1	11	No	None	No	Blue

2 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

2.1 Materials

Table 2.1 - Material Properties - General

Material	Type	SymType	Grade	Color	Notes
5000Psi	Concrete	Isotropic	f'c 4000 psi	Magenta	
A416Gr270	Tendon	Uniaxial	Grade 270	Gray8Dark	
A615Gr60	Rebar	Uniaxial	Grade 60	Yellow	

2.2 Shell Sections

Table 2.2 - Area Section Property Definitions - Summary

Name	Type	Element Type	Material	Total Thickness in	Deck Material	Deck Depth in
12" Shear Wall	Wall	Shell-Thin	5000Psi	12		
13" PT Slab	Slab	Shell-Thick	5000Psi	13		

2.3 Reinforcement Sizes

Table 2.3 - Reinforcing Bar Sizes

Name	Diameter in	Area in2
#6	0.75	0.44

3 Assignments

This chapter provides a listing of the assignments applied to the model.

3.1 Shell Assignments

Table 3.1 - Area Assignments - Summary

Story	Label	UniqueName	Section Property	Property Type	Diaphragm	Added Mass lb-s2/ft3	Pier
Story1	F1	2	13" PT Slab	Slab	D1	0.01	
Story1	W1	3	12" Shear Wall	Wall			P3
Story1	W2	4	12" Shear Wall	Wall			P4
Story1	W3	5	12" Shear Wall	Wall			P10
Story1	W4	6	12" Shear Wall	Wall			P7
Story1	W6	8	12" Shear Wall	Wall			P6
Story1	W7	9	12" Shear Wall	Wall			P5
Story1	W8	10	12" Shear Wall	Wall			P11
Story1	W9	11	12" Shear Wall	Wall			P2
Story1	W10	12	12" Shear Wall	Wall			P1
Story1	W11	13	12" Shear Wall	Wall			P8
Story1	W12	14	12" Shear Wall	Wall			P9
Story1	A3	1	None	Opening			
Story1	A4	7	None	Opening			
Story1	A1	15	None	Null	D1		
Story1	A2	17	None	Null			
Story1	A5	16	None	Null			
Story1	A6	18	None	Null			

4 Loads

This chapter provides loading information as applied to the model.

4.1 Load Patterns

Table 4.1 - Load Pattern Definitions

Name	Is Auto Load	Type	Self Weight Multiplier	Auto Load
Dead	No	Dead	1	
EX	No	Seismic	0	ASCE 7-16
EY	No	Seismic	0	ASCE 7-16
Live	No	Live	0	
Snow	No	Snow	0	

4.2 Auto Seismic Loading

ASCE 7-16 Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern EX according to ASCE 7-16, as calculated by ETABS.

Direction and Eccentricity

Direction = Multiple

Eccentricity Ratio = 5% for all diaphragms

Structural Period

Period Calculation Method = Program Calculated

Coefficient, C_t [ASCE Table 12.8-2]		$C_t = 0.02ft$
Coefficient, x [ASCE Table 12.8-2]		$x = 0.75$
Structure Height Above Base, h_n		$h_n = 11\ ft$
Long-Period Transition Period, T_L [ASCE 11.4.5]		$T_L = 16\ sec$

Factors and Coefficients

Response Modification Factor, R [ASCE Table 12.2-1]		$R = 5$
System Overstrength Factor, Ω_0 [ASCE Table 12.2-1]		$\Omega_0 = 2.5$
Deflection Amplification Factor, C_d [ASCE Table 12.2-1]		$C_d = 5$
Importance Factor, I [ASCE Table 1.5-2]		$I = 1$
Ss and S1 Source = 0.75		
Mapped MCE Spectral Response Acceleration, S_s [ASCE 11.4.2]		$S_s = 1.273g$
Mapped MCE Spectral Response Acceleration, S_1 [ASCE 11.4.2]		$S_1 = 0.438g$
Site Class [ASCE Table 20.3-1] = D - Stiff Soil		
Site Coefficient, F_a [ASCE Table 11.4-1]		$F_a = 1$
Site Coefficient, F_v [ASCE Table 11.4-2]		$F_v = 1.862$

Seismic Response

MCE Spectral Response Acceleration, S_{MS} [ASCE 11.4.4, Eq. 11.4-1]	$S_{MS} = F_a S_S$	$S_{MS} = 1.273g$
MCE Spectral Response Acceleration, S_{M1} [ASCE 11.4.4, Eq. 11.4-2]	$S_{M1} = F_v S_1$	$S_{M1} = 0.815556g$
Design Spectral Response Acceleration, S_{DS} [ASCE 11.4.5, Eq. 11.4-3]	$S_{DS} = \frac{2}{3} S_{MS}$	$S_{DS} = 0.848667g$
Design Spectral Response Acceleration, S_{D1} [ASCE 11.4.5, Eq. 11.4-4]	$S_{D1} = \frac{2}{3} S_{M1}$	$S_{D1} = 0.543704g$

Equivalent Lateral Forces

Seismic Response Coefficient, C_S [ASCE 12.8.1.1, Eq. 12.8-2]

$$C_S = \frac{S_{DS}}{(\frac{R}{I})}$$

[ASCE 12.8.1.1, Eq. 12.8-3]

$$C_{S,max} = \frac{S_{D1}}{T(\frac{R}{I})}$$

[ASCE 12.8.1.1, Eq. 12.8-5]

$$C_{S,min} = max\ (0.044\ S_{DS}\ I, 0.01\ ) = 0.037341$$

[ASCE 12.8.1.1, Eq. 12.8-6]

$$C_{S,min} = 0.5\ \frac{S_1}{(\frac{R}{I})}\ for\ S_1 = 0.6g$$

$$C_{S,min} \le C_s \le C_{S,max}$$

Calculated Base Shear

Direction	Period Used (sec)	C_s	W (kip)	V (kip)
X	0.066	0.169733	9542.4474	1619.6714
X + Ecc. Y	0.066	0.169733	9542.4474	1619.6714
X - Ecc. Y	0.066	0.169733	9542.4474	1619.6714

Applied Story Forces

Story	Elevation	X-Dir	Y-Dir
	ft	kip	kip
Story1	11	1619.671	0
Base	0	0	0

COMPARE TO VERTICAL DISTRIBUTION ON PAGE A9, WITHIN 5%

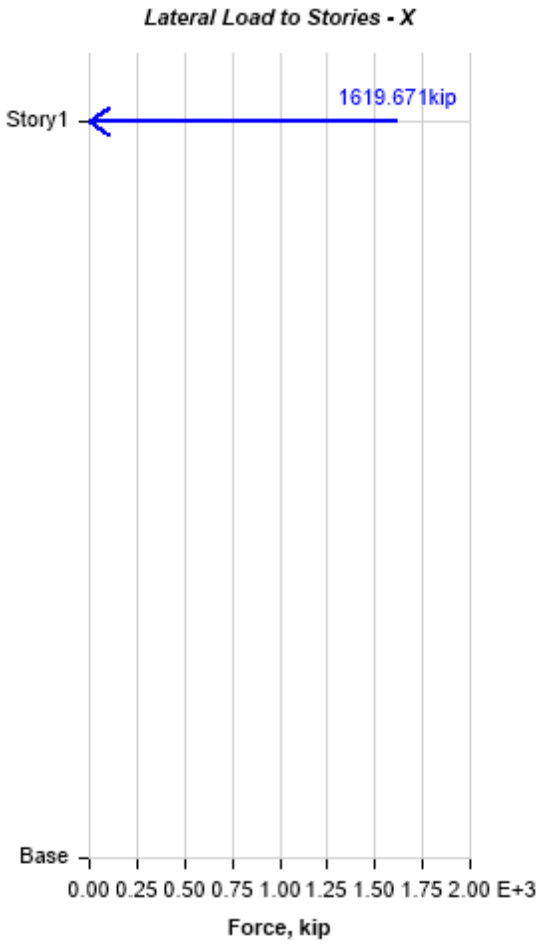


Figure 4-1-Set 1

ASCE 7-16 Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern EY according to ASCE 7-16, as calculated by ETABS.

Direction and Eccentricity

Direction = Multiple

Eccentricity Ratio = 5.4% for all diaphragms

Structural Period

Period Calculation Method = Program Calculated

Coefficient, C_t [ASCE Table 12.8-2]		$C_t = 0.02ft$
Coefficient, x [ASCE Table 12.8-2]		$x = 0.75$
Structure Height Above Base, h_n		$h_n = 11\ ft$
Long-Period Transition Period, T_L [ASCE 11.4.5]		$T_L = 16\ sec$

Factors and Coefficients

Response Modification Factor, R [ASCE Table 12.2-1]		$R = 5$
System Overstrength Factor, Ω_0 [ASCE Table 12.2-1]		$\Omega_0 = 2.5$
Deflection Amplification Factor, C_d [ASCE Table 12.2-1]		$C_d = 5$
Importance Factor, I [ASCE Table 1.5-2]		$I = 1$
Ss and S1 Source = 0.75		
Mapped MCE Spectral Response Acceleration, S_s [ASCE 11.4.2]		$S_s = 1.273g$
Mapped MCE Spectral Response Acceleration, S_1 [ASCE 11.4.2]		$S_1 = 0.438g$
Site Class [ASCE Table 20.3-1] = D - Stiff Soil		
Site Coefficient, F_a [ASCE Table 11.4-1]		$F_a = 1$
Site Coefficient, F_v [ASCE Table 11.4-2]		$F_v = 1.862$

Seismic Response

MCE Spectral Response Acceleration, S_{MS} [ASCE 11.4.4, Eq. 11.4-1]	$S_{MS} = F_a S_S$	$S_{MS} = 1.273g$
MCE Spectral Response Acceleration, S_{M1} [ASCE 11.4.4, Eq. 11.4-2]	$S_{M1} = F_v S_1$	$S_{M1} = 0.815556g$
Design Spectral Response Acceleration, S_{DS} [ASCE 11.4.5, Eq. 11.4-3]	$S_{DS} = \frac{2}{3} S_{MS}$	$S_{DS} = 0.848667g$
Design Spectral Response Acceleration, S_{D1} [ASCE 11.4.5, Eq. 11.4-4]	$S_{D1} = \frac{2}{3} S_{M1}$	$S_{D1} = 0.543704g$

Equivalent Lateral Forces

Seismic Response Coefficient, C_S [ASCE 12.8.1.1, Eq. 12.8-2]

$$C_S = \frac{S_{DS}}{(\frac{R}{I})}$$

[ASCE 12.8.1.1, Eq. 12.8-3]

$$C_{S,max} = \frac{S_{D1}}{T(\frac{R}{I})}$$

[ASCE 12.8.1.1, Eq. 12.8-5]

$$C_{S,min} = max\ (0.044\ S_{DS}\ I, 0.01\ ) = 0.037341$$

[ASCE 12.8.1.1, Eq. 12.8-6]

$$C_{S,min} = 0.5\ \frac{S_1}{(\frac{R}{I})}\ for\ S_1 = 0.6g$$

$$C_{S,min} \le C_s \le C_{S,max}$$

Calculated Base Shear

Direction	Period Used (sec)	C_s	W (kip)	V (kip)
Y	0.079	0.169733	9542.4474	1619.6714
Y + Ecc. X	0.079	0.169733	9542.4474	1619.6714
Y - Ecc. X	0.079	0.169733	9542.4474	1619.6714

Applied Story Forces

Story	Elevation	X-Dir	Y-Dir
	ft	kip	kip
Story1	11	0	1619.671
Base	0	0	0

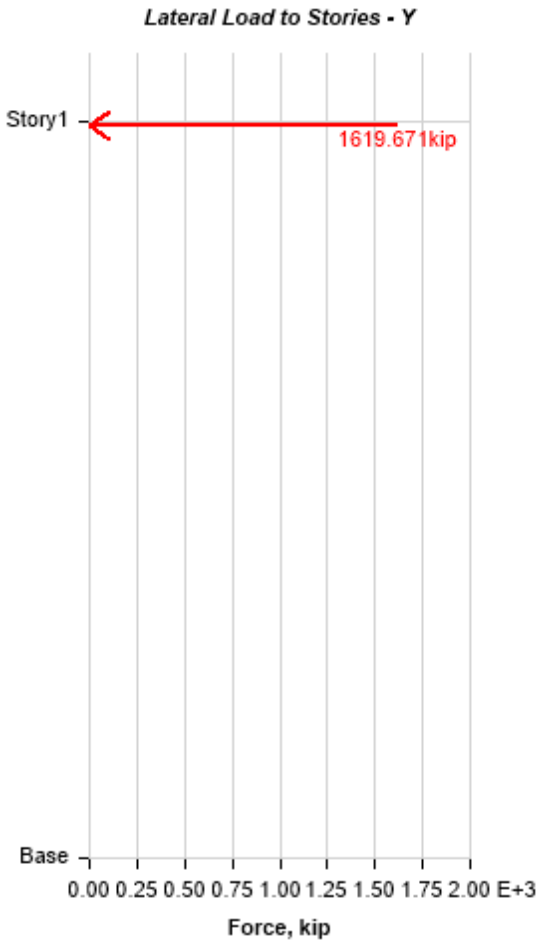


Figure 4-2-Set 1

4.3 Applied Loads

4.3.1 Area Loads

Table 4.2 - Area Load Assignments - Uniform

Story	Label	UniqueName	Load Pattern	Direction	Load lb/ft2
Story1	F1	2	Dead	Gravity	35
Story1	A1	15	Dead	Gravity	180.3
Story1	A2	17	Dead	Gravity	50
Story1	A5	16	Dead	Gravity	10
Story1	A6	18	Dead	Gravity	10
Story1	A1	15	Live	Gravity	80
Story1	A2	17	Live	Gravity	100
Story1	A5	16	Live	Gravity	60
Story1	A6	18	Live	Gravity	60
Story1	F1	2	Snow	Gravity	25

4.4 Load Cases

Table 4.3 - Load Case Definitions - Summary

Name	Type
Dead	Linear Static
Live	Linear Static
Modal	Modal - Eigen
EX	Linear Static
EY	Linear Static
Snow	Linear Static

4.5 Load Combinations

Table 4.4 - Load Combination Definitions

Name	Type	Is Auto	Load Name	SF	Notes
UDWalS1	Linear Add	No	Dead	1.4	Dead [Strength]
UDWalS2	Linear Add	No	Dead	1.2	Dead + Live [Strength]
UDWalS2			Live	1.6	
UDWalS2			Snow	0.5	
UDWalS3	Linear Add	No	Dead	1.2	Dead + Live + Snow [Strength]
UDWalS3			Live	1	
UDWalS3			Snow	1.6	
UDWalS4	Linear Add	No	Dead	1.3698	Dead + Live + Static Earthquake [Strength]
UDWalS4			Live	1	
UDWalS4			Snow	0.2	
UDWalS4			EX	1	
UDWalS5	Linear Add	No	Dead	1.3698	Dead + Live - Static Earthquake [Strength]
UDWalS5			Live	1	
UDWalS5			Snow	0.2	
UDWalS5			EX	-1	
UDWalS6	Linear Add	No	Dead	1.3698	Dead + Live + Static Earthquake [Strength]

Table 4.4 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
UDWalS6			Live	1	
UDWalS6			Snow	0.2	
UDWalS6			EY	1	
UDWalS7	Linear Add	No	Dead	1.3698	Dead + Live - Static Earthquake [Strength]
UDWalS7			Live	1	
UDWalS7			Snow	0.2	
UDWalS7			EY	-1	
UDWalS8	Linear Add	No	Dead	0.7302	Dead (min) + Static Earthquake [Strength]
UDWalS8			EX	1	
UDWalS9	Linear Add	No	Dead	0.7302	Dead (min) - Static Earthquake [Strength]
UDWalS9			EX	-1	
UDWalS10	Linear Add	No	Dead	0.7302	Dead (min) + Static Earthquake [Strength]
UDWalS10			EY	1	
UDWalS11	Linear Add	No	Dead	0.7302	Dead (min) - Static Earthquake [Strength]
UDWalS11			EY	-1	

5 Analysis Results

This chapter provides analysis results.

5.1 Story Results

Table 5.1 - Story Max Over Avg Displacements

Story	Output Case	Case Type	Step Type	Step Number	Direction	Maximum in	Average in	Ratio
Story1	Dead	LinStatic			Y	0.001155	0.000247	4.676
Story1	Live	LinStatic			X	0.000126	8E-06	16.472
Story1	Live	LinStatic			Y	0.000265	4.8E-05	5.539
Story1	Modal	LinModEigen	Mode	1	Y	0.008383	0.006202	1.352
Story1	Modal	LinModEigen	Mode	2	X	0.007396	0.002847	2.598
Story1	Modal	LinModEigen	Mode	2	Y	0.009714	0.001405	6.914
Story1	Modal	LinModEigen	Mode	3	X	0.008101	0.005669	1.429
Story1	EX	LinStatic	Max		X	0.009034	0.008319	1.086
Story1	EX	LinStatic	Max		Y	0.0024	0.001168	2.056
Story1	EX	LinStatic	Min		X	0.007676	0.007082	1.084
Story1	EX	LinStatic	Min		Y	0.002252	0.001092	2.062
Story1	EY	LinStatic	Max		Y	0.013029	0.011764	1.108
Story1	EY	LinStatic	Min		Y	0.010126	0.00891	1.136
Story1	Snow	LinStatic			Y	7.7E-05	1.6E-05	4.736
Story1	UDWalS1	Combination			Y	0.001617	0.000346	4.676
Story1	UDWalS2	Combination			Y	0.001848	0.000381	4.851
Story1	UDWalS3	Combination			Y	0.001773	0.00037	4.792
Story1	UDWalS4	Combination	Max		X	0.008408	0.008066	1.042
Story1	UDWalS4	Combination	Min		X	0.007706	0.007287	1.058
Story1	UDWalS4	Combination	Min		Y	0.001795	0.001128	1.592
Story1	UDWalS5	Combination	Max		X	0.008485	0.007084	1.198
Story1	UDWalS5	Combination	Min		X	0.009842	0.008321	1.183
Story1	UDWalS5	Combination	Min		Y	0.004262	0.001557	2.737
Story1	UDWalS6	Combination	Max		Y	0.013089	0.011561	1.132
Story1	UDWalS6	Combination	Min		X	0.001883	0.000908	2.073
Story1	UDWalS6	Combination	Min		Y	0.009759	0.008164	1.195
Story1	UDWalS7	Combination	Max		X	0.002123	0.001104	1.923
Story1	UDWalS7	Combination	Max		Y	0.010591	0.008601	1.231
Story1	UDWalS7	Combination	Min		Y	0.014891	0.012777	1.165
Story1	UDWalS8	Combination	Max		X	0.008665	0.008168	1.061
Story1	UDWalS8	Combination	Min		X	0.007654	0.007249	1.056
Story1	UDWalS8	Combination	Min		Y	0.001769	0.000989	1.788
Story1	UDWalS9	Combination	Max		X	0.008045	0.007087	1.135
Story1	UDWalS9	Combination	Max		Y	0.002734	0.000912	2.999
Story1	UDWalS9	Combination	Min		X	0.009402	0.008324	1.129
Story1	UDWalS9	Combination	Min		Y	0.003244	0.001348	2.406
Story1	UDWalS10	Combination	Max		Y	0.012488	0.011386	1.097
Story1	UDWalS10	Combination	Min		Y	0.009911	0.008749	1.133
Story1	UDWalS11	Combination	Max		Y	0.01034	0.008776	1.178
Story1	UDWalS11	Combination	Min		Y	0.013872	0.012236	1.134

