



524 CLEVELAND BLVD. #230  
CALDWELL, IDAHO 83605  
(208) 453-6512

Completed by: JDJ  
Review/Check: ARA

Project Name: Charters Residence  
SRE Project #: 2022-4218  
City and State: McCall, Idaho

# Structural Calculations

**Project Title: Charters Residence**

**Address: Lot 63 Jug Mountain Ranch**

**Location: McCall (150), Idaho**

**Job #: 2022-4218**



Prepared in accordance with 2018 IBC. Calculations expire by: 11/4/2023



524 CLEVELAND BLVD. #230  
CALDWELL, IDAHO 83605  
(208) 453-6512

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Project Name: Charters Residence  
SRE Project #: 2022-4218  
City and State: McCall, Idaho

### SITE SPECIFIC DESIGN CRITERIA:

#### Snow Criteria:

Roof Load ( $P_f$ )	<b>150 psf</b>	
Ground Load ( $P_g$ )	<b>150 psf</b>	
Exposure Factor ( $C_e$ )	<b>1.0</b>	Partially
Thermal Factor ( $C_t$ )	<b>1.0</b>	Typical
Importance ( $I_s$ )	<b>1.0</b>	

#### Wind Criteria:

Wind Speed ( $V_3$ )	<b>115 mph</b>	
Wind Exposure	<b>C</b>	Open Terrain
Wind Importance ( $I_w$ )	<b>1.0</b>	
Building Category	<b>II</b>	

#### Seismic Criteria:

Site Class	<b>D</b>	Stiff Soil
$S_s$	<b>0.47</b>	$F_a$ <b>1.42</b>
$S_1$	<b>0.14</b>	$F_v$ <b>2.24</b>
$S_{D1}$	<b>0.45</b>	$S_{D1}$ <b>0.21</b>
Risk Category	<b>II</b>	Other
Seismic Importance ( $I_E$ )	<b>1.0</b>	
Seismic Design Category (SDC)	<b>D</b>	

#### Seismic Criteria (continued):

Wall Material	Design Base Shear	Response Coeff., R	
OSB	<b>.08Wp</b>	<b>6.5</b>	Typ @ Ext
GYP	<b>.27Wp</b>	<b>2</b>	Typ @ Int
CANT COL	<b>.36Wp</b>	<b>1.5</b>	

#### Soil Criteria:

Brg. Strength	<b>1500 psf</b>
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### STRUCTURE SPECIFIC DESIGN CRITERIA:

#### Live Loads:

Typ Residential	<b>40 psf</b>
Garage (P.V.)	<b>50 psf</b>
Sleeping Area's	<b>30 psf</b>

#### Roof Dead Loads:

Deck	1.5
Insulation	2.0
Roofing	3.0
Joist	2.5
Ceiling	3.0
Misc	4.5
<b>TOTAL</b>	<b>17 psf</b>

#### Exterior Wall Dead Loads:

Studs	2.0
Siding	2.5
Insulation	0.5
Gyp. Board	2.5
Sheathing	1.5
Misc	3.0
<b>TOTAL</b>	<b>12 psf</b>

#### Floor Dead Loads:

Deck	2.5
Joist	7.0
Ceiling	2.0
Flooring	2.5
Misc	3.0
<b>TOTAL</b>	<b>17 psf</b>

#### Interior Wall Dead Loads:

Studs	2.0
Gyp. Board	2.5
Misc	3.0
<b>TOTAL</b>	<b>8 psf</b>

#### Deck Dead Load

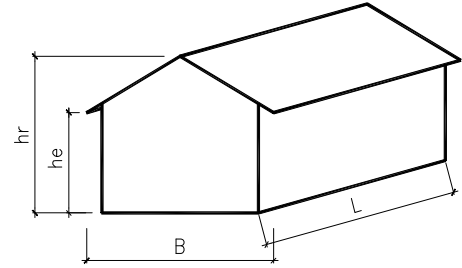
Decking	4.4
Joist	2.0
	0.0
Misc	3.0
<b>TOTAL</b>	<b>10 psf</b>



**WIND ANALYSIS: Low-rise Building - Based on IBC / ASCE 7**

**INPUT DATA**

Exposure category (B, C or D, ASCE 7-16 26.7.3)		C	
Importance factor (ASCE 7-16 Table 1.5-2)	$I_w =$	1.00	for all Category
Basic wind speed (ASCE 7-16 26.5.1 or 2018 IBC)	$V =$	115	mph
Topographic factor (ASCE 7-16 26.8 & Table 26.8-1)	$K_{zt} =$	1.00	Flat
Building height to ridge	$h_r =$	28.56 ft	ft
Building height to eave	$h_e =$	20.58 ft	ft
Building width	$B =$	102.25 ft	ft
Building length	$L =$	88.00 ft	ft
Overhang sloped width	$O_h =$	3.00 ft	ft
Effective area of components (or Solar Panel area)	$A =$	33.3 ft <sup>2</sup>	ft <sup>2</sup> , <== Overhang? (Yes or No): Yes
Enclosed? (Y/N)		y	



**ANALYSIS**

**Velocity pressure**

$q_h = 0.00256 K_z K_{zt} K_d K_e V^2 = 27.10 \text{ psf}$

where:  $q_h$  = velocity pressure at mean roof height, h. (Eq. 26.10-1 page 268)

$K_z$  = velocity pressure exposure coefficient evaluated at height, h, (Tab. 26.10-1, pg 268) = **0.94**

$K_d$  = wind directionality factor. (Tab. 26.6-1, for building, page 266) = **0.85**

h = mean roof height = **24.57 ft**

$K_e$  = ground elevation factor. (**1.0** per Sec. 26.9, page 268) **< 60 ft, [Satisfactory]** (ASCE 7-16 26.2.1)

**< Min (L, B), [Satisfactory]** (ASCE 7-16 26.2.2)

**Design pressures for MWFRS**

$p = q_h [(G C_{pf}) - (G C_{pi})]$

where: p = pressure in appropriate zone. (Eq. 28.3-1, page 311).

$p_{min} = 16 \text{ psf}$  (ASCE 7-16 28.3.4)

$G C_{pf}$  = product of gust effect factor and external pressure coefficient, see table below. (Fig. 28.3-1, page 312 & 313)

$G C_{pi}$  = product of gust effect factor and internal pressure coefficient. (Tab. 26.13-1, Enclosed Building, page 271)

= **0.18** or **-0.18**

a = width of edge strips, Fig 28.3-1, page 312,  $MAX[MIN(0.1B, 0.1L, 0.4h), MIN(0.04B, 0.04L), 3] = 8.80 \text{ ft}$

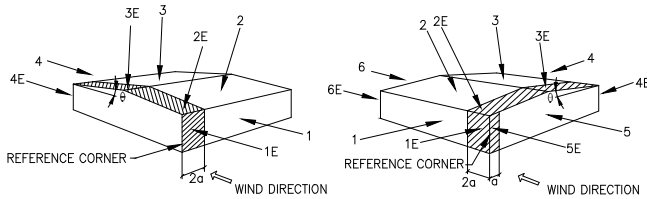
**Net Pressures (psf), Basic Load Cases**

Surface	Roof angle $q = 36.87$			Roof angle $q = 36.87$		
	$G C_{pf}$	Net Press. W/		$G C_{pf}$	Net Press. W/	
		(+ $G C_{pi}$ )	(- $G C_{pi}$ )		(+ $G C_{pi}$ )	(- $G C_{pi}$ )
1	0.56	10.30	20.06	-0.45	-17.08	-7.32
2	0.21	0.81	10.57	-0.69	-23.58	-13.82
3	-0.43	-16.53	-6.78	-0.37	-14.91	-5.15
4	-0.37	-14.91	-5.15	-0.45	-17.08	-7.32
5				0.40	5.96	15.72
6				-0.29	-12.74	-2.98
1E	0.69	13.82	23.58	-0.48	-17.89	-8.13
2E	0.27	2.44	12.20	-1.07	-33.88	-24.12
3E	-0.53	-19.24	-9.49	-0.53	-19.24	-9.49
4E	-0.48	-17.89	-8.13	-0.48	-17.89	-8.13
5E				0.61	11.65	21.41
6E				-0.43	-16.53	-6.78

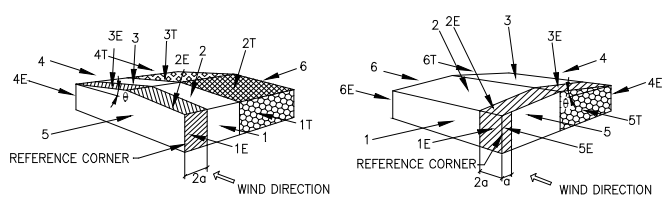
**Net Pressures (psf), Torsional Load Cases**

Surface	Roof angle $q = 36.87$		
	$G C_{pf}$	Net Press. W/	
		(+ $G C_{pi}$ )	(- $G C_{pi}$ )
1T	0.56	2.57	5.01
2T	0.21	0.20	2.64
3T	-0.43	-4.13	-1.69
4T	0.00	-3.73	-1.29
Surface	Roof angle $q = 0.00$		
	$G C_{pf}$	Net Press. W/	
		(+ $G C_{pi}$ )	(- $G C_{pi}$ )
5T	0.40	1.49	3.93
6T	-0.29	-3.18	-0.75

+ / - Wind Pressure 59%



Load Case A (Transverse) Load Case B (Longitudinal)  
Basic Load Cases



Load Case A (Transverse) Load Case B (Longitudinal)  
Torsional Load Cases

**Design pressures for components and cladding**

$p = q_h [ (G C_p) - (G C_{pi}) ]$

where:  $p$  = pressure on component. (Eq. 30.3-1, pg 33)

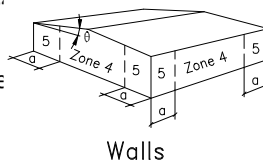
$p_{min} = 16.00$  psf (ASCE 7-16 30.2.2)

$G C_p = 1.00$  external pressure coefficient  
see table below. (ASCE 7-16 30.3.2)

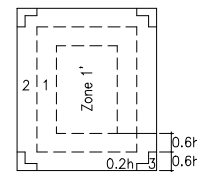
$q = 36.87$  °

$p_{overhang} = -93.51$  psf

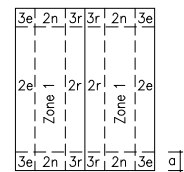
(ASCE 7-16 28.3.3)



Walls



Roof  $\theta \leq 7^\circ$



Roof  $\theta > 7^\circ$

Comp. & Cladding Coeffs.	Effective Area (ft <sup>2</sup> )	Zone 1		Zone 1'		Zone 2		Zone 2e		Zone 2n		Zone 2r	
		GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>
	3485	0.30	-0.80	0.30	-0.80	0.30	-1.80	0.30	-0.80	0.30	-1.00	0.30	-1.00
Effective Area (ft <sup>2</sup> )	Zone 3		Zone 3e		Zone 3r		Zone 4		Zone 5				
	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>	GC <sub>p</sub>	-GC <sub>p</sub>			
33	0.30	-1.80	0.30	-1.80	0.30	-1.80	0.99	-1.09	0.99	-1.37			

Comp. & Cladding Pressures	Zone 1		Zone 1'		Zone 2		Zone 2e		Zone 2n		Zone 2r	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	3.25	-16.80	3.25	-16.80	3.25	-43.91	3.25	-16.80	3.25	-22.22	3.25	-22.22
	Zone 3		Zone 3e		Zone 3r		Zone 4		Zone 5			
Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	(Max Pressure 43.91 psf)		
3.25	-43.91	3.25	-43.91	3.25	-43.91	21.84	-24.55	21.84	-32.29			

LOAD CASE 'A' FACTORED LOADS	
$0.6 * W_r = (Z_2 + Z_3) * 0.6 =$	<b>10.4 psf</b>
$0.6 * W_{rE} = (Z_{2E} + Z_{3E}) * 0.6 =$	<b>13.0 psf</b>
$0.6 * W_w = (Z_1 + Z_4) * 0.6 =$	<b>15.1 psf</b>
$0.6 * W_{wE} = (Z_{1E} + Z_{4E}) * 0.6 =$	<b>19.0 psf</b>

LOAD CASE 'B' FACTORED LOADS	
$0.6 * W_r = (Z_2 + Z_3) * 0.6 =$	<b>5.2 psf</b>
$0.6 * W_{rE} = (Z_{2E} + Z_{3E}) * 0.6 =$	<b>8.8 psf</b>
$0.6 * W_w = (Z_5 + Z_6) * 0.6 =$	<b>11.2 psf</b>
$0.6 * W_{wE} = (Z_{5E} + Z_{6E}) * 0.6 =$	<b>16.9 psf</b>

ROOF COMPONENTS FACTORED LOAD	
$0.6 * Z_{r,c\&c} =$	<b>13.3 psf</b>

WALL COMPONENTS FACTORED LOAD	
$0.6 * Z_{w,c\&c} =$	<b>14.7 psf</b>



### OSB SEISMIC LOADING ANALYSIS

IBC / ASCE 7: Equivalent Lateral Force (ELF) Procedure:

#### INPUT DATA

Typical floor height:  $h = 10$  ft  
 Typical floor weight:  $w_x = 153.0$  kips  
 Number of floors:  $n = 2$   
 Importance factor (ASCE 11.5.1):  $I_e = 1.00$   
 Design spectral response:  $S_{DS} = 0.45$  g  
 $S_{D1} = 0.21$  g  
 Mapped spectral resp.:  $S_1 = 0.14$  g  
 Period Parameter,  $C_t$ :  
 (ASCE Tab 12.8-2):  $C_t = 0.020$   
 Resp. coefficient: (ASCE  
 Tab. 12.2.1):  $R = 6.5$   
 Seismic design category: SDC = D  
 $h_n = 28.6$  ft

#### DESIGN SUMMARY

$C_s = 1.2 * S_{DS} / (R / I_e) = 0.0825$  <= Applicable  
 Period Parameter,  $x = 0.75$ , ASCE Tab 12.8-2  
 Period:  $T_a = C_t (h_n)^x = 0.25$  sec, ASCE 12.8.2.1  
 $C_s < S_{D1} / [(R / I_e) T_a] = 0.1309$ , ASCE Tab 12.8.1.1 <= Not Applicable  
 $C_s > 0.044 S_{DS} I_e = 0.0197$ , ASCE Tab 12.8.1.1 <= Not Applicable  
 $C_s > 0.5 S_1 / (R / I_e) = 0.0108$ , ASCE Tab 12.8.1.1 <= Not Applicable  
 $k = 1.88$ , (ASCE 12.8.3, page 91)  
 $V = C_s W = 0.0825$  W  
 $0.7 * V = 0.0577$  W  
 $W = 306$  kips, total

### SEISMIC COMPONENT & ANCHORING ANALYSIS

Out-of-plane seismic force for wall design (ASCE 7, Sec.12.11.1)

$$w_{1, seismic} = MAX(0.4 I S_{DS} W_p, 0.1 W_p) = 0.2 W_p = 0.2 \text{ psf} \quad \leq \text{USE FOR DIAPHRAGMS}$$

Where:  $W_p = 1.0$  psf,  $I_e = 1.00$   
 (CBC / IBC Tab. 1604.5 & ASCE 7 Tab. 1.5-2)

Out-of-plane seismic force for anchorage design

For seismic design category A & B, any diaphragm (ASCE 7 Sec. 12.11.2)

$$F_{anch, seismic} = MAX \left[ 0.4 S_{DS} I W_p \frac{(h+h_p)^2}{2h}, 0.1 W_p \frac{(h+h_p)^2}{2h}, 400 S_{DS} I, F_{min} \right] =$$

Where:  $F_{min} = 0.17$  plf,  $1.75 W_p = 179$  plf (Horizontal) <= Not Applicable  
 (ASCE 7 Sec. 12.11.2 & 11.7.3)

For seismic design category C and above, flexible diaphragm (ASCE 7 Sec. 12.11.2.1)

$$F_{anch, seismic} = MAX \left[ 0.8 S_{DS} I W_p \frac{(h+h_p)^2}{2h}, 0.1 W_p \frac{(h+h_p)^2}{2h}, 400 S_{DS} I, F_{min} \right] =$$

$$= 3.50 W_p = 179 \text{ plf (Horizontal)} \quad \leq \text{Applicable}$$

For connections (ASCE 7 Sec. 12.11.2.1)

$$F_{conn, seismic} = MAX [0.133 S_{DS} w_p, 0.5 w_p] = 0.5 W_p = 0.5 \text{ plf (Horizontal)}$$



### GYP SEISMIC LOADING ANALYSIS

IBC / ASCE 7: Equivalent Lateral Force (ELF) Procedure:

#### INPUT DATA

Typical floor height:  $h = 10$  ft  
 Typical floor weight:  $w_x = 153.0$  kips  
 Number of floors:  $n = 2$   
 Importance factor (ASCE 11.5.1):  $I_e = 1.00$   
 Design spectral response:  $S_{DS} = 0.45$  g  
 $S_{D1} = 0.21$  g  
 Mapped spectral resp.:  $S_1 = 0.14$  g  
 Period Parameter,  $C_t$ :  
 (ASCE Tab 12.8-2):  $C_t = 0.020$   
 Resp. coefficient: (ASCE  
 Tab. 12.2.1):  $R = 2$   
 Seismic design category: SDC = D  
 $h_n = 28.6$  ft

#### DESIGN SUMMARY

$C_s = 1.2 * S_{DS} / (R / I_e) = 0.2681$  <= Applicable  
 Period Parameter,  $x = 0.75$ , ASCE Tab 12.8-2  
 Period:  $T_a = C_t (h_n)^x = 0.25$  sec, ASCE 12.8.2.1  
 $C_s < S_{D1} / [(R / I_e) T_a] = 0.4253$ , ASCE Tab 12.8.1.1 <= Not Applicable  
 $C_s > 0.044 S_{DS} I_e = 0.0197$ , ASCE Tab 12.8.1.1 <= Not Applicable  
 $C_s > 0.5 S_1 / (R / I_e) = 0.0353$ , ASCE Tab 12.8.1.1 <= Not Applicable  
 $k = 1.88$ , (ASCE 12.8.3, page 91)  
 $V = C_s W = 0.2681$  W  
 $0.7 * V = 0.1877$  W  
 $W = 306$  kips, total

### SEISMIC COMPONENT & ANCHORING ANALYSIS

Out-of-plane seismic force for wall design (ASCE 7, Sec.12.11.1)

$$w_{1, seismic} = MAX(0.4 I S_{DS} W_p, 0.1 W_p) = 0.2 W_p = 0.2 \text{ psf} \quad \leq \text{USE FOR DIAPHRAGMS}$$

Where:  $W_p = 1.0$  psf,  $I_e = 1.00$   
 (CBC / IBC Tab. 1604.5 & ASCE 7 Tab. 1.5-2)

Out-of-plane seismic force for anchorage design

For seismic design category A & B, any diaphragm (ASCE 7 Sec. 12.11.2)

$$F_{anch, seismic} = MAX \left[ 0.4 S_{DS} I W_p \frac{(h+h_p)^2}{2h}, 0.1 W_p \frac{(h+h_p)^2}{2h}, 400 S_{DS} I, F_{min} \right] =$$

Where:  $F_{min} = 0.17$  plf,  $1.75 W_p = 179$  plf (Horizontal) <= Not Applicable  
 (ASCE 7 Sec. 12.11.2 & 11.7.3)

For seismic design category C and above, flexible diaphragm (ASCE 7 Sec. 12.11.2.1)

$$F_{anch, seismic} = MAX \left[ 0.8 S_{DS} I W_p \frac{(h+h_p)^2}{2h}, 0.1 W_p \frac{(h+h_p)^2}{2h}, 400 S_{DS} I, F_{min} \right] =$$

= 3.50  $W_p = 179$  plf (Horizontal) <= Applicable

For connections (ASCE 7 Sec. 12.11.2.1)

$$F_{conn, seismic} = MAX [0.133 S_{DS} w_p, 0.5 w_p] = 0.5 W_p = 0.5 \text{ plf (Horizontal)}$$



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## WIND / SEISMIC SHEAR FORCE CALCULATIONS:

From ASCE 7-16 Wind & Seismic Loading Analysis

Wall Line	Roof / Floor						Wall					Load above		*C <sub>s</sub> (W/p)	=	Loading		
	Wind Force (psf)	Diaph. Weight	Wr, We truss trib (ft)	Area W (ft)	Area L (ft)	Wind Force (psf)	Wall DL (psf)	Wall ht (ft)	wall line dist (ft)	Upr. Flr Wall ht (ft)	Wind (#)	Seismic (#)	Wind Force (kips)			Seismic Force (kips)	Lateral Control	
X1-2	11.4	55	8.0	46.5	13.0	16.6	12.0	9.0	46.5				0.06	=	3.85	1.24	Wind	
X2-2	11.4	55	8.0	46.5	13.0	16.6	12.0	9.0	46.5				0.06	=	3.85	1.24	Wind	
X3-2	11.7	55	7.0	35.0	24.0	17.1	12.0	8.0	35.0				0.06	=	2.63	1.52	Wind	
X4-2	11.7	55	7.0	35.0	24.0	17.1	8.0	8.0	35.0				0.19	=	2.63	4.72	Seismic	
Y1-2	13.5	55	8.0	15.0	46.5	19.0	12.0	9.0	15.0				0.06	=	1.45	1.19	Wind	
Y2-2	13.5	55	8.0	15.0	46.5	19.0	12.0	9.0	15.0				0.06	=	1.45	1.19	Wind	
Y3-2	12.0	55	9.6	28.5	35.0	17.5	12.0	5.5	28.5				0.06	=	2.33	1.68	Wind	
Y4-2	12.0	55	9.6	28.5	35.0	17.5	12.0	5.5	28.5				0.06	=	2.33	1.68	Wind	
X1-1	0.0	26	0.0	19.5	25.0	18.6	12.0	10.0	19.5	5.5	3.85	1.24	0.06	=	5.76	1.74	Wind	
X2-1	0.0	18	0.0	19.5	25.0	18.6	12.0	10.0	19.5	5.5	1.25	0.38	0.06	=	7.03	2.15	Wind	
X3-1	0.0	18	0.0	28.5	54.0	17.5	12.0	10.0	28.5	5.5	1.25	0.38	0.06	=	7.03	2.15	Wind	
X4-1	0.0	26	0.0	28.5	54.0	17.5	12.0	10.0	28.5	5.5	3.85	1.24	0.06	=	6.47	2.57	Wind	
X4-1	12.4	55	8.0	23.0	15.5	18.1	12.0	10.0	23.0	0.0	0	0	0.06	=	7.39	3.01	Wind	
X4-1	0.0	26	0.0	28.0	28.0	17.6	12.0	10.0	28.0	5.5	2.63	1.52	0.06	=	7.39	3.01	Wind	
X5-1	0.0	26	0.0	28.0	28.0	17.6	12.0	10.0	28.0	5.5	2.63	4.72	0.06	=	6.60	6.40	Wind	
X5-1	13.7	55	6.1	14.0	36.0	19.0	12.0	12.0	14.0	0.0	0	0	0.06	=	6.60	6.40	Wind	
X6-1	13.7	55	6.1	14.0	36.0	19.0	12.0	12.0	14.0	0.0	0	0	0.06	=	1.38	0.91	Wind	



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 City and State: McCall, Idaho

Y1-1	14.1	55	8.0	12.5	32.0	19.0	12.0	10.0	12.5	0	0	0	0.06	=	1.29	0.71	Wind
Y2-1	14.1	55	8.0	12.5	32.0	19.0	8.0	10.0	12.5	0	0	0	0.19	=	3.99	4.79	Seismic
	0.0	26	0.0	12.5	39.5	19.0	8.0	10.0	12.5	5.5	1.45	1.19	0.19	=			
Y3-1	0.0	26	0.0	12.5	49.5	19.0	12.0	10.0	12.5	5.5	0.72	0.60	0.06	=	5.36	2.51	Wind
	0.0	26	0.0	29.0	27.0	17.5	12.0	10.0	29.0	5.5	0.72	0.60	0.06	=			
Y4-1	0.0	26	0.0	29.0	27.0	17.5	12.0	10.0	29.0	5.5	2.67	1.20	0.06	=	5.33	1.98	Wind
Y5-1	0.0	26	0.0	36.0	42.0	17.0	12.0	12.0	36.0	5.5	2.33	1.68	0.06	=	5.85	3.09	Wind
Y6-1	0.0	26	0.0	36.0	42.0	17.0	12.0	12.0	36.0	5.5	2.33	1.68	0.06	=	5.85	3.09	Wind







524 CLEVELAND BLVD. #230  
 CALDWELL, IDAHO 83605  
 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

**SHEAR WALL CALCULATIONS:**

		Y3-2	Y4-2	X1-1	X2-1	X3-1	X3-1
<b>Shear Wall Forces</b>							
Total length of wall		12.00 ft	28.46 ft	25.00 ft	48.67 ft	41.46 ft	41.46 ft
Total length of shear wall	L =	12.00 ft	28.46 ft	17.79 ft	38.33 ft	12.00 ft	2.33 ft
Total length of full ht seg.	L <sub>w</sub> =	6.00 ft	8.00 ft	15.75 ft	23.00 ft	5.75 ft	2.33 ft
height of shear wall	H =	8.00 ft	5.50 ft	10.00 ft	10.00 ft	10.00 ft	10.00 ft
Maximum opening height	H' =	3.50 ft	0.00 ft	10.00 ft	10.00 ft	4.33 ft	0.00 ft
Total force at top of wall	V <sub>1</sub> =	2328 lbs	2328 lbs	5759 lbs	7026 lbs	2708 lbs	1883 lbs
Self weight	W <sub>DL self</sub> =	96 plf	66 plf	120 plf	120 plf	120 plf	120 plf
Applied dead load	W <sub>DL above</sub> =	68 plf	68 plf	196 plf	68 plf	255 plf	68 plf
Prefered OSB thickness	in	7/16	7/16	7/16	7/16	7/16	7/16
Prefered Gyp thickness	in	1/2	1/2	1/2	1/2	1/2	1/2
Wall Connected to Concrete	y/n =	N	N	Y	Y	Y	Y
<b>Shear Wall Segments</b>							
		3.00	4.00	5.83	3.00	2.83	2.33
		3.00	4.00	4.58	8.50	2.92	
				5.33	8.50		
					3.00		
<b>Shear Transfer to Concrete</b>							
	T =	2408 lbs	Not Req'd	2595 lbs	1896 lbs	4333 lbs	3500 lbs
				36 " O.C.	72 " O.C.	72 " O.C.	
Provide:				A3	Code Min.	Code Min.	
Min # of 1/2 Anchor Bolts				(6) Min	(7) Min	(3) Min	
Load From Above		0.00	0.00	0.00	0.00	1706.00	0.00
Holddown		S2		HD2	HD1	HD3	HD3
<b>Shear Resisting System</b>							
Force Calculated		448.60	290.98	449.69	549.90	544.42	806.88
		<b>OSB</b>	<b>OSB</b>	<b>OSB</b>	<b>OSB</b>	<b>OSB</b>	<b>P.F.</b>
Min Shear Wall Segment:		2.29 ft	1.57 ft	2.86 ft	2.86 ft	2.86 ft	1.33 ft
Provide:	V <sub>a</sub> =	<b>SW2</b>	<b>SW1</b>	<b>SW2</b>	<b>SW2</b>	<b>SW2</b>	<b>1925</b>
Min Shear Wall Segment:							
Provide:	V <sub>a</sub> =						
<b>Blocking / Nailing Framing Attachment</b>							
Blocking Unit Shear		194 plf	82 plf	230 plf	144 plf	65 plf	91 plf
Blocking		<b>B1</b>	<b>NONE</b>	<b>B1</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>
Nailing		<b>T1</b>	<b>See SCHED</b>	<b>T1</b>	<b>See SCHED</b>	<b>See SCHED</b>	<b>See SCHED</b>
<b>Unit Base Shear</b>							
% of full height segments	%fh = L <sub>w</sub> /L =	0.500	0.281	0.885	0.600	0.479	1.000
% of maximum opening height	%oh = H'/H =	0.438	0.000	1.000	1.000	0.433	0.000
Shear cap adj factor	SCAF =	0.86	1.00	0.81	0.56	0.86	1.00
Unit base shear	vbase V <sub>1</sub> /L <sub>w</sub> =	388 plf	291 plf	366 plf	305 plf	471 plf	807 plf
Effective unit base shear	vreq=v <sub>base</sub> /SCAF =	449 plf	291 plf	450 plf	550 plf	544 plf	807 plf
Ovrtrn. mo. Ttl. length of wall	OTM =	21.5 k-ft	12.8 k-ft	70.8 k-ft	126.5 k-ft	31.3 k-ft	18.8 k-ft
<b>Shear wall adjustment factor</b>							
Resist moment total L. of wall	RM =	11.8 k-ft	54.3 k-ft	49.9 k-ft	138.1 k-ft	27.0 k-ft	0.5 k-ft
	r =	0.6957	0.9995	0.8852	0.6000	0.6798	1.0000
	C <sub>o</sub> =	0.8649	3.5525	0.8133	0.5555	0.8648	1.0000



524 CLEVELAND BLVD. #230  
CALDWELL, IDAHO 83605  
(208) 453-6512

Completed by: JDJ  
Review/Check: ARA

Project Name: Charters Residence  
SRE Project #: 2022-4218  
City and State: McCall, Idaho

### SHEAR WALL CALCULATIONS:

		X4-1	X5-1	X6-1	Y1-1	Y2-1	Y3-1
<b>Shear Wall Forces</b>							
Total length of wall		28.00 ft	36.00 ft	36.00 ft	32.00 ft	39.46 ft	46.50 ft
Total length of shear wall	L =	28.00 ft	36.00 ft	36.00 ft	26.42 ft	11.17 ft	14.71 ft
Total length of full ht seg.	L <sub>w</sub> =	18.58 ft	8.00 ft	8.00 ft	11.42 ft	11.17 ft	7.92 ft
height of shear wall	H =	10.00 ft	13.00 ft	13.00 ft	10.00 ft	10.00 ft	10.00 ft
Maximum opening height	H' =	10.00 ft	10.00 ft	5.00 ft	10.00 ft	0.00 ft	7.50 ft
Total force at top of wall	V <sub>1</sub> =	7394 lbs	3298 lbs	1381 lbs	1293 lbs	2395 lbs	2587 lbs
Self weight	W <sub>DL self</sub> =	120 plf	156 plf	156 plf	120 plf	120 plf	120 plf
Applied dead load	W <sub>DL above</sub> =	68 plf	68 plf	68 plf	68 plf	68 plf	68 plf
Prefered OSB thickness	in	7/16	7/16	7/16	7/16	7/16	7/16
Prefered Gyp thickness	in	1/2	1/2	1/2	1/2	1/2	1/2
Wall Connected to Concrete	y/n =	Y	Y	Y	Y	Y	Y
<b>Shear Wall Segments</b>							
		7.50	4.00	4.00	4.00	11.17	3.00
		5.00	4.00	4.00	4.00		4.92
		6.08			3.42		
<b>Shear Transfer to Concrete</b>							
	T =	5191 lbs	5091 lbs	Not Req'd	Not Req'd	1515 lbs	4438 lbs
1/2 Anchor Bolts @		48" O.C.	36" O.C.	72" O.C.	72" O.C.	60" O.C.	72" O.C.
Provide:		A4	A3	Code Min.	Code Min.	A5	Code Min.
Min # of 1/2 Anchor Bolts		(8) Min	(4) Min	(2) Min	(2) Min	(3) Min	(3) Min
Load From Above		913.00	0.00	0.00	0.00	0.00	828.00
Holdown		HD3	HD3			HD1	HD3
<b>Shear Resisting System</b>							
Force Calculated		665.74	831.59	193.32	241.75	214.50	515.12
		<b>OSB</b>	<b>OSB</b>	<b>OSB</b>	<b>OSB</b>	<b>Gyp.</b>	<b>OSB</b>
Min Shear Wall Segment:		2.86 ft	3.71 ft	3.71 ft	2.86 ft	5.00 ft	2.86 ft
Provide:	V <sub>a</sub> =	<b>SW3</b>	<b>SW4</b>	<b>SW1</b>	<b>SW1</b>	<b>SWD</b>	<b>SW2</b>
Min Shear Wall Segment:							
Provide:	V <sub>a</sub> =						
<b>Blocking / Nailing Framing Attachment</b>							
Blocking Unit Shear		264 plf	183 plf	38 plf	40 plf	121 plf	56 plf
Blocking		<b>B1</b>	<b>B1</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>
Nailing		<b>T1</b>	<b>T1</b>	<b>See SCHED</b>	<b>See SCHED</b>	<b>See SCHED</b>	<b>See SCHED</b>
<b>Unit Base Shear</b>							
% of full height segments	%fh = L <sub>w</sub> /L =	0.664	0.222	0.222	0.432	1.000	0.538
% of maximum opening height	%oh = H'/H =	1.000	0.769	0.385	1.000	0.000	0.750
Shear cap adj factor	SCAF =	0.60	0.50	0.89	0.47	1.00	0.63
Unit base shear	v <sub>base</sub> V <sub>1</sub> /L <sub>w</sub> =	398 plf	412 plf	173 plf	113 plf	214 plf	327 plf
Effective unit base shear	v <sub>req</sub> = v <sub>base</sub> /SCAF =	666 plf	832 plf	193 plf	242 plf	214 plf	515 plf
Ovrtrn. mo. of shrt. pnl	OTM =	123.7 k-ft	21.4 k-ft	20.1 k-ft	27.6 k-ft	24.0 k-ft	40.8 k-ft
<b>Shear wall adjustment factor</b>							
Resist moment of shrt panel	RM =	73.7 k-ft	1.8 k-ft	145.2 k-ft	65.6 k-ft	11.7 k-ft	20.3 k-ft
	r =	0.6636	0.2708	0.4262	0.4322	1.0000	0.6086
	C <sub>0</sub> =	0.5978	0.4958	0.8931	0.4683	1.0000	0.6341



524 CLEVELAND BLVD. #230  
CALDWELL, IDAHO 83605  
(208) 453-6512

Completed by: JDJ  
Review/Check: ARA

Project Name: Charters Residence  
SRE Project #: 2022-4218  
City and State: McCall, Idaho

### SHEAR WALL CALCULATIONS:

		Y3-1	Y4-1	Y4-1	Y4-1	Y5-1	Y5-1
<b>Shear Wall Forces</b>							
Total length of wall		46.50 ft	21.70 ft	21.70 ft	21.70 ft	42.00 ft	42.00 ft
Total length of shear wall	L =	8.50 ft	2.00 ft	3.50 ft	2.20 ft	14.00 ft	23.17 ft
Total length of full ht seg.	L <sub>w</sub> =	8.50 ft	2.00 ft	3.50 ft	2.20 ft	11.50 ft	15.09 ft
height of shear wall	H =	17.96 ft	10.00 ft	10.00 ft	10.00 ft	13.00 ft	10.00 ft
Maximum opening height	H' =	0.00 ft	0.00 ft	0.00 ft	0.00 ft	2.50 ft	8.00 ft
Total force at top of wall	V <sub>1</sub> =	2777 lbs	1546 lbs	2073 lbs	1706 lbs	2532 lbs	3321 lbs
Self weight	W <sub>DL self</sub> =	216 plf	120 plf	120 plf	120 plf	156 plf	120 plf
Applied dead load	W <sub>DL above</sub> =	68 plf	68 plf	68 plf	68 plf	68 plf	94 plf
Prefered OSB thickness	in	7/16	7/16	7/16	7/16	7/16	7/16
Prefered Gyp thickness	in	1/2	1/2	1/2	1/2	1/2	1/2
Wall Connected to Concrete	y/n =	Y	Y	Y	Y	Y	Y
<b>Shear Wall Segments</b>							
		8.50	2.00	3.50	2.20	5.75	3.38
						5.75	3.71
							4.00
							4.00
<b>Shear Transfer to Concrete</b>							
	T =	5144 lbs	3500 lbs	5725 lbs	3500 lbs	1716 lbs	998 lbs
1/2 Anchor Bolts @		48" O.C.		72" O.C.		72" O.C.	72" O.C.
Provide:		A4		Code Min.		Code Min.	Code Min.
Min # of 1/2 Anchor Bolts		(3) Min		(2) Min		(3) Min	(4) Min
Load From Above		0.00	0.00	0.00	0.00	0.00	0.00
Holddown		HD3	HD3	HD4	HD3	HD1	HD1
<b>Shear Resisting System</b>							
Force Calculated		326.65	772.83	592.21	775.26	220.14	327.71
		<b>OSB</b>	<b>P.F.</b>	<b>OSB</b>	<b>P.F.</b>	<b>OSB</b>	<b>OSB</b>
Min Shear Wall Segment:		5.13 ft	1.33 ft	2.86 ft	1.33 ft	3.71 ft	2.86 ft
Provide:	V <sub>a</sub> =	<b>SW1</b>	<b>1575</b>	<b>SW3</b>	<b>1750</b>	<b>SW1</b>	<b>SW1</b>
Min Shear Wall Segment:							
Provide:	V <sub>a</sub> =						
<b>Blocking / Nailing Framing Attachment</b>							
Blocking Unit Shear		60 plf	71 plf	96 plf	79 plf	60 plf	79 plf
Blocking		<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>
Nailing		<b>See SCHED</b>	<b>See SCHED</b>	<b>See SCHED</b>	<b>See SCHED</b>	<b>See SCHED</b>	<b>See SCHED</b>
<b>Unit Base Shear</b>							
% of full height segments	%fh = L <sub>w</sub> /L =	1.000	1.000	1.000	1.000	0.821	0.651
% of maximum opening height	%oh = H'/H =	0.000	0.000	0.000	0.000	0.192	0.800
Shear cap adj factor	SCAF =	1.00	1.00	1.00	1.00	1.00	0.67
Unit base shear	v <sub>base</sub> V <sub>1</sub> /L <sub>w</sub> =	327 plf	773 plf	592 plf	775 plf	220 plf	220 plf
Effective unit base shear	v <sub>req</sub> = v <sub>base</sub> /SCAF =	327 plf	773 plf	592 plf	775 plf	220 plf	328 plf
Ovrtrn. mo. Ttl. length of wall	OTM =	49.9 k-ft	15.5 k-ft	20.7 k-ft	17.1 k-ft	32.9 k-ft	49.4 k-ft
<b>Shear wall adjustment factor</b>							
Resist moment total L. of wall	RM =	10.2 k-ft	0.4 k-ft	1.2 k-ft	0.5 k-ft	22.0 k-ft	57.3 k-ft
	r =	1.0000	1.0000	1.0000	1.0000	0.9599	0.7000
	C <sub>o</sub> =	1.0000	1.0000	1.0000	1.0000	1.0817	0.6719



524 CLEVELAND BLVD. #230  
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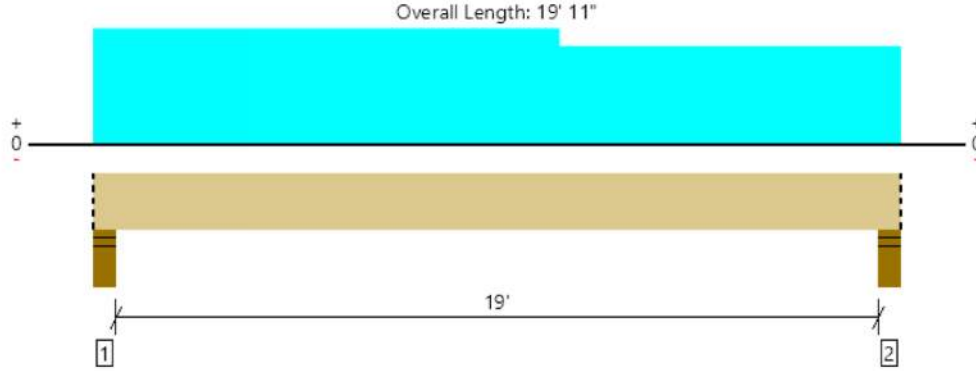
Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

### SHEAR WALL CALCULATIONS:

		Y6-1	Y6-1				
<b>Shear Wall Forces</b>							
Total length of wall		42.00 ft	42.00 ft				
Total length of shear wall	L =	28.00 ft	14.00 ft				
Total length of full ht seg.	L <sub>w</sub> =	2.67 ft	4.00 ft				
height of shear wall	H =	10.00 ft	13.00 ft				
Maximum opening height	H' =	9.00 ft	12.00 ft				
Total force at top of wall	V <sub>1</sub> =	1932 lbs	3922 lbs				
Self weight	w <sub>DL self</sub> =	120 plf	156 plf				
Applied dead load	w <sub>DL above</sub> =	68 plf	68 plf				
Prefered OSB thickness	in	7/16	7/16				
Prefered Gyp thickness	in	1/2	1/2				
Wall Connected to Concrete	y/n =	Y	Y				
<b>Shear Wall Segments</b>							
		2.67	2.00				
			2.00				
<b>Shear Transfer to Concrete</b>							
	T =	3500 lbs	3500 lbs				
Provide:							
Min # of 1/2 Anchor Bolts							
Load From Above		0.00	0.00				
Holdown		HD3	HD3				
<b>Shear Resisting System</b>							
Force Calculated		723.46	980.45				
		<b>P.F.</b>	<b>B.F.</b>				
Min Shear Wall Segment:		1.33 ft	1.33 ft				
Provide:	V <sub>a</sub> =	2625	4400				
Min Shear Wall Segment:							
Provide:	V <sub>a</sub> =						
<b>Blocking / Nailing Framing Attachment</b>							
Blocking Unit Shear		46 plf	93 plf				
Blocking		NONE	NONE				
Nailing		See SCHED	See SCHED				
<b>Unit Base Shear</b>							
% of full height segments	%fh = L <sub>w</sub> /L =	0.095	0.286				
% of maximum opening height	%oh = H'/H =	0.900	0.923				
Shear cap adj factor	SCAF =	0.39	0.44				
Unit base shear	vbase V <sub>1</sub> /L <sub>w</sub> =	723 plf	980 plf				
Effective unit base shear	vreq=v <sub>base</sub> /SCAF =	1836 plf	2219 plf				
Ovrtrn. mo. of shrt. pnl	OTM =	19.3 k-ft	25.5 k-ft				
<b>Shear wall adjustment factor</b>							
Resist moment of shrt panel	RM =	0.7 k-ft	0.4 k-ft				
	r =	0.1048	0.3023				
	C <sub>o</sub> =	0.3940	0.4417				