Table 5.2 - Story Drifts

Story	Output Case	Case Type	Step Type	Step Number	Direction	Drift	Drift/	Label	X ft	Y ft	Z ft
Story1	Dead	LinStatic			Y	9E-06	1/114284	85	-25.7471	122.0876	11
Story1	Live	LinStatic			X	1E-06	1/0	29	-181.3514	138.2646	11
Story1	Live	LinStatic			Y	2E-06	1/498863	85	-25.7471	122.0876	11
Story1	Modal	LinModEigen	Mode	1	Y	6.4E-05	1/15746	85	-25.7471	122.0876	11
Story1	Modal	LinModEigen	Mode	2	X	5.6E-05	1/17847	25	-230.7471	15.2751	11
Story1	Modal	LinModEigen	Mode	2	Y	7.4E-05	1/13588	45	-250.4138	16.0876	11
Story1	Modal	LinModEigen	Mode	3	X	6.1E-05	1/16295	29	-181.3514	138.2646	11
Story1	EX	LinStatic	Max		X	6.8E-05	1/14612	25	-230.7471	15.2751	11
Story1	EX	LinStatic	Max		Y	1.8E-05	1/54990	85	-25.7471	122.0876	11
Story1	EX	LinStatic	Min		X	5.8E-05	1/17196	25	-230.7471	15.2751	11
Story1	EX	LinStatic	Min		Y	1.7E-05	1/58624	45	-250.4138	16.0876	11
Story1	EY	LinStatic	Max		Y	9.9E-05	1/10131	85	-25.7471	122.0876	11
Story1	EY	LinStatic	Min		Y	7.7E-05	1/13036	31	-132.302	138.2646	11
Story1	Snow	LinStatic			Y	1E-06	1/0	85	-25.7471	122.0876	11
Story1	UDWalS1	Combination			Y	1.2E-05	1/81631	85	-25.7471	122.0876	11
Story1	UDWalS2	Combination			Y	1.4E-05	1/71440	85	-25.7471	122.0876	11
Story1	UDWalS3	Combination			Y	1.3E-05	1/74440	85	-25.7471	122.0876	11
Story1	UDWalS4	Combination	Max		X	6.4E-05	1/15699	29	-181.3514	138.2646	11
Story1	UDWalS4	Combination	Min		X	5.8E-05	1/17129	81	-50.7471	83.5876	11
Story1	UDWalS4	Combination	Min		Y	1.4E-05	1/73545	85	-25.7471	122.0876	11
Story1	UDWalS5	Combination	Max		X	6.4E-05	1/15557	25	-230.7471	15.2751	11
Story1	UDWalS5	Combination	Min		X	7.5E-05	1/13412	25	-230.7471	15.2751	11
Story1	UDWalS5	Combination	Min		Y	3.2E-05	1/30968	85	-25.7471	122.0876	11
Story1	UDWalS6	Combination	Max		Y	9.9E-05	1/10085	45	-250.4138	16.0876	11
Story1	UDWalS6	Combination	Min		X	1.4E-05	1/70093	25	-230.7471	15.2751	11
Story1	UDWalS6	Combination	Min		Y	7.4E-05	1/13525	30	-158.1418	138.2646	11
Story1	UDWalS7	Combination	Max		X	1.6E-05	1/62181	29	-181.3514	138.2646	11
Story1	UDWalS7	Combination	Max		Y	8E-05	1/12464	31	-132.302	138.2646	11
Story1	UDWalS7	Combination	Min		Y	0.000113	1/8865	85	-25.7471	122.0876	11
Story1	UDWalS8	Combination	Max		X	6.6E-05	1/15233	25	-230.7471	15.2751	11
Story1	UDWalS8	Combination	Min		X	5.8E-05	1/17246	78	-25.7471	83.5876	11
Story1	UDWalS8	Combination	Min		Y	1.3E-05	1/74620	45	-250.4138	16.0876	11
Story1	UDWalS9	Combination	Max		X	6.1E-05	1/16408	25	-230.7471	15.2751	11
Story1	UDWalS9	Combination	Max		Y	2.1E-05	1/48275	45	-250.4138	16.0876	11
Story1	UDWalS9	Combination	Min		X	7.1E-05	1/14039	25	-230.7471	15.2751	11
Story1	UDWalS9	Combination	Min		Y	2.5E-05	1/40693	85	-25.7471	122.0876	11
Story1	UDWalS10	Combination	Max		Y	9.5E-05	1/10570	45	-250.4138	16.0876	11
Story1	UDWalS10	Combination	Min		Y	7.5E-05	1/13318	31	-132.302	138.2646	11
Story1	UDWalS11	Combination	Max		Y	7.8E-05	1/12766	31	-132.302	138.2646	11
Story1	UDWalS11	Combination	Min		Y	0.000105	1/9515	85	-25.7471	122.0876	11

Table 5.3 - Story Forces (Part 1 of 2)

Story	Location	Output Case	Case Type	Step Type	Step Number	P kip	VX kip	VY kip	T kip-ft
Story1	Top	Dead	LinStatic			9378.353	0	0	0
Story1	Bottom	Dead	LinStatic			10005.962	0	0	0
Story1	Top	Live	LinStatic			2208.407	0	0	0
Story1	Bottom	Live	LinStatic			2208.407	0	0	0
Story1	Top	Modal	LinModEigen	Mode	1	0	75.715	966.411	-123813.3899
Story1	Bottom	Modal	LinModEigen	Mode	1	0	75.715	966.411	-123813.3899
Story1	Top	Modal	LinModEigen	Mode	2	0	510.023	-263.838	69130.6056
Story1	Bottom	Modal	LinModEigen	Mode	2	0	510.023	-263.838	69130.6056
Story1	Top	Modal	LinModEigen	Mode	3	0	1252.428	52.393	-150594.1255
Story1	Bottom	Modal	LinModEigen	Mode	3	0	1252.428	52.393	-150594.1255
Story1	Top	EX	LinStatic	Max		0	-1619.671	0	133438.6618
Story1	Bottom	EX	LinStatic	Max		0	-1619.671	0	133438.6618
Story1	Top	EX	LinStatic	Min		0	-1619.671	0	113327.7418
Story1	Bottom	EX	LinStatic	Min		0	-1619.671	0	113327.7418
Story1	Top	EY	LinStatic	Max		0	0	-1619.671	245445.8708
Story1	Bottom	EY	LinStatic	Max		0	0	-1619.671	245445.8708
Story1	Top	EY	LinStatic	Min		0	0	-1619.671	205807.2474
Story1	Bottom	EY	LinStatic	Min		0	0	-1619.671	205807.2474
Story1	Top	Snow	LinStatic			679.678	0	0	0
Story1	Bottom	Snow	LinStatic			679.678	0	0	0
Story1	Top	UDWalS1	Combination			13129.695	0	0	0
Story1	Bottom	UDWalS1	Combination			14008.347	0	0	0
Story1	Top	UDWalS2	Combination			15127.314	0	0	0
Story1	Bottom	UDWalS2	Combination			15880.445	0	0	0
Story1	Top	UDWalS3	Combination			14549.916	0	0	0
Story1	Bottom	UDWalS3	Combination			15303.047	0	0	0
Story1	Top	UDWalS4	Combination	Max		15190.811	-1619.671	0	133438.6618
Story1	Bottom	UDWalS4	Combination	Max		16050.51	-1619.671	0	133438.6618
Story1	Top	UDWalS4	Combination	Min		15190.811	-1619.671	0	113327.7418
Story1	Bottom	UDWalS4	Combination	Min		16050.51	-1619.671	0	113327.7418
Story1	Top	UDWalS5	Combination	Max		15190.811	1619.671	0	-113327.7418
Story1	Bottom	UDWalS5	Combination	Max		16050.51	1619.671	0	-113327.7418
Story1	Top	UDWalS5	Combination	Min		15190.811	1619.671	0	-133438.6618
Story1	Bottom	UDWalS5	Combination	Min		16050.51	1619.671	0	-133438.6618
Story1	Top	UDWalS6	Combination	Max		15190.811	0	-1619.671	245445.8708
Story1	Bottom	UDWalS6	Combination	Max		16050.51	0	-1619.671	245445.8708
Story1	Top	UDWalS6	Combination	Min		15190.811	0	-1619.671	205807.2474
Story1	Bottom	UDWalS6	Combination	Min		16050.51	0	-1619.671	205807.2474
Story1	Top	UDWalS7	Combination	Max		15190.811	0	1619.671	-205807.2474
Story1	Bottom	UDWalS7	Combination	Max		16050.51	0	1619.671	-205807.2474
Story1	Top	UDWalS7	Combination	Min		15190.811	0	1619.671	-245445.8708
Story1	Bottom	UDWalS7	Combination	Min		16050.51	0	1619.671	-245445.8708
Story1	Top	UDWalS8	Combination	Max		6848.074	-1619.671	0	133438.6618
Story1	Bottom	UDWalS8	Combination	Max		7306.354	-1619.671	0	133438.6618
Story1	Top	UDWalS8	Combination	Min		6848.074	-1619.671	0	113327.7418

Table 5.3 - Story Forces (Part 1 of 2, continued)

Story	Location	Output Case	Case Type	Step Type	Step Number	P kip	VX kip	VY kip	T kip-ft
Story1	Bottom	UDWalS8	Combination	Min		7306.354	-1619.671	0	113327.7418
Story1	Top	UDWalS9	Combination	Max		6848.074	1619.671	0	-113327.7418
Story1	Bottom	UDWalS9	Combination	Max		7306.354	1619.671	0	-113327.7418
Story1	Top	UDWalS9	Combination	Min		6848.074	1619.671	0	-133438.6618
Story1	Bottom	UDWalS9	Combination	Min		7306.354	1619.671	0	-133438.6618
Story1	Top	UDWalS10	Combination	Max		6848.074	0	-1619.671	245445.8708
Story1	Bottom	UDWalS10	Combination	Max		7306.354	0	-1619.671	245445.8708
Story1	Top	UDWalS10	Combination	Min		6848.074	0	-1619.671	205807.2474
Story1	Bottom	UDWalS10	Combination	Min		7306.354	0	-1619.671	205807.2474
Story1	Top	UDWalS11	Combination	Max		6848.074	0	1619.671	-205807.2474
Story1	Bottom	UDWalS11	Combination	Max		7306.354	0	1619.671	-205807.2474
Story1	Top	UDWalS11	Combination	Min		6848.074	0	1619.671	-245445.8708
Story1	Bottom	UDWalS11	Combination	Min		7306.354	0	1619.671	-245445.8708

Table 5.3 - Story Forces (Part 2 of 2)

Story	Location	MX kip-ft	MY kip-ft
Story1	Top	719003.4573	1304443.4754
Story1	Bottom	770153.0653	1394889.2737
Story1	Top	175480.7556	307803.5187
Story1	Bottom	175480.7556	307803.5187
Story1	Top	0	0
Story1	Bottom	-10630.5181	832.8599
Story1	Top	0	0
Story1	Bottom	2902.2174	5610.2558
Story1	Top	0	0
Story1	Bottom	-576.325	13776.7129
Story1	Top	0	0
Story1	Bottom	0	-17816.3855
Story1	Top	0	0
Story1	Bottom	0	-17816.3855
Story1	Top	0	0
Story1	Bottom	17816.3855	0
Story1	Top	0	0
Story1	Bottom	17816.3855	0
Story1	Top	52828.3593	95078.2937
Story1	Bottom	52828.3593	95078.2937
Story1	Top	1006604.8403	1826220.8655
Story1	Bottom	1078214.2914	1952844.9831
Story1	Top	1169987.5373	2105356.9471
Story1	Bottom	1231367.0669	2213891.9051
Story1	Top	1122810.2793	2025260.959
Story1	Bottom	1184189.8088	2133795.9169
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1241002.0962	2219722.1189

Table 5.3 - Story Forces (Part 2 of 2, continued)

Story	Location	MX kip-ft	MY kip-ft
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1241002.0962	2219722.1189
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1241002.0962	2255354.89
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1241002.0962	2255354.89
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1258818.4818	2237538.5045
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1258818.4818	2237538.5045
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1223185.7107	2237538.5045
Story1	Top	1170937.3633	2113645.85
Story1	Bottom	1223185.7107	2237538.5045
Story1	Top	525016.3245	952504.6257
Story1	Bottom	562365.7683	1000731.7621
Story1	Top	525016.3245	952504.6257
Story1	Bottom	562365.7683	1000731.7621
Story1	Top	525016.3245	952504.6257
Story1	Bottom	562365.7683	1036364.5332
Story1	Top	525016.3245	952504.6257
Story1	Bottom	562365.7683	1036364.5332
Story1	Top	525016.3245	952504.6257
Story1	Bottom	580182.1538	1018548.1476
Story1	Top	525016.3245	952504.6257
Story1	Bottom	580182.1538	1018548.1476
Story1	Top	525016.3245	952504.6257
Story1	Bottom	544549.3827	1018548.1476
Story1	Top	525016.3245	952504.6257
Story1	Bottom	544549.3827	1018548.1476

6 Design Data

This chapter provides design data and results.

6.1 Shear Wall Design

Table 6.1 - Shear Wall Design Preferences - ACI 318-19

Item	Value
Multi-Response Design	Step-by-Step - All
Rebar Material	A615Gr60
Rebar Shear Material	A615Gr60
Design System Rho	1
Design System Sds	0.849
Seismic Design Category	D
Design System Omega0	2.5
Importance Factor	1
Design System R	5
System Cd	5
Ductility Type	Special Structural Wall
Critical Section	Story1
Ignore Beneficial Pu for Spandrel Design?	No
Phi (Tension)	0.9
Phi (Compression)	0.65
Phi (Shear and Torsion)	0.75
Phi (Shear Seismic)	0.6
PMax Factor	0.8
# Interaction Curves	24
# Interaction Points	11
Edge Design PT-Max	0.06
Edge Design PC-Max	0.04
Section Design IP-Max	0.04
Section Design IP-Min	0.0025
Utlization Factor Limit	0.95

Table 6.2 - Shear Wall Pier Design Overwrites - ACI 318-19 (Part 1 of 2)

Story	Pier	Design?	Wall Ductility Type	LLRF	Seismic?	Pier Section Type
Story1	P1	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P2	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P3	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P4	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P5	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P6	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P7	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P8	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P9	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P10	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section
Story1	P11	Program Determined	Program Determined	1	Program Determined	General Reinforcing Section

Table 6.2 - Shear Wall Pier Design Overwrites - ACI 318-19 (Part 2 of 2)

Pier Sec. Bottom	Pier Sec. Top	Design/Check	Check Comp Block Depth for BZ?
Pier1	Pier1	Program Determined	No
Pier2	Pier2	Program Determined	No
Pier3	Pier3	Program Determined	No
Pier4	Pier4	Program Determined	No
Pier5	Pier5	Program Determined	No
Pier6	Pier6	Program Determined	No
Pier7	Pier7	Program Determined	No
Pier8	Pier8	Program Determined	No
Pier8	Pier8	Program Determined	No
Pier10	Pier10	Program Determined	No
Pier11	Pier11	Program Determined	No

Table 6.3 - Shear Wall Pier Design Summary - ACI 318-19 (Part 1 of 3)

Story	Pier Label	Station	Design Type	Pier Section	D/C Ratio	Pier Leg	Leg X1 in	Leg Y1 in	Leg X2 in	Leg Y2 in
Story1	P1	Top	Section Designer	Pier1	0.151	Top Leg 1	-2673	1465.08	-2673	1646.4
Story1	P1	Bottom	Section Designer	Pier1	0.205	Bottom Leg 1	-2673	1465.08	-2673	1646.4
Story1	P2	Top	Section Designer	Pier2	0.249	Top Leg 1	-2768.9652	183.3006	-2768.9652	382.0506
Story1	P2	Bottom	Section Designer	Pier2	0.186	Bottom Leg 1	-2768.9652	183.3006	-2768.9652	382.0506
Story1	P3	Top	Section Designer	Pier3	0.116	Top Leg 1	-2228.9652	945.0506	-2228.9652	1169.0506
Story1	P3	Bottom	Section Designer	Pier3	0.175	Bottom Leg 1	-2228.9652	945.0506	-2228.9652	1169.0506
Story1	P4	Top	Section Designer	Pier4	0.169	Top Leg 1	-2228.9652	687.0506	-2228.9652	885.0506
Story1	P4	Bottom	Section Designer	Pier4	0.165	Bottom Leg 1	-2228.9652	687.0506	-2228.9652	885.0506
Story1	P5	Top	Section Designer	Pier5	0.173	Top Leg 1	-932.9652	1455.0506	-932.9652	1656.4881
Story1	P5	Bottom	Section Designer	Pier5	0.195	Bottom Leg 1	-932.9652	1455.0506	-932.9652	1656.4881
Story1	P6	Top	Section Designer	Pier6	0.227	Top Leg 1	-932.9652	957.1772	-932.9652	1169.0506
Story1	P6	Bottom	Section Designer	Pier6	0.175	Bottom Leg 1	-932.9652	957.1772	-932.9652	1169.0506
Story1	P7	Top	Section Designer	Pier7	0.106	Top Leg 1	-1046.9652	603.1756	-1046.9652	957.1874
Story1	P7	Bottom	Section Designer	Pier7	0.195	Bottom Leg 1	-1046.9652	603.1756	-1046.9652	957.1874
Story1	P8	Top	Section Designer	Pier8	0.387	Top Leg 1	-2176.217	1659.1756	-1897.7014	1659.1756
Story1	P8	Bottom	Section Designer	Pier8	0.133	Bottom Leg 1	-2176.217	1659.1756	-1897.7014	1659.1756
Story1	P9	Top	Section Designer	Pier8	0.326	Top Leg 1	-1587.624	1659.1752	-1309.104	1659.1752
Story1	P9	Bottom	Section Designer	Pier8	0.143	Bottom Leg 1	-1587.624	1659.1752	-1309.104	1659.1752
Story1	P10	Top	Section Designer	Pier10	0.131	Top Leg 1	-2066.9652	950.0506	-1256.9652	950.0506
Story1	P10	Bottom	Section Designer	Pier10	0.059	Bottom Leg 1	-2066.9652	950.0506	-1256.9652	950.0506
Story1	P11	Top	Section Designer	Pier11	0.377	Top Leg 1	-1941.9652	184.3006	-1573.9652	184.3006
Story1	P11	Bottom	Section Designer	Pier11	0.154	Bottom Leg 1	-1941.9652	184.3006	-1573.9652	184.3006

Table 6.3 - Shear Wall Pier Design Summary - ACI 318-19 (Part 2 of 3)

Story	Pier Label	Station	Length in	Thickness in	Shear Rebar in2/ft	Compressive Stress Left lb/in2	Compressive Stress Right lb/in2	Compressive Stress Limit Left lb/in2	Compressive Stress Limit Right lb/in2
Story1	P1	Top	181.32	12	0.36	292.65	83.06	1000	1000
Story1	P1	Bottom	181.32	12	0.36	214.73	455.71	1000	1000
Story1	P2	Top	198.75	12	0.36	214.01	578.67	1000	1000
Story1	P2	Bottom	198.75	12	0.36	411.73	15.69	1000	1000
Story1	P3	Top	224	12	0.36	95.46	350.12	1000	1000
Story1	P3	Bottom	224	12	0.36	254.87	540.92	1000	1000
Story1	P4	Top	198	12	0.36	453	99.46	1000	1000
Story1	P4	Bottom	198	12	0.36	578.14	193.21	1000	1000
Story1	P5	Top	201.4375	12	0.36	546.5	131.35	1000	1000
Story1	P5	Bottom	201.4375	12	0.36	6.14	440.4	1000	1000
Story1	P6	Top	211.8734	12	0.36	53.02	449.02	1000	1000
Story1	P6	Bottom	211.8734	12	0.36	171.02	598.41	1000	1000
Story1	P7	Top	354.0118	12	0.36	237.61	35.5	1000	1000
Story1	P7	Bottom	354.0118	12	0.36	486.89	253.4	1000	1000
Story1	P8	Top	278.5156	12	0.36	60.08	42.6	1000	1000
Story1	P8	Bottom	278.5156	12	0.36	29.94	104.13	1000	1000
Story1	P9	Top	278.52	12	0.36	36.32	63.67	1000	1000
Story1	P9	Bottom	278.52	12	0.36	71.34	60.04	1000	1000
Story1	P10	Top	810	12	0.36	72.54	89.21	1000	1000
Story1	P10	Bottom	810	12	0.36	87.54	105.6	1000	1000
Story1	P11	Top	368	12	0.36	37.02	37.75	1000	1000
Story1	P11	Bottom	368	12	0.36	47.08	59.08	1000	1000

Table 6.3 - Shear Wall Pier Design Summary - ACI 318-19 (Part 3 of 3)

Story	Pier Label	Station	C Depth Left in	C Limit Left in	C Depth Right in	C Limit Right in	Boundary Zone Left in	Boundary Zone Right in	Warnings	Errors
Story1	P1	Top							No Message	No Message
Story1	P1	Bottom							No Message	No Message
Story1	P2	Top							No Message	No Message
Story1	P2	Bottom							No Message	No Message
Story1	P3	Top							No Message	No Message
Story1	P3	Bottom							No Message	No Message
Story1	P4	Top							No Message	No Message
Story1	P4	Bottom							No Message	No Message
Story1	P5	Top							No Message	No Message
Story1	P5	Bottom							No Message	No Message
Story1	P6	Top							No Message	No Message
Story1	P6	Bottom							No Message	No Message
Story1	P7	Top							No Message	No Message
Story1	P7	Bottom							No Message	No Message
Story1	P8	Top							No Message	No Message

Table 6.3 - Shear Wall Pier Design Summary - ACI 318-19 (Part 3 of 3, continued)

Story	Pier Label	Station	C Depth Left in	C Limit Left in	C Depth Right in	C Limit Right in	Boundary Zone Left in	Boundary Zone Right in	Warnings	Errors
Story1	P8	Bottom							No Message	No Message
Story1	P9	Top							No Message	No Message
Story1	P9	Bottom							No Message	No Message
Story1	P10	Top							No Message	No Message
Story1	P10	Bottom							No Message	No Message
Story1	P11	Top							No Message	No Message
Story1	P11	Bottom							No Message	No Message

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P1	-2673	1555.74	181.32	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-2673	1465.08	-2673	1646.4	181.32	12	2175.8408
Bottom	Leg 1	-2673	1465.08	-2673	1646.4	181.32	12	2175.8408

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.151	UDWalS5	224.175	-87.4632	-945.0783	17.934	-87.4632
Bottom	0.205	UDWalS11	118.046	0	-1906.1888	9.4437	-9.4437

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.861217	140479709.46	11458.505
Bottom Minor Bend(M2)	0.6	1	1	130731593.08	10663.381

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS6	8914.141	4.654607	1	1
Bottom	Leg 1	UDWalS6	8914.141	4.654607	1	1

Shear Design (Part 1 of 2)

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless
Top	Leg 1	0.36	UDWalS6	228.019	-1029.3492	260.564	260.564	0.727995	3
Bottom	Leg 1	0.36	UDWalS6	262.17	1836.8531	260.564	260.564	0.727995	3

Shear Design (Part 2 of 2)

ϕV_c kip	ϕV_n kip
276.939	472.765
276.939	472.765

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS6	228.019	-1029.3492	292.65	1000		
Top–Right	Leg 1	Not Required	UDWalS6	228.019	-1029.3492	-83.06	1000		
Bottom–Left	Leg 1	Not Required	UDWalS6	262.17	1836.8531	-214.73	1000		
Botttom–Right	Leg 1	Not Required	UDWalS6	262.17	1836.8531	455.71	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P2	-2768.9652	282.6756	198.75	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-2768.9652	183.3006	-2768.9652	382.0506	198.75	12	2385
Bottom	Leg 1	-2768.9652	183.3006	-2768.9652	382.0506	198.75	12	2385

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.249	UDWalS5	433.156	-129.1272	2567.5312	34.6525	-129.1272
Bottom	0.186	UDWalS10	215.656	0	2627.9673	17.2525	-17.2525

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.853045	154662843.78	12615.381
Bottom Minor Bend(M2)	0.6	1	1	143298610.87	11688.435

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS7	11175.5946	6.002223	1	1
Bottom	Leg 1	UDWalS7	11175.5946	6.002223	1	1

Shear Design

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless	ϕV_c kip	ϕV_n kip
Top	Leg 1	0.36	UDWalS7	434.849	2609.3356	365.12	365.12	0.664151	3	303.561	518.211
Bottom	Leg 1	0.36	UDWalS7	472.283	-1406.9837	365.12	365.12	0.664151	3	303.561	518.211

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS7	434.849	2609.3356	-214.01	1000		
Top–Right	Leg 1	Not Required	UDWalS7	434.849	2609.3356	578.67	1000		
Bottom–Left	Leg 1	Not Required	UDWalS7	472.283	-1406.9837	411.73	1000		
Botttom–Right	Leg 1	Not Required	UDWalS7	472.283	-1406.9837	-15.69	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P3	-2228.9652	1057.0506	224	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-2228.9652	945.0506	-2228.9652	1169.0506	224	12	2688.0007
Bottom	Leg 1	-2228.9652	945.0506	-2228.9652	1169.0506	224	12	2688.0007

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.116	UDWalS7	295.296	-5.5023	2499.2607	23.6237	-23.6237
Bottom	0.175	UDWalS10	188.948	0	2844.5891	15.1159	15.1159

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.908279	169266499.69	13806.557
Bottom Minor Bend(M2)	0.6	1	0.875719	172204759.07	14046.222

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS7	13171.0835	6.146453	1	1
Bottom	Leg 1	UDWalS7	13171.0835	6.146453	1	1

Shear Design

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless	ϕV_c kip	ϕV_n kip
Top	Leg 1	0.36	UDWalS7	295.296	2499.2607	372.284	372.284	0.589286	3	342.127	584.047
Bottom	Leg 1	0.36	UDWalS7	337.486	-1595.867	372.284	372.284	0.589286	3	342.127	584.047

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS6	342.261	1863.1166	-95.46	1000		
Top–Right	Leg 1	Not Required	UDWalS6	342.261	1863.1166	350.12	1000		
Bottom–Left	Leg 1	Not Required	UDWalS6	384.451	3327.4518	-254.87	1000		
Botttom–Right	Leg 1	Not Required	UDWalS6	384.451	3327.4518	540.92	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P4	-2228.9652	786.0506	198	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-2228.9652	687.0506	-2228.9652	885.0506	198	12	2376
Bottom	Leg 1	-2228.9652	687.0506	-2228.9652	885.0506	198	12	2376

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.169	UDWalS6	373.73	-56.9185	-2391.1304	29.8984	-56.9185
Bottom	0.165	UDWalS7	457.297	0	-2519.9682	36.5838	-36.5838

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.91352	149209703.33	12170.585
Bottom Minor Bend(M2)	0.6	1	0.828132	156178960.4	12739.046

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS6	11164.7063	4.955617	1	1
Bottom	Leg 1	UDWalS6	11164.7063	4.955617	1	1

Shear Design (Part 1 of 2)

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless
Top	Leg 1	0.36	UDWalS6	373.73	-2391.1304	356.596	356.596	0.666667	3
Bottom	Leg 1	0.36	UDWalS6	411.022	1531.4245	356.596	356.596	0.666667	3

Shear Design (Part 2 of 2)

ϕV_c kip	ϕV_n kip
302.415	516.255
302.415	516.255

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS7	420.004	-1804.8838	453	1000		
Top–Right	Leg 1	Not Required	UDWalS7	420.004	-1804.8838	-99.46	1000		
Bottom–Left	Leg 1	Not Required	UDWalS7	457.297	-2519.9682	578.14	1000		
Botttom–Right	Leg 1	Not Required	UDWalS7	457.297	-2519.9682	-193.21	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P5	-932.9652	1555.7694	201.4375	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-932.9652	1455.0506	-932.9652	1656.4881	201.4375	12	2417.25
Bottom	Leg 1	-932.9652	1455.0506	-932.9652	1656.4881	201.4375	12	2417.25

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.173	UDWalS4	499.466	61.195	-2239.8148	39.9573	61.195
Bottom	0.195	UDWalS7	534.981	0	-3157.1373	42.7984	-42.7984

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.859237	156232138.1	12743.383
Bottom Minor Bend(M2)	0.6	1	0.873115	155074579.95	12648.965

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS6	11548.0726	5.235816	1	1
Bottom	Leg 1	UDWalS6	11548.0726	5.235816	1	1

Shear Design

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless	ϕV_c kip	ϕV_n kip
Top	Leg 1	0.36	UDWalS6	501.756	-2292.076	341.864	341.864	0.65529	3	307.666	525.218
Bottom	Leg 1	0.36	UDWalS6	539.697	1468.4312	341.864	341.864	0.65529	3	307.666	525.218

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS6	501.756	-2292.076	546.5	1000		
Top–Right	Leg 1	Not Required	UDWalS6	501.756	-2292.076	-131.35	1000		
Bottom–Left	Leg 1	Not Required	UDWalS6	539.697	1468.4312	6.14	1000		
Botttom–Right	Leg 1	Not Required	UDWalS6	539.697	1468.4312	440.4	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P6	-932.9652	1063.1139	211.8734	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-932.9652	957.1772	-932.9652	1169.0506	211.8734	12	2542.4817
Bottom	Leg 1	-932.9652	957.1772	-932.9652	1169.0506	211.8734	12	2542.4817

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.227	UDWalS5	501.947	-167.104	1964.9649	40.1558	-167.104
Bottom	0.175	UDWalS6	543.317	0	2878.3436	43.4654	43.4654

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.860146	164245806.54	13397.034
Bottom Minor Bend(M2)	0.6	1	0.8681	163546478.93	13339.992

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS7	12574.1813	6.990436	1	1
Bottom	Leg 1	UDWalS7	12574.1813	6.990436	1	1

Shear Design

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless	ϕV_c kip	ϕV_n kip
Top	Leg 1	0.36	UDWalS7	501.433	2028.8476	378.638	378.638	0.623013	3	323.605	552.428
Bottom	Leg 1	0.36	UDWalS7	541.338	-2136.1657	378.638	378.638	0.623013	3	323.605	552.428

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS6	503.412	1878.0811	-53.02	1000		
Top–Right	Leg 1	Not Required	UDWalS6	503.412	1878.0811	449.02	1000		
Bottom–Left	Leg 1	Not Required	UDWalS6	543.317	2878.3436	-171.02	1000		
Botttom–Right	Leg 1	Not Required	UDWalS6	543.317	2878.3436	598.41	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P7	-1046.9652	780.1815	354.0118	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-1046.9652	603.1756	-1046.9652	957.1874	354.0118	12	4248.1421
Bottom	Leg 1	-1046.9652	603.1756	-1046.9652	957.1874	354.0118	12	4248.1421

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.106	UDWalS5	426.737	-109.7886	-2941.2583	34.139	-109.7886
Bottom	0.195	UDWalS11	233.775	0	-6342.2612	18.702	18.702

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.860359	274401159.81	22382.074
Bottom Minor Bend(M2)	0.6	1	0.989238	256623155.96	20931.975

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS6	28330.4976	5.269949	1	1
Bottom	Leg 1	UDWalS6	28330.4976	5.269949	1	1

Shear Design (Part 1 of 2)

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless
Top	Leg 1	0.36	UDWalS6	424.249	-3053.6308	516.129	516.129	0.372869	3
Bottom	Leg 1	0.36	UDWalS6	490.927	2623.7851	516.129	516.129	0.372869	3

Shear Design (Part 2 of 2)

ϕV_c kip	ϕV_n kip
540.7	923.033
540.7	923.033

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS7	429.281	-2852.2481	237.61	1000		
Top–Right	Leg 1	Not Required	UDWalS7	429.281	-2852.2481	-35.5	1000		
Bottom–Left	Leg 1	Not Required	UDWalS7	495.958	-7731.3168	486.89	1000		
Botttom–Right	Leg 1	Not Required	UDWalS7	495.958	-7731.3168	-253.4	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P8	-2036.9592	1659.1756	278.5156	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-2176.217	1659.1756	-1897.7014	1659.1756	278.5156	12	3342.1875
Bottom	Leg 1	-2176.217	1659.1756	-1897.7014	1659.1756	278.5156	12	3342.1875

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.387	UDWalS6	171.585	-256.3257	-113.0342	13.7268	-256.3257
Bottom	0.133	UDWalS8	100.624	0	2541.2688	8.05	8.05

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.796097	223606574.25	18238.913
Bottom Minor Bend(M2)	0.6	1	1	200809570.66	16379.43

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS4	17450.3544	78.493786	1	1
Bottom	Leg 1	UDWalS4	17450.3544	78.493786	1	1

Shear Design

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless	ϕV_c kip	ϕV_n kip
Top	Leg 1	0.36	UDWalS4	170.447	-134.5692	254.655	254.655	0.473941	3	425.391	726.188
Bottom	Leg 1	0.36	UDWalS4	222.905	2666.6374	254.655	254.655	0.473941	3	425.391	726.188

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS6	171.585	-113.0342	60.08	1000		
Top–Right	Leg 1	Not Required	UDWalS6	171.585	-113.0342	42.6	1000		
Bottom–Left	Leg 1	Not Required	UDWalS6	224.043	479.5867	29.94	1000		
Botttom–Right	Leg 1	Not Required	UDWalS6	224.043	479.5867	104.13	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P9	-1448.364	1659.1752	278.52	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-1587.624	1659.1752	-1309.104	1659.1752	278.52	12	3342.1875
Bottom	Leg 1	-1587.624	1659.1752	-1309.104	1659.1752	278.52	12	3342.1875

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.326	UDWalS6	167.095	-222.0123	176.7997	13.3676	-222.0123
Bottom	0.143	UDWalS8	96.717	0	2639.1385	7.7373	-7.7373

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.769414	226982211.39	18514.253
Bottom Minor Bend(M2)	0.6	1	0.997743	201039603.1	16398.193

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS4	17401.383	138.909838	1	1
Bottom	Leg 1	UDWalS4	17401.383	138.909838	1	1

Shear Design

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless	ϕV_c kip	ϕV_n kip
Top	Leg 1	0.36	UDWalS4	165.904	148.4454	243.828	243.828	0.473934	3	425.398	726.199
Bottom	Leg 1	0.36	UDWalS4	218.362	2830.5483	243.828	243.828	0.473934	3	425.398	726.199

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS6	167.095	176.7997	36.32	1000		
Top–Right	Leg 1	Not Required	UDWalS6	167.095	176.7997	63.67	1000		
Bottom–Left	Leg 1	Not Required	UDWalS6	219.554	-73.0808	71.34	1000		
Botttom–Right	Leg 1	Not Required	UDWalS6	219.554	-73.0808	60.04	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P10	-1661.9652	950.0506	810	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-2066.9652	950.0506	-1256.9652	950.0506	810	12	9719.9985
Bottom	Leg 1	-2066.9652	950.0506	-1256.9652	950.0506	810	12	9719.9985

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.131	UDWalS6	786.123	-431.8418	911.7323	62.8899	-431.8418
Bottom	0.059	UDWalS4	938.593	0	9860.7533	75.0875	75.0875

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.855203	629590922.17	51353.829
Bottom Minor Bend(M2)	0.6	1	0.878822	621676198.71	50708.249

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS5	124988.6424	292.675323	1	1
Bottom	Leg 1	UDWalS5	124988.6424	292.675323	1	1

Shear Design (Part 1 of 2)

Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless
Top	Leg 1	0.36	UDWalS5	784.984	948.6834	828.071	828.071	0.162963	3
Bottom	Leg 1	0.36	UDWalS5	937.545	-8160.0925	828.071	828.071	0.162963	3

Shear Design (Part 2 of 2)

ϕV_c kip	ϕV_n kip
1237.154	2111.954
1237.154	2111.954

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS6	786.123	911.7323	72.54	1000		
Top–Right	Leg 1	Not Required	UDWalS6	786.123	911.7323	89.21	1000		
Bottom–Left	Leg 1	Not Required	UDWalS6	938.685	987.3633	87.54	1000		
Botttom–Right	Leg 1	Not Required	UDWalS6	938.685	987.3633	105.6	1000		

ETABS Shear Wall Design

ACI 318-19 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (in)	Centroid Y (in)	Length (in)	Thickness (in)	Height (in)	Pier Ductility	LLRF
Story1	P11	-1757.9652	184.3006	368	12	132	Special Structural Wall	1

Material Properties

E_c (lb/in²)	f'_c (lb/in²)	Lt.Wt Factor (Unitless)	f_y (lb/in²)	f_{ys} (lb/in²)
3604996.5	5000	1	60000	60000

Design System Parameters

ρ	S_{DS}	Ω_0	SDC	Type
1	0.849	2.5	D	Special Structural Wall

Design Code Parameters

ϕ_T	ϕ_C	ϕ_v	ϕ_v (Seismic)	IP_{MAX}	IP_{MIN}	P_{MAX}
0.9	0.65	0.75	0.6	0.04	0.0025	0.8

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 in	Left Y_1 in	Right X_2 in	Right Y_2 in	Length in	Thickness in	Pier A_g in²
Top	Leg 1	-1941.9652	184.3006	-1573.9652	184.3006	368	12	4416
Bottom	Leg 1	-1941.9652	184.3006	-1573.9652	184.3006	368	12	4416

Flexural Design for P, M_3 and M_2

Station	D/C	Flexural	P_u kip	M_{u2} kip-ft	M_{u3} kip-ft	Minimum M_2 kip-ft	Design M_2 kip-ft
Top	0.377	UDWalS7	165.088	300.0305	8.2719	13.207	300.0305
Bottom	0.154	UDWalS9	109.338	0	-4461.4677	8.747	8.747

Axial Force and Minor Moment Factors

Station Location	C_m Factor Unitless	δ_{ns} Factor Unitless	β_{dns} Unitless	EI_{eff} lb-ft²	P_c kip
Top Minor Bend(M2)	0.6	1	0.822894	291106133.83	23744.648
Bottom Minor Bend(M2)	0.6	1	1	265327742.4	21641.982

Shear Design Capacity Parameters

Station Location	ID	Shear Combo	$M_{pr,major}$ kip-ft	Ω_v Unitless	ω_v Unitless	$\Omega_v * \omega_v$ Unitless
Top	Leg 1	UDWalS5	28406.1296	83.815533	1	1
Bottom	Leg 1	UDWalS5	28406.1296	83.815533	1	1

Shear Design (Part 1 of 2)

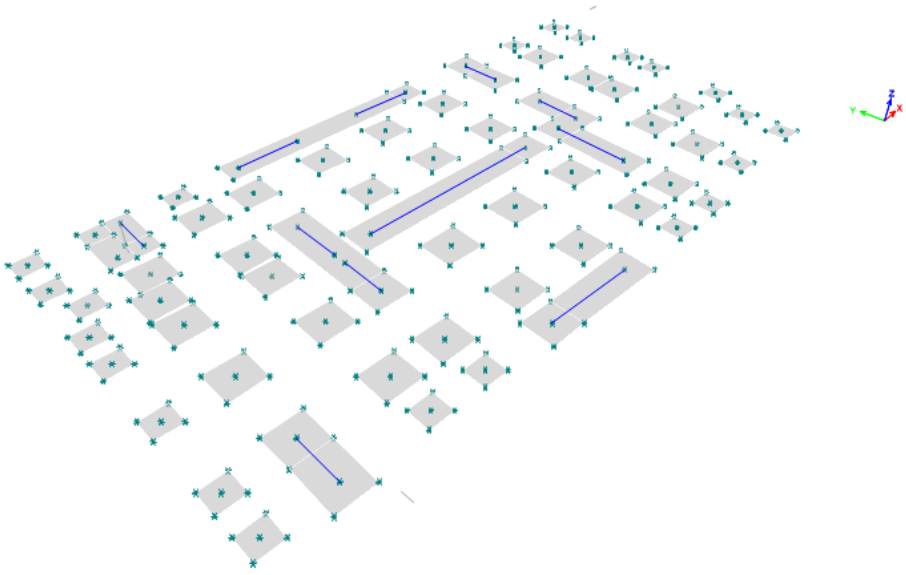
Station Location	ID	Rebar in²/ft	Shear Combo	P_u kip	M_u kip-ft	V_u kip	$V_{u,design}$ kip	h_w/l_w Unitless	α_c Unitless
Top	Leg 1	0.36	UDWalS5	163.566	31.3577	426.939	426.939	0.358696	3
Bottom	Leg 1	0.36	UDWalS5	232.878	-4664.9725	426.939	426.939	0.358696	3

Shear Design (Part 2 of 2)

ϕV_c kip	ϕV_n kip
562.065	959.505
562.065	959.505

Boundary Element Check (ACI 18.10.6.3, 18.10.6.4)

Station Location	ID	Edge Length (in)	Governing Combo	P_u kip	M_u kip-ft	Stress Comp lb/in²	Stress Limit lb/in²	C Depth in	C Limit in
Top–Left	Leg 1	Not Required	UDWalS7	165.088	8.2719	37.02	1000		
Top–Right	Leg 1	Not Required	UDWalS7	165.088	8.2719	37.75	1000		
Bottom–Left	Leg 1	Not Required	UDWalS7	234.4	135.4077	47.08	1000		
Botttom–Right	Leg 1	Not Required	UDWalS7	234.4	135.4077	59.08	1000		



Puyallup Bell Foundation Design

Puyallup Bell Concrete Lateral Mode

Model File: Puyallup Bell - Uplift, Revision

3/19/2026

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1 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

1.1 Materials

Table 1.1 - Material Properties - General

Material	Type	SymType	Grade	Color	Notes
4000Psi	Concrete	Isotropic	Unknown	Blue	Normalweight f'c = 4 ksi added 10/27/2025 2:15:04 PM
A416Gr270	Tendon	Uniaxial	Unknown	Magenta	ASTM A416 Grade 270 added 10/27/2025 2:15:04 PM
A615Gr60	Rebar	Uniaxial	Unknown	Cyan	ASTM A615 Grade 60 added 10/27/2025 2:15:04 PM
MAT1	Concrete	Isotropic	Unknown	Blue	Normalweight f'c = 4 ksi added 10/27/2025 2:15:04 PM

1.2 Shell Sections

Table 1.2 - Area Section Property Definitions - Summary

Name	Type	Element Type	Material	Total Thickness in
24" Footing	Slab	Shell-Thick	4000Psi	24
36" Footing	Slab	Shell-Thick	4000Psi	36

1.3 Reinforcement Sizes

Table 1.3 - Reinforcing Bar Sizes

Name	Diameter in	Area in2
#6	0.75	0.44

1.4 Spring Properties

Table 1.4 - Spring Property Definitions - Area Springs

Name	Stiffness Option	Stiffnes U1 kip/in/in2	Stiffnes U2 kip/in/in2	Stiffnes U3 kip/in/in2	Nonlinear Option for U3	Color	Notes
SOIL1	User	0	0	0.3	Compression Only	Cyan	

2 Assignments

This chapter provides a listing of the assignments applied to the model.

2.1 Shell Assignments

Table 2.1 - Area Assignments - Summary

UniqueName	Section Property	Property Type	Spring
4	24" Footing	Slab	SOIL1
5	24" Footing	Slab	SOIL1
8	24" Footing	Slab	SOIL1
9	24" Footing	Slab	SOIL1
14	24" Footing	Slab	SOIL1
16	24" Footing	Slab	SOIL1
17	24" Footing	Slab	SOIL1
18	24" Footing	Slab	SOIL1
20	24" Footing	Slab	SOIL1
21	24" Footing	Slab	SOIL1
22	24" Footing	Slab	SOIL1
23	24" Footing	Slab	SOIL1
24	24" Footing	Slab	SOIL1
25	24" Footing	Slab	SOIL1
28	24" Footing	Slab	SOIL1
29	24" Footing	Slab	SOIL1
30	24" Footing	Slab	SOIL1
33	24" Footing	Slab	SOIL1
34	24" Footing	Slab	SOIL1
35	24" Footing	Slab	SOIL1
37	24" Footing	Slab	SOIL1
38	24" Footing	Slab	SOIL1
41	24" Footing	Slab	SOIL1
42	24" Footing	Slab	SOIL1
43	24" Footing	Slab	SOIL1
48	24" Footing	Slab	SOIL1
49	24" Footing	Slab	SOIL1
54	24" Footing	Slab	SOIL1
56	36" Footing	Slab	SOIL1
59	36" Footing	Slab	SOIL1
65	36" Footing	Slab	SOIL1
70	36" Footing	Slab	SOIL1
55	36" Footing	Slab	SOIL1
58	36" Footing	Slab	SOIL1
62	36" Footing	Slab	SOIL1
63	36" Footing	Slab	SOIL1
64	36" Footing	Slab	SOIL1
66	36" Footing	Slab	SOIL1
69	36" Footing	Slab	SOIL1
50	24" Footing	Slab	SOIL1
51	24" Footing	Slab	SOIL1

Table 2.1 - Area Assignments - Summary (continued)

UniqueName	Section Property	Property Type	Spring
52	24" Footing	Slab	SOIL1
53	24" Footing	Slab	SOIL1
57	24" Footing	Slab	SOIL1
60	24" Footing	Slab	SOIL1
61	24" Footing	Slab	SOIL1
67	24" Footing	Slab	SOIL1
68	24" Footing	Slab	SOIL1
71	24" Footing	Slab	SOIL1
72	24" Footing	Slab	SOIL1
73	24" Footing	Slab	SOIL1
74	24" Footing	Slab	SOIL1
75	24" Footing	Slab	SOIL1
76	24" Footing	Slab	SOIL1
77	24" Footing	Slab	SOIL1
78	24" Footing	Slab	SOIL1
79	24" Footing	Slab	SOIL1
80	24" Footing	Slab	SOIL1
81	24" Footing	Slab	SOIL1
82	24" Footing	Slab	SOIL1
89	36" Footing	Slab	SOIL1
91	36" Footing	Slab	SOIL1
87	24" Footing	Slab	SOIL1
88	36" Footing	Slab	SOIL1
90	36" Footing	Slab	SOIL1
1	24" Footing	Slab	SOIL1
2	24" Footing	Slab	SOIL1
7	36" Footing	Slab	SOIL1
11	36" Footing	Slab	SOIL1
3	36" Footing	Slab	SOIL1
6	36" Footing	Slab	SOIL1

3 Loads

This chapter provides loading information as applied to the model.