Roof, B01

**1 piece(s) 8 3/4" x 21" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	23114 @ 4"	30078 (5.50")	Passed (77%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	17852 @ 2' 2 1/2"	37332	Passed (48%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	104539 @ 9' 8 7/16"	133742	Passed (78%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.503 @ 9' 10 3/4"	0.962	Passed (L/459)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.571 @ 9' 10 13/16"	1.283	Passed (L/404)	--	1.0 D + 1.0 S (All Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.90 that was calculated using length L = 19' 3".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	5.50"	5.50"	4.23"	2752	20361	23114	Blocking
2 - Stud wall - DF	5.50"	5.50"	3.89"	2568	18730	21298	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	19' 11" o/c	
Bottom Edge (Lu)	19' 11" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 19' 11"	N/A	44.7	--	
1 - Uniform (PSF)	0 to 11' 6" (Back)	14'	17.0	150.0	Default Load
2 - Uniform (PSF)	11' 6" to 19' 11" (Front)	11' 10"	17.0	150.0	Default Load

**Weyerhaeuser Notes**

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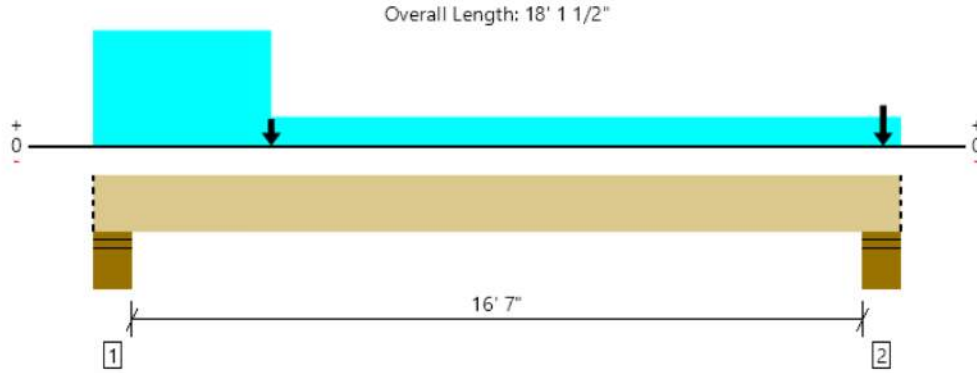
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Roof, B02

**1 piece(s) 5 1/8" x 15" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	28956 @ 17' 5 3/4"	29629 (9.25")	Passed (98%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	13424 @ 2' 1/4"	15618	Passed (86%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	43655 @ 4'	44194	Passed (99%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.660 @ 8' 3 15/16"	0.842	Passed (L/306)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.752 @ 8' 4 1/16"	1.122	Passed (L/269)	--	1.0 D + 1.0 S (All Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 16' 10".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	9.25"	9.25"	5.05"	1879	14283	16162	Blocking
2 - Stud wall - DF	9.25"	9.25"	9.04"	3519	25437	28956	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	5' 10" o/c	
Bottom Edge (Lu)	18' 2" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 18' 1 1/2"	N/A	18.7	--	
1 - Uniform (PSF)	0 to 4' (Back)	8'	17.0	150.0	Default Load
2 - Uniform (PSF)	4' to 18' 1 1/2" (Front)	2'	17.0	150.0	Default Load
3 - Point (lb)	4' (Top)	N/A	1283	10322	Linked from: Girder 1, Support 2
4 - Point (lb)	17' 8 3/4" (Top)	N/A	2752	20361	Linked from: B01, Support 1

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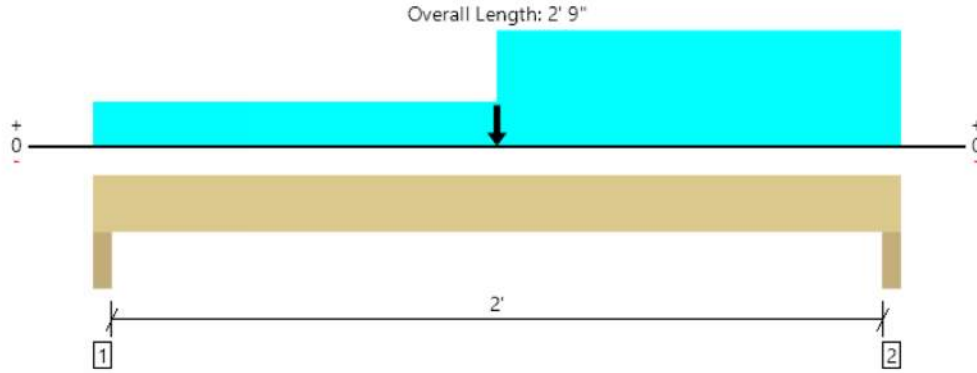
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Roof, HDR @ GRD 1

**3 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	10696 @ 2' 6"	17719 (4.50")	Passed (60%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	9017 @ 1' 2"	10898	Passed (83%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	10417 @ 1' 4 1/2"	20312	Passed (51%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.030 @ 1' 4 1/2"	0.075	Passed (L/886)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.034 @ 1' 4 1/2"	0.112	Passed (L/786)	--	1.0 D + 1.0 S (All Spans)

System : Wall  
 Member Type : Header  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Trimmer - DF	4.50"	4.50"	2.49"	1115	8699	9814	None
2 - Trimmer - DF	4.50"	4.50"	2.72"	1204	9491	10696	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	2' 9" o/c	
Bottom Edge (Lu)	2' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 2' 9"	N/A	14.5	--	
1 - Uniform (PSF)	0 to 1' 4 1/2"	4'	17.0	150.0	Default Load
2 - Uniform (PSF)	1' 4 1/2" to 2' 9"	10' 6"	17.0	150.0	Default Load
3 - Point (lb)	1' 4 1/2"	N/A	1940	15200	Linked from: Girder 1, Support 1

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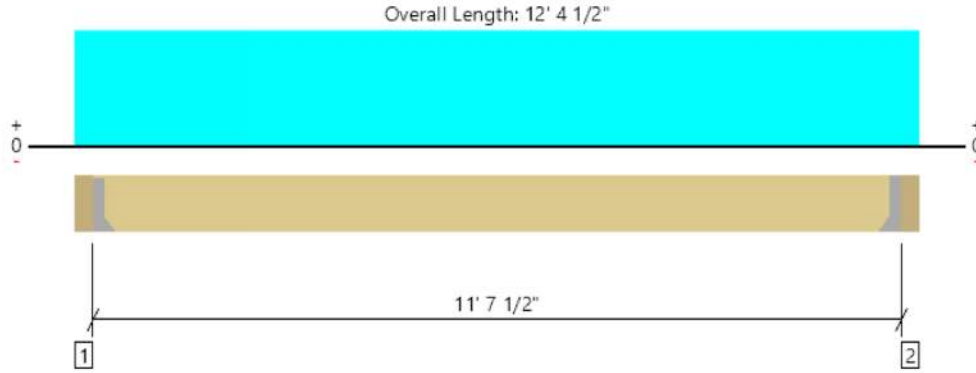
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	





Roof, B03  
**2 piece(s) 1 3/4" x 7 1/4" 2.0E Microllam® LVL**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1499 @ 4 1/2"	3938 (1.50")	Passed (38%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1343 @ 11 3/4"	5544	Passed (24%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	4357 @ 6' 2 1/4"	8182	Passed (53%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.433 @ 6' 2 1/4"	0.581	Passed (L/322)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.497 @ 6' 2 1/4"	0.775	Passed (L/281)	--	1.0 D + 1.0 S (All Spans)

System : Roof  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Hanger on 7 1/4" DF beam	4.50"	Hanger <sup>1</sup>	1.50"	201	1392	1593	See note <sup>1</sup>
2 - Hanger on 7 1/4" DF beam	4.50"	Hanger <sup>1</sup>	1.50"	201	1392	1593	See note <sup>1</sup>

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	11' 8" o/c	
Bottom Edge (Lu)	11' 8" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	HUS48	2.00"	N/A	6-10d	6-10d	
2 - Face Mount Hanger	HUS48	2.00"	N/A	6-10d	6-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	4 1/2" to 12'	N/A	7.4	--	
1 - Uniform (PSF)	0 to 12' 4 1/2" (Front)	1' 6"	17.0	150.0	Default Load

**Weyerhaeuser Notes**

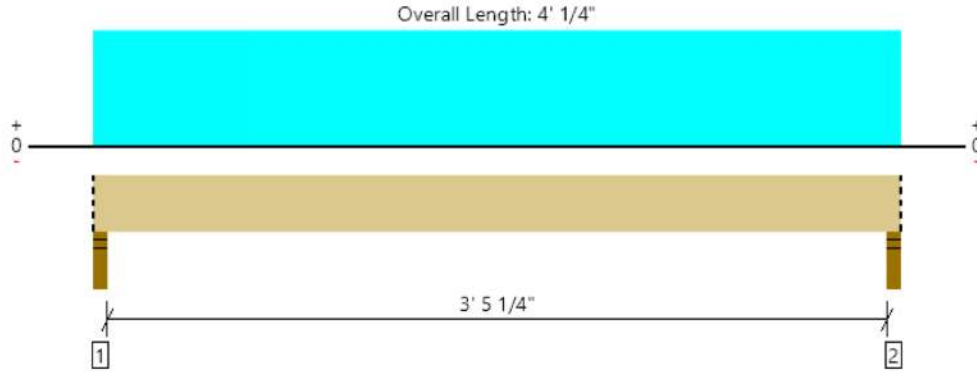
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Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Roof, B06  
**1 piece(s) 6 x 8 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3630 @ 2"	12031 (3.50")	Passed (30%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1975 @ 11"	5376	Passed (37%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	3069 @ 2' 1/8"	3706	Passed (83%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.027 @ 2' 1/8"	0.184	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.030 @ 2' 1/8"	0.246	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	388	3242	3630	Blocking
2 - Stud wall - DF	3.50"	3.50"	1.50"	388	3242	3630	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	4' o/c	
Bottom Edge (Lu)	4' o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 4' 1/4"	N/A	10.4	--	
1 - Uniform (PSF)	0 to 4' 1/4" (Top)	8' 6"	17.0	150.0	Default Load
2 - Uniform (PSF)	0 to 4' 1/4" (Front)	2' 3"	17.0	150.0	Default Load

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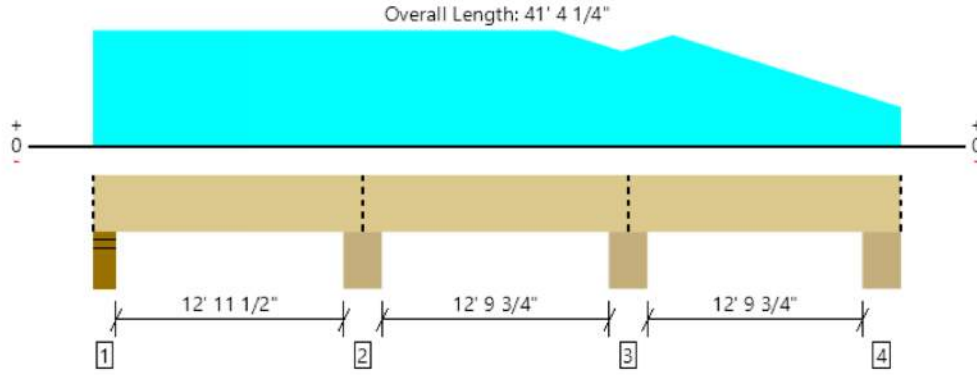
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Roof, B08

**1 piece(s) 6 3/4" x 13 1/2" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	23857 @ 13' 9 5/8"	40584 (9.25")	Passed (59%)	--	1.0 D + 1.0 S (Adj Spans)
Shear (lbs)	10232 @ 12' 3 1/2"	18514	Passed (55%)	1.15	1.0 D + 1.0 S (Adj Spans)
Pos Moment (Ft-lbs)	24104 @ 5' 11 7/16"	47157	Passed (51%)	1.15	1.0 D + 1.0 S (Alt Spans)
Neg Moment (Ft-lbs)	-30509 @ 13' 9 5/8"	36350	Passed (84%)	1.15	1.0 D + 1.0 S (Adj Spans)
Live Load Defl. (in)	0.250 @ 6' 6 11/16"	0.673	Passed (L/647)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.276 @ 6' 6 3/8"	0.898	Passed (L/585)	--	1.0 D + 1.0 S (Alt Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 11' 2 15/16".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 6 1/8".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	5.50"	5.50"	2.15"	991	8092	9083	Blocking
2 - Column - DF	9.25"	9.25"	5.44"	2659	21198	23857	Blocking
3 - Column - DF	9.25"	9.25"	4.60"	2257	17928	20185	Blocking
4 - Column - DF	9.25"	9.25"	1.50"	611	4694	5306	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	41' 4" o/c	
Bottom Edge (Lu)	41' 4" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 41' 4 1/4"	N/A	22.1	--	
1 - Uniform (PSF)	0 to 23' 8" (Top)	9'	17.0	150.0	Default Load
2 - Tapered (PSF)	23' 8" to 27' 1" (Top)	9' to 7' 4 1/2"	17.0	150.0	Default Load
3 - Tapered (PSF)	27' 1" to 29' 8" (Top)	7' 4 1/2" to 8' 7 1/2"	17.0	150.0	Default Load
4 - Tapered (PSF)	29' 8" to 41' 4 1/4" (Top)	8' 7 1/2" to 3'	17.0	150.0	Default Load

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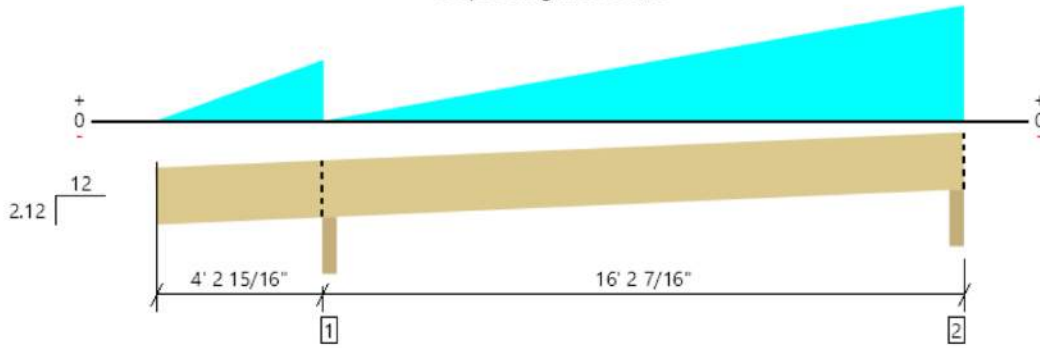
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Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Roof, B09

**1 piece(s) 5 1/8" x 12" 24F-V4 DF Glulam**

Sloped Length: 20' 9 3/16"



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Member Length : 20' 11 5/16"

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	7353 @ 20' 3 3/8"	7623 (3.50")	Passed (96%)	--	1.0 D + 1.0 S (Alt Spans)
Shear (lbs)	5681 @ 19' 2 1/16"	12495	Passed (45%)	1.15	1.0 D + 1.0 S (Alt Spans)
Pos Moment (Ft-lbs)	21645 @ 13' 7 5/8"	28290	Passed (77%)	1.15	1.0 D + 1.0 S (Alt Spans)
Neg Moment (Ft-lbs)	-2498 @ 4' 4 11/16"	21807	Passed (11%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.655 @ 12' 8"	0.807	Passed (L/296)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.738 @ 12' 8 1/16"	1.076	Passed (L/262)	--	1.0 D + 1.0 S (Alt Spans)

System : Roof  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 2.12/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Upward deflection on left cantilever exceeds overhang deflection criteria.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 15' 9".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 5' 1 3/8".
- Upward deflection on left cantilever exceeds 0.4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Beveled Plate - SPF	3.50"	3.50"	2.46"	723	4727	5450	Blocking
2 - Beveled Plate - SPF	3.50"	3.50"	3.38"	817	6536	7353	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	20' 9" o/c	
Bottom Edge (Lu)	20' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 20' 5 3/8"	N/A	14.9	--	
1 - Tapered (PLF)	0 to 4' 2 15/16"	N/A	0.0 to 73.2	0.0 to 636.4	Generated from Roof Geometry
2 - Tapered (PLF)	4' 2 15/16" to 20' 5 3/8"	N/A	0.0 to 130.2	0.0 to 1215.3	Generated from Roof Geometry

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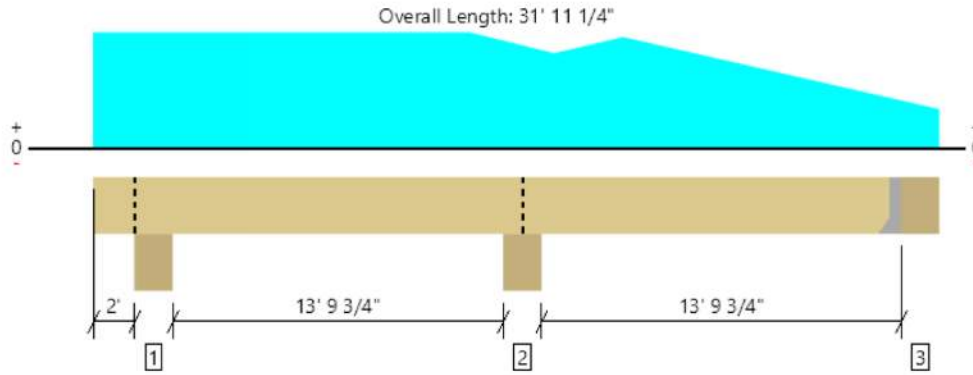
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ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Roof, B10

**1 piece(s) 6 3/4" x 13 1/2" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	5135 @ 31' 2"	6581 (1.50")	Passed (78%)	--	1.0 D + 1.0 S (Alt Spans)
Shear (lbs)	11013 @ 15' 5 1/2"	18514	Passed (59%)	1.15	1.0 D + 1.0 S (Adj Spans)
Pos Moment (Ft-lbs)	26266 @ 8' 6 1/4"	47157	Passed (56%)	1.15	1.0 D + 1.0 S (Alt Spans)
Neg Moment (Ft-lbs)	-34513 @ 16' 11 5/8"	36350	Passed (95%)	1.15	1.0 D + 1.0 S (Adj Spans)
Live Load Defl. (in)	0.313 @ 9' 1 3/16"	0.729	Passed (L/558)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.344 @ 9' 7/8"	0.972	Passed (L/508)	--	1.0 D + 1.0 S (Alt Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 11' 8 7/8".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 7' 1 15/16".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Column - DF	9.25"	9.25"	3.00"	1456	11701	13157	Blocking
2 - Column - DF	9.25"	9.25"	5.57"	2820	21619	24439	Blocking
3 - Hanger on 13 1/2" DF beam	9.25"	Hanger <sup>1</sup>	1.50"	611	4985	5596	See note <sup>1</sup>

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	31' 2" o/c	
Bottom Edge (Lu)	31' 2" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
3 - Face Mount Hanger	HGUS6.88/10	4.00"	N/A	46-10d	16-10d		

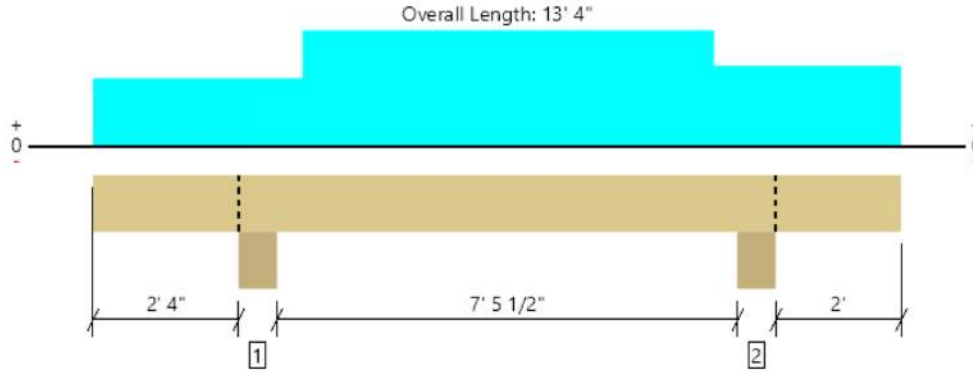
• Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 31' 2"	N/A	22.1	--	
1 - Uniform (PSF)	0 to 14' 10 3/4" (Top)	9'	17.0	150.0	Default Load
2 - Tapered (PSF)	14' 10 3/4" to 18' 2" (Top)	9' to 7' 4 1/2"	17.0	150.0	Default Load
3 - Tapered (PSF)	18' 2" to 20' 9" (Top)	7' 4 1/2" to 8' 7 1/2"	17.0	150.0	Default Load
4 - Tapered (PSF)	20' 9" to 31' 11 1/4" (Top)	8' 7 1/2" to 3'	17.0	150.0	Default Load