3.1 Load Patterns

Table 3.1 - Load Pattern Definitions

Name	Is Auto Load	Type	Self Weight Multiplier	Auto Load
~LLRF	No	Other	0	
Dead	No	Dead	1	
Dead ABOVE	No	Dead	0	
EX(1/3) ABOVE	No	Seismic	0	None
EX(2/3) ABOVE	No	Seismic	0	None
EX(3/3) ABOVE	No	Seismic	0	None
EY(1/3) ABOVE	No	Seismic	0	None
EY(2/3) ABOVE	No	Seismic	0	None
EY(3/3) ABOVE	No	Seismic	0	None
Live ABOVE	No	Live	0	
Snow ABOVE	No	Snow	0	

3.2 Applied Loads

3.2.1 Point Loads

POINT LOADS IMPORTED FROM ETABS MODEL

Table 3.2 - Joint Loads Assignments - Force

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
10	Dead ABOVE	0.008	-26.479	-161.505	0	0	0	0	0
11	Dead ABOVE	2.057	-55.273	-98.921	0	0	0	0	0
14	Dead ABOVE	-0.378	79.097	-147.883	0	0	0	0	0
15	Dead ABOVE	-3.969	35.089	-196.042	0	0	0	0	0
18	Dead ABOVE	-29.676	16.091	-351.561	0	0	0	0	0
19	Dead ABOVE	23.216	16.899	-372.446	0	0	0	0	0
22	Dead ABOVE	-0.826	28.672	-127.14	0	0	0	0	0
23	Dead ABOVE	-5.657	-0.054	-262.292	0	0	0	0	0
30	Dead ABOVE	-7.558	-82.757	-197.15	0	0	0	0	0
31	Dead ABOVE	-3.897	-31.099	-231.292	0	0	0	0	0
34	Dead ABOVE	1.504	23.64	-251.898	0	0	0	0	0
35	Dead ABOVE	2.126	77.626	-172.62	0	0	0	0	0
38	Dead ABOVE	-8.987	-9.416	-65.554	0	0	0	0	0
39	Dead ABOVE	-18.268	-9.463	-85.295	0	0	0	0	0
42	Dead ABOVE	-3.872	-87.496	-135.91	0	0	0	0	0
43	Dead ABOVE	-4.584	-42.491	-216.662	0	0	0	0	0
46	Dead ABOVE	-2.426	45.727	-98.318	0	0	0	0	0
47	Dead ABOVE	-3.181	17.94	-104.591	0	0	0	0	0
50	Dead ABOVE	10.184	6.677	-66.825	0	0	0	0	0
51	Dead ABOVE	20.975	4.98	-65.767	0	0	0	0	0
54	Dead ABOVE	-0.579	3.489	-44.009	0	0	0	0	0

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
55	Dead ABOVE	8.156	3.69	-69.026	0	0	0	0	0
1	Dead ABOVE	-3.097	1.714	-32.033	0	0	0	14	20
27	Dead ABOVE	-2.966	-0.886	-45.679	0	0	0	14	20
29	Dead ABOVE	1.827	-0.232	-91.285	0	0	0	14	20
59	Dead ABOVE	1.838	2.032	-64.184	0	0	0	14	20
61	Dead ABOVE	-3.412	-0.578	-109.256	0	0	0	14	20
63	Dead ABOVE	-0.881	-1.586	-48.641	0	0	0	14	20
67	Dead ABOVE	-1.293	0.563	-16.419	0	0	0	14	20
69	Dead ABOVE	-2.464	2.084	-94.552	0	0	0	14	20
71	Dead ABOVE	-2.906	2.343	-54.578	0	0	0	14	20
73	Dead ABOVE	-2.316	4.909	-253.064	0	0	0	14	20
75	Dead ABOVE	-3.8	0.388	-71.536	0	0	0	14	20
77	Dead ABOVE	-2.651	0.052	-332.828	0	0	0	14	20
79	Dead ABOVE	-2.601	-2.449	-56.087	0	0	0	14	20
81	Dead ABOVE	-0.981	-0.497	-13.36	0	0	0	14	20
83	Dead ABOVE	1.888	-2.435	-37.575	0	0	0	14	20
85	Dead ABOVE	2.71	-5.45	-236.016	0	0	0	14	20
87	Dead ABOVE	-2.591	-5.205	-230.639	0	0	0	14	20
89	Dead ABOVE	-1.559	-2.43	-32.254	0	0	0	14	20
91	Dead ABOVE	3.913	1.4	-297.224	0	0	0	14	20
93	Dead ABOVE	3.148	4.657	-209.298	0	0	0	14	20
95	Dead ABOVE	2.353	-4.685	-206.452	0	0	0	14	20
97	Dead ABOVE	0.19	3.977	-203.043	0	0	0	14	20
99	Dead ABOVE	-0.283	2.32	-74.537	0	0	0	14	20
101	Dead ABOVE	-0.106	2.829	-196.679	0	0	0	14	20
103	Dead ABOVE	0.26	1.515	-106.625	0	0	0	14	20
105	Dead ABOVE	0.402	0.82	-85.823	0	0	0	14	20
107	Dead ABOVE	-1.195	3.618	-178.935	0	0	0	14	20
109	Dead ABOVE	0.643	7.156	-209.542	0	0	0	14	20
111	Dead ABOVE	-0.635	-2.25	-157.911	0	0	0	14	20
113	Dead ABOVE	-2.629	1.774	-165.944	0	0	0	14	20
115	Dead ABOVE	0.564	-6.615	-286.621	0	0	0	14	20
117	Dead ABOVE	-1.033	0.835	-362.578	0	0	0	14	20
119	Dead ABOVE	-0.052	-1.506	-401.284	0	0	0	14	20
121	Dead ABOVE	3.616	2.285	-256.434	0	0	0	14	20
123	Dead ABOVE	-0.792	-6.396	-287.66	0	0	0	14	20
125	Dead ABOVE	2.955	-4.657	-230.165	0	0	0	14	20
127	Dead ABOVE	1.558	-2.818	-40.328	0	0	0	14	20
129	Dead ABOVE	-0.413	-3.056	-28.908	0	0	0	14	20
131	Dead ABOVE	-1.911	-1.45	-171.869	0	0	0	14	20
133	Dead ABOVE	-1.768	-6.184	-132.448	0	0	0	14	20
135	Dead ABOVE	7.986	-3.406	-66.242	0	0	0	14	20
137	Dead ABOVE	7.197	-0.128	-113.43	0	0	0	14	20
139	Dead ABOVE	-0.768	0.468	-248.208	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
141	Dead ABOVE	1.564	-2.796	-230.119	0	0	0	14	20
143	Dead ABOVE	-1.331	-2.11	-246.32	0	0	0	14	20
145	Dead ABOVE	3.884	-5.742	-49.881	0	0	0	14	20
147	Dead ABOVE	6.646	4.607	-79.327	0	0	0	14	20
149	Dead ABOVE	6.996	-4.191	-74.667	0	0	0	14	20
151	Dead ABOVE	-0.54	-6.541	-263.133	0	0	0	14	20
153	Dead ABOVE	-0.377	5.544	-242.771	0	0	0	14	20
155	Dead ABOVE	-0.78	5.134	-296.354	0	0	0	14	20
157	Dead ABOVE	-0.765	3.832	-97.944	0	0	0	14	20
159	Dead ABOVE	5.151	1.112	-30.819	0	0	0	14	20
161	Dead ABOVE	7.24	3.22	-88.149	0	0	0	14	20
10	Live ABOVE	-0.726	-6.636	-31.352	0	0	0	0	0
11	Live ABOVE	0.044	-12.236	-16.397	0	0	0	0	0
14	Live ABOVE	-0.018	13.351	-22.22	0	0	0	0	0
15	Live ABOVE	-0.633	6.399	-29.961	0	0	0	0	0
18	Live ABOVE	-3.972	1.663	-51.749	0	0	0	0	0
19	Live ABOVE	4.919	1.819	-54.869	0	0	0	0	0
22	Live ABOVE	-0.219	4.631	-16.266	0	0	0	0	0
23	Live ABOVE	-0.983	0.193	-39.832	0	0	0	0	0
30	Live ABOVE	-1.257	-13.74	-30.588	0	0	0	0	0
31	Live ABOVE	-0.637	-5.438	-35.936	0	0	0	0	0
34	Live ABOVE	0.288	3.998	-39.808	0	0	0	0	0
35	Live ABOVE	0.385	12.688	-26.3	0	0	0	0	0
38	Live ABOVE	-1.462	-1.812	-11.236	0	0	0	0	0
39	Live ABOVE	-3.389	-1.816	-14.529	0	0	0	0	0
42	Live ABOVE	-0.705	-14.025	-23.23	0	0	0	0	0
43	Live ABOVE	-0.758	-6.037	-36.86	0	0	0	0	0
46	Live ABOVE	-0.426	7.776	-14.816	0	0	0	0	0
47	Live ABOVE	-0.55	3.394	-15.206	0	0	0	0	0
50	Live ABOVE	-0.793	2.133	-13.344	0	0	0	0	0
51	Live ABOVE	2.332	2.177	-18.936	0	0	0	0	0
54	Live ABOVE	0.141	2.156	-15.692	0	0	0	0	0
55	Live ABOVE	3.518	2.196	-19.627	0	0	0	0	0
1	Live ABOVE	-0.56	0.367	-6.233	0	0	0	14	20
27	Live ABOVE	-0.532	-0.143	-9.679	0	0	0	14	20
29	Live ABOVE	0.319	-0.045	-15.034	0	0	0	14	20
59	Live ABOVE	0.323	0.354	-10.448	0	0	0	14	20
61	Live ABOVE	-0.576	-0.095	-17.667	0	0	0	14	20
63	Live ABOVE	-0.081	-0.284	-9.942	0	0	0	14	20
67	Live ABOVE	-0.249	0.062	-4.223	0	0	0	14	20
69	Live ABOVE	-0.402	0.353	-15.436	0	0	0	14	20
71	Live ABOVE	-0.553	0.517	-11.763	0	0	0	14	20
73	Live ABOVE	-0.361	0.845	-42.53	0	0	0	14	20
75	Live ABOVE	-0.718	0.082	-15.775	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
77	Live ABOVE	-0.401	0.007	-56.007	0	0	0	14	20
79	Live ABOVE	-0.51	-0.52	-12.401	0	0	0	14	20
81	Live ABOVE	-0.264	-0.147	-3.467	0	0	0	14	20
83	Live ABOVE	0.383	-0.471	-9.312	0	0	0	14	20
85	Live ABOVE	0.474	-0.854	-39.544	0	0	0	14	20
87	Live ABOVE	-0.454	-0.82	-38.761	0	0	0	14	20
89	Live ABOVE	-0.309	-0.466	-8.107	0	0	0	14	20
91	Live ABOVE	0.648	0.222	-49.07	0	0	0	14	20
93	Live ABOVE	0.547	0.798	-34.201	0	0	0	14	20
95	Live ABOVE	0.443	-0.757	-32.435	0	0	0	14	20
97	Live ABOVE	0.084	0.655	-31.753	0	0	0	14	20
99	Live ABOVE	-0.001	0.362	-11.411	0	0	0	14	20
101	Live ABOVE	-0.377	0.714	-41.55	0	0	0	14	20
103	Live ABOVE	-0.083	1.037	-59.695	0	0	0	14	20
105	Live ABOVE	0.092	1.015	-58.679	0	0	0	14	20
107	Live ABOVE	-0.277	-0.355	-66.405	0	0	0	14	20
109	Live ABOVE	0.067	0.142	-74.351	0	0	0	14	20
111	Live ABOVE	0.338	-1.1	-52.298	0	0	0	14	20
113	Live ABOVE	0.022	0.875	-56.93	0	0	0	14	20
115	Live ABOVE	0.102	-1.062	-48.271	0	0	0	14	20
117	Live ABOVE	-0.179	0.139	-59.876	0	0	0	14	20
119	Live ABOVE	-0.007	-0.277	-66.617	0	0	0	14	20
121	Live ABOVE	0.605	0.391	-42.099	0	0	0	14	20
123	Live ABOVE	-0.146	-1.015	-48.493	0	0	0	14	20
125	Live ABOVE	0.513	-0.725	-38.873	0	0	0	14	20
127	Live ABOVE	0.311	-0.537	-9.9	0	0	0	14	20
129	Live ABOVE	-0.008	-0.542	-5.624	0	0	0	14	20
131	Live ABOVE	-0.316	-0.221	-28.445	0	0	0	14	20
133	Live ABOVE	-0.296	-1.037	-21.648	0	0	0	14	20
135	Live ABOVE	1.336	-0.573	-10.574	0	0	0	14	20
137	Live ABOVE	1.199	-0.011	-18.261	0	0	0	14	20
139	Live ABOVE	-0.124	0.082	-40.935	0	0	0	14	20
141	Live ABOVE	0.269	-0.471	-37.764	0	0	0	14	20
143	Live ABOVE	-0.264	-0.421	-41.759	0	0	0	14	20
145	Live ABOVE	0.707	-1.28	-10.3	0	0	0	14	20
147	Live ABOVE	1.212	0.984	-16.303	0	0	0	14	20
149	Live ABOVE	1.264	-0.868	-15.01	0	0	0	14	20
151	Live ABOVE	-0.126	-1.117	-43.916	0	0	0	14	20
153	Live ABOVE	-0.098	0.95	-40.564	0	0	0	14	20
155	Live ABOVE	-0.168	0.875	-49.645	0	0	0	14	20
157	Live ABOVE	-0.152	0.647	-15.937	0	0	0	14	20
159	Live ABOVE	0.926	0.245	-5.902	0	0	0	14	20
161	Live ABOVE	1.31	0.66	-17.827	0	0	0	14	20
10	EX(1/3) ABOVE	0.566	-7.476	8.341	0	0	0	0	0

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
11	EX(1/3) ABOVE	0.6	-7.25	-6.42	0	0	0	0	0
14	EX(1/3) ABOVE	0.502	-5.799	6.516	0	0	0	0	0
15	EX(1/3) ABOVE	0.516	-5.94	-7.595	0	0	0	0	0
18	EX(1/3) ABOVE	498.435	-0.03	160.741	0	0	0	0	0
19	EX(1/3) ABOVE	498.451	0.048	-161.312	0	0	0	0	0
22	EX(1/3) ABOVE	0.853	16.035	-11.732	0	0	0	0	0
23	EX(1/3) ABOVE	0.842	16.013	11.567	0	0	0	0	0
30	EX(1/3) ABOVE	0.519	9.086	10.559	0	0	0	0	0
31	EX(1/3) ABOVE	0.496	9.154	-11.089	0	0	0	0	0
34	EX(1/3) ABOVE	0.439	8.179	10.479	0	0	0	0	0
35	EX(1/3) ABOVE	0.4	8.21	-10.726	0	0	0	0	0
38	EX(1/3) ABOVE	221.457	0.116	-158.099	0	0	0	0	0
39	EX(1/3) ABOVE	221.455	-0.121	158.071	0	0	0	0	0
42	EX(1/3) ABOVE	0.482	-11.231	-14.826	0	0	0	0	0
43	EX(1/3) ABOVE	0.502	-11.18	14.434	0	0	0	0	0
46	EX(1/3) ABOVE	0.421	-8.82	12.097	0	0	0	0	0
47	EX(1/3) ABOVE	0.438	-8.906	-12.678	0	0	0	0	0
50	EX(1/3) ABOVE	126.403	0.059	118.834	0	0	0	0	0
51	EX(1/3) ABOVE	126.385	-0.109	-118.63	0	0	0	0	0
54	EX(1/3) ABOVE	126.349	0.106	118.621	0	0	0	0	0
55	EX(1/3) ABOVE	126.374	-0.058	-118.912	0	0	0	0	0
1	EX(1/3) ABOVE	0.131	-0.046	0.127	0	0	0	14	20
27	EX(1/3) ABOVE	0.15	-0.059	0.225	0	0	0	14	20
29	EX(1/3) ABOVE	0.166	-0.037	0.066	0	0	0	14	20
59	EX(1/3) ABOVE	0.183	-0.044	0.696	0	0	0	14	20
61	EX(1/3) ABOVE	0.153	-0.05	-0.208	0	0	0	14	20
63	EX(1/3) ABOVE	0.149	-0.039	-0.049	0	0	0	14	20
67	EX(1/3) ABOVE	0.15	-0.041	0.257	0	0	0	14	20
69	EX(1/3) ABOVE	0.166	-0.035	-0.02	0	0	0	14	20
71	EX(1/3) ABOVE	0.156	-0.051	0.102	0	0	0	14	20
73	EX(1/3) ABOVE	0.178	-0.045	-0.182	0	0	0	14	20
75	EX(1/3) ABOVE	0.173	-0.048	0.166	0	0	0	14	20
77	EX(1/3) ABOVE	0.186	-0.053	-0.023	0	0	0	14	20
79	EX(1/3) ABOVE	0.197	-0.051	0.385	0	0	0	14	20
81	EX(1/3) ABOVE	0.167	-0.033	0.144	0	0	0	14	20
83	EX(1/3) ABOVE	0.189	-0.031	-0.128	0	0	0	14	20
85	EX(1/3) ABOVE	0.194	-0.027	0.012	0	0	0	14	20
87	EX(1/3) ABOVE	0.197	-0.033	-0.075	0	0	0	14	20
89	EX(1/3) ABOVE	0.207	-0.015	0.21	0	0	0	14	20
91	EX(1/3) ABOVE	0.189	-0.022	0.225	0	0	0	14	20
93	EX(1/3) ABOVE	0.183	-0.036	0.229	0	0	0	14	20
95	EX(1/3) ABOVE	0.182	-0.036	0.109	0	0	0	14	20
97	EX(1/3) ABOVE	0.18	-0.026	-0.305	0	0	0	14	20
99	EX(1/3) ABOVE	0.181	-0.021	0.318	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
101	EX(1/3) ABOVE	0.168	0.021	0.48	0	0	0	14	20
103	EX(1/3) ABOVE	0.161	-0.046	-0.483	0	0	0	14	20
105	EX(1/3) ABOVE	0.161	0.044	0.453	0	0	0	14	20
107	EX(1/3) ABOVE	0.168	-0.014	0.108	0	0	0	14	20
109	EX(1/3) ABOVE	0.173	0.002	-0.026	0	0	0	14	20
111	EX(1/3) ABOVE	0.174	0.05	-0.163	0	0	0	14	20
113	EX(1/3) ABOVE	0.174	-0.034	-0.29	0	0	0	14	20
115	EX(1/3) ABOVE	0.182	-0.051	0.433	0	0	0	14	20
117	EX(1/3) ABOVE	0.185	0.002	-0.093	0	0	0	14	20
119	EX(1/3) ABOVE	0.183	0.001	0.066	0	0	0	14	20
121	EX(1/3) ABOVE	0.194	-0.003	0.3	0	0	0	14	20
123	EX(1/3) ABOVE	0.183	0.053	-0.508	0	0	0	14	20
125	EX(1/3) ABOVE	0.199	0.031	0.157	0	0	0	14	20
127	EX(1/3) ABOVE	0.208	0.014	-0.112	0	0	0	14	20
129	EX(1/3) ABOVE	0.159	0.017	-0.093	0	0	0	14	20
131	EX(1/3) ABOVE	0.186	0.033	0.035	0	0	0	14	20
133	EX(1/3) ABOVE	0.183	0.038	0.079	0	0	0	14	20
135	EX(1/3) ABOVE	0.15	0.034	-0.045	0	0	0	14	20
137	EX(1/3) ABOVE	0.169	0.06	-0.097	0	0	0	14	20
139	EX(1/3) ABOVE	0.191	0.041	-0.011	0	0	0	14	20
141	EX(1/3) ABOVE	0.188	0.036	-0.111	0	0	0	14	20
143	EX(1/3) ABOVE	0.185	0.042	0.106	0	0	0	14	20
145	EX(1/3) ABOVE	0.155	0.04	-0.18	0	0	0	14	20
147	EX(1/3) ABOVE	0.156	0.052	-0.088	0	0	0	14	20
149	EX(1/3) ABOVE	0.152	0.052	-0.133	0	0	0	14	20
151	EX(1/3) ABOVE	0.182	0.047	-0.066	0	0	0	14	20
153	EX(1/3) ABOVE	0.183	0.047	0.01	0	0	0	14	20
155	EX(1/3) ABOVE	0.174	0.046	0.037	0	0	0	14	20
157	EX(1/3) ABOVE	0.165	0.042	-0.086	0	0	0	14	20
159	EX(1/3) ABOVE	0.126	0.049	-0.135	0	0	0	14	20
161	EX(1/3) ABOVE	0.145	0.05	-0.065	0	0	0	14	20
10	EX(2/3) ABOVE	0.577	-1.235	1.316	0	0	0	0	0
11	EX(2/3) ABOVE	0.591	-1.143	-0.548	0	0	0	0	0
14	EX(2/3) ABOVE	0.502	-0.724	1.08	0	0	0	0	0
15	EX(2/3) ABOVE	0.498	-0.716	-1.026	0	0	0	0	0
18	EX(2/3) ABOVE	496.106	-0.001	160	0	0	0	0	0
19	EX(2/3) ABOVE	496.121	0.005	-160.499	0	0	0	0	0
22	EX(2/3) ABOVE	0.837	2.272	-1.738	0	0	0	0	0
23	EX(2/3) ABOVE	0.806	2.239	1.426	0	0	0	0	0
30	EX(2/3) ABOVE	0.496	1.332	1.197	0	0	0	0	0
31	EX(2/3) ABOVE	0.497	1.393	-1.675	0	0	0	0	0
34	EX(2/3) ABOVE	0.458	1.082	1.448	0	0	0	0	0
35	EX(2/3) ABOVE	0.436	1.095	-1.545	0	0	0	0	0
38	EX(2/3) ABOVE	203.635	0.099	-145.379	0	0	0	0	0

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
39	EX(2/3) ABOVE	203.633	-0.096	145.358	0	0	0	0	0
42	EX(2/3) ABOVE	0.44	-1.602	-2.181	0	0	0	0	0
43	EX(2/3) ABOVE	0.473	-1.568	1.924	0	0	0	0	0
46	EX(2/3) ABOVE	0.451	-1.161	1.296	0	0	0	0	0
47	EX(2/3) ABOVE	0.467	-1.292	-2.194	0	0	0	0	0
50	EX(2/3) ABOVE	136.504	0.096	128.316	0	0	0	0	0
51	EX(2/3) ABOVE	136.487	-0.108	-128.126	0	0	0	0	0
54	EX(2/3) ABOVE	136.456	0.109	128.117	0	0	0	0	0
55	EX(2/3) ABOVE	136.48	-0.09	-128.384	0	0	0	0	0
1	EX(2/3) ABOVE	0.141	-0.011	0.103	0	0	0	14	20
27	EX(2/3) ABOVE	0.157	-0.015	0.236	0	0	0	14	20
29	EX(2/3) ABOVE	0.185	-0.0003732	0.392	0	0	0	14	20
59	EX(2/3) ABOVE	0.187	-0.014	0.483	0	0	0	14	20
61	EX(2/3) ABOVE	0.165	-0.005	-0.044	0	0	0	14	20
63	EX(2/3) ABOVE	0.155	0.003	-0.07	0	0	0	14	20
67	EX(2/3) ABOVE	0.153	0.001	0.253	0	0	0	14	20
69	EX(2/3) ABOVE	0.169	0.001	-0.057	0	0	0	14	20
71	EX(2/3) ABOVE	0.157	-0.011	0.13	0	0	0	14	20
73	EX(2/3) ABOVE	0.178	-0.007	-0.143	0	0	0	14	20
75	EX(2/3) ABOVE	0.167	-0.007	0.162	0	0	0	14	20
77	EX(2/3) ABOVE	0.18	-0.007	-0.1	0	0	0	14	20
79	EX(2/3) ABOVE	0.179	-0.01	0.279	0	0	0	14	20
81	EX(2/3) ABOVE	0.158	-0.001	0.206	0	0	0	14	20
83	EX(2/3) ABOVE	0.173	-0.008	-0.068	0	0	0	14	20
85	EX(2/3) ABOVE	0.184	3.447E-05	-0.049	0	0	0	14	20
87	EX(2/3) ABOVE	0.184	-0.01	-0.042	0	0	0	14	20
89	EX(2/3) ABOVE	0.191	0.001	0.203	0	0	0	14	20
91	EX(2/3) ABOVE	0.185	0.003	0.237	0	0	0	14	20
93	EX(2/3) ABOVE	0.184	-0.009	0.253	0	0	0	14	20
95	EX(2/3) ABOVE	0.183	-0.009	0.082	0	0	0	14	20
97	EX(2/3) ABOVE	0.185	-0.0002898	-0.195	0	0	0	14	20
99	EX(2/3) ABOVE	0.2	0.001	0.247	0	0	0	14	20
101	EX(2/3) ABOVE	0.178	0.048	0.487	0	0	0	14	20
103	EX(2/3) ABOVE	0.17	-0.041	-0.506	0	0	0	14	20
105	EX(2/3) ABOVE	0.169	0.043	0.478	0	0	0	14	20
107	EX(2/3) ABOVE	0.172	-0.007	0.082	0	0	0	14	20
109	EX(2/3) ABOVE	0.176	-0.002	-0.03	0	0	0	14	20
111	EX(2/3) ABOVE	0.18	0.033	-0.102	0	0	0	14	20
113	EX(2/3) ABOVE	0.183	-0.054	-0.363	0	0	0	14	20
115	EX(2/3) ABOVE	0.17	-0.039	0.394	0	0	0	14	20
117	EX(2/3) ABOVE	0.178	0.008	-0.066	0	0	0	14	20
119	EX(2/3) ABOVE	0.177	-0.003	0.051	0	0	0	14	20
121	EX(2/3) ABOVE	0.187	-0.017	0.252	0	0	0	14	20
123	EX(2/3) ABOVE	0.172	0.045	-0.464	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
125	EX(2/3) ABOVE	0.186	0.013	0.152	0	0	0	14	20
127	EX(2/3) ABOVE	0.191	7.187E-05	-0.116	0	0	0	14	20
129	EX(2/3) ABOVE	0.146	0.001	-0.1	0	0	0	14	20
131	EX(2/3) ABOVE	0.175	0.005	0.002	0	0	0	14	20
133	EX(2/3) ABOVE	0.169	0.007	0.046	0	0	0	14	20
135	EX(2/3) ABOVE	0.14	-0.002	-0.08	0	0	0	14	20
137	EX(2/3) ABOVE	0.159	0.014	-0.074	0	0	0	14	20
139	EX(2/3) ABOVE	0.182	0.005	-0.01	0	0	0	14	20
141	EX(2/3) ABOVE	0.184	0.002	-0.143	0	0	0	14	20
143	EX(2/3) ABOVE	0.179	0.003	0.123	0	0	0	14	20
145	EX(2/3) ABOVE	0.149	0.007	-0.178	0	0	0	14	20
147	EX(2/3) ABOVE	0.156	0.007	-0.114	0	0	0	14	20
149	EX(2/3) ABOVE	0.154	0.008	-0.105	0	0	0	14	20
151	EX(2/3) ABOVE	0.185	0.007	-0.027	0	0	0	14	20
153	EX(2/3) ABOVE	0.184	0.008	-0.025	0	0	0	14	20
155	EX(2/3) ABOVE	0.185	0.006	-0.023	0	0	0	14	20
157	EX(2/3) ABOVE	0.176	0.007	-0.026	0	0	0	14	20
159	EX(2/3) ABOVE	0.135	0.012	-0.096	0	0	0	14	20
161	EX(2/3) ABOVE	0.153	0.006	-0.102	0	0	0	14	20
10	EX(3/3) ABOVE	0.554	-13.717	15.366	0	0	0	0	0
11	EX(3/3) ABOVE	0.608	-13.358	-12.292	0	0	0	0	0
14	EX(3/3) ABOVE	0.502	-10.873	11.952	0	0	0	0	0
15	EX(3/3) ABOVE	0.534	-11.164	-14.165	0	0	0	0	0
18	EX(3/3) ABOVE	500.765	-0.059	161.482	0	0	0	0	0
19	EX(3/3) ABOVE	500.781	0.091	-162.124	0	0	0	0	0
22	EX(3/3) ABOVE	0.869	29.798	-21.727	0	0	0	0	0
23	EX(3/3) ABOVE	0.877	29.788	21.708	0	0	0	0	0
30	EX(3/3) ABOVE	0.541	16.84	19.922	0	0	0	0	0
31	EX(3/3) ABOVE	0.494	16.916	-20.502	0	0	0	0	0
34	EX(3/3) ABOVE	0.42	15.275	19.509	0	0	0	0	0
35	EX(3/3) ABOVE	0.364	15.325	-19.906	0	0	0	0	0
38	EX(3/3) ABOVE	239.278	0.133	-170.819	0	0	0	0	0
39	EX(3/3) ABOVE	239.276	-0.146	170.784	0	0	0	0	0
42	EX(3/3) ABOVE	0.524	-20.86	-27.471	0	0	0	0	0
43	EX(3/3) ABOVE	0.531	-20.792	26.944	0	0	0	0	0
46	EX(3/3) ABOVE	0.39	-16.479	22.898	0	0	0	0	0
47	EX(3/3) ABOVE	0.408	-16.52	-23.162	0	0	0	0	0
50	EX(3/3) ABOVE	116.302	0.023	109.351	0	0	0	0	0
51	EX(3/3) ABOVE	116.283	-0.111	-109.134	0	0	0	0	0
54	EX(3/3) ABOVE	116.241	0.102	109.125	0	0	0	0	0
55	EX(3/3) ABOVE	116.269	-0.025	-109.44	0	0	0	0	0
1	EX(3/3) ABOVE	0.121	-0.082	0.152	0	0	0	14	20
27	EX(3/3) ABOVE	0.142	-0.103	0.213	0	0	0	14	20
29	EX(3/3) ABOVE	0.147	-0.073	-0.26	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
59	EX(3/3) ABOVE	0.18	-0.074	0.908	0	0	0	14	20
61	EX(3/3) ABOVE	0.14	-0.096	-0.373	0	0	0	14	20
63	EX(3/3) ABOVE	0.144	-0.082	-0.028	0	0	0	14	20
67	EX(3/3) ABOVE	0.148	-0.084	0.261	0	0	0	14	20
69	EX(3/3) ABOVE	0.162	-0.071	0.016	0	0	0	14	20
71	EX(3/3) ABOVE	0.156	-0.092	0.074	0	0	0	14	20
73	EX(3/3) ABOVE	0.178	-0.083	-0.222	0	0	0	14	20
75	EX(3/3) ABOVE	0.18	-0.09	0.17	0	0	0	14	20
77	EX(3/3) ABOVE	0.192	-0.098	0.054	0	0	0	14	20
79	EX(3/3) ABOVE	0.215	-0.091	0.492	0	0	0	14	20
81	EX(3/3) ABOVE	0.176	-0.065	0.082	0	0	0	14	20
83	EX(3/3) ABOVE	0.206	-0.054	-0.188	0	0	0	14	20
85	EX(3/3) ABOVE	0.204	-0.054	0.072	0	0	0	14	20
87	EX(3/3) ABOVE	0.209	-0.056	-0.107	0	0	0	14	20
89	EX(3/3) ABOVE	0.224	-0.031	0.217	0	0	0	14	20
91	EX(3/3) ABOVE	0.192	-0.047	0.213	0	0	0	14	20
93	EX(3/3) ABOVE	0.183	-0.064	0.205	0	0	0	14	20
95	EX(3/3) ABOVE	0.182	-0.062	0.135	0	0	0	14	20
97	EX(3/3) ABOVE	0.174	-0.052	-0.414	0	0	0	14	20
99	EX(3/3) ABOVE	0.163	-0.044	0.389	0	0	0	14	20
101	EX(3/3) ABOVE	0.159	-0.006	0.474	0	0	0	14	20
103	EX(3/3) ABOVE	0.152	-0.052	-0.461	0	0	0	14	20
105	EX(3/3) ABOVE	0.153	0.046	0.428	0	0	0	14	20
107	EX(3/3) ABOVE	0.164	-0.021	0.134	0	0	0	14	20
109	EX(3/3) ABOVE	0.17	0.006	-0.021	0	0	0	14	20
111	EX(3/3) ABOVE	0.169	0.067	-0.223	0	0	0	14	20
113	EX(3/3) ABOVE	0.164	-0.014	-0.217	0	0	0	14	20
115	EX(3/3) ABOVE	0.193	-0.062	0.472	0	0	0	14	20
117	EX(3/3) ABOVE	0.192	-0.004	-0.12	0	0	0	14	20
119	EX(3/3) ABOVE	0.188	0.006	0.08	0	0	0	14	20
121	EX(3/3) ABOVE	0.201	0.011	0.348	0	0	0	14	20
123	EX(3/3) ABOVE	0.194	0.061	-0.552	0	0	0	14	20
125	EX(3/3) ABOVE	0.212	0.049	0.161	0	0	0	14	20
127	EX(3/3) ABOVE	0.224	0.027	-0.107	0	0	0	14	20
129	EX(3/3) ABOVE	0.171	0.034	-0.086	0	0	0	14	20
131	EX(3/3) ABOVE	0.198	0.061	0.068	0	0	0	14	20
133	EX(3/3) ABOVE	0.196	0.068	0.112	0	0	0	14	20
135	EX(3/3) ABOVE	0.16	0.071	-0.01	0	0	0	14	20
137	EX(3/3) ABOVE	0.178	0.105	-0.12	0	0	0	14	20
139	EX(3/3) ABOVE	0.201	0.078	-0.012	0	0	0	14	20
141	EX(3/3) ABOVE	0.193	0.07	-0.08	0	0	0	14	20
143	EX(3/3) ABOVE	0.191	0.08	0.088	0	0	0	14	20
145	EX(3/3) ABOVE	0.162	0.073	-0.181	0	0	0	14	20
147	EX(3/3) ABOVE	0.156	0.097	-0.062	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
149	EX(3/3) ABOVE	0.149	0.096	-0.161	0	0	0	14	20
151	EX(3/3) ABOVE	0.179	0.086	-0.105	0	0	0	14	20
153	EX(3/3) ABOVE	0.182	0.086	0.044	0	0	0	14	20
155	EX(3/3) ABOVE	0.164	0.086	0.097	0	0	0	14	20
157	EX(3/3) ABOVE	0.153	0.076	-0.147	0	0	0	14	20
159	EX(3/3) ABOVE	0.118	0.086	-0.174	0	0	0	14	20
161	EX(3/3) ABOVE	0.136	0.095	-0.029	0	0	0	14	20
10	EY(1/3) ABOVE	-0.057	142.13	-159.814	0	0	0	0	0
11	EY(1/3) ABOVE	-0.084	139.1	133.692	0	0	0	0	0
14	EY(1/3) ABOVE	0.06	115.604	-123.749	0	0	0	0	0
15	EY(1/3) ABOVE	0.058	118.998	149.492	0	0	0	0	0
18	EY(1/3) ABOVE	0.777	2.407	0.661	0	0	0	0	0
19	EY(1/3) ABOVE	0.746	2.432	-1.27	0	0	0	0	0
22	EY(1/3) ABOVE	0.18	264.072	-191.876	0	0	0	0	0
23	EY(1/3) ABOVE	0.1	264.287	194.642	0	0	0	0	0
30	EY(1/3) ABOVE	0.311	127.219	153.431	0	0	0	0	0
31	EY(1/3) ABOVE	0.198	127.38	-154.531	0	0	0	0	0
34	EY(1/3) ABOVE	0.008	116.343	148.118	0	0	0	0	0
35	EY(1/3) ABOVE	-0.004	116.661	-150.687	0	0	0	0	0
38	EY(1/3) ABOVE	7.699	0.932	-4.604	0	0	0	0	0
39	EY(1/3) ABOVE	7.843	0.91	6.4	0	0	0	0	0
42	EY(1/3) ABOVE	0.025	106.261	139.46	0	0	0	0	0
43	EY(1/3) ABOVE	-0.006	106.104	-138.194	0	0	0	0	0
46	EY(1/3) ABOVE	-0.096	93.148	-131.061	0	0	0	0	0
47	EY(1/3) ABOVE	0.103	92.712	127.974	0	0	0	0	0
50	EY(1/3) ABOVE	-4.523	0.682	-4.687	0	0	0	0	0
51	EY(1/3) ABOVE	-4.409	0.716	3.524	0	0	0	0	0
54	EY(1/3) ABOVE	-4.58	0.727	-4.913	0	0	0	0	0
55	EY(1/3) ABOVE	-4.42	0.737	3.252	0	0	0	0	0
1	EY(1/3) ABOVE	-0.003	0.322	-0.262	0	0	0	14	20
27	EY(1/3) ABOVE	-0.013	0.396	-0.036	0	0	0	14	20
29	EY(1/3) ABOVE	0.108	0.392	3.629	0	0	0	14	20
59	EY(1/3) ABOVE	-0.125	0.333	-2.906	0	0	0	14	20
61	EY(1/3) ABOVE	0.081	0.528	2.009	0	0	0	14	20
63	EY(1/3) ABOVE	-0.005	0.39	-0.249	0	0	0	14	20
67	EY(1/3) ABOVE	-0.003	0.383	-0.082	0	0	0	14	20
69	EY(1/3) ABOVE	0.009	0.391	-0.384	0	0	0	14	20
71	EY(1/3) ABOVE	0.003	0.362	0.267	0	0	0	14	20
73	EY(1/3) ABOVE	-0.001	0.424	0.431	0	0	0	14	20
75	EY(1/3) ABOVE	-0.009	0.374	0.022	0	0	0	14	20
77	EY(1/3) ABOVE	-0.004	0.498	-0.948	0	0	0	14	20
79	EY(1/3) ABOVE	-0.06	0.352	-0.898	0	0	0	14	20
81	EY(1/3) ABOVE	0.055	0.289	0.804	0	0	0	14	20
83	EY(1/3) ABOVE	-0.012	0.364	0.72	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
85	EY(1/3) ABOVE	0.039	0.454	-0.748	0	0	0	14	20
87	EY(1/3) ABOVE	0.006	0.519	0.612	0	0	0	14	20
89	EY(1/3) ABOVE	0.006	0.37	0.262	0	0	0	14	20
91	EY(1/3) ABOVE	0.051	0.375	0.544	0	0	0	14	20
93	EY(1/3) ABOVE	0.007	0.444	0.463	0	0	0	14	20
95	EY(1/3) ABOVE	-0.048	0.413	-0.735	0	0	0	14	20
97	EY(1/3) ABOVE	-0.058	0.427	1.458	0	0	0	14	20
99	EY(1/3) ABOVE	0.043	0.357	-1.171	0	0	0	14	20
101	EY(1/3) ABOVE	0.006	0.528	-0.47	0	0	0	14	20
103	EY(1/3) ABOVE	-0.006	0.478	0.595	0	0	0	14	20
105	EY(1/3) ABOVE	0.006	0.468	0.751	0	0	0	14	20
107	EY(1/3) ABOVE	0.019	0.433	-1.014	0	0	0	14	20
109	EY(1/3) ABOVE	0.0004257	0.455	-0.417	0	0	0	14	20
111	EY(1/3) ABOVE	-0.037	0.485	-1.195	0	0	0	14	20
113	EY(1/3) ABOVE	-0.006	0.455	1.007	0	0	0	14	20
115	EY(1/3) ABOVE	-0.01	0.478	-0.743	0	0	0	14	20
117	EY(1/3) ABOVE	-0.018	0.44	0.946	0	0	0	14	20
119	EY(1/3) ABOVE	0.005	0.478	0.555	0	0	0	14	20
121	EY(1/3) ABOVE	0.013	0.419	0.885	0	0	0	14	20
123	EY(1/3) ABOVE	0.015	0.468	-0.932	0	0	0	14	20
125	EY(1/3) ABOVE	0.013	0.483	-0.165	0	0	0	14	20
127	EY(1/3) ABOVE	0.008	0.388	0.421	0	0	0	14	20
129	EY(1/3) ABOVE	0.001	0.315	0.3	0	0	0	14	20
131	EY(1/3) ABOVE	0.009	0.536	0.637	0	0	0	14	20
133	EY(1/3) ABOVE	0.011	0.401	0.363	0	0	0	14	20
135	EY(1/3) ABOVE	-0.006	0.36	0.409	0	0	0	14	20
137	EY(1/3) ABOVE	0.007	0.443	-0.19	0	0	0	14	20
139	EY(1/3) ABOVE	-0.007	0.477	0.034	0	0	0	14	20
141	EY(1/3) ABOVE	-0.023	0.458	0.623	0	0	0	14	20
143	EY(1/3) ABOVE	0.002	0.428	-0.306	0	0	0	14	20
145	EY(1/3) ABOVE	0.012	0.305	0.044	0	0	0	14	20
147	EY(1/3) ABOVE	0.003	0.413	0.233	0	0	0	14	20
149	EY(1/3) ABOVE	0.002	0.407	-0.281	0	0	0	14	20
151	EY(1/3) ABOVE	0.005	0.459	-0.524	0	0	0	14	20
153	EY(1/3) ABOVE	-0.013	0.454	0.492	0	0	0	14	20
155	EY(1/3) ABOVE	-0.021	0.463	0.803	0	0	0	14	20
157	EY(1/3) ABOVE	0.011	0.398	-0.784	0	0	0	14	20
159	EY(1/3) ABOVE	0.008	0.346	-0.417	0	0	0	14	20
161	EY(1/3) ABOVE	-0.006	0.413	0.279	0	0	0	14	20
10	EY(2/3) ABOVE	-0.08	129.829	-145.969	0	0	0	0	0
11	EY(2/3) ABOVE	-0.066	127.062	122.118	0	0	0	0	0
14	EY(2/3) ABOVE	0.06	105.602	-113.035	0	0	0	0	0
15	EY(2/3) ABOVE	0.093	108.702	136.543	0	0	0	0	0
18	EY(2/3) ABOVE	5.369	2.35	2.122	0	0	0	0	0