ForTEWEB Software Operator	Job Notes
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Roof, B11  
**1 piece(s) 6 x 12 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	5763 @ 10' 11 3/8"	31797 (9.25")	Passed (18%)	--	1.0 D + 1.0 S (Adj Spans)
Shear (lbs)	2957 @ 4' 3/4"	8244	Passed (36%)	1.15	1.0 D + 1.0 S (Adj Spans)
Moment (Ft-lbs)	7331 @ 6' 10 3/16"	10166	Passed (72%)	1.15	1.0 D + 1.0 S (Alt Spans)
Live Load Defl. (in)	0.086 @ 6' 10 1/16"	0.411	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.095 @ 6' 10 1/16"	0.549	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Lumber grading provisions must be extended over the length of the member per NDS 4.2.5.5.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Column - DF	9.25"	9.25"	1.64"	664	4985	5649	Blocking
2 - Column - DF	9.25"	9.25"	1.68"	667	5096	5763	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' 4" o/c	
Bottom Edge (Lu)	13' 4" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 13' 4"	N/A	16.0	--	
1 - Uniform (PSF)	0 to 3' 5 1/2" (Top)	3' 6"	17.0	150.0	Default Load
2 - Uniform (PSF)	3' 5 1/2" to 10' 3" (Top)	6'	17.0	150.0	Default Load
3 - Uniform (PSF)	10' 3" to 13' 4" (Top)	4' 2"	17.0	150.0	Default Load

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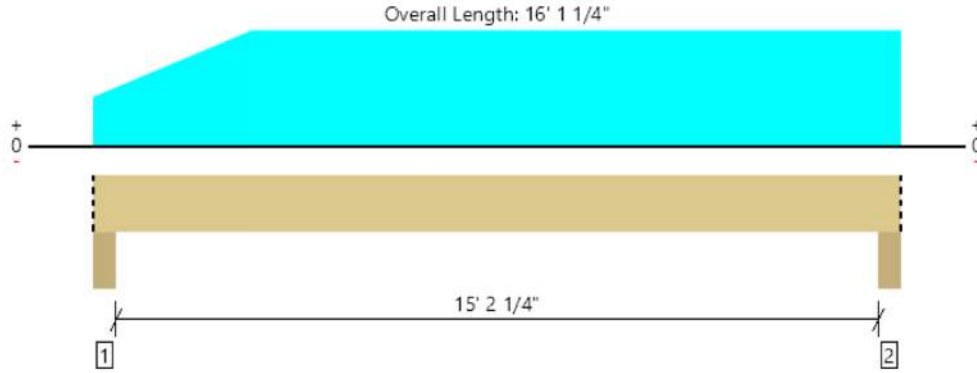
ForteWEB Software Operator	Job Notes
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Roof, B12

**1 piece(s) 5 1/8" x 12" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	6472 @ 15' 9 1/4"	18322 (5.50")	Passed (35%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	5293 @ 14' 7 3/4"	12495	Passed (42%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	23802 @ 8' 1 1/8"	28290	Passed (84%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.676 @ 8' 3/4"	0.772	Passed (L/274)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.767 @ 8' 3/4"	1.029	Passed (L/242)	--	1.0 D + 1.0 S (All Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 15' 5 1/4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Column - DF	5.50"	5.50"	1.75"	700	5116	5816	Blocking
2 - Column - DF	5.50"	5.50"	1.94"	767	5705	6472	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	16' 1" o/c	
Bottom Edge (Lu)	16' 1" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 16' 1 1/4"	N/A	14.9	--	
1 - Tapered (PSF)	0 to 3' 2" (Top)	2' to 4' 9"	17.0	150.0	Default Load
2 - Uniform (PSF)	3' 2" to 16' 1 1/4" (Top)	4' 9"	17.0	150.0	Default Load

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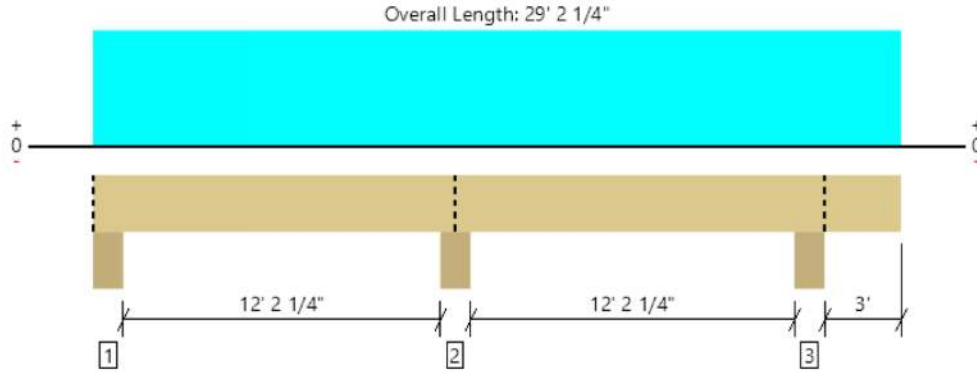
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

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Roof, B27

**1 piece(s) 5 1/8" x 12" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	14488 @ 13' 1 1/8"	24152 (7.25")	Passed (60%)	--	1.0 D + 1.0 S (Adj Spans)
Shear (lbs)	6108 @ 11' 9 1/2"	12495	Passed (49%)	1.15	1.0 D + 1.0 S (Adj Spans)
Pos Moment (Ft-lbs)	12512 @ 5' 7 7/8"	28290	Passed (44%)	1.15	1.0 D + 1.0 S (Alt Spans)
Neg Moment (Ft-lbs)	-18116 @ 13' 1 1/8"	21807	Passed (83%)	1.15	1.0 D + 1.0 S (Adj Spans)
Live Load Defl. (in)	0.210 @ 6' 3 3/16"	0.631	Passed (L/720)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.231 @ 6' 2 3/4"	0.841	Passed (L/656)	--	1.0 D + 1.0 S (Alt Spans)

System : Roof  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 10' 4 1/4".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 3 1/4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Column - DF	7.25"	7.25"	1.59"	574	4706	5280	Blocking
2 - Column - DF	7.25"	7.25"	4.35"	1652	12836	14488	Blocking
3 - Column - DF	7.25"	7.25"	2.52"	939	7458	8397	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	29' 2" o/c	
Bottom Edge (Lu)	29' 2" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 29' 2 1/4"	N/A	14.9	--	
1 - Uniform (PSF)	0 to 29' 2 1/4" (Top)	5' 6"	17.0	150.0	Default Load

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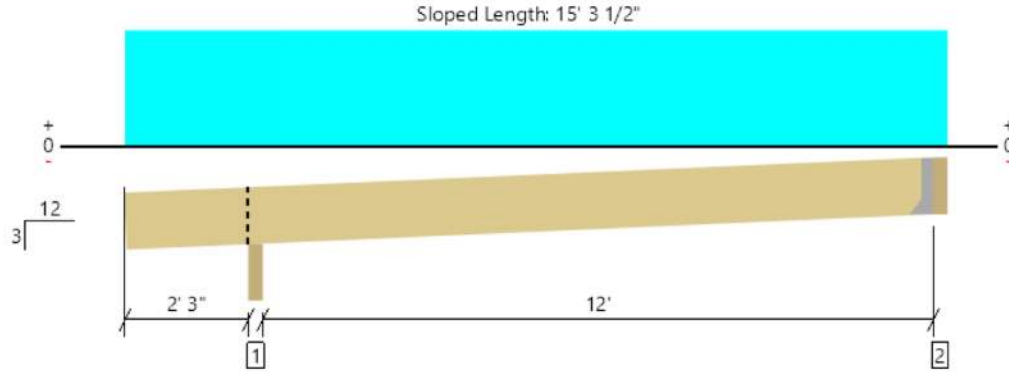
ForteWEB Software Operator	Job Notes
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Roof, Deck Rafters

**1 piece(s) 2 x 12 DF No.2 @ 12" OC**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Member Length : 15' 2 11/16"

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	995 @ 14' 6 1/2"	1406 (1.50")	Passed (71%)	--	1.0 D + 1.0 S (Alt Spans)
Shear (lbs)	880 @ 3' 5 7/16"	2329	Passed (38%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	2958 @ 8' 7 3/16"	3138	Passed (94%)	1.15	1.0 D + 1.0 S (Alt Spans)
Live Load Defl. (in)	0.261 @ 8' 6 1/16"	0.626	Passed (L/575)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.290 @ 8' 6 1/8"	0.835	Passed (L/518)	--	1.0 D + 1.0 S (Alt Spans)

System : Roof  
 Member Type : Joist  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 3/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Beveled Plate - DF	3.50"	3.50"	1.51"	153	1306	1458	Blocking
2 - Hanger on 11 1/4" DF ledgerOnMasonry	3.50"	Hanger <sup>1</sup>	1.50"	107	937	1044	See note <sup>1</sup>

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	2' 9" o/c	
Bottom Edge (Lu)	15' o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
2 - Face Mount Hanger	LRU28Z	1.94"	N/A	6-10d	5-10d		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Load	Location (Side)	Spacing	Dead (0.90)	Snow (1.15)	Comments
1 - Uniform (PSF)	0 to 14' 10"	12"	17.0	150.0	Default Load

**Weyerhaeuser Notes**

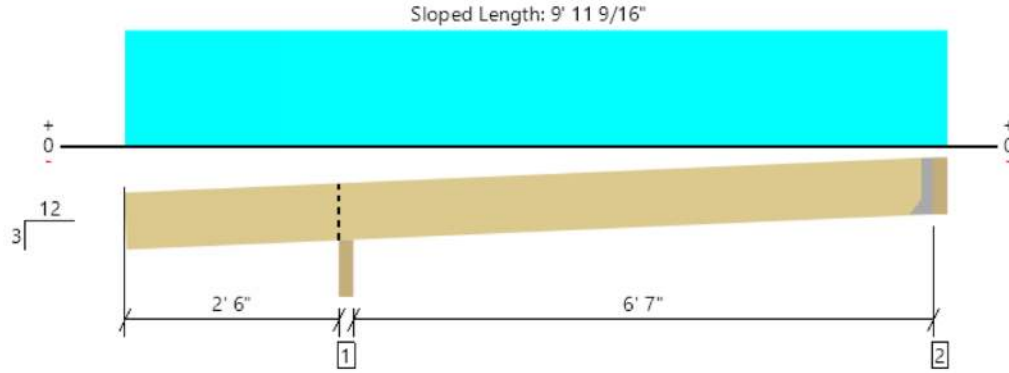
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ForteWEB Software Operator	Job Notes
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Roof, Entry Deck Rafters  
**1 piece(s) 2 x 8 DF No.2 @ 16" OC**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Member Length : 9' 9 3/4"

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	687 @ 9' 4 1/2"	1406 (1.50")	Passed (49%)	--	1.0 D + 1.0 S (Alt Spans)
Shear (lbs)	704 @ 3' 4 9/16"	1501	Passed (47%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1058 @ 6' 3 9/16"	1564	Passed (68%)	1.15	1.0 D + 1.0 S (Alt Spans)
Live Load Defl. (in)	0.105 @ 6' 1 7/16"	0.347	Passed (L/794)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.114 @ 6' 1 9/16"	0.462	Passed (L/728)	--	1.0 D + 1.0 S (Alt Spans)

System : Roof  
 Member Type : Joist  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD  
 Member Pitch : 3/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Beveled Plate - DF	3.50"	3.50"	1.51"	153	1306	1459	Blocking
2 - Hanger on 7 1/4" DF ledgerOnMasonry	3.50"	Hanger <sup>1</sup>	1.50"	73	679	752	See note <sup>1</sup>

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	9' 2" o/c	
Bottom Edge (Lu)	9' 8" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
2 - Face Mount Hanger	LRU26Z	1.94"	N/A	4-10dx1.5	5-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Load	Location (Side)	Spacing	Dead (0.90)	Snow (1.15)	Comments
1 - Uniform (PSF)	0 to 9' 8"	16"	17.0	150.0	Default Load

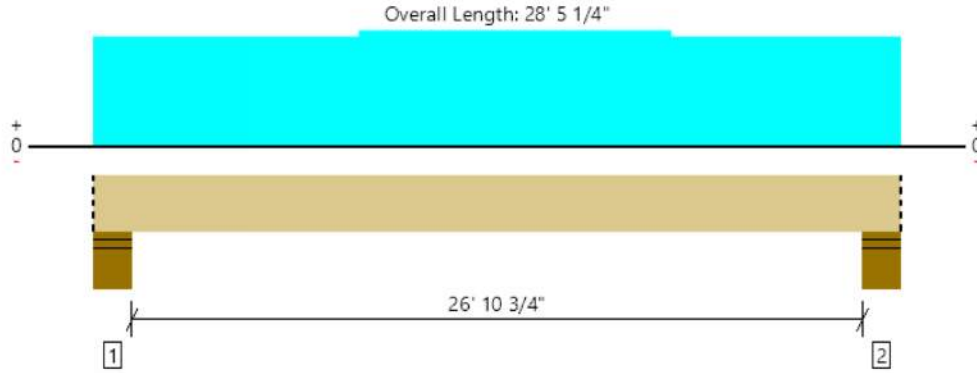
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Upper Floor, B04

**1 piece(s) 8 3/4" x 33" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	44632 @ 27' 9 1/2"	50586 (9.25")	Passed (88%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	33661 @ 24' 11"	58664	Passed (57%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	290385 @ 14' 2 11/16"	305000	Passed (95%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.661 @ 14' 2 5/8"	0.679	Passed (L/493)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.816 @ 14' 2 5/8"	1.357	Passed (L/399)	--	1.0 D + 1.0 S (All Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.84 that was calculated using length L = 27' 1 3/4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Factored	
1 - Stud wall - DF	9.25"	9.25"	8.16"	8345	5344	36258	44603	Blocking
2 - Stud wall - DF	9.25"	9.25"	8.16"	8374	5412	36258	44632	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	20' 9" o/c	
Bottom Edge (Lu)	28' 5" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 28' 5 1/4"	N/A	70.2	--	--	
1 - Uniform (PSF)	0 to 9' 4 1/4" (Back)	8' 2"	17.0	40.0	-	Default Load
2 - Uniform (PSF)	9' 4 1/4" to 20' 4 1/4" (Back)	11' 6"	17.0	40.0	-	Default Load
3 - Uniform (PSF)	20' 4 1/4" to 28' 5 1/4" (Back)	8' 2"	17.0	40.0	-	Default Load
4 - Uniform (PSF)	0 to 28' 5 1/4" (Top)	15'	17.0	-	150.0	Snow
5 - Uniform (PSF)	0 to 28' 5 1/4" (Front)	2'	17.0	-	150.0	Snow
6 - Uniform (PSF)	0 to 28' 5 1/4" (Top)	5' 8"	12.0	-	-	wall

**Weyerhaeuser Notes**

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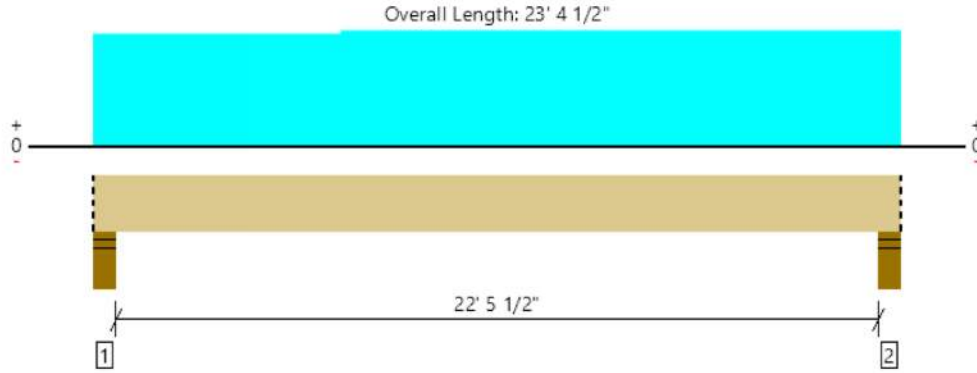
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Upper Floor, B05

**1 piece(s) 6 3/4" x 27" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	23291 @ 23' 1/2"	23203 (5.50")	Passed (100%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	17890 @ 20' 8"	37027	Passed (48%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	128351 @ 11' 8 3/8"	167893	Passed (76%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.495 @ 11' 8 1/4"	0.568	Passed (L/550)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.598 @ 11' 8 1/4"	1.135	Passed (L/456)	--	1.0 D + 1.0 S (All Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.89 that was calculated using length L = 22' 8 1/2".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Factored	
1 - Stud wall - DF	5.50"	5.50"	5.50"	3920	222	19284	23204	Blocking
2 - Stud wall - DF	5.50"	5.50"	5.52"	4006	426	19284	23291	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	23' 5" o/c	
Bottom Edge (Lu)	23' 5" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 23' 4 1/2"	N/A	44.3	--	--	
1 - Uniform (PSF)	7' 2" to 23' 4 1/2" (Back)	1'	17.0	40.0	-	Default Load
2 - Uniform (PSF)	0 to 23' 4 1/2" (Top)	4'	17.0	-	150.0	Snow
3 - Uniform (PSF)	0 to 23' 4 1/2" (Front)	7'	17.0	-	150.0	Snow
4 - Uniform (PSF)	0 to 23' 4 1/2" (Top)	8'	12.0	-	-	wall

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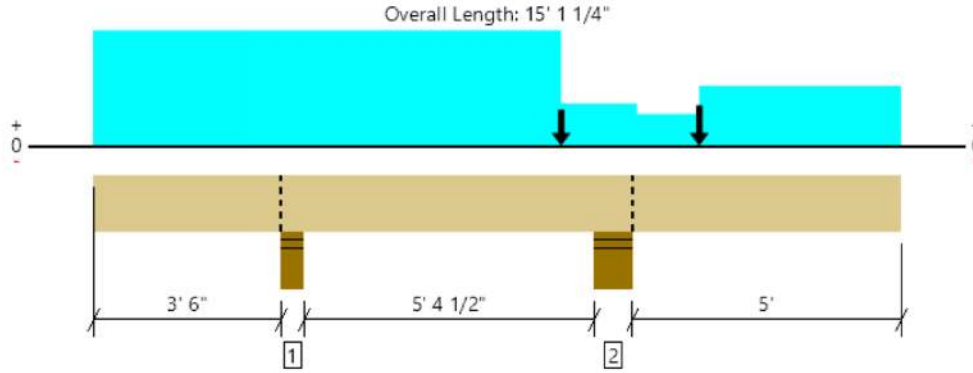
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Upper Floor, B07

**1 piece(s) 6 3/4" x 15" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	36412 @ 9' 8 5/8"	39023 (9.25")	Passed (93%)	--	1.0 D + 1.0 S (Adj Spans)
Shear (lbs)	15775 @ 11' 4 1/4"	20571	Passed (77%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	436 @ 6' 7 3/8"	58219	Passed (1%)	1.15	1.0 D + 1.0 S (Alt Spans)
Neg Moment (Ft-lbs)	-36755 @ 9' 8 5/8"	44125	Passed (83%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.256 @ 15' 1 1/4"	0.269	Passed (2L/504)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.300 @ 15' 1 1/4"	0.539	Passed (2L/430)	--	1.0 D + 1.0 S (Alt Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Overhang deflection criteria: LL (2L/480) and TL (2L/240).
- Left cantilever length exceeds 1/3 member length or 1/2 back span length. Additional bracing should be considered.
- Right cantilever length exceeds 1/3 member length or 1/2 back span length. Additional bracing should be considered.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 1' 1 5/8".
- Critical negative moment adjusted by a volume factor of 0.98 that was calculated using length L = 15' 1 1/4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Factored	
1 - Stud wall - DF	5.50"	5.50"	4.57"	2420	315	16843	19263	Blocking
2 - Stud wall - DF	9.25"	9.25"	8.63"	5110	432	31302	36412	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	15' 1" o/c	
Bottom Edge (Lu)	15' 1" o/c	

•Maximum allowable bracing intervals based on applied load.