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
19	EY(2/3) ABOVE	5.338	2.517	-2.871	0	0	0	0	0
22	EY(2/3) ABOVE	0.212	291.199	-211.575	0	0	0	0	0
23	EY(2/3) ABOVE	0.171	291.437	214.63	0	0	0	0	0
30	EY(2/3) ABOVE	0.356	142.501	171.885	0	0	0	0	0
31	EY(2/3) ABOVE	0.195	142.678	-173.086	0	0	0	0	0
34	EY(2/3) ABOVE	-0.03	130.329	165.917	0	0	0	0	0
35	EY(2/3) ABOVE	-0.075	130.684	-168.781	0	0	0	0	0
38	EY(2/3) ABOVE	42.826	0.966	-29.675	0	0	0	0	0
39	EY(2/3) ABOVE	42.969	0.861	31.458	0	0	0	0	0
42	EY(2/3) ABOVE	0.108	87.282	114.537	0	0	0	0	0
43	EY(2/3) ABOVE	0.051	87.159	-113.537	0	0	0	0	0
46	EY(2/3) ABOVE	-0.155	78.052	-109.772	0	0	0	0	0
47	EY(2/3) ABOVE	0.045	77.705	107.31	0	0	0	0	0
50	EY(2/3) ABOVE	-24.432	0.61	-23.376	0	0	0	0	0
51	EY(2/3) ABOVE	-24.32	0.713	22.24	0	0	0	0	0
54	EY(2/3) ABOVE	-24.502	0.72	-23.63	0	0	0	0	0
55	EY(2/3) ABOVE	-24.337	0.801	21.921	0	0	0	0	0
1	EY(2/3) ABOVE	-0.023	0.252	-0.214	0	0	0	14	20
27	EY(2/3) ABOVE	-0.028	0.309	-0.059	0	0	0	14	20
29	EY(2/3) ABOVE	0.07	0.32	2.986	0	0	0	14	20
59	EY(2/3) ABOVE	-0.132	0.274	-2.487	0	0	0	14	20
61	EY(2/3) ABOVE	0.056	0.438	1.685	0	0	0	14	20
63	EY(2/3) ABOVE	-0.016	0.308	-0.207	0	0	0	14	20
67	EY(2/3) ABOVE	-0.008	0.298	-0.074	0	0	0	14	20
69	EY(2/3) ABOVE	0.001	0.321	-0.311	0	0	0	14	20
71	EY(2/3) ABOVE	0.002	0.283	0.212	0	0	0	14	20
73	EY(2/3) ABOVE	-0.001	0.348	0.353	0	0	0	14	20
75	EY(2/3) ABOVE	0.003	0.293	0.029	0	0	0	14	20
77	EY(2/3) ABOVE	0.008	0.409	-0.796	0	0	0	14	20
79	EY(2/3) ABOVE	-0.024	0.273	-0.688	0	0	0	14	20
81	EY(2/3) ABOVE	0.073	0.226	0.683	0	0	0	14	20
83	EY(2/3) ABOVE	0.02	0.319	0.602	0	0	0	14	20
85	EY(2/3) ABOVE	0.059	0.401	-0.63	0	0	0	14	20
87	EY(2/3) ABOVE	0.031	0.473	0.548	0	0	0	14	20
89	EY(2/3) ABOVE	0.038	0.338	0.275	0	0	0	14	20
91	EY(2/3) ABOVE	0.058	0.326	0.52	0	0	0	14	20
93	EY(2/3) ABOVE	0.006	0.39	0.416	0	0	0	14	20
95	EY(2/3) ABOVE	-0.05	0.361	-0.683	0	0	0	14	20
97	EY(2/3) ABOVE	-0.069	0.376	1.242	0	0	0	14	20
99	EY(2/3) ABOVE	0.007	0.313	-1.03	0	0	0	14	20
101	EY(2/3) ABOVE	-0.013	0.475	-0.482	0	0	0	14	20
103	EY(2/3) ABOVE	-0.023	0.467	0.64	0	0	0	14	20
105	EY(2/3) ABOVE	-0.01	0.471	0.701	0	0	0	14	20
107	EY(2/3) ABOVE	0.011	0.419	-0.962	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
109	EY(2/3) ABOVE	-0.006	0.463	-0.408	0	0	0	14	20
111	EY(2/3) ABOVE	-0.048	0.518	-1.314	0	0	0	14	20
113	EY(2/3) ABOVE	-0.024	0.493	1.151	0	0	0	14	20
115	EY(2/3) ABOVE	0.013	0.456	-0.666	0	0	0	14	20
117	EY(2/3) ABOVE	-0.004	0.428	0.893	0	0	0	14	20
119	EY(2/3) ABOVE	0.016	0.487	0.583	0	0	0	14	20
121	EY(2/3) ABOVE	0.026	0.447	0.979	0	0	0	14	20
123	EY(2/3) ABOVE	0.037	0.484	-1.019	0	0	0	14	20
125	EY(2/3) ABOVE	0.039	0.518	-0.157	0	0	0	14	20
127	EY(2/3) ABOVE	0.041	0.415	0.43	0	0	0	14	20
129	EY(2/3) ABOVE	0.025	0.347	0.314	0	0	0	14	20
131	EY(2/3) ABOVE	0.032	0.591	0.702	0	0	0	14	20
133	EY(2/3) ABOVE	0.038	0.461	0.428	0	0	0	14	20
135	EY(2/3) ABOVE	0.014	0.431	0.478	0	0	0	14	20
137	EY(2/3) ABOVE	0.025	0.532	-0.236	0	0	0	14	20
139	EY(2/3) ABOVE	0.013	0.549	0.032	0	0	0	14	20
141	EY(2/3) ABOVE	-0.014	0.526	0.685	0	0	0	14	20
143	EY(2/3) ABOVE	0.013	0.504	-0.341	0	0	0	14	20
145	EY(2/3) ABOVE	0.025	0.37	0.041	0	0	0	14	20
147	EY(2/3) ABOVE	0.003	0.502	0.284	0	0	0	14	20
149	EY(2/3) ABOVE	-0.003	0.494	-0.336	0	0	0	14	20
151	EY(2/3) ABOVE	-0.001	0.537	-0.601	0	0	0	14	20
153	EY(2/3) ABOVE	-0.015	0.531	0.561	0	0	0	14	20
155	EY(2/3) ABOVE	-0.042	0.542	0.921	0	0	0	14	20
157	EY(2/3) ABOVE	-0.012	0.465	-0.903	0	0	0	14	20
159	EY(2/3) ABOVE	-0.009	0.418	-0.495	0	0	0	14	20
161	EY(2/3) ABOVE	-0.023	0.501	0.35	0	0	0	14	20
10	EY(3/3) ABOVE	-0.034	154.431	-173.66	0	0	0	0	0
11	EY(3/3) ABOVE	-0.101	151.137	145.265	0	0	0	0	0
14	EY(3/3) ABOVE	0.06	125.607	-134.464	0	0	0	0	0
15	EY(3/3) ABOVE	0.022	129.295	162.441	0	0	0	0	0
18	EY(3/3) ABOVE	-3.814	2.464	-0.799	0	0	0	0	0
19	EY(3/3) ABOVE	-3.846	2.347	0.331	0	0	0	0	0
22	EY(3/3) ABOVE	0.149	236.944	-172.176	0	0	0	0	0
23	EY(3/3) ABOVE	0.029	237.138	174.654	0	0	0	0	0
30	EY(3/3) ABOVE	0.267	111.936	134.977	0	0	0	0	0
31	EY(3/3) ABOVE	0.201	112.082	-135.977	0	0	0	0	0
34	EY(3/3) ABOVE	0.045	102.356	130.319	0	0	0	0	0
35	EY(3/3) ABOVE	0.067	102.638	-132.593	0	0	0	0	0
38	EY(3/3) ABOVE	-27.428	0.899	20.467	0	0	0	0	0
39	EY(3/3) ABOVE	-27.283	0.959	-18.658	0	0	0	0	0
42	EY(3/3) ABOVE	-0.057	125.24	164.383	0	0	0	0	0
43	EY(3/3) ABOVE	-0.063	125.05	-162.851	0	0	0	0	0
46	EY(3/3) ABOVE	-0.036	108.243	-152.349	0	0	0	0	0

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
47	EY(3/3) ABOVE	0.161	107.718	148.638	0	0	0	0	0
50	EY(3/3) ABOVE	15.386	0.755	14.003	0	0	0	0	0
51	EY(3/3) ABOVE	15.503	0.718	-15.192	0	0	0	0	0
54	EY(3/3) ABOVE	15.342	0.733	13.803	0	0	0	0	0
55	EY(3/3) ABOVE	15.497	0.673	-15.418	0	0	0	0	0
1	EY(3/3) ABOVE	0.017	0.391	-0.31	0	0	0	14	20
27	EY(3/3) ABOVE	0.002	0.482	-0.014	0	0	0	14	20
29	EY(3/3) ABOVE	0.145	0.463	4.271	0	0	0	14	20
59	EY(3/3) ABOVE	-0.117	0.392	-3.324	0	0	0	14	20
61	EY(3/3) ABOVE	0.105	0.618	2.333	0	0	0	14	20
63	EY(3/3) ABOVE	0.006	0.473	-0.29	0	0	0	14	20
67	EY(3/3) ABOVE	0.002	0.467	-0.089	0	0	0	14	20
69	EY(3/3) ABOVE	0.017	0.461	-0.456	0	0	0	14	20
71	EY(3/3) ABOVE	0.004	0.442	0.322	0	0	0	14	20
73	EY(3/3) ABOVE	-0.001	0.499	0.508	0	0	0	14	20
75	EY(3/3) ABOVE	-0.022	0.456	0.014	0	0	0	14	20
77	EY(3/3) ABOVE	-0.016	0.587	-1.1	0	0	0	14	20
79	EY(3/3) ABOVE	-0.095	0.432	-1.107	0	0	0	14	20
81	EY(3/3) ABOVE	0.037	0.353	0.926	0	0	0	14	20
83	EY(3/3) ABOVE	-0.045	0.41	0.839	0	0	0	14	20
85	EY(3/3) ABOVE	0.02	0.507	-0.867	0	0	0	14	20
87	EY(3/3) ABOVE	-0.019	0.565	0.677	0	0	0	14	20
89	EY(3/3) ABOVE	-0.027	0.402	0.248	0	0	0	14	20
91	EY(3/3) ABOVE	0.044	0.424	0.568	0	0	0	14	20
93	EY(3/3) ABOVE	0.008	0.498	0.511	0	0	0	14	20
95	EY(3/3) ABOVE	-0.046	0.466	-0.787	0	0	0	14	20
97	EY(3/3) ABOVE	-0.047	0.479	1.674	0	0	0	14	20
99	EY(3/3) ABOVE	0.08	0.401	-1.311	0	0	0	14	20
101	EY(3/3) ABOVE	0.025	0.581	-0.457	0	0	0	14	20
103	EY(3/3) ABOVE	0.011	0.489	0.551	0	0	0	14	20
105	EY(3/3) ABOVE	0.023	0.464	0.801	0	0	0	14	20
107	EY(3/3) ABOVE	0.027	0.448	-1.066	0	0	0	14	20
109	EY(3/3) ABOVE	0.006	0.446	-0.427	0	0	0	14	20
111	EY(3/3) ABOVE	-0.025	0.451	-1.077	0	0	0	14	20
113	EY(3/3) ABOVE	0.012	0.416	0.863	0	0	0	14	20
115	EY(3/3) ABOVE	-0.033	0.501	-0.82	0	0	0	14	20
117	EY(3/3) ABOVE	-0.031	0.452	1	0	0	0	14	20
119	EY(3/3) ABOVE	-0.006	0.469	0.527	0	0	0	14	20
121	EY(3/3) ABOVE	-0.001	0.392	0.79	0	0	0	14	20
123	EY(3/3) ABOVE	-0.008	0.452	-0.845	0	0	0	14	20
125	EY(3/3) ABOVE	-0.012	0.447	-0.174	0	0	0	14	20
127	EY(3/3) ABOVE	-0.025	0.362	0.412	0	0	0	14	20
129	EY(3/3) ABOVE	-0.024	0.282	0.286	0	0	0	14	20
131	EY(3/3) ABOVE	-0.015	0.481	0.572	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
133	EY(3/3) ABOVE	-0.016	0.34	0.298	0	0	0	14	20
135	EY(3/3) ABOVE	-0.025	0.288	0.339	0	0	0	14	20
137	EY(3/3) ABOVE	-0.012	0.353	-0.145	0	0	0	14	20
139	EY(3/3) ABOVE	-0.027	0.406	0.036	0	0	0	14	20
141	EY(3/3) ABOVE	-0.032	0.39	0.56	0	0	0	14	20
143	EY(3/3) ABOVE	-0.009	0.352	-0.271	0	0	0	14	20
145	EY(3/3) ABOVE	-0.001	0.239	0.047	0	0	0	14	20
147	EY(3/3) ABOVE	0.003	0.325	0.181	0	0	0	14	20
149	EY(3/3) ABOVE	0.007	0.32	-0.225	0	0	0	14	20
151	EY(3/3) ABOVE	0.01	0.381	-0.447	0	0	0	14	20
153	EY(3/3) ABOVE	-0.011	0.377	0.424	0	0	0	14	20
155	EY(3/3) ABOVE	0.0002067	0.385	0.685	0	0	0	14	20
157	EY(3/3) ABOVE	0.034	0.33	-0.665	0	0	0	14	20
159	EY(3/3) ABOVE	0.025	0.273	-0.34	0	0	0	14	20
161	EY(3/3) ABOVE	0.01	0.325	0.207	0	0	0	14	20
10	Snow ABOVE	-0.162	-1.922	-9.155	0	0	0	0	0
11	Snow ABOVE	0.041	-3.576	-4.94	0	0	0	0	0
14	Snow ABOVE	-0.009	4.115	-6.943	0	0	0	0	0
15	Snow ABOVE	-0.2	1.932	-9.439	0	0	0	0	0
18	Snow ABOVE	-1.314	0.614	-15.978	0	0	0	0	0
19	Snow ABOVE	1.436	0.661	-16.995	0	0	0	0	0
22	Snow ABOVE	-0.061	1.463	-5.198	0	0	0	0	0
23	Snow ABOVE	-0.305	0.071	-12.403	0	0	0	0	0
30	Snow ABOVE	-0.389	-4.267	-9.506	0	0	0	0	0
31	Snow ABOVE	-0.195	-1.677	-11.246	0	0	0	0	0
34	Snow ABOVE	0.092	1.272	-12.405	0	0	0	0	0
35	Snow ABOVE	0.123	3.987	-8.246	0	0	0	0	0
38	Snow ABOVE	-0.333	-0.614	-4.494	0	0	0	0	0
39	Snow ABOVE	-1.074	-0.615	-5.404	0	0	0	0	0
42	Snow ABOVE	-0.234	-4.409	-7.993	0	0	0	0	0
43	Snow ABOVE	-0.236	-1.758	-11.944	0	0	0	0	0
46	Snow ABOVE	-0.132	2.371	-4.512	0	0	0	0	0
47	Snow ABOVE	-0.17	1.015	-4.778	0	0	0	0	0
50	Snow ABOVE	-0.042	0.576	-3.727	0	0	0	0	0
51	Snow ABOVE	0.79	0.56	-4.894	0	0	0	0	0
54	Snow ABOVE	0.003	0.534	-3.907	0	0	0	0	0
55	Snow ABOVE	0.86	0.546	-5.099	0	0	0	0	0
1	Snow ABOVE	-0.184	0.131	-2.239	0	0	0	14	20
27	Snow ABOVE	-0.174	-0.045	-3.547	0	0	0	14	20
29	Snow ABOVE	0.102	-0.016	-4.791	0	0	0	14	20
59	Snow ABOVE	0.103	0.114	-3.328	0	0	0	14	20
61	Snow ABOVE	-0.18	-0.03	-5.488	0	0	0	14	20
63	Snow ABOVE	-0.012	-0.092	-3.592	0	0	0	14	20
67	Snow ABOVE	-0.085	0.012	-1.734	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
69	$Snow_{ABOVE}$	-0.122	0.11	-4.837	0	0	0	14	20
71	$Snow_{ABOVE}$	-0.187	0.187	-4.337	0	0	0	14	20
73	$Snow_{ABOVE}$	-0.106	0.268	-13.403	0	0	0	14	20
75	$Snow_{ABOVE}$	-0.241	0.029	-5.826	0	0	0	14	20
77	$Snow_{ABOVE}$	-0.116	0.001	-17.664	0	0	0	14	20
79	$Snow_{ABOVE}$	-0.175	-0.186	-4.605	0	0	0	14	20
81	$Snow_{ABOVE}$	-0.103	-0.06	-1.449	0	0	0	14	20
83	$Snow_{ABOVE}$	0.134	-0.16	-3.647	0	0	0	14	20
85	$Snow_{ABOVE}$	0.152	-0.255	-12.467	0	0	0	14	20
87	$Snow_{ABOVE}$	-0.146	-0.246	-12.252	0	0	0	14	20
89	$Snow_{ABOVE}$	-0.107	-0.158	-3.198	0	0	0	14	20
91	$Snow_{ABOVE}$	0.201	0.068	-15.266	0	0	0	14	20
93	$Snow_{ABOVE}$	0.168	0.247	-10.686	0	0	0	14	20
95	$Snow_{ABOVE}$	0.133	-0.239	-10.274	0	0	0	14	20
97	$Snow_{ABOVE}$	0.021	0.206	-10.078	0	0	0	14	20
99	$Snow_{ABOVE}$	-0.004	0.115	-3.613	0	0	0	14	20
101	$Snow_{ABOVE}$	-0.086	0.202	-12.173	0	0	0	14	20
103	$Snow_{ABOVE}$	-0.015	0.254	-14.889	0	0	0	14	20
105	$Snow_{ABOVE}$	0.027	0.239	-14.35	0	0	0	14	20
107	$Snow_{ABOVE}$	-0.079	-0.026	-17.465	0	0	0	14	20
109	$Snow_{ABOVE}$	0.025	0.139	-19.699	0	0	0	14	20
111	$Snow_{ABOVE}$	0.066	-0.279	-14	0	0	0	14	20
113	$Snow_{ABOVE}$	-0.034	0.222	-15.159	0	0	0	14	20
115	$Snow_{ABOVE}$	0.034	-0.323	-15.249	0	0	0	14	20
117	$Snow_{ABOVE}$	-0.055	0.041	-18.717	0	0	0	14	20
119	$Snow_{ABOVE}$	-0.003	-0.087	-20.79	0	0	0	14	20
121	$Snow_{ABOVE}$	0.189	0.119	-13.158	0	0	0	14	20
123	$Snow_{ABOVE}$	-0.049	-0.306	-15.337	0	0	0	14	20
125	$Snow_{ABOVE}$	0.164	-0.215	-12.315	0	0	0	14	20
127	$Snow_{ABOVE}$	0.108	-0.181	-3.856	0	0	0	14	20
129	$Snow_{ABOVE}$	0.01	-0.175	-2.042	0	0	0	14	20
131	$Snow_{ABOVE}$	-0.098	-0.065	-8.936	0	0	0	14	20
133	$Snow_{ABOVE}$	-0.092	-0.323	-6.764	0	0	0	14	20
135	$Snow_{ABOVE}$	0.417	-0.178	-3.31	0	0	0	14	20
137	$Snow_{ABOVE}$	0.374	-2.58E-05	-5.658	0	0	0	14	20
139	$Snow_{ABOVE}$	-0.038	0.026	-12.758	0	0	0	14	20
141	$Snow_{ABOVE}$	0.085	-0.148	-11.759	0	0	0	14	20
143	$Snow_{ABOVE}$	-0.091	-0.146	-13.262	0	0	0	14	20
145	$Snow_{ABOVE}$	0.232	-0.464	-3.732	0	0	0	14	20
147	$Snow_{ABOVE}$	0.399	0.351	-5.823	0	0	0	14	20
149	$Snow_{ABOVE}$	0.414	-0.305	-5.319	0	0	0	14	20
151	$Snow_{ABOVE}$	-0.047	-0.353	-13.815	0	0	0	14	20
153	$Snow_{ABOVE}$	-0.038	0.301	-12.765	0	0	0	14	20
155	$Snow_{ABOVE}$	-0.06	0.277	-15.637	0	0	0	14	20

Table 3.2 - Joint Loads Assignments - Force (continued)

UniqueName	Load Pattern	FX kip	FY kip	FZ kip	MX kip-ft	MY kip-ft	MZ kip-ft	X Dimension in	Y Dimension in
157	$Snow_{ABOVE}$	-0.053	0.203	-4.993	0	0	0	14	20
159	$Snow_{ABOVE}$	0.302	0.089	-2.108	0	0	0	14	20
161	$Snow_{ABOVE}$	0.429	0.232	-6.313	0	0	0	14	20

3.3 Load Cases

Table 3.3 - Load Case Definitions - Summary

Name	Type
Dead	Linear Static
Live	Linear Static
EX(1/3)	Linear Static
EX(2/3)	Linear Static
EX(3/3)	Linear Static
EY(1/3)	Linear Static
EY(2/3)	Linear Static
EY(3/3)	Linear Static
Snow	Linear Static
Dead Start	Nonlinear Static
D+L	Nonlinear Static
D+0.7EX1	Nonlinear Static
D+0.7EX2	Nonlinear Static
D+0.7EX3	Nonlinear Static
D+0.7EY1	Nonlinear Static
D+0.7EY2	Nonlinear Static
D+0.7EY3	Nonlinear Static
D-0.7EX1	Nonlinear Static
D-0.7EX2	Nonlinear Static
D-0.7EX3	Nonlinear Static
D-0.7EY1	Nonlinear Static
D-0.7EY2	Nonlinear Static
D-0.7EY3	Nonlinear Static
0.6D+0.7EX1	Nonlinear Static
0.6D+0.7EX2	Nonlinear Static
0.6D+0.7EX3	Nonlinear Static
0.6D+0.7EY1	Nonlinear Static
0.6D+0.7EY2	Nonlinear Static
0.6D+0.7EY3	Nonlinear Static
0.6D-0.7EX1	Nonlinear Static
0.6D-0.7EX2	Nonlinear Static
0.6D-0.7EX3	Nonlinear Static
0.6D-0.7EY1	Nonlinear Static
0.6D-0.7EY2	Nonlinear Static
0.6D-0.7EY3	Nonlinear Static
D+0.75L+0.525EX1	Nonlinear Static

Table 3.3 - Load Case Definitions - Summary (continued)

Name	Type
D+0.75L+0.525EX2	Nonlinear Static
D+0.75L+0.525EX3	Nonlinear Static
D+0.75L+0.525EY1	Nonlinear Static
D+0.75L+0.525EY2	Nonlinear Static
D+0.75L+0.525EY3	Nonlinear Static
D+0.75L-0.525EX1	Nonlinear Static
D+0.75L-0.525EX2	Nonlinear Static
D+0.75L-0.525EX3	Nonlinear Static
D+0.75L-0.525EY1	Nonlinear Static
D+0.75L-0.525EY2	Nonlinear Static
D+0.75L-0.525EY3	Nonlinear Static

3.4 Load Combinations

Table 3.4 - Load Combination Definitions

Name	Type	Is Auto	Load Name	SF	Notes
DConS1	Linear Add	Yes	Dead	1.4	Dead [Strength]
DConS2	Linear Add	Yes	Dead	1.2	Dead + Live [Strength]
DConS2			Live	1.6	
DConS2			Snow	0.5	
DConS3	Linear Add	Yes	Dead	1.2	Dead + Live + Snow [Strength]
DConS3			Live	1	
DConS3			Snow	1.6	
DConS4	Linear Add	Yes	Dead	1.2	Dead + Live + Static Earthquake [Strength]
DConS4			Live	1	
DConS4			Snow	0.2	
DConS4			EX(1/3)	1	
DConS5	Linear Add	Yes	Dead	1.2	Dead + Live - Static Earthquake [Strength]
DConS5			Live	1	
DConS5			Snow	0.2	
DConS5			EX(1/3)	-1	
DConS6	Linear Add	Yes	Dead	1.2	Dead + Live + Static Earthquake [Strength]
DConS6			Live	1	
DConS6			Snow	0.2	
DConS6			EX(2/3)	1	
DConS7	Linear Add	Yes	Dead	1.2	Dead + Live - Static Earthquake [Strength]
DConS7			Live	1	
DConS7			Snow	0.2	
DConS7			EX(2/3)	-1	
DConS8	Linear Add	Yes	Dead	1.2	Dead + Live + Static Earthquake [Strength]
DConS8			Live	1	
DConS8			Snow	0.2	
DConS8			EX(3/3)	1	
DConS9	Linear Add	Yes	Dead	1.2	Dead + Live - Static Earthquake [Strength]
DConS9			Live	1	

Table 3.4 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
DConS9			Snow	0.2	
DConS9			EX(3/3)	-1	
DConS10	Linear Add	Yes	Dead	1.2	Dead + Live + Static Earthquake [Strength]
DConS10			Live	1	
DConS10			Snow	0.2	
DConS10			EY(1/3)	1	
DConS11	Linear Add	Yes	Dead	1.2	Dead + Live - Static Earthquake [Strength]
DConS11			Live	1	
DConS11			Snow	0.2	
DConS11			EY(1/3)	-1	
DConS12	Linear Add	Yes	Dead	1.2	Dead + Live + Static Earthquake [Strength]
DConS12			Live	1	
DConS12			Snow	0.2	
DConS12			EY(2/3)	1	
DConS13	Linear Add	Yes	Dead	1.2	Dead + Live - Static Earthquake [Strength]
DConS13			Live	1	
DConS13			Snow	0.2	
DConS13			EY(2/3)	-1	
DConS14	Linear Add	Yes	Dead	1.2	Dead + Live + Static Earthquake [Strength]
DConS14			Live	1	
DConS14			Snow	0.2	
DConS14			EY(3/3)	1	
DConS15	Linear Add	Yes	Dead	1.2	Dead + Live - Static Earthquake [Strength]
DConS15			Live	1	
DConS15			Snow	0.2	
DConS15			EY(3/3)	-1	
DConS16	Linear Add	Yes	Dead	0.9	Dead (min) + Static Earthquake [Strength]
DConS16			EX(1/3)	1	
DConS17	Linear Add	Yes	Dead	0.9	Dead (min) - Static Earthquake [Strength]
DConS17			EX(1/3)	-1	
DConS18	Linear Add	Yes	Dead	0.9	Dead (min) + Static Earthquake [Strength]
DConS18			EX(2/3)	1	
DConS19	Linear Add	Yes	Dead	0.9	Dead (min) - Static Earthquake [Strength]
DConS19			EX(2/3)	-1	
DConS20	Linear Add	Yes	Dead	0.9	Dead (min) + Static Earthquake [Strength]
DConS20			EX(3/3)	1	
DConS21	Linear Add	Yes	Dead	0.9	Dead (min) - Static Earthquake [Strength]
DConS21			EX(3/3)	-1	
DConS22	Linear Add	Yes	Dead	0.9	Dead (min) + Static Earthquake [Strength]
DConS22			EY(1/3)	1	
DConS23	Linear Add	Yes	Dead	0.9	Dead (min) - Static Earthquake [Strength]
DConS23			EY(1/3)	-1	
DConS24	Linear Add	Yes	Dead	0.9	Dead (min) + Static Earthquake [Strength]
DConS24			EY(2/3)	1	
DConS25	Linear Add	Yes	Dead	0.9	Dead (min) - Static Earthquake [Strength]

Table 3.4 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
DConS25			EY(2/3)	-1	
DConS26	Linear Add	Yes	Dead	0.9	Dead (min) + Static Earthquake [Strength]
DConS26			EY(3/3)	1	
DConS27	Linear Add	Yes	Dead	0.9	Dead (min) - Static Earthquake [Strength]
DConS27			EY(3/3)	-1	

4 Design Data

This chapter provides design data and results.

4.1 Concrete Slab Design

Table 4.1 - Concrete Design Preferences - ACI 318-14

Item	Value
PhiTen	0.9
PhiComp	0.65
PhiShear	0.75
Ignore Pu?	No
Pattern Live Load Factor	0.75
CoverTop in	0.75
CoverBot in	0.75
BarSize	#6
InnerLayer	Layer B
PTCGSTop in	1
PTCGSBotExt in	1.75
PTCGSBotInt in	1
SlabType	Two Way
Cover Beam Top in	1.5
Cover Beam Bottom in	1.5
Bar Size Beam Flexure	#9
Bar Size Beam Shear	#4
PTCGS Beam Top in	2
PTCGS Beam Bottom in	2
UserStress	No
InitConcRat	0.8
LLFraction	0.5

Table 4.2 - Concrete Slab Design Overwrites - Finite Element Based

Unique Name	Rebar Material	Cover Specification Type	LLRF	Design?	Ignote PT?
4	A615Gr60	From Preferences	1	Yes	No
5	A615Gr60	From Preferences	1	Yes	No
8	A615Gr60	From Preferences	1	Yes	No
9	A615Gr60	From Preferences	1	Yes	No
14	A615Gr60	From Preferences	1	Yes	No
16	A615Gr60	From Preferences	1	Yes	No
17	A615Gr60	From Preferences	1	Yes	No
18	A615Gr60	From Preferences	1	Yes	No
20	A615Gr60	From Preferences	1	Yes	No
21	A615Gr60	From Preferences	1	Yes	No
22	A615Gr60	From Preferences	1	Yes	No
23	A615Gr60	From Preferences	1	Yes	No
24	A615Gr60	From Preferences	1	Yes	No
25	A615Gr60	From Preferences	1	Yes	No

Table 4.2 - Concrete Slab Design Overwrites - Finite Element Based (continued)

Unique Name	Rebar Material	Cover Specification Type	LLRF	Design?	Ignote PT?
28	A615Gr60	From Preferences	1	Yes	No
29	A615Gr60	From Preferences	1	Yes	No
30	A615Gr60	From Preferences	1	Yes	No
33	A615Gr60	From Preferences	1	Yes	No
34	A615Gr60	From Preferences	1	Yes	No
35	A615Gr60	From Preferences	1	Yes	No
37	A615Gr60	From Preferences	1	Yes	No
38	A615Gr60	From Preferences	1	Yes	No
41	A615Gr60	From Preferences	1	Yes	No
42	A615Gr60	From Preferences	1	Yes	No
43	A615Gr60	From Preferences	1	Yes	No
48	A615Gr60	From Preferences	1	Yes	No
49	A615Gr60	From Preferences	1	Yes	No
54	A615Gr60	From Preferences	1	Yes	No
56	A615Gr60	From Preferences	1	Yes	No
59	A615Gr60	From Preferences	1	Yes	No
65	A615Gr60	From Preferences	1	Yes	No
70	A615Gr60	From Preferences	1	Yes	No
55	A615Gr60	From Preferences	1	Yes	No
58	A615Gr60	From Preferences	1	Yes	No
62	A615Gr60	From Preferences	1	Yes	No
63	A615Gr60	From Preferences	1	Yes	No
64	A615Gr60	From Preferences	1	Yes	No
66	A615Gr60	From Preferences	1	Yes	No
69	A615Gr60	From Preferences	1	Yes	No
50	A615Gr60	From Preferences	1	Yes	No
51	A615Gr60	From Preferences	1	Yes	No
52	A615Gr60	From Preferences	1	Yes	No
53	A615Gr60	From Preferences	1	Yes	No
57	A615Gr60	From Preferences	1	Yes	No
60	A615Gr60	From Preferences	1	Yes	No
61	A615Gr60	From Preferences	1	Yes	No
67	A615Gr60	From Preferences	1	Yes	No
68	A615Gr60	From Preferences	1	Yes	No
71	A615Gr60	From Preferences	1	Yes	No
72	A615Gr60	From Preferences	1	Yes	No
73	A615Gr60	From Preferences	1	Yes	No
74	A615Gr60	From Preferences	1	Yes	No
75	A615Gr60	From Preferences	1	Yes	No
76	A615Gr60	From Preferences	1	Yes	No
77	A615Gr60	From Preferences	1	Yes	No
78	A615Gr60	From Preferences	1	Yes	No
79	A615Gr60	From Preferences	1	Yes	No
80	A615Gr60	From Preferences	1	Yes	No

Table 4.2 - Concrete Slab Design Overwrites - Finite Element Based (continued)

Unique Name	Rebar Material	Cover Specification Type	LLRF	Design?	Ignote PT?
81	A615Gr60	From Preferences	1	Yes	No
82	A615Gr60	From Preferences	1	Yes	No
89	A615Gr60	From Preferences	1	Yes	No
91	A615Gr60	From Preferences	1	Yes	No
87	A615Gr60	From Preferences	1	Yes	No
88	A615Gr60	From Preferences	1	Yes	No
90	A615Gr60	From Preferences	1	Yes	No
1	A615Gr60	From Preferences	1	Yes	No
2	A615Gr60	From Preferences	1	Yes	No
7	A615Gr60	From Preferences	1	Yes	No
11	A615Gr60	From Preferences	1	Yes	No
3	A615Gr60	From Preferences	1	Yes	No
6	A615Gr60	From Preferences	1	Yes	No

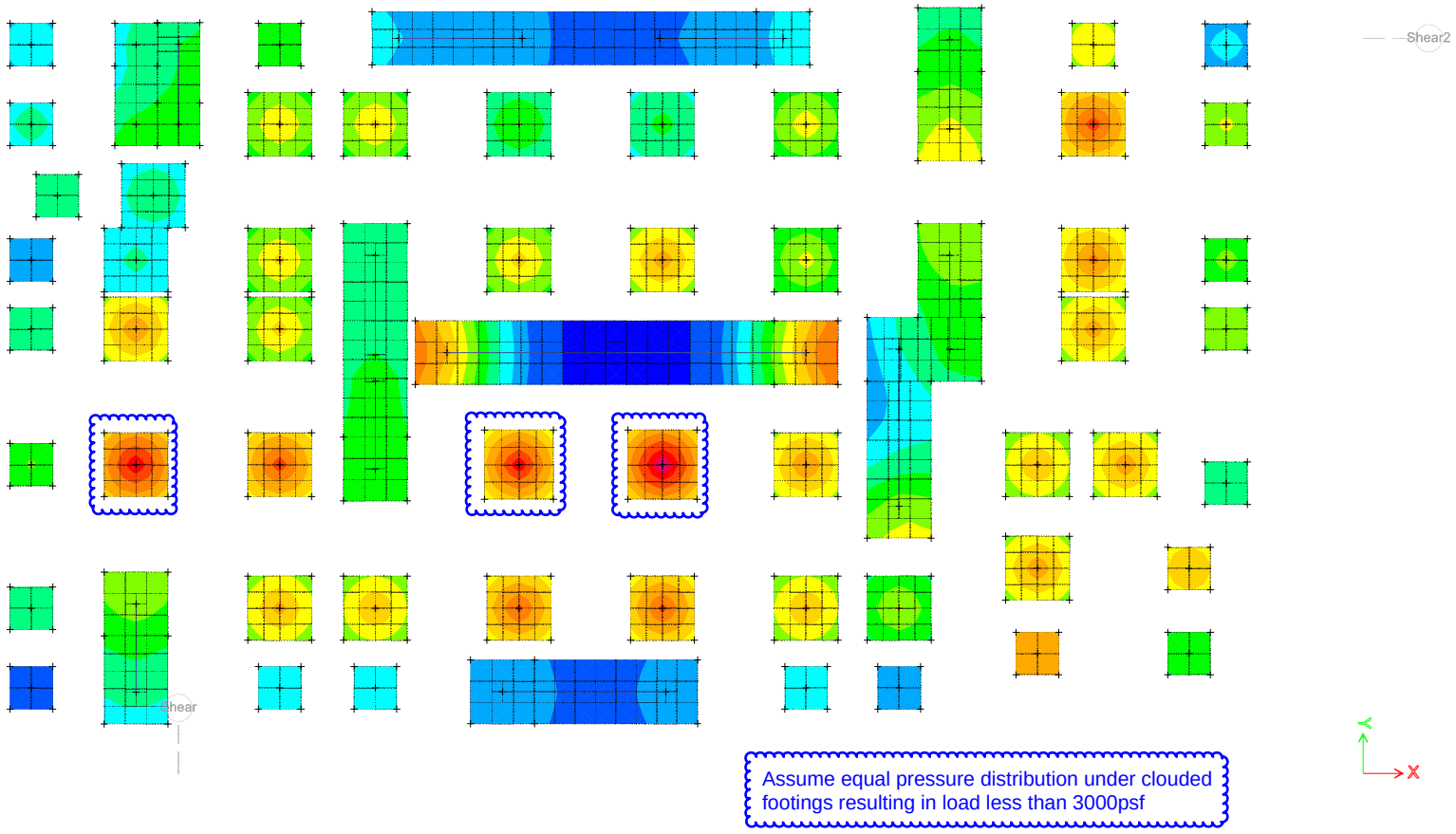
Table 4.3 - Concrete Slab Design Overwrites - Punching Shear - General

Unique Name	Check Punching Shear?	Location Type	Perimeter Type	Effective Depth Type	Opening Definition	Reinforcement Type
1	Program Determined	Auto	Auto	Auto	Auto	None
27	Program Determined	Auto	Auto	Auto	Auto	None
29	Program Determined	Auto	Auto	Auto	Auto	None
59	Program Determined	Auto	Auto	Auto	Auto	None
61	Program Determined	Auto	Auto	Auto	Auto	None
63	Program Determined	Auto	Auto	Auto	Auto	None
67	Program Determined	Auto	Auto	Auto	Auto	None
69	Program Determined	Auto	Auto	Auto	Auto	None
71	Program Determined	Auto	Auto	Auto	Auto	None
73	Program Determined	Auto	Auto	Auto	Auto	None
75	Program Determined	Auto	Auto	Auto	Auto	None
77	Program Determined	Auto	Auto	Auto	Auto	None
79	Program Determined	Auto	Auto	Auto	Auto	None
81	Program Determined	Auto	Auto	Auto	Auto	None
83	Program Determined	Auto	Auto	Auto	Auto	None
85	Program Determined	Auto	Auto	Auto	Auto	None
87	Program Determined	Auto	Auto	Auto	Auto	None
89	Program Determined	Auto	Auto	Auto	Auto	None
91	Program Determined	Auto	Auto	Auto	Auto	None
93	Program Determined	Auto	Auto	Auto	Auto	None
95	Program Determined	Auto	Auto	Auto	Auto	None
97	Program Determined	Auto	Auto	Auto	Auto	None
99	Program Determined	Auto	Auto	Auto	Auto	None
101	Program Determined	Auto	Auto	Auto	Auto	None
103	Program Determined	Auto	Auto	Auto	Auto	None
105	Program Determined	Auto	Auto	Auto	Auto	None

Table 4.3 - Concrete Slab Design Overwrites - Punching Shear - General (continued)

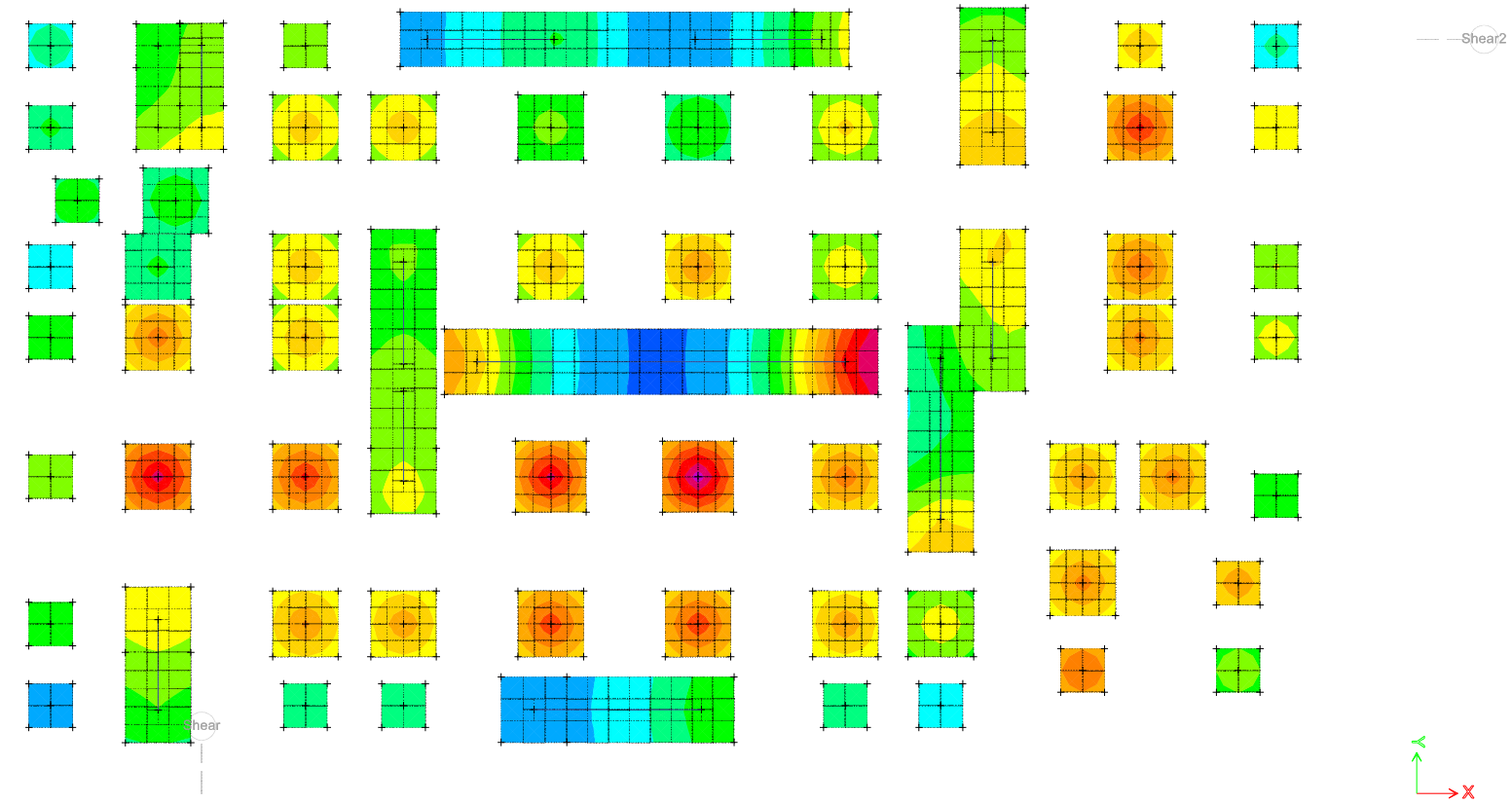
Unique Name	Check Punching Shear?	Location Type	Perimeter Type	Effective Depth Type	Opening Definition	Reinforcement Type
107	Program Determined	Auto	Auto	Auto	Auto	None
109	Program Determined	Auto	Auto	Auto	Auto	None
111	Program Determined	Auto	Auto	Auto	Auto	None
113	Program Determined	Auto	Auto	Auto	Auto	None
115	Program Determined	Auto	Auto	Auto	Auto	None
117	Program Determined	Auto	Auto	Auto	Auto	None
119	Program Determined	Auto	Auto	Auto	Auto	None
121	Program Determined	Auto	Auto	Auto	Auto	None
123	Program Determined	Auto	Auto	Auto	Auto	None
125	Program Determined	Auto	Auto	Auto	Auto	None
127	Program Determined	Auto	Auto	Auto	Auto	None
129	Program Determined	Auto	Auto	Auto	Auto	None
131	Program Determined	Auto	Auto	Auto	Auto	None
133	Program Determined	Auto	Auto	Auto	Auto	None
135	Program Determined	Auto	Auto	Auto	Auto	None
137	Program Determined	Auto	Auto	Auto	Auto	None
139	Program Determined	Auto	Auto	Auto	Auto	None
141	Program Determined	Auto	Auto	Auto	Auto	None
143	Program Determined	Auto	Auto	Auto	Auto	None
145	Program Determined	Auto	Auto	Auto	Auto	None
147	Program Determined	Auto	Auto	Auto	Auto	None
149	Program Determined	Auto	Auto	Auto	Auto	None
151	Program Determined	Auto	Auto	Auto	Auto	None
153	Program Determined	Auto	Auto	Auto	Auto	None
155	Program Determined	Auto	Auto	Auto	Auto	None
157	Program Determined	Auto	Auto	Auto	Auto	None
159	Program Determined	Auto	Auto	Auto	Auto	None
161	Program Determined	Auto	Auto	Auto	Auto	None