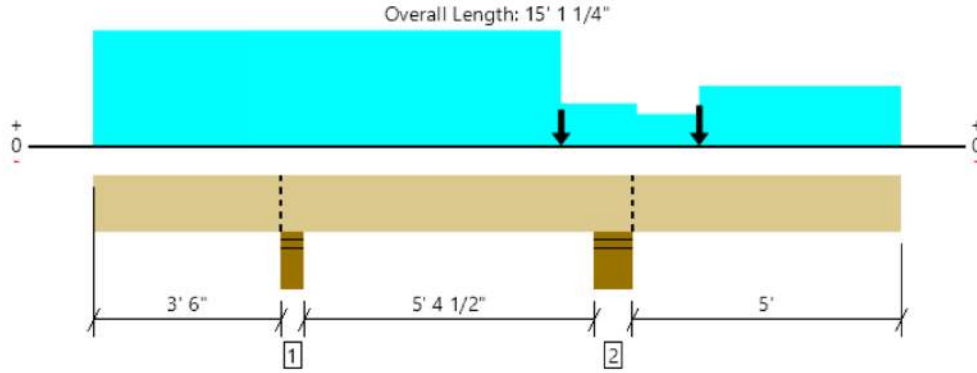
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 15' 1 1/4"	N/A	24.6	--	--	
1 - Uniform (PSF)	0 to 15' 1 1/4" (Back)	1'	17.0	40.0	-	Default Load
2 - Uniform (PSF)	0 to 8' 9" (Top)	10' 4"	17.0	-	150.0	Snow
3 - Uniform (PSF)	0 to 10' 2" (Front)	5'	17.0	-	150.0	Snow
4 - Uniform (PSF)	0 to 15' 1 1/4" (Top)	9'	12.0	-	-	wall
5 - Uniform (PSF)	11' 4" to 15' 1 1/4" (Top)	4'	17.0	-	150.0	Snow
6 - Uniform (PSF)	10' 2" to 15' 1 1/4" (Front)	3' 6"	17.0	-	150.0	Snow
7 - Point (lb)	8' 9" (Top)	N/A	1115	-	8699	Linked from: HDR @ GRD 1, Support 1
8 - Point (lb)	11' 4" (Top)	N/A	1204	-	9491	Linked from: HDR @ GRD 1, Support 2

Forteweb Software Operator	Job Notes
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Upper Floor, B07

**4 piece(s) 1 3/4" x 16" 2.0E Microllam® LVL**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	36489 @ 9' 8 5/8"	40469 (9.25")	Passed (90%)	--	1.0 D + 1.0 S (Adj Spans)
Shear (lbs)	15030 @ 11' 5 1/4"	24472	Passed (61%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	-36872 @ 9' 8 5/8"	71562	Passed (52%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.215 @ 15' 1 1/4"	0.269	Passed (2L/600)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.254 @ 15' 1 1/4"	0.539	Passed (2L/510)	--	1.0 D + 1.0 S (Alt Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Overhang deflection criteria: LL (2L/480) and TL (2L/240).
- Left cantilever length exceeds 1/3 member length or 1/2 back span length. Additional bracing should be considered.
- Right cantilever length exceeds 1/3 member length or 1/2 back span length. Additional bracing should be considered.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Member should be side-loaded from both sides of the member or braced to prevent rotation.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Factored	
1 - Stud wall - DF	5.50"	5.50"	4.41"	2464	315	16843	19308	Blocking
2 - Stud wall - DF	9.25"	9.25"	8.34"	5187	432	31302	36489	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	15' 1" o/c	
Bottom Edge (Lu)	15' 1" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 15' 1 1/4"	N/A	32.7	--	--	
1 - Uniform (PSF)	0 to 15' 1 1/4" (Back)	1'	17.0	40.0	-	Default Load
2 - Uniform (PSF)	0 to 8' 9" (Top)	10' 4"	17.0	-	150.0	Snow
3 - Uniform (PSF)	0 to 10' 2" (Front)	5'	17.0	-	150.0	Snow
4 - Uniform (PSF)	0 to 15' 1 1/4" (Top)	9'	12.0	-	-	wall
5 - Uniform (PSF)	11' 4" to 15' 1 1/4" (Top)	4'	17.0	-	150.0	Snow
6 - Uniform (PSF)	10' 2" to 15' 1 1/4" (Front)	3' 6"	17.0	-	150.0	Snow
7 - Point (lb)	8' 9" (Top)	N/A	1115	-	8699	Linked from: HDR @ GRD 1, Support 1
8 - Point (lb)	11' 4" (Top)	N/A	1204	-	9491	Linked from: HDR @ GRD 1, Support 2

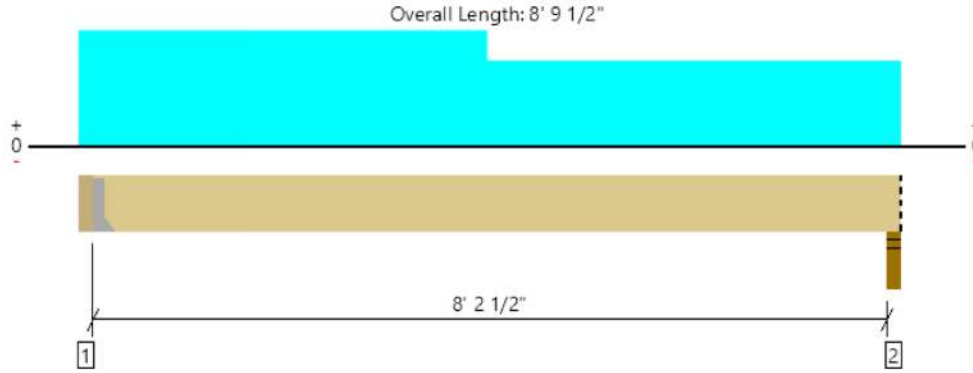
FORTEWEB Software Operator	Job Notes
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Upper Floor, B13

**2 piece(s) 1 3/4" x 11 7/8" 2.0E Microllam® LVL**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2596 @ 3 1/2"	3938 (1.50")	Passed (66%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1933 @ 1' 3 3/8"	7897	Passed (24%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	5030 @ 4' 2"	17848	Passed (28%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.054 @ 4' 4 7/8"	0.208	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.078 @ 4' 4 15/16"	0.417	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Hanger on 11 7/8" DF beam	3.50"	Hanger <sup>1</sup>	1.50"	828	1960	2788	See note <sup>1</sup>
2 - Stud wall - DF	3.50"	3.50"	1.50"	717	1601	2318	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 6" o/c	
Bottom Edge (Lu)	8' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

**Connector: Simpson Strong-Tie**

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	HHUS48	3.00"	N/A	22-10d	8-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	3 1/2" to 8' 9 1/2"	N/A	12.1	--	
1 - Uniform (PSF)	0 to 8' 9 1/2" (Front)	8' 6"	17.0	40.0	Default Load
2 - Uniform (PSF)	0 to 4' 3 1/2" (Back)	3' 4"	12.0	40.0	Default Load

**Weyerhaeuser Notes**

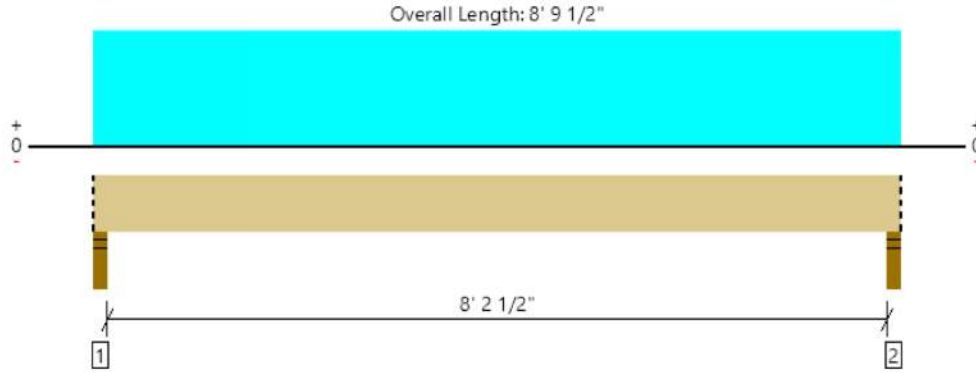
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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Upper Floor, B14  
**2 piece(s) 1 3/4" x 11 7/8" 2.0E Microllam® LVL**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1272 @ 2"	7656 (3.50")	Passed (17%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	902 @ 1' 3 3/8"	7897	Passed (11%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	2589 @ 4' 4 3/4"	17848	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.030 @ 4' 4 3/4"	0.211	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.041 @ 4' 4 3/4"	0.423	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	335	938	1272	Blocking
2 - Stud wall - DF	3.50"	3.50"	1.50"	335	938	1272	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 10" o/c	
Bottom Edge (Lu)	8' 10" o/c	

- Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 8' 9 1/2"	N/A	12.1	--	
1 - Uniform (PSF)	0 to 8' 9 1/2" (Front)	2'	12.0	40.0	Default Load
2 - Uniform (PSF)	0 to 8' 9 1/2" (Back)	3' 4"	12.0	40.0	Default Load

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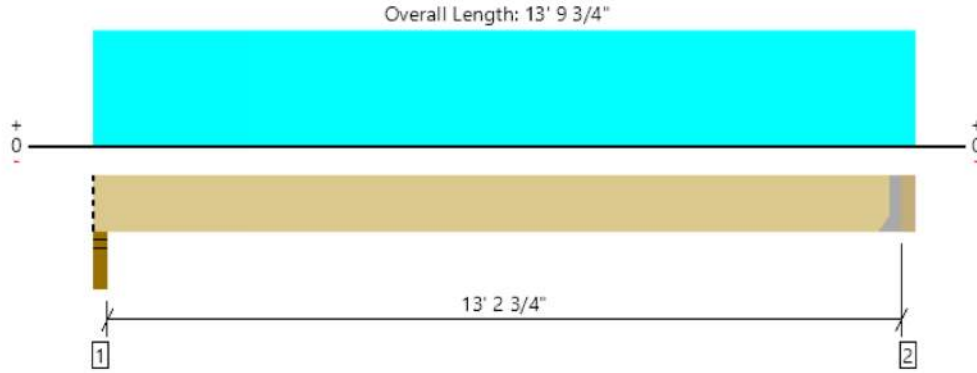
ForteWEB Software Operator	Job Notes
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Main Floor, B15

**1 piece(s) 5 1/8" x 10 1/2" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3826 @ 13' 6 1/4"	4997 (1.50")	Passed (77%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	3325 @ 12' 7 3/4"	10933	Passed (30%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	12775 @ 6' 10 1/8"	21660	Passed (59%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.422 @ 6' 10 1/8"	0.445	Passed (L/380)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.461 @ 6' 10 1/8"	0.668	Passed (L/348)	--	1.0 D + 1.0 S (All Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 13' 4 1/4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	329	3593	3922	Blocking
2 - Hanger on 10 1/2" DF beam	3.50"	Hanger <sup>1</sup>	1.50"	331	3659	3990	See note <sup>1</sup>

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' 6" o/c	
Bottom Edge (Lu)	13' 6" o/c	

- Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
2 - Face Mount Hanger	HGUS5.25/10	4.00"	N/A	46-10d	16-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 13' 6 1/4"	N/A	13.1	--	
1 - Uniform (PSF)	0 to 13' 9 3/4" (Front)	3' 6"	10.0	150.0	Default Load

**Weyerhaeuser Notes**

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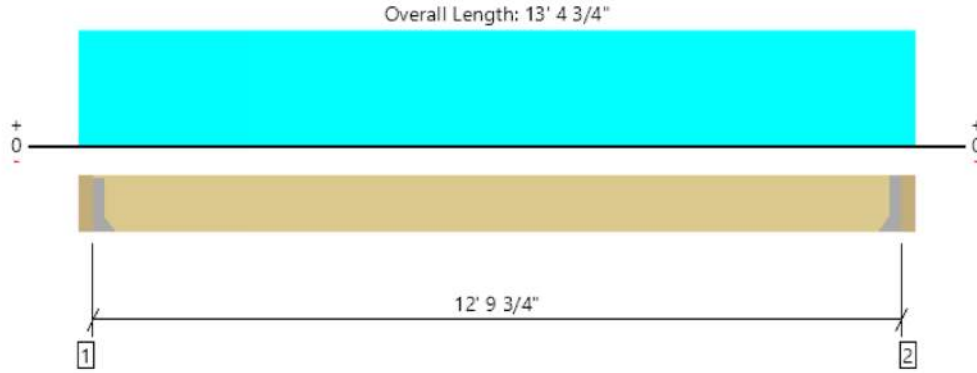
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Main Floor, B16

**1 piece(s) 5 1/8" x 10 1/2" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3671 @ 3 1/2"	4997 (1.50")	Passed (73%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	3170 @ 1' 2"	10933	Passed (29%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	11760 @ 6' 8 3/8"	21660	Passed (54%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.358 @ 6' 8 3/8"	0.427	Passed (L/430)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.390 @ 6' 8 3/8"	0.641	Passed (L/394)	--	1.0 D + 1.0 S (All Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12' 9 3/4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Hanger on 10 1/2" DF beam	3.50"	Hanger <sup>1</sup>	1.50"	318	3516	3835	See note <sup>1</sup>
2 - Hanger on 10 1/2" DF beam	3.50"	Hanger <sup>1</sup>	1.50"	318	3516	3835	See note <sup>1</sup>

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 10" o/c	
Bottom Edge (Lu)	12' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
1 - Face Mount Hanger	Connector not found	N/A	N/A	N/A	N/A		
2 - Face Mount Hanger	Connector not found	N/A	N/A	N/A	N/A		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	3 1/2" to 13' 1 1/4"	N/A	13.1	--	
1 - Uniform (PSF)	0 to 13' 4 3/4" (Front)	3' 6"	10.0	150.0	Default Load

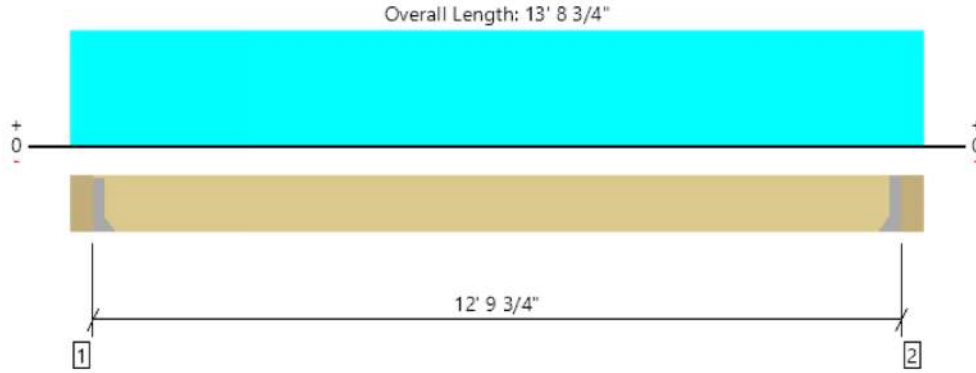
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 The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Main Floor, B17

**1 piece(s) 5 1/8" x 10 1/2" 24F-V4 DF Glulam**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3671 @ 5 1/2"	4997 (1.50")	Passed (73%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	3170 @ 1' 4"	10933	Passed (29%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	11760 @ 6' 10 3/8"	21660	Passed (54%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.358 @ 6' 10 3/8"	0.427	Passed (L/430)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.390 @ 6' 10 3/8"	0.641	Passed (L/394)	--	1.0 D + 1.0 S (All Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12' 9 3/4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Hanger on 10 1/2" DF beam	5.50"	Hanger <sup>1</sup>	1.50"	324	3604	3928	See note <sup>1</sup>
2 - Hanger on 10 1/2" DF beam	5.50"	Hanger <sup>1</sup>	1.50"	324	3604	3928	See note <sup>1</sup>

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 10" o/c	
Bottom Edge (Lu)	12' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
1 - Face Mount Hanger	HUCQ5.25/9-SDS	3.00"	N/A	12-SDS25212	6-SDS25212		
2 - Face Mount Hanger	HUCQ5.25/9-SDS	3.00"	N/A	12-SDS25212	6-SDS25212		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

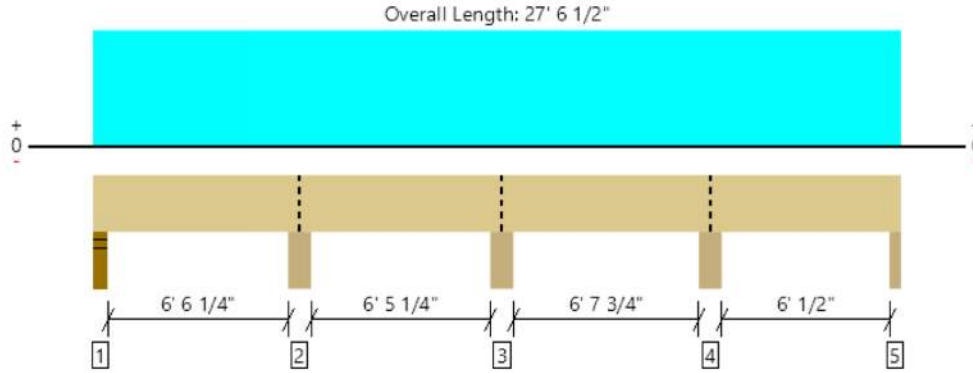
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	5 1/2" to 13' 3 1/4"	N/A	13.1	--	
1 - Uniform (PSF)	0 to 13' 8 3/4" (Front)	3' 6"	10.0	150.0	Default Load

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ForteWEB Software Operator	Job Notes
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Main Floor, B18  
**1 piece(s) 6 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	7861 @ 7' 1/2"	18906 (5.50")	Passed (42%)	--	1.0 D + 1.0 S (Adj Spans)
Shear (lbs)	3105 @ 6' 1/4"	6810	Passed (46%)	1.15	1.0 D + 1.0 S (Adj Spans)
Moment (Ft-lbs)	-5174 @ 7' 1/2"	6937	Passed (75%)	1.15	1.0 D + 1.0 S (Adj Spans)
Live Load Defl. (in)	0.055 @ 3' 4 1/16"	0.229	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.059 @ 3' 3 15/16"	0.344	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Lumber grading provisions must be extended over the length of the member per NDS 4.2.5.5.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	211	2754	2965	None
2 - Column - DF	5.50"	5.50"	2.29"	572	7289	7861	Blocking
3 - Column - DF	5.50"	5.50"	2.06"	487	6585	7072	Blocking
4 - Column - DF	5.50"	5.50"	2.24"	560	7132	7693	Blocking
5 - Column - DF	2.75"	2.75"	1.50"	187	2499	2686	None

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	27' 7" o/c	
Bottom Edge (Lu)	27' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 27' 6 1/2"	N/A	13.2	--	
1 - Uniform (PSF)	0 to 27' 6 1/2" (Front)	6'	10.0	150.0	Default Load

**Weyerhaeuser Notes**

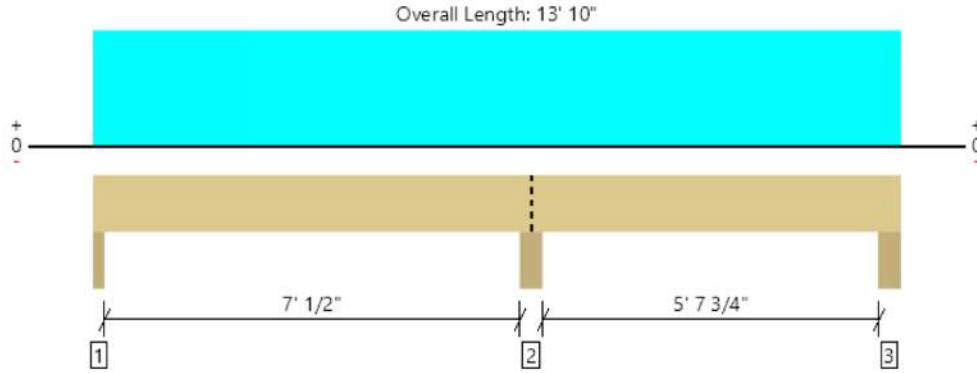
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Main Floor, B19  
**1 piece(s) 6 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	9684 @ 7' 6"	18906 (5.50")	Passed (51%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	3967 @ 6' 5 3/4"	6810	Passed (58%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	-6639 @ 7' 6"	6937	Passed (96%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.082 @ 3' 6 1/16"	0.247	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.088 @ 3' 5 15/16"	0.370	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Lumber grading provisions must be extended over the length of the member per NDS 4.2.5.5.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Column - DF	2.75"	2.75"	1.50"	254	3353	3606	None
2 - Column - DF	5.50"	5.50"	2.82"	710	8974	9684	Blocking
3 - Column - DF	5.50"	5.50"	1.50"	199	2851	3050	None

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' 10" o/c	
Bottom Edge (Lu)	13' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 13' 10"	N/A	13.2	--	
1 - Uniform (PSF)	0 to 13' 10" (Top)	7' 1"	10.0	150.0	Default Load

**Weyerhaeuser Notes**

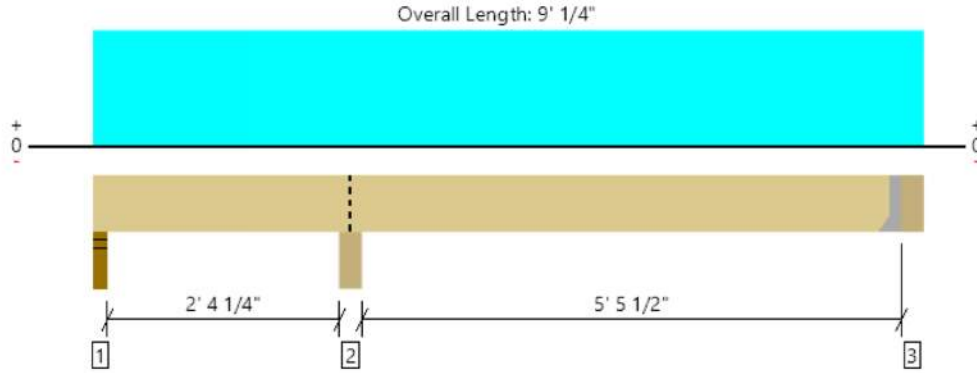
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Main Floor, B20  
**1 piece(s) 6 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2785 @ 8' 6 3/4"	5156 (1.50")	Passed (54%)	--	1.0 D + 1.0 S (Alt Spans)
Shear (lbs)	2812 @ 3' 10 3/4"	6810	Passed (41%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	-3621 @ 2' 10 1/2"	6937	Passed (52%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.029 @ 5' 11 3/4"	0.190	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.032 @ 5' 11 3/4"	0.284	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- -303 lbs uplift at support located at 2". Strapping or other restraint may be required.
- Lumber grading provisions must be extended over the length of the member per NDS 4.2.5.5.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	35	1002/-338	1037/-303	None
2 - Column - DF	5.50"	5.50"	2.03"	509	6474	6983	Blocking
3 - Hanger on 9 1/2" DF beam	5.50"	Hanger <sup>1</sup>	1.50"	235	3091	3326	See note <sup>1</sup>

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 7" o/c	
Bottom Edge (Lu)	8' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
3 - Face Mount Hanger	Connector not found	N/A	N/A	N/A	N/A		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 8' 6 3/4"	N/A	13.2	--	
1 - Uniform (PSF)	0 to 9' 1/4" (Top)	7' 4 1/2"	10.0	150.0	Default Load

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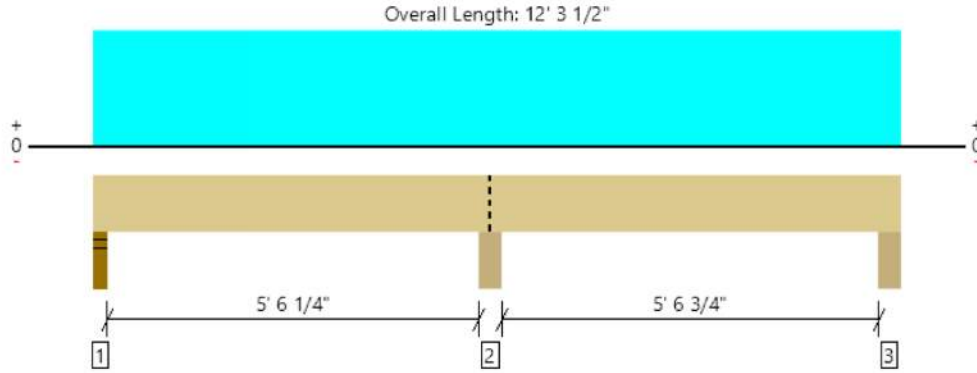
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ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	





Main Floor, B21  
**1 piece(s) 6 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	8352 @ 6' 1/2"	18906 (5.50")	Passed (44%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	3028 @ 7' 3/4"	6810	Passed (44%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	-4924 @ 6' 1/2"	6937	Passed (71%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.032 @ 9' 3 1/2"	0.197	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.034 @ 9' 3 5/8"	0.296	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Lumber grading provisions must be extended over the length of the member per NDS 4.2.5.5.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	197	2679	2876	None
2 - Column - DF	5.50"	5.50"	2.43"	613	7738	8352	Blocking
3 - Column - DF	5.50"	5.50"	1.50"	213	2876	3089	None

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 4" o/c	
Bottom Edge (Lu)	12' 4" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 12' 3 1/2"	N/A	13.2	--	
1 - Uniform (PSF)	0 to 12' 3 1/2" (Top)	7'	10.0	150.0	Default Load

**Weyerhaeuser Notes**

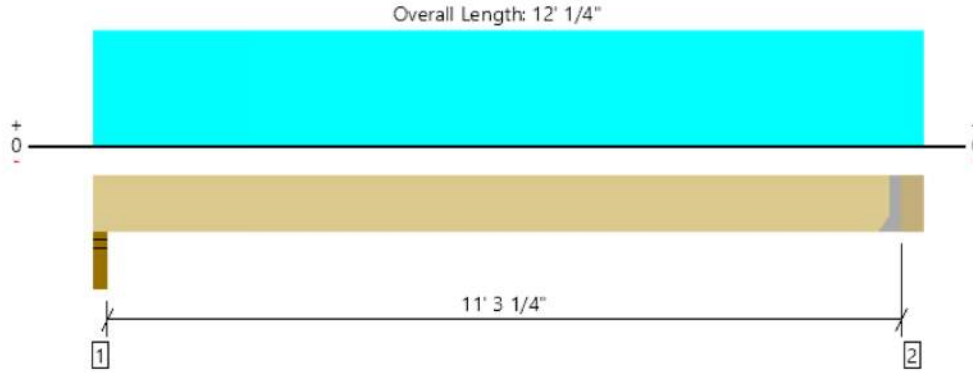
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ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	



Main Floor, B22  
**1 piece(s) 6 x 12 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3282 @ 11' 6 3/4"	5156 (1.50")	Passed (64%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	2730 @ 10' 7 1/4"	8244	Passed (33%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	9351 @ 5' 10 3/8"	10166	Passed (92%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.220 @ 5' 10 3/8"	0.380	Passed (L/622)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.241 @ 5' 10 3/8"	0.570	Passed (L/567)	--	1.0 D + 1.0 S (All Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Lumber grading provisions must be extended over the length of the member per NDS 4.2.5.5.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	299	3079	3378	None
2 - Hanger on 11 1/2" DF beam	5.50"	Hanger <sup>1</sup>	1.50"	307	3232	3539	See note <sup>1</sup>

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	11' 7" o/c	
Bottom Edge (Lu)	11' 7" o/c	

- Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
2 - Face Mount Hanger	HUCQ610-SDS	3.00"	N/A	12-SDS25212	6-SDS25212		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 11' 6 3/4"	N/A	16.0	--	
1 - Uniform (PSF)	0 to 12' 1/4" (Top)	3' 6"	10.0	150.0	Default Load

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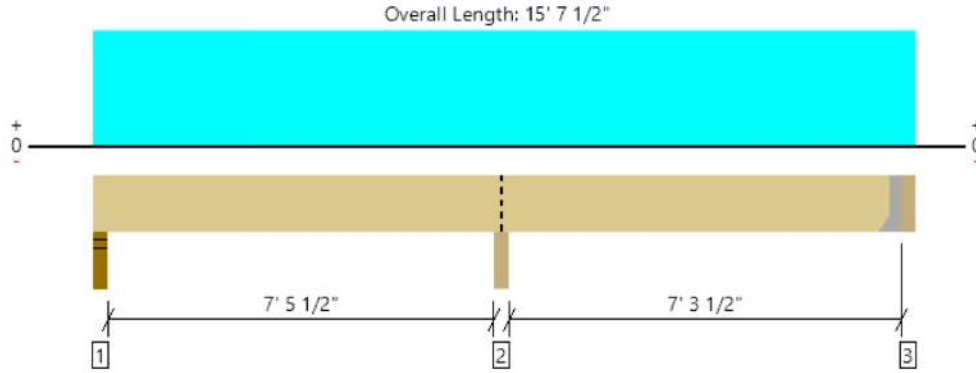
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Jed Jones 11/4/22 Snake River Engineering (208) 453-6512 jed@snakeriverengineering.com	





Main Floor, B23  
**1 piece(s) 4 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	4250 @ 7' 10 3/4"	7656 (3.50")	Passed (56%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1739 @ 6' 11 3/4"	4468	Passed (39%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	-3225 @ 7' 10 3/4"	5166	Passed (62%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.051 @ 3' 8 5/16"	0.258	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.054 @ 3' 8 3/16"	0.386	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - DF	3.50"	3.50"	1.50"	111	1369	1480	None
2 - Column - DF	3.50"	3.50"	1.94"	339	3911	4250	Blocking
3 - Hanger on 9 1/4" DF beam	3.50"	Hanger <sup>1</sup>	1.50"	106	1361	1467	See note <sup>1</sup>

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	15' 4" o/c	
Bottom Edge (Lu)	15' 4" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
3 - Face Mount Hanger	HUC48	2.50"	N/A	14-10dx1.5	6-10d		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 15' 4"	N/A	8.2	--	
1 - Uniform (PSF)	0 to 15' 7 1/2" (Top)	2' 9"	10.0	150.0	Default Load

**Weyerhaeuser Notes**

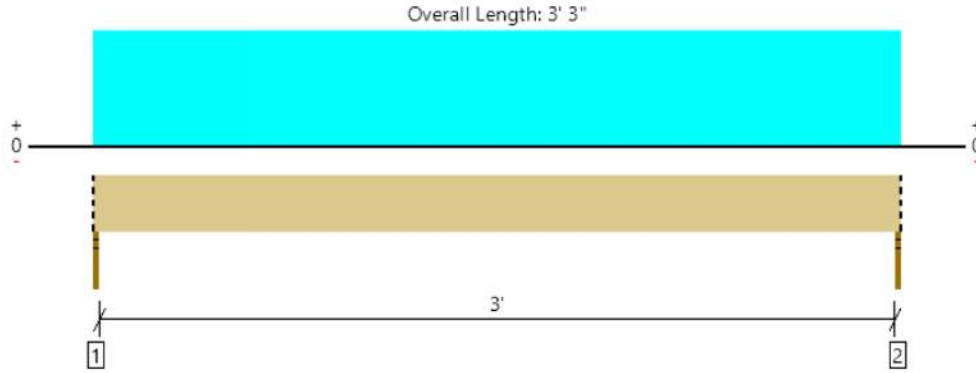
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ForteWEB Software Operator	Job Notes
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Main Floor, B24  
**1 piece(s) 4 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	943 @ 0	3281 (1.50")	Passed (29%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	423 @ 10 3/4"	3885	Passed (11%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	766 @ 1' 7 1/2"	4492	Passed (17%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.003 @ 1' 7 1/2"	0.081	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.004 @ 1' 7 1/2"	0.162	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Stud wall - DF	1.50"	1.50"	1.50"	228	715	943	Blocking
2 - Stud wall - DF	1.50"	1.50"	1.50"	228	715	943	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	3' 3" o/c	
Bottom Edge (Lu)	3' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

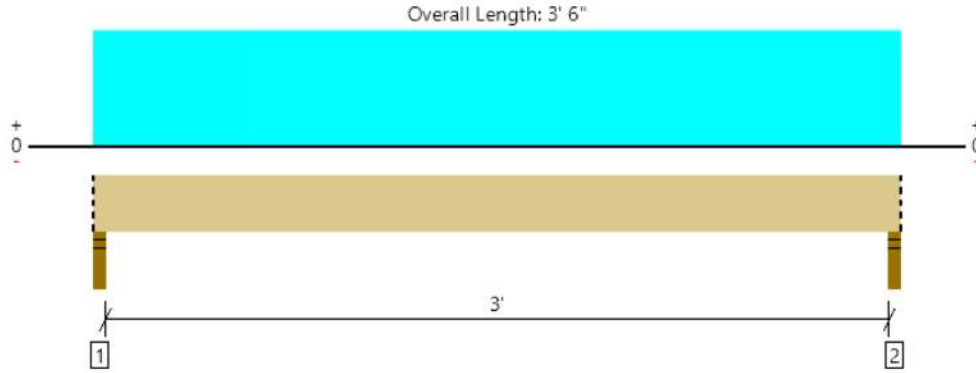
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 3' 3"	N/A	8.2	--	
1 - Uniform (PSF)	0 to 3' 3" (Front)	11'	12.0	40.0	Default Load

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Main Floor, B25  
**1 piece(s) 4 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2764 @ 1' 1/2"	6563 (3.00")	Passed (42%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1152 @ 1' 1/4"	3885	Passed (30%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	2085 @ 1' 9"	4492	Passed (46%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.008 @ 1' 9"	0.081	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.011 @ 1' 9"	0.162	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Stud wall - DF	3.00"	3.00"	1.50"	773	1991	2764	Blocking
2 - Stud wall - DF	3.00"	3.00"	1.50"	773	1991	2764	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	3' 6" o/c	
Bottom Edge (Lu)	3' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 3' 6"	N/A	8.2	--	
1 - Uniform (PSF)	0 to 3' 6" (Front)	9' 11 1/4"	12.0	40.0	Default Load
2 - Uniform (PSF)	0 to 3' 6" (Top)	18' 6"	17.0	40.0	Default Load

**Weyerhaeuser Notes**

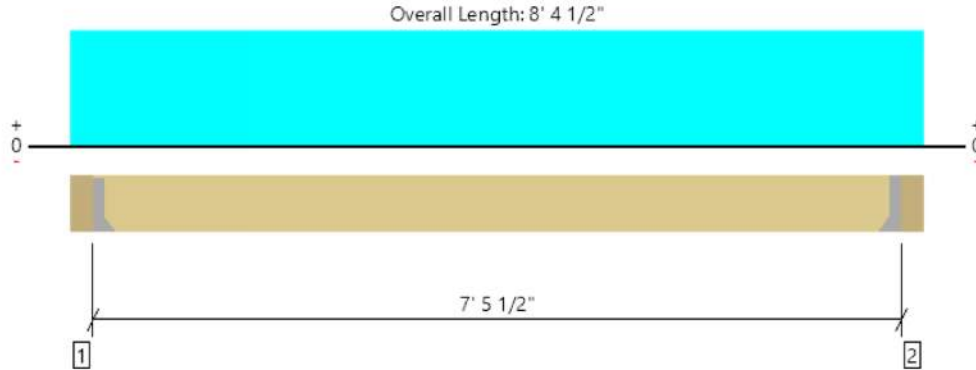
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ForteWEB Software Operator	Job Notes
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Main Floor, B26  
**1 piece(s) 4 x 10 DF No.2**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2119 @ 5 1/2"	3281 (1.50")	Passed (65%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1681 @ 1' 2 3/4"	4468	Passed (38%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	3951 @ 4' 2 1/4"	5166	Passed (76%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.099 @ 4' 2 1/4"	0.249	Passed (L/904)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.107 @ 4' 2 1/4"	0.373	Passed (L/836)	--	1.0 D + 1.0 S (All Spans)

System : Floor  
 Member Type : Drop Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Hanger on 9 1/4" DF beam	5.50"	Hanger <sup>1</sup>	1.50"	177	2198	2376	See note <sup>1</sup>
2 - Hanger on 9 1/4" DF beam	5.50"	Hanger <sup>1</sup>	1.50"	177	2198	2376	See note <sup>1</sup>

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	7' 6" o/c	
Bottom Edge (Lu)	7' 6" o/c	

- Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	HUC410	2.50"	N/A	14-16d	6-10d	
2 - Face Mount Hanger	HUC410	2.50"	N/A	14-16d	6-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	5 1/2" to 7' 11"	N/A	8.2	--	
1 - Uniform (PSF)	0 to 8' 4 1/2" (Top)	3' 6"	10.0	150.0	Default Load

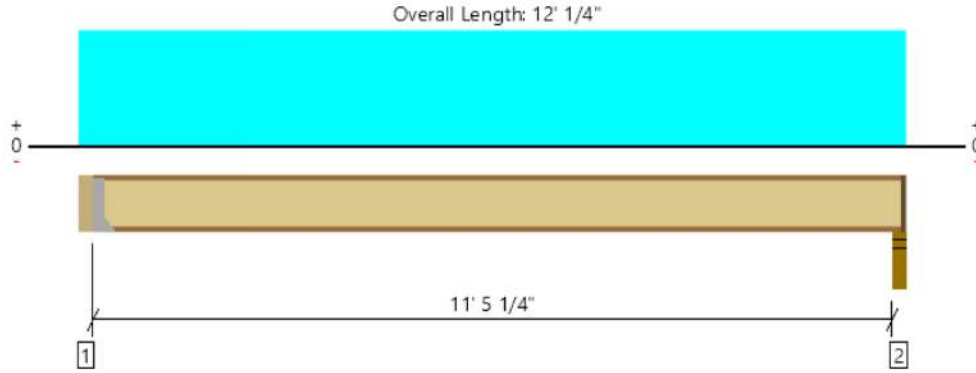
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ForteWEB Software Operator	Job Notes
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Main Floor, Floor: Joist

1 piece(s) 9 1/2" TJI® 110 @ 24" OC



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	599 @ 3 1/2"	910 (1.75")	Passed (66%)	1.00	1.0 D + 1.0 L (All Spans)
Shear (lbs)	599 @ 3 1/2"	1220	Passed (49%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	1725 @ 6' 5/8"	2500	Passed (69%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.179 @ 6' 5/8"	0.288	Passed (L/774)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.232 @ 6' 5/8"	0.576	Passed (L/595)	--	1.0 D + 1.0 L (All Spans)
TJ-Pro™ Rating	37	35	Passed	--	--

System : Floor  
 Member Type : Joist  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A structural analysis of the deck has not been performed.
- Deflection analysis is based on composite action with a single layer of 23/32" Weyerhaeuser Edge™ Panel (24" Span Rating) that is glued and nailed down.
- Additional considerations for the TJ-Pro™ Rating include: None.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Hanger on 9 1/2" DF beam	3.50"	Hanger <sup>1</sup>	1.75" / - <sup>2</sup>	145	484	629	See note <sup>1</sup>
2 - Stud wall - DF	3.50"	2.25"	1.75"	143	477	621	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.
- <sup>2</sup> Required Bearing Length / Required Bearing Length with Web Stiffeners

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	3' 9" o/c	
Bottom Edge (Lu)	11' 8" o/c	

- TJI joists are only analyzed using Maximum Allowable bracing solutions.
- Maximum allowable bracing intervals based on applied load.

**Connector: Simpson Strong-Tie**

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	IUS1.81/9.5	2.00"	N/A	8-10dx1.5	2-Strong-Grip	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Load	Location	Spacing	Dead (0.90)	Floor Live (1.00)	Comments
1 - Uniform (PSF)	0 to 12' 1/4"	24"	12.0	40.0	Default Load

**Weyerhaeuser Notes**

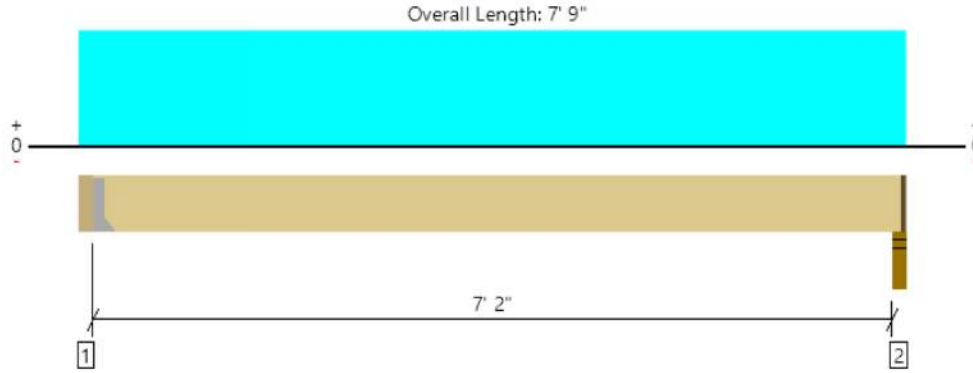
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Main Floor, Deck Joist  
**1 piece(s) 2 x 8 DF No.2 @ 16" OC**



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	773 @ 3 1/2"	1406 (1.50")	Passed (55%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	644 @ 10 3/4"	1501	Passed (43%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1402 @ 3' 11"	1564	Passed (90%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.163 @ 3' 11"	0.181	Passed (L/533)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.174 @ 3' 11"	0.363	Passed (L/500)	--	1.0 D + 1.0 S (All Spans)
TJ-Pro™ Rating	N/A	N/A	N/A	--	N/A

System : Floor  
 Member Type : Joist  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.
- No composite action between deck and joist was considered in analysis.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Hanger on 7 1/4" DF beam	3.50"	Hanger <sup>1</sup>	1.50"	52	783	836	See note <sup>1</sup>
2 - Stud wall - DF	3.50"	2.25"	1.50"	51	767	818	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- <sup>1</sup> See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	4' 11" o/c	
Bottom Edge (Lu)	7' 4" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
1 - Face Mount Hanger	LUS28	1.75"	N/A	6-10dx1.5	3-10d		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Load	Location (Side)	Spacing	Dead (0.90)	Snow (1.15)	Comments
1 - Uniform (PSF)	0 to 7' 9"	16"	10.0	150.0	Default Load

**Weyerhaeuser Notes**

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ForteWEB Software Operator	Job Notes
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524 CLEVELAND BLVD. #230  
 CALDWELL, IDAHO 83605  
 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

**H1 Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	15.167	0	0	3.33		2,572.8 plf
Dead Load	-	257.8	0.0	0.0	40.0	297.8 plf	
Live / Snow Load	0	2275.1	0.0	0.0	-	2,275.1 plf	

Description:	6.0 ft Opening							
Header Callout	(3)9-1/2" LVL 2.0E							
Trimmers	(2) 2x6 DF-L No. 2							

Wood Design								
Species	LVL							
Grade	2.0E							
Width	5.25 in							
Depth	9.50 in							

Reaction								
Dead Load	893 lbs							
Live Load	6,825 lbs							

Load								
lu	6.0 ft							
le	12.2 ft							

Adjustment Factors								
Cd	1.15							
CF	1.1							

Material Properties								
Fb	2,900 psi							
Fv	285 psi							
E	2,000,000 psi							
Emin	1,016,535 psi							

Calculated Prop.								
A	49.88 in^2							
I	375.10 in^4							
S	78.97 in^3							
RB	7.09							
Emin'	1,016,535 psi							
FbE	24,264 psi							
Fb*	3,669 psi							
CL	1							

Shear and Moment								
M	138,934 lb-in							
V	7,719 lbs							

Stress								
fb	1,759 psi							
Fb'	3,636 psi							
fb/Fb'	0.48							
fv	232 psi							
Fv'	328 psi							
fv/Fv'	0.71							
Max Ratio	0.71							
	Pass							