REPRESENTS WORST CASE NON-SEISMIC CONDITION



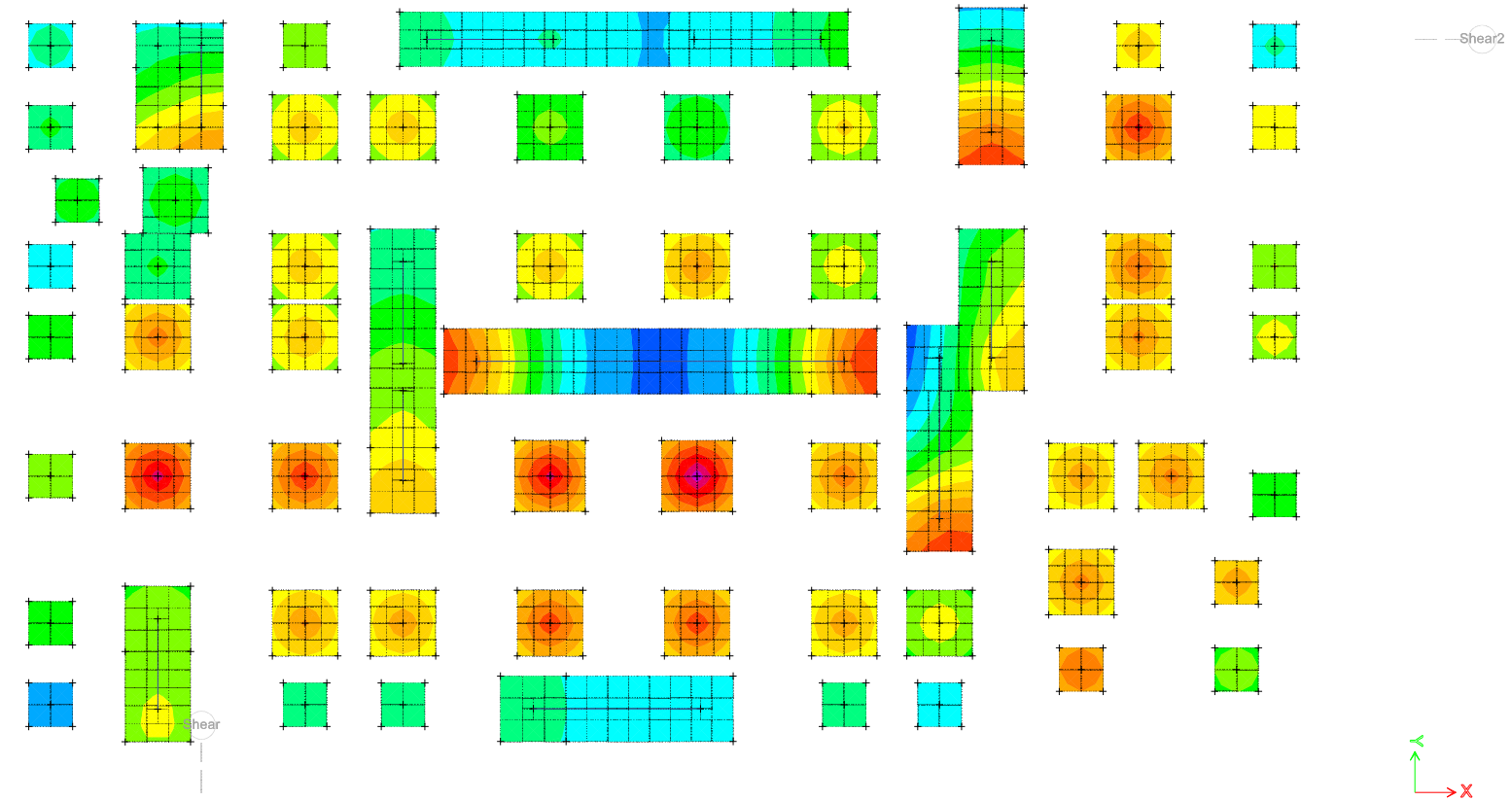
Puyallup Bell_Foundation Design.FDB Plan View - Story1 - Z = 0 (ft) Soil Pressures (D+L) [lb/ft²]

REPRESENTS WORST CASE SEIMSIC X-DIRECTION CONDITION



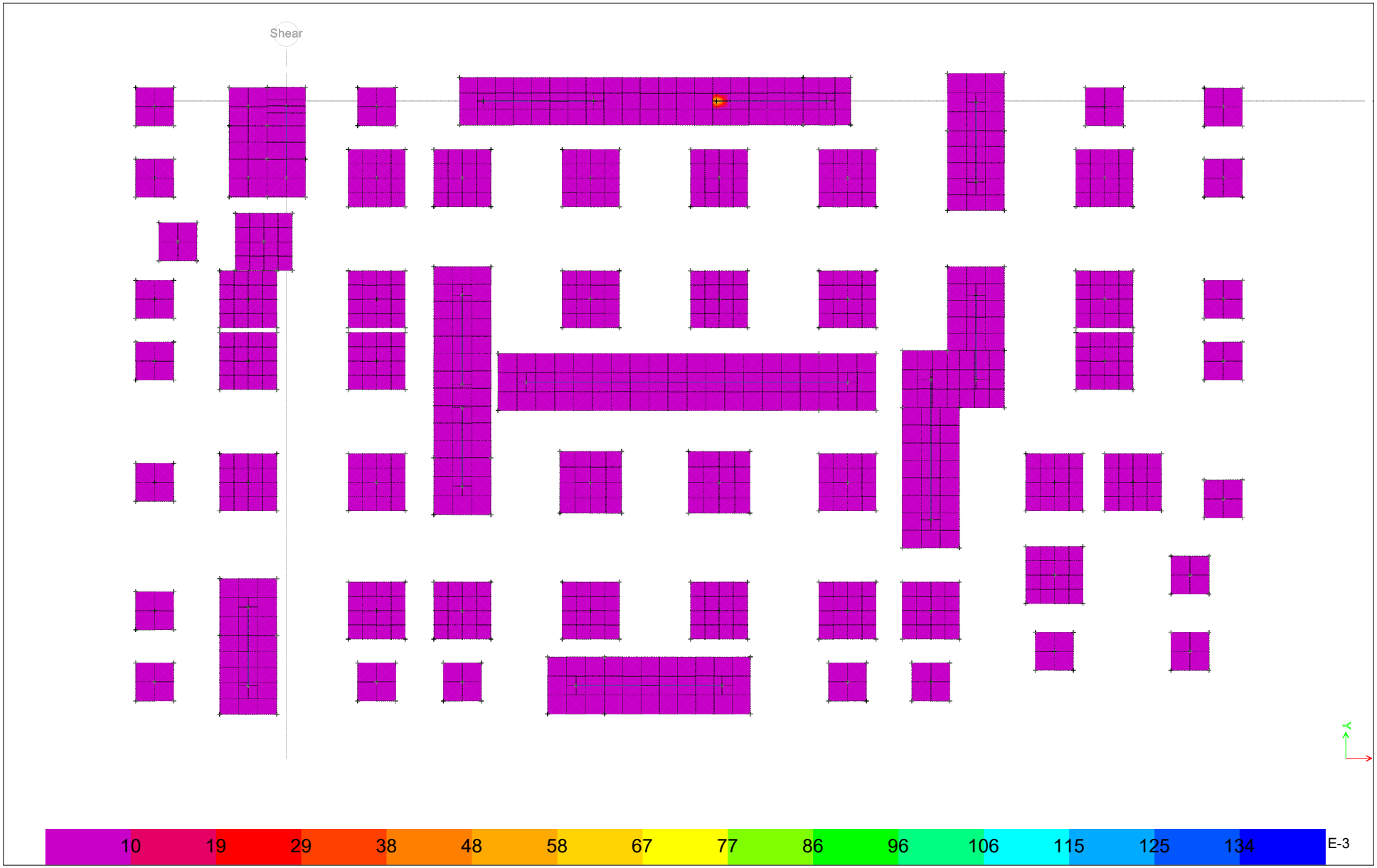
Puyallup Bell_Foundation Design.FDB Plan View - Story1 - Z = 0 (ft) Soil Pressures (D+0.75L+0.525EX2) [lb/ft²]

REPRESENTS WORST CASE SEIMSIC Y-DIRECTION CONDITION

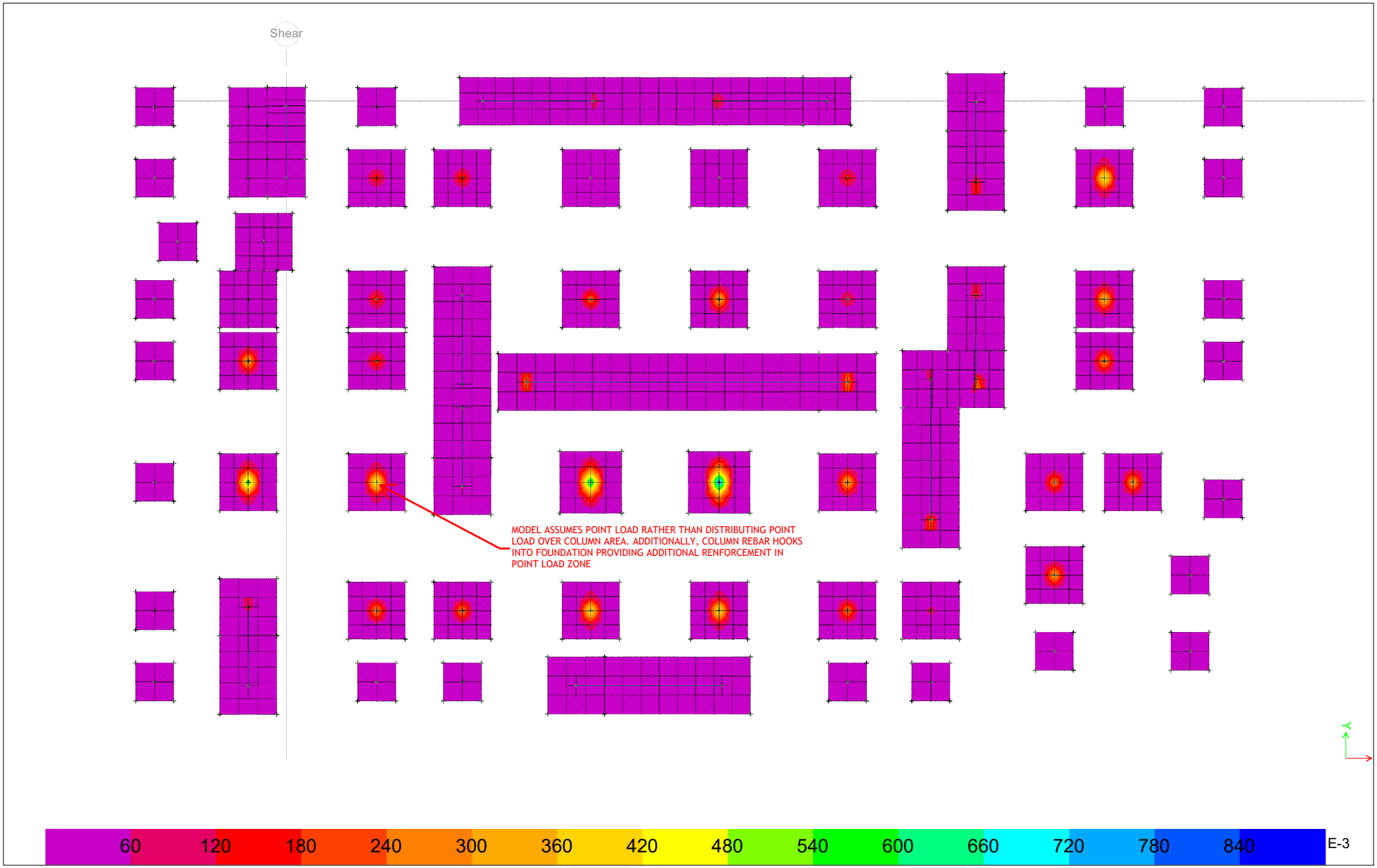


-3.74 -3.46 -3.17 -2.88 -2.59 -2.30 -2.02 -1.73 -1.44 -1.15 -0.86 -0.58 -0.29 0.00 E+3

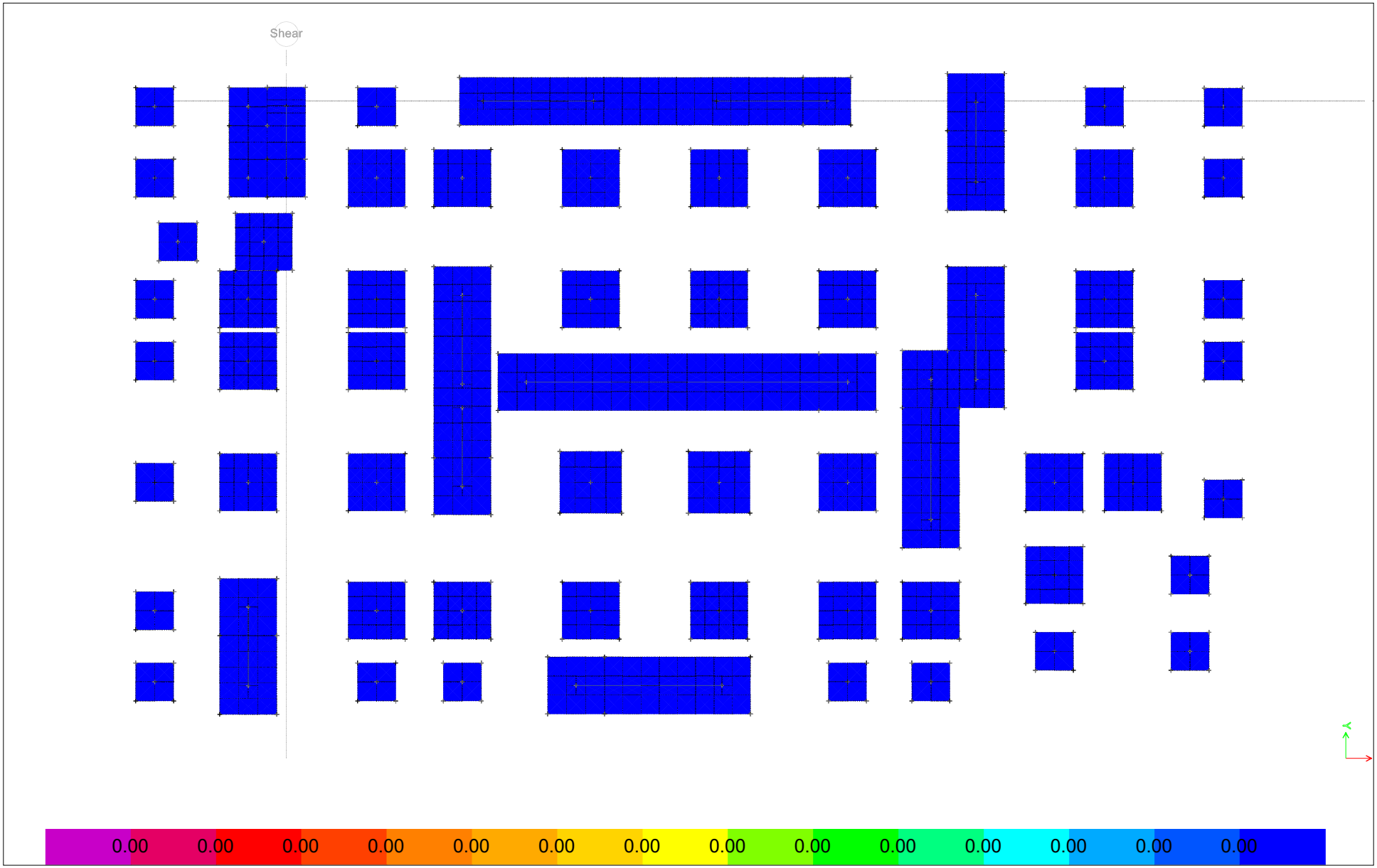
Puyallup Bell_Foundation Design.FDB Plan View - Story1 - Z = 0 (ft) Soil Pressures (D+0.75L-0.525EY2) [lb/ft²]



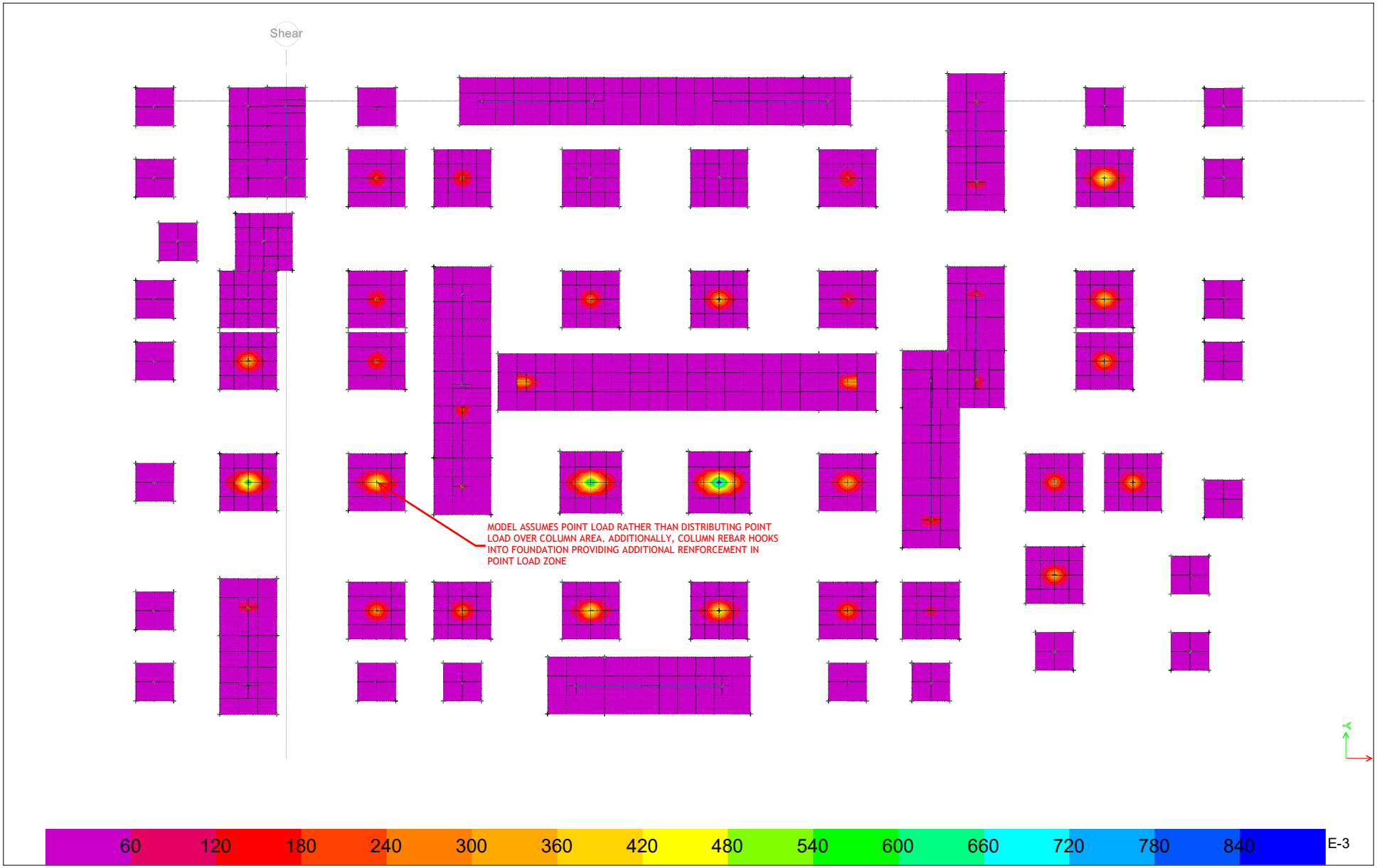
Puyallup Bell Tower - Story1 Design - DB (ft) Slab Finite Element Design - Top Rebar Intensity (Enveloping) [in²/ft] - Direction 1 - Additional to #6 @ 12 in



Puyallup Bell View Storage - Foundation Design.FDB Slab Finite Element Design - Bottom Rebar Intensity (Enveloping) [in²/ft] - Direction 1 - Additional to #6 @ 12 in



Puyallup Bellevue Stories ZFDB (ft) Slab Finite Element Design - Top Rebar Intensity (Enveloping) [in²/ft] - Direction 2 - Additional to #6 @ 12 in



Puyallup Bell View Storage - Foundation Design.FDB Slab Finite Element Design - Bottom Rebar Intensity (Enveloping) [in²/ft] - Direction 2 - Additional to #6 @ 12 in