Deflection								
ΔTL	0.10 in							
	L/720							
ΔLL	0.09 in							
	L/814							
	Pass							





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City and State: McCall, Idaho

## H1 (2) Beam Calculations

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	11.75	0	0	3.33		
Dead Load	-	199.8	0.0	0.0	40.0	239.7 plf	2,002.2 plf
Live / Snow Load	0	1762.5	0.0	0.0	-	1,762.5 plf	

Description:	2.5 ft Opening	9.5 ft Opening					
Header Callout	(2)2x8 DF-L No. 2	(3)11-7/8" LVL 2.0E					
Trimmers	(1) 2x6 DF-L No. 2	(2) 2x6 DF-L No. 2					

Wood Design							
Species	DF-L	LVL					
Grade	No. 2	2.0E					
Width	3.00 in	5.25 in					
Depth	7.25 in	11.88 in					

Reaction							
Dead Load	300 lbs	1,139 lbs					
Live Load	2,203 lbs	8,372 lbs					

Load							
lu	2.5 ft	9.5 ft					
le	5.2 ft	18.5 ft					

Adjustment Factors							
Cd	1.15	1.15					
CF	1.2	1					

Material Properties							
Fb	900 psi	2,900 psi					
Fv	180 psi	285 psi					
E	1,600,000 psi	2,000,000 psi					
Emin	580,000 psi	1,016,535 psi					

Calculated Prop.							
A	21.75 in <sup>2</sup>	62.34 in <sup>2</sup>					
I	95.27 in <sup>4</sup>	732.62 in <sup>4</sup>					
S	26.28 in <sup>3</sup>	123.39 in <sup>3</sup>					
RB	7.06	9.77					
Emin'	580,000 psi	1,016,535 psi					
FbE	13,981 psi	12,786 psi					
Fb*	1,242 psi	3,335 psi					
CL	1	1					

Shear and Moment							
M	18,771 lb-in	271,049 lb-in					
V	2,503 lbs	9,510 lbs					

Stress							
fb	714 psi	2,197 psi					
Fb'	1,236 psi	3,278 psi					
fb/Fb'	0.58	0.67					
fv	173 psi	229 psi					
Fv'	207 psi	328 psi					
fv/Fv'	0.83	0.70					
Max Ratio	0.83	0.70					
	Pass	Pass					

Deflection							
ΔTL	0.01 in	0.25 in					
	L/2,599	L/455					
ΔLL	0.01 in	0.22 in					
	L/2,952	L/517					
	Pass	Pass					



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**H1 (3) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	6	0	0	3.33		
Dead Load	-	102.0	0.0	0.0	40.0	142.0 plf	1,042.0 plf
Live / Snow Load	0	900.0	0.0	0.0	-	900.0 plf	

Description:	1.0 ft Opening	3.0 ft Opening						
Header Callout	(2)2x6 DF-L No. 2	(2)2x6 DF-L No. 2						
Trimmers	(1) 2x6 DF-L No. 2	(1) 2x6 DF-L No. 2						

Wood Design								
Species	DF-L	DF-L						
Grade	No. 2	No. 2						
Width	3.00 in	3.00 in						
Depth	5.50 in	5.50 in						

Reaction								
Dead Load	71 lbs	213 lbs						
Live Load	450 lbs	1,350 lbs						

Load								
lu	1.0 ft	3.0 ft						
le	2.1 ft	6.2 ft						

Adjustment Factors								
Cd	1.15	1.15						
CF	1.3	1.3						

Material Properties								
Fb	900 psi	900 psi						
Fv	180 psi	180 psi						
E	1,600,000 psi	1,600,000 psi						
Emin	580,000 psi	580,000 psi						

Calculated Prop.								
A	16.50 in <sup>2</sup>	16.50 in <sup>2</sup>						
I	41.59 in <sup>4</sup>	41.59 in <sup>4</sup>						
S	15.13 in <sup>3</sup>	15.13 in <sup>3</sup>						
RB	3.89	6.73						
Emin'	580,000 psi	580,000 psi						
FbE	46,072 psi	15,357 psi						
Fb*	1,346 psi	1,346 psi						
CL	1	1						

Shear and Moment								
M	1,563 lb-in	14,066 lb-in						
V	521 lbs	1,563 lbs						

Stress								
fb	103 psi	930 psi						
Fb'	1,343 psi	1,339 psi						
fb/Fb'	0.08	0.69						
fv	47 psi	142 psi						
Fv'	207 psi	207 psi						
fv/Fv'	0.23	0.69						
Max Ratio	0.23	0.69						
	Pass	Pass						

Deflection								
ΔTL	0.00 in	0.03 in						
	L/34,064	L/1,262						
ΔLL	0.00 in	0.02 in						
	L/39,437	L/1,461						
	Pass	Pass						



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### H1 (4) Beam Calculations

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	10.5	0	0	3.33		
Dead Load	-	178.5	0.0	0.0	40.0	218.5 plf	1,793.5 plf
Live / Snow Load	0	1575.0	0.0	0.0	-	1,575.0 plf	

Description:	2.0 ft Opening	3.0 ft Opening						
Header Callout	(2)2x6 DF-L No. 2	(2)2x8 DF-L No. 2						
Trimmers	(1) 2x6 DF-L No. 2	(1) 2x6 DF-L No. 2						

Wood Design								
Species	DF-L	DF-L						
Grade	No. 2	No. 2						
Width	3.00 in	3.00 in						
Depth	5.50 in	7.25 in						

Reaction								
Dead Load	218 lbs	328 lbs						
Live Load	1,575 lbs	2,363 lbs						

Load								
lu	2.0 ft	3.0 ft						
le	4.1 ft	6.2 ft						

Adjustment Factors								
Cd	1.15	1.15						
CF	1.3	1.2						

Material Properties								
Fb	900 psi	900 psi						
Fv	180 psi	180 psi						
E	1,600,000 psi	1,600,000 psi						
Emin	580,000 psi	580,000 psi						

Calculated Prop.								
A	16.50 in <sup>2</sup>	21.75 in <sup>2</sup>						
I	41.59 in <sup>4</sup>	95.27 in <sup>4</sup>						
S	15.13 in <sup>3</sup>	26.28 in <sup>3</sup>						
RB	5.50	7.73						
Emin'	580,000 psi	580,000 psi						
FbE	23,036 psi	11,650 psi						
Fb*	1,346 psi	1,242 psi						
CL	1	1						

Shear and Moment								
M	10,761 lb-in	24,212 lb-in						
V	1,793 lbs	2,690 lbs						

Stress								
fb	711 psi	921 psi						
Fb'	1,341 psi	1,235 psi						
fb/Fb'	0.53	0.75						
fv	163 psi	186 psi						
Fv'	207 psi	207 psi						
fv/Fv'	0.79	0.90						
Max Ratio	0.79	0.90						
	Pass	Pass						

Deflection								
ΔTL	0.01 in	0.02 in						
	L/2,474	L/1,679						
ΔLL	0.01 in	0.02 in						
	L/2,817	L/1,912						
	Pass	Pass						



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### H1 (5) Beam Calculations

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	9.5	0	0	3.33		
Dead Load	-	161.5	0.0	0.0	40.0	201.5 plf	1,626.5 plf
Live / Snow Load	0	1425.0	0.0	0.0	-	1,425.0 plf	

Description:	2.0 ft Opening	6.5 ft Opening					
Header Callout	(2)2x6 DF-L No. 2	(2)9-1/2" LVL 2.0E					
Trimmers	(1) 2x6 DF-L No. 2	(2) 2x6 DF-L No. 2					

Wood Design							
Species	DF-L	LVL					
Grade	No. 2	2.0E					
Width	3.00 in	3.50 in					
Depth	5.50 in	9.50 in					

Reaction							
Dead Load	201 lbs	655 lbs					
Live Load	1,425 lbs	4,631 lbs					

Load							
lu	2.0 ft	6.5 ft					
le	4.1 ft	13.0 ft					

Adjustment Factors							
Cd	1.15	1.15					
CF	1.3	1.1					

Material Properties							
Fb	900 psi	2,900 psi					
Fv	180 psi	285 psi					
E	1,600,000 psi	2,000,000 psi					
Emin	580,000 psi	1,016,535 psi					

Calculated Prop.							
A	16.50 in <sup>2</sup>	33.25 in <sup>2</sup>					
I	41.59 in <sup>4</sup>	250.07 in <sup>4</sup>					
S	15.13 in <sup>3</sup>	52.65 in <sup>3</sup>					
RB	5.50	10.99					
Emin'	580,000 psi	1,016,535 psi					
FbE	23,036 psi	10,106 psi					
Fb*	1,346 psi	3,669 psi					
CL	1	1					

Shear and Moment							
M	9,759 lb-in	103,077 lb-in					
V	1,626 lbs	5,286 lbs					

Stress							
fb	645 psi	1,958 psi					
Fb'	1,341 psi	3,571 psi					
fb/Fb'	0.48	0.55					
fv	148 psi	238 psi					
Fv'	207 psi	328 psi					
fv/Fv'	0.71	0.73					
Max Ratio	0.71	0.73					
	Pass	Pass					

Deflection							
ΔTL	0.01 in	0.13 in					
	L/2,728	L/597					
ΔLL	0.01 in	0.11 in					
	L/3,113	L/682					
	Pass	Pass					



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**H1 (6) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	4	0	0	3.33		
Dead Load	-	68.0	0.0	0.0	40.0	108.0 plf	708.0 plf
Live / Snow Load	0	600.0	0.0	0.0	-	600.0 plf	

Description:	2.5 ft Opening	3.0 ft Opening	4.0 ft Opening	6.3 ft Opening	10.0 ft Opening			
Header Callout	(2)2x6 DF-L No. 2	(2)2x6 DF-L No. 2	(2)2x6 DF-L No. 2	(2)2x10 DF-L No. 2	(2)9'-1/2" LVL 2.0E			
Trimmers	(1) 2x6 DF-L No. 2	(1) 2x6 DF-L No. 2	(1) 2x6 DF-L No. 2	(1) 2x6 DF-L No. 2	(2) 2x6 DF-L No. 2			

Wood Design								
Species	DF-L	DF-L	DF-L	DF-L	LVL			
Grade	No. 2	No. 2	No. 2	No. 2	2.0E			
Width	3.00 in	3.00 in	3.00 in	3.00 in	3.50 in			
Depth	5.50 in	5.50 in	5.50 in	9.25 in	9.50 in			

Reaction								
Dead Load	135 lbs	162 lbs	216 lbs	342 lbs	540 lbs			
Live Load	750 lbs	900 lbs	1,200 lbs	1,900 lbs	3,000 lbs			

Load								
lu	2.5 ft	3.0 ft	4.0 ft	6.3 ft	10.0 ft			
le	5.2 ft	6.2 ft	7.9 ft	12.6 ft	18.7 ft			

Adjustment Factors								
Cd	1.15	1.15	1.15	1.15	1.15			
CF	1.3	1.3	1.3	1.1	1.1			

Material Properties								
Fb	900 psi	900 psi	900 psi	900 psi	2,900 psi			
Fv	180 psi	180 psi	180 psi	180 psi	285 psi			
E	1,600,000 psi	1,600,000 psi	1,600,000 psi	1,600,000 psi	2,000,000 psi			
Emin	580,000 psi	580,000 psi	580,000 psi	580,000 psi	1,016,535 psi			

Calculated Prop.								
A	16.50 in^2	16.50 in^2	16.50 in^2	27.75 in^2	33.25 in^2			
I	41.59 in^4	41.59 in^4	41.59 in^4	197.86 in^4	250.07 in^4			
S	15.13 in^3	15.13 in^3	15.13 in^3	42.78 in^3	52.65 in^3			
RB	6.15	6.73	7.61	12.48	13.18			
Emin'	580,000 psi	580,000 psi	580,000 psi	580,000 psi	1,016,535 psi			
FbE	18,429 psi	15,357 psi	12,021 psi	4,466 psi	7,019 psi			
Fb*	1,346 psi	1,346 psi	1,346 psi	1,139 psi	3,669 psi			
CL	1	1	1	1	1			

Shear and Moment								
M	6,637 lb-in	9,557 lb-in	16,991 lb-in	42,605 lb-in	106,194 lb-in			
V	885 lbs	1,062 lbs	1,416 lbs	2,242 lbs	3,540 lbs			

Stress								
fb	439 psi	632 psi	1,123 psi	996 psi	2,017 psi			
Fb'	1,340 psi	1,339 psi	1,337 psi	1,120 psi	3,495 psi			
fb/Fb'	0.33	0.47	0.84	0.89	0.58			
fv	80 psi	97 psi	129 psi	121 psi	160 psi			
Fv'	207 psi	207 psi	207 psi	207 psi	328 psi			
fv/Fv'	0.39	0.47	0.62	0.59	0.49			
Max Ratio	0.39	0.47	0.84	0.89	0.58			
	Pass	Pass	Pass	Pass	Pass			

Deflection								
ΔTL	0.01 in	0.02 in	0.06 in	0.08 in	0.32 in			
	L/3,209	L/1,857	L/783	L/939	L/377			
ΔLL	0.01 in	0.02 in	0.05 in	0.07 in	0.27 in			
	L/3,786	L/2,191	L/924	L/1,107	L/445			
	Pass	Pass	Pass	Pass	Pass			



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**H1 (7) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	8.5	0	0	3.33		
Dead Load	-	144.5	0.0	0.0	40.0	184.5 plf	1,459.5 plf
Live / Snow Load	0	1275.0	0.0	0.0	-	1,275.0 plf	

Description:	3.0 ft Opening						
Header Callout	(2)2x6 DF-L No. 2						
Trimmers	(1) 2x6 DF-L No. 2						

Wood Design							
Species	DF-L						
Grade	No. 2						
Width	3.00 in						
Depth	5.50 in						

Reaction							
Dead Load	277 lbs						
Live Load	1,913 lbs						

Load							
lu	3.0 ft						
le	6.2 ft						

Adjustment Factors							
Cd	1.15						
CF	1.3						

Material Properties							
Fb	900 psi						
Fv	180 psi						
E	1,600,000 psi						
Emin	580,000 psi						

Calculated Prop.							
A	16.50 in^2						
I	41.59 in^4						
S	15.13 in^3						
RB	6.73						
Emin'	580,000 psi						
FbE	15,357 psi						
Fb*	1,346 psi						
CL	1						

Shear and Moment							
M	19,703 lb-in						
V	2,189 lbs						

Stress							
fb	1,303 psi						
Fb'	1,339 psi						
fb/Fb'	0.97						
fv	199 psi						
Fv'	207 psi						
fv/Fv'	0.96						
Max Ratio	0.97						
	Pass						

Deflection							
ΔTL	0.04 in						
	L/901						
ΔLL	0.03 in						
	L/1,031						
	Pass						



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**H1 (8) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	17.667	11.5	0	3.33		
Dead Load	-	300.3	195.5	0.0	40.0	535.8 plf	3,645.8 plf
Live / Snow Load	0	2650.1	460.0	0.0	-	3,110.1 plf	

Description:	2.5 ft Opening	3.0 ft Opening					
Header Callout	(3)2x10 DF-L No. 2	(3)2x10 DF-L No. 2					
Trimmers	(2) 2x6 DF-L No. 2	(2) 2x6 DF-L No. 2					

Wood Design							
Species	DF-L	DF-L					
Grade	No. 2	No. 2					
Width	4.50 in	4.50 in					
Depth	9.25 in	9.25 in					

Reaction							
Dead Load	670 lbs	804 lbs					
Live Load	3,888 lbs	4,665 lbs					

Load							
lu	2.5 ft	3.0 ft					
le	5.2 ft	6.2 ft					

Adjustment Factors							
Cd	1.15	1.15					
CF	1.1	1.1					

Material Properties							
Fb	900 psi	900 psi					
Fv	180 psi	180 psi					
E	1,600,000 psi	1,600,000 psi					
Emin	580,000 psi	580,000 psi					

Calculated Prop.							
A	41.63 in <sup>2</sup>	41.63 in <sup>2</sup>					
I	296.79 in <sup>4</sup>	296.79 in <sup>4</sup>					
S	64.17 in <sup>3</sup>	64.17 in <sup>3</sup>					
RB	5.31	5.82					
Emin'	580,000 psi	580,000 psi					
FbE	24,655 psi	20,546 psi					
Fb*	1,139 psi	1,139 psi					
CL	1	1					

Shear and Moment							
M	34,180 lb-in	49,219 lb-in					
V	4,557 lbs	5,469 lbs					

Stress							
fb	533 psi	767 psi					
Fb'	1,136 psi	1,135 psi					
fb/Fb'	0.47	0.68					
fv	164 psi	197 psi					
Fv'	207 psi	207 psi					
fv/Fv'	0.79	0.95					
Max Ratio	0.79	0.95					
	Pass	Pass					

Deflection							
ΔTL	0.01 in	0.01 in					
	L/4,446	L/2,573					
ΔLL	0.01 in	0.01 in					
	L/5,212	L/3,016					
	Pass	Pass					





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**H1 (9) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	5	0	0	3.33		875.0 plf
Dead Load	-	85.0	0.0	0.0	40.0	125.0 plf	
Live / Snow Load	0	750.0	0.0	0.0	-	750.0 plf	

Description:	10.0 ft Opening							
Header Callout	(2)11-7/8" LVL 2.0E							
Trimmers	(2) 2x6 DF-L No. 2							

Wood Design							
Species	LVL						
Grade	2.0E						
Width	3.50 in						
Depth	11.88 in						

Reaction							
Dead Load	625 lbs						
Live Load	3,750 lbs						

Load							
lu	10.0 ft						
le	19.3 ft						

Adjustment Factors							
Cd	1.15						
CF	1						

Material Properties							
Fb	2,900 psi						
Fv	285 psi						
E	2,000,000 psi						
Emin	1,016,535 psi						

Calculated Prop.							
A	41.56 in <sup>2</sup>						
I	488.41 in <sup>4</sup>						
S	82.26 in <sup>3</sup>						
RB	14.97						
Emin'	1,016,535 psi						
FbE	5,442 psi						
Fb*	3,335 psi						
CL	1						

Shear and Moment							
M	131,244 lb-in						
V	4,375 lbs						

Stress							
fb	1,595 psi						
Fb'	3,124 psi						
fb/Fb'	0.51						
fv	158 psi						
Fv'	328 psi						
fv/Fv'	0.48						
Max Ratio	0.51						
	Pass						

Deflection							
ΔTL	0.20 in						
	L/595						
ΔLL	0.17 in						
	L/695						
	Pass						



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SRE Project #: 2022-4218  
City and State: McCall, Idaho

### H1 (10) Beam Calculations

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	16.417	0	0	3.33		2,781.6 plf
Dead Load	-	279.1	0.0	0.0	40.0	319.0 plf	
Live / Snow Load	0	2462.6	0.0	0.0	-	2,462.6 plf	

Description:	5.0 ft Opening						
Header Callout	(2)9-1/2" LVL 2.0E						
Trimmers	(3) 2x6 DF-L No. 2						

Wood Design							
Species	LVL						
Grade	2.0E						
Width	3.50 in						
Depth	9.50 in						

Reaction							
Dead Load	798 lbs						
Live Load	6,156 lbs						

Load							
lu	5.0 ft						
le	10.3 ft						

Adjustment Factors							
Cd	1.15						
CF	1.1						

Material Properties							
Fb	2,900 psi						
Fv	285 psi						
E	2,000,000 psi						
Emin	1,016,535 psi						

Calculated Prop.							
A	33.25 in <sup>2</sup>						
I	250.07 in <sup>4</sup>						
S	52.65 in <sup>3</sup>						
RB	9.79						
Emin'	1,016,535 psi						
FbE	12,726 psi						
Fb*	3,669 psi						
CL	1						

Shear and Moment							
M	104,310 lb-in						
V	6,954 lbs						

Stress							
fb	1,981 psi						
Fb'	3,598 psi						
fb/Fb'	0.55						
fv	314 psi						
Fv'	328 psi						
fv/Fv'	0.96						
Max Ratio	0.96						
	Pass						

Deflection							
ΔTL	0.08 in						
	L/767						
ΔLL	0.07 in						
	L/867						
	Pass						



524 CLEVELAND BLVD. #230  
 CALDWELL, IDAHO 83605  
 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

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 City and State: McCall, Idaho

**H1 (11) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	7.667	0	0	3.33		
Dead Load	-	130.3	0.0	0.0	40.0	170.3 plf	1,320.3 plf
Live / Snow Load	0	1150.1	0.0	0.0	-	1,150.1 plf	

Description:	5.0 ft Opening						
Header Callout	(3)2x10 DF-L No. 2						
Trimmers	(1) 2x6 DF-L No. 2						

Wood Design							
Species	DF-L						
Grade	No. 2						
Width	4.50 in						
Depth	9.25 in						

Reaction							
Dead Load	426 lbs						
Live Load	2,875 lbs						

Load							
lu	5.0 ft						
le	10.3 ft						

Adjustment Factors							
Cd	1.15						
CF	1.1						

Material Properties							
Fb	900 psi						
Fv	180 psi						
E	1,600,000 psi						
Emin	580,000 psi						

Calculated Prop.							
A	41.63 in <sup>2</sup>						
I	296.79 in <sup>4</sup>						
S	64.17 in <sup>3</sup>						
RB	7.51						
Emin'	580,000 psi						
FbE	12,327 psi						
Fb*	1,139 psi						
CL	1						

Shear and Moment							
M	49,513 lb-in						
V	3,301 lbs						

Stress							
fb	772 psi						
Fb'	1,133 psi						
fb/Fb'	0.68						
fv	119 psi						
Fv'	207 psi						
fv/Fv'	0.57						
Max Ratio	0.68						
	Pass						

Deflection							
ΔTL	0.04 in						
	L/1,535						
ΔLL	0.03 in						
	L/1,762						
	Pass						



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**H1 (12) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	9.5	0	0	3.33		
Dead Load	-	161.5	0.0	0.0	40.0	201.5 plf	1,626.5 plf
Live / Snow Load	0	1425.0	0.0	0.0	-	1,425.0 plf	

Description:	1.0 ft Opening	3.0 ft Opening					
Header Callout	(2)2x6 DF-L No. 2	(2)2x8 DF-L No. 2					
Trimmers	(1) 2x6 DF-L No. 2	(1) 2x6 DF-L No. 2					

Wood Design							
Species	DF-L	DF-L					
Grade	No. 2	No. 2					
Width	3.00 in	3.00 in					
Depth	5.50 in	7.25 in					

Reaction							
Dead Load	101 lbs	302 lbs					
Live Load	713 lbs	2,138 lbs					

Load							
lu	1.0 ft	3.0 ft					
le	2.1 ft	6.2 ft					

Adjustment Factors							
Cd	1.15	1.15					
CF	1.3	1.2					

Material Properties							
Fb	900 psi	900 psi					
Fv	180 psi	180 psi					
E	1,600,000 psi	1,600,000 psi					
Emin	580,000 psi	580,000 psi					

Calculated Prop.							
A	16.50 in <sup>2</sup>	21.75 in <sup>2</sup>					
I	41.59 in <sup>4</sup>	95.27 in <sup>4</sup>					
S	15.13 in <sup>3</sup>	26.28 in <sup>3</sup>					
RB	3.89	7.73					
Emin'	580,000 psi	580,000 psi					
FbE	46,072 psi	11,650 psi					
Fb*	1,346 psi	1,242 psi					
CL	1	1					

Shear and Moment							
M	2,440 lb-in	21,957 lb-in					
V	813 lbs	2,440 lbs					

Stress							
fb	161 psi	835 psi					
Fb'	1,343 psi	1,235 psi					
fb/Fb'	0.12	0.68					
fv	74 psi	168 psi					
Fv'	207 psi	207 psi					
fv/Fv'	0.36	0.81					
Max Ratio	0.36	0.81					
	Pass	Pass					

Deflection							
ΔTL	0.00 in	0.02 in					
	L/21,822	L/1,851					
ΔLL	0.00 in	0.02 in					
	L/24,908	L/2,113					
	Pass	Pass					



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**H1 (13) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	10.167	0	0	3.33		1,737.8 plf
Dead Load	-	172.8	0.0	0.0	40.0	212.8 plf	
Live / Snow Load	0	1525.1	0.0	0.0	-	1,525.1 plf	

Description:	3.0 ft Opening	3.5 ft Opening					
Header Callout	(2)2x8 DF-L No. 2	(2)2x10 DF-L No. 2					
Trimmers	(1) 2x6 DF-L No. 2	(2) 2x6 DF-L No. 2					

Wood Design							
Species	DF-L	DF-L					
Grade	No. 2	No. 2					
Width	3.00 in	3.00 in					
Depth	7.25 in	9.25 in					

Reaction							
Dead Load	319 lbs	372 lbs					
Live Load	2,288 lbs	2,669 lbs					

Load							
lu	3.0 ft	3.5 ft					
le	6.2 ft	7.2 ft					

Adjustment Factors							
Cd	1.15	1.15					
CF	1.2	1.1					

Material Properties							
Fb	900 psi	900 psi					
Fv	180 psi	180 psi					
E	1,600,000 psi	1,600,000 psi					
Emin	580,000 psi	580,000 psi					

Calculated Prop.							
A	21.75 in <sup>2</sup>	27.75 in <sup>2</sup>					
I	95.27 in <sup>4</sup>	197.86 in <sup>4</sup>					
S	26.28 in <sup>3</sup>	42.78 in <sup>3</sup>					
RB	7.73	9.43					
Emin'	580,000 psi	580,000 psi					
FbE	11,650 psi	7,827 psi					
Fb*	1,242 psi	1,139 psi					
CL	1	1					

Shear and Moment							
M	23,461 lb-in	31,933 lb-in					
V	2,607 lbs	3,041 lbs					

Stress							
fb	893 psi	746 psi					
Fb'	1,235 psi	1,129 psi					
fb/Fb'	0.72	0.66					
fv	180 psi	164 psi					
Fv'	207 psi	207 psi					
fv/Fv'	0.87	0.79					
Max Ratio	0.87	0.79					
	Pass	Pass					

Deflection							
ΔTL	0.02 in	0.02 in					
	L/1,733	L/2,266					
ΔLL	0.02 in	0.02 in					
	L/1,974	L/2,582					
	Pass	Pass					



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**H1 (14) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	17.75	0	0	3.33		
Dead Load	-	301.8	0.0	0.0	40.0	341.7 plf	3,004.2 plf
Live / Snow Load	0	2662.5	0.0	0.0	-	2,662.5 plf	

Description:	9.5 ft Opening						
Header Callout	(3)14" LVL 2.0E						
Trimmers	(3) 2x6 DF-L No. 2						

Wood Design							
Species	LVL						
Grade	2.0E						
Width	5.25 in						
Depth	14.00 in						

Reaction							
Dead Load	1,623 lbs						
Live Load	12,647 lbs						

Load							
lu	9.5 ft						
le	19.0 ft						

Adjustment Factors							
Cd	1.15						
CF	1						

Material Properties							
Fb	2,900 psi						
Fv	285 psi						
E	2,000,000 psi						
Emin	1,016,535 psi						

Calculated Prop.							
A	73.50 in <sup>2</sup>						
I	1,200.50 in <sup>4</sup>						
S	171.50 in <sup>3</sup>						
RB	10.76						
Emin'	1,016,535 psi						
FbE	10,541 psi						
Fb*	3,335 psi						
CL	1						

Shear and Moment							
M	406,695 lb-in						
V	14,270 lbs						

Stress							
fb	2,371 psi						
Fb'	3,262 psi						
fb/Fb'	0.73						
fv	291 psi						
Fv'	328 psi						
fv/Fv'	0.89						
Max Ratio	0.89						
	Pass						

Deflection							
ΔTL	0.23 in						
	L/497						
ΔLL	0.20 in						
	L/561						
	Pass						



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**H1 (15) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	17.75	8.29	0	3.33		
Dead Load	-	301.8	140.9	0.0	40.0	482.6 plf	3,476.7 plf
Live / Snow Load	0	2662.5	331.6	0.0	-	2,994.1 plf	

Description:	9.5 ft Opening						
Header Callout	(3)16" LVL 2.0E						
Trimmers	(4) 2x6 DF-L No. 2						

Wood Design							
Species	LVL						
Grade	2.0E						
Width	5.25 in						
Depth	16.00 in						

Reaction							
Dead Load	2,293 lbs						
Live Load	14,222 lbs						

Load							
lu	9.5 ft						
le	19.5 ft						

Adjustment Factors							
Cd	1.15						
CF	1						

Material Properties							
Fb	2,900 psi						
Fv	285 psi						
E	2,000,000 psi						
Emin	1,016,535 psi						

Calculated Prop.							
A	84.00 in^2						
I	1,792.00 in^4						
S	224.00 in^3						
RB	11.65						
Emin'	1,016,535 psi						
FbE	8,987 psi						
Fb*	3,335 psi						
CL	1						

Shear and Moment							
M	470,664 lb-in						
V	16,515 lbs						

Stress							
fb	2,101 psi						
Fb'	3,243 psi						
fb/Fb'	0.65						
fv	295 psi						
Fv'	328 psi						
fv/Fv'	0.90						
Max Ratio	0.90						
	Pass						

Deflection							
ΔTL	0.18 in						
	L/641						
ΔLL	0.15 in						
	L/745						
	Pass						





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**H1 (16) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	9.5	1	0	3.33		
Dead Load	-	161.5	17.0	0.0	40.0	218.5 plf	1,683.5 plf
Live / Snow Load	0	1425.0	40.0	0.0	-	1,465.0 plf	

Description:	2.0 ft Opening	6.3 ft Opening					
Header Callout	(2)2x6 DF-L No. 2	(2)9-1/2" LVL 2.0E					
Trimmers	(1) 2x6 DF-L No. 2	(2) 2x6 DF-L No. 2					

Wood Design							
Species	DF-L	LVL					
Grade	No. 2	2.0E					
Width	3.00 in	3.50 in					
Depth	5.50 in	9.50 in					

Reaction							
Dead Load	218 lbs	683 lbs					
Live Load	1,465 lbs	4,578 lbs					

Load							
lu	2.0 ft	6.3 ft					
le	4.1 ft	12.6 ft					

Adjustment Factors							
Cd	1.15	1.15					
CF	1.3	1.1					

Material Properties							
Fb	900 psi	2,900 psi					
Fv	180 psi	285 psi					
E	1,600,000 psi	2,000,000 psi					
Emin	580,000 psi	1,016,535 psi					

Calculated Prop.							
A	16.50 in <sup>2</sup>	33.25 in <sup>2</sup>					
I	41.59 in <sup>4</sup>	250.07 in <sup>4</sup>					
S	15.13 in <sup>3</sup>	52.65 in <sup>3</sup>					
RB	5.50	10.81					
Emin'	580,000 psi	1,016,535 psi					
FbE	23,036 psi	10,434 psi					
Fb*	1,346 psi	3,669 psi					
CL	1	1					

Shear and Moment							
M	10,101 lb-in	98,640 lb-in					
V	1,683 lbs	5,261 lbs					

Stress							
fb	668 psi	1,874 psi					
Fb'	1,341 psi	3,575 psi					
fb/Fb'	0.50	0.52					
fv	153 psi	237 psi					
Fv'	207 psi	328 psi					
fv/Fv'	0.74	0.72					
Max Ratio	0.74	0.72					
	Pass	Pass					

Deflection							
ΔTL	0.01 in	0.12 in					
	L/2,635	L/649					
ΔLL	0.01 in	0.10 in					
	L/3,028	L/746					
	Pass	Pass					



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**H1 (17) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	4	7.5	0	3.33		
Dead Load	-	68.0	127.5	0.0	40.0	235.5 plf	1,135.5 plf
Live / Snow Load	0	600.0	300.0	0.0	-	900.0 plf	

<b>Description:</b>	6.3 ft Opening						
<b>Header Callout</b>	(2)9'-1/2" LVL 2.0E						
<b>Trimmers</b>	(2) 2x6 DF-L No. 2						

<b>Wood Design</b>							
Species	LVL						
Grade	2.0E						
Width	3.50 in						
Depth	9.50 in						

<b>Reaction</b>							
Dead Load	736 lbs						
Live Load	2,813 lbs						

<b>Load</b>							
lu	6.3 ft						
le	12.6 ft						

<b>Adjustment Factors</b>							
Cd	1.15						
CF	1.1						

<b>Material Properties</b>							
Fb	2,900 psi						
Fv	285 psi						
E	2,000,000 psi						
Emin	1,016,535 psi						

<b>Calculated Prop.</b>							
A	33.25 in <sup>2</sup>						
I	250.07 in <sup>4</sup>						
S	52.65 in <sup>3</sup>						
RB	10.81						
Emin'	1,016,535 psi						
FbE	10,434 psi						
Fb*	3,669 psi						
CL	1						

<b>Shear and Moment</b>							
M	66,531 lb-in						
V	3,548 lbs						

<b>Stress</b>							
fb	1,264 psi						
Fb'	3,575 psi						
fb/Fb'	0.35						
fv	160 psi						
Fv'	328 psi						
fv/Fv'	0.49						
Max Ratio	0.49						
	Pass						

<b>Deflection</b>							
ΔTL	0.08 in						
	L/962						
ΔLL	0.06 in						
	L/1,214						
	Pass						



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**H1 (18) Beam Calculations**

	Additional Drift	Roof	Floor	Deck	Wall	Total Load	Total Load
Trib	0.0	0	18.5	0	3.33		
Dead Load	-	0.0	314.5	0.0	40.0	354.5 plf	1,094.5 plf
Live / Snow Load	0	0.0	740.0	0.0	-	740.0 plf	

Description:	3.0 ft Opening						
Header Callout	(2)2x6 DF-L No. 2						
Trimmers	(1) 2x6 DF-L No. 2						

Wood Design							
Species	DF-L						
Grade	No. 2						
Width	3.00 in						
Depth	5.50 in						

Reaction							
Dead Load	532 lbs						
Live Load	1,110 lbs						

Load							
lu	3.0 ft						
le	6.2 ft						

Adjustment Factors							
Cd	1.15						
CF	1.3						

Material Properties							
Fb	900 psi						
Fv	180 psi						
E	1,600,000 psi						
Emin	580,000 psi						

Calculated Prop.							
A	16.50 in <sup>2</sup>						
I	41.59 in <sup>4</sup>						
S	15.13 in <sup>3</sup>						
RB	6.73						
Emin'	580,000 psi						
FbE	15,357 psi						
Fb*	1,346 psi						
CL	1						

Shear and Moment							
M	14,775 lb-in						
V	1,642 lbs						

Stress							
fb	977 psi						
Fb'	1,339 psi						
fb/Fb'	0.73						
fv	149 psi						
Fv'	207 psi						
fv/Fv'	0.72						
Max Ratio	0.73						
	Pass						

Deflection							
ΔTL	0.03 in						
	L/1,201						
ΔLL	0.02 in						
	L/1,776						
	Pass						



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**TALL WALL CALCULATIONS:**

This spreadsheet is used for designing a stud wall according to the NDS.

Description:	12' Tall Wall	King Stud (3' Max Opening)	12' Trimmer	10' Tall Wall	King Stud (3' Max Opening)	10' Trimmer
Type:	2x Lumber (2"-4")	2x Lumber (2"-4")	2x Lumber (2"-4")	2x Lumber (2"-4")	2x Lumber (2"-4")	2x Lumber (2"-4")
Species:	DF-L	DF-L	DF-L	DF-L	DF-L	DF-L
Grade:	No. 2	No. 2	No. 2	No. 2	No. 2	No. 2
Nominal width, t =	(1) 2	(1) 2	(1) 2	(1) 2	(1) 2	(1) 2
Actual width =	1.50 in	1.50 in	1.50 in	1.50 in	1.50 in	1.50 in
Nominal depth, d =	6	6	6	6	6	6
Actual depth =	5.50 in	5.50 in	5.50 in	5.50 in	5.50 in	5.50 in
Span, L =	12.000 ft	12.000 ft	12.000 ft	10.000 ft	10.000 ft	10.000 ft
w/o Plates	11.750 ft	11.750 ft	11.750 ft	9.750 ft	9.750 ft	9.750 ft
Stud spacing, s =	16 in	28 in	16 in	16 in	28 in	16 in
Lat. Pressure, w <sub>wind</sub> =	14.73 psf	14.73 psf	5.00 psf	14.73 psf	14.73 psf	5.00 psf
Axial load, P =	2227 lbs	50 lbs	2505 lbs	3898 lbs	50 lbs	4385 lbs
Eccentricity, e =	0 in	0 in	0 in	0 in	0 in	0 in
K <sub>CE</sub> =	0.3	0.3	0.3	0.3	0.3	0.3
c =	0.8	0.8	0.8	0.8	0.8	0.8
w =	19.6 plf	34.7 plf	6.7 plf	19.6 plf	34.7 plf	6.7 plf
F <sub>b</sub>	900 psi	900 psi	900 psi	900 psi	900 psi	900 psi
F <sub>v</sub>	180 psi	180 psi	180 psi	180 psi	180 psi	180 psi
F <sub>c-prll</sub>	1,350 psi	1,350 psi	1,350 psi	1,350 psi	1,350 psi	1,350 psi
F <sub>c-perp</sub>	625 psi	625 psi	625 psi	625 psi	625 psi	625 psi
C <sub>d</sub>	1.60	1.60	1.15	1.60	1.60	1.15
C <sub>F,Fb</sub>	1.30	1.30	1.30	1.30	1.30	1.30
C <sub>F,Fcprll</sub>	1.10	1.10	1.10	1.10	1.10	1.10
C <sub>r</sub>	1.15	1.00	1.00	1.15	1.00	1.00
C <sub>p</sub>	0.28	0.28	0.38	0.39	0.39	0.51
C <sub>H</sub>	1.00	1.00	1.00	1.00	1.00	6.00
C <sub>b</sub>	1.07	1.07	1.07	1.07	1.07	1.07
E	1,600,000 psi	1,600,000 psi	1,600,000 psi	1,600,000 psi	1,600,000 psi	1,600,000 psi
E <sub>min</sub>	580,000 psi	580,000 psi	580,000 psi	580,000 psi	580,000 psi	580,000 psi
<b>Allowable Stress:</b>						
F' <sub>b</sub> = F <sub>b</sub> C <sub>d</sub> C <sub>F</sub> C <sub>r</sub>	2153 psi	1872 psi	1346 psi	2153 psi	1872 psi	1346 psi
F' <sub>v</sub> = F <sub>v</sub> C <sub>d</sub> C <sub>H</sub>	288 psi	288 psi	207 psi	288 psi	288 psi	1242 psi
F' <sub>c</sub> = F <sub>c</sub> C <sub>d</sub> C <sub>F</sub>	2376 psi	2376 psi	1708 psi	2376 psi	2376 psi	1708 psi
F' <sub>CE</sub> = (K <sub>CE</sub> E')/(l/d) <sup>2</sup>	730 psi	730 psi	730 psi	1061 psi	1061 psi	1061 psi
F' <sub>c</sub> = F <sub>c</sub> C <sub>d</sub> C <sub>F</sub> C <sub>p</sub>	676 psi	676 psi	650 psi	938 psi	938 psi	876 psi
F' <sub>c-perp</sub> = F <sub>c-perp</sub> C <sub>b</sub>	668 psi	668 psi	668 psi	668 psi	668 psi	668 psi
E' = E	1600000 psi	1600000 psi	1600000 psi	1600000 psi	1600000 psi	1600000 psi
F <sub>BE</sub>	2019 psi	2019 psi	2019 psi	2434 psi	2434 psi	2434 psi
<b>Slenderness Ratio:</b>	< 50 OK	< 50 OK	< 50 OK	< 50 OK	< 50 OK	< 50 OK
R <sub>B</sub>	19	19	19	17	17	17
<b>Bending:</b>	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK
M = w L <sup>2</sup> /8 + P e/l <sup>2</sup>	339 ft-lbs	598 ft-lbs	115 ft-lbs	233 ft-lbs	412 ft-lbs	79 ft-lbs
f <sub>b</sub> = M/S	538 psi	950 psi	183 psi	370 psi	654 psi	126 psi
S =	8 in <sup>3</sup>	8 in <sup>3</sup>	8 in <sup>3</sup>	8 in <sup>3</sup>	8 in <sup>3</sup>	8 in <sup>3</sup>
<b>Shear:</b>	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK
V = w L/2	115 lbs	204 lbs	39 lbs	96 lbs	169 lbs	24 lbs
f <sub>v</sub> = 1.5 V/A	21 psi	37 psi	7 psi	17 psi	31 psi	4 psi
A =	8 in <sup>2</sup>	8 in <sup>2</sup>	8 in <sup>2</sup>	8 in <sup>2</sup>	8 in <sup>2</sup>	8 in <sup>2</sup>
<b>Compression:</b>	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK
f <sub>c</sub> = P/A	270 psi	6 psi	304 psi	472 psi	6 psi	532 psi
<b>Compression (perp.):</b>	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK
f <sub>c-perp</sub> = P/A	270 psi	6 psi	304 psi	472 psi	6 psi	532 psi
<b>Combined:</b>	< 1.0 OK			< 1.0 OK		
((f <sub>c</sub> /F' <sub>c</sub> ) <sup>2</sup> + (f <sub>b</sub> /F' <sub>b</sub> (1-(f <sub>c</sub> /F' <sub>c</sub> E)))	0.56			0.56		
<b>Deflection:</b>	> 180 OK	> 180 OK	> 180 OK	> 180 OK	> 180 OK	> 180 OK
D = 22.5 w L <sup>4</sup> /E'I =	0.25 in	0.45 in	0.09 in	0.12 in	0.21 in	0.04 in
I =	21 in <sup>4</sup>	21 in <sup>4</sup>	21 in <sup>4</sup>	21 in <sup>4</sup>	21 in <sup>4</sup>	21 in <sup>4</sup>
SPAN /	557	316	1641	975	552	2872



524 CLEVELAND BLVD. #230  
CALDWELL, IDAHO 83605  
(208) 453-6512

Completed by: JDJ  
Review/Check: ARA

Project Name: Charters Residence  
SRE Project #: 2022-4218  
City and State: McCall, Idaho

**TALL WALL CALCULATIONS:**

This spreadsheet is used for designing a stud wall according to the NDS.

Description:	12' Tall Wall	King Stud (6.25' Max Opening)	12' Trimmer	12.25' Tall Wall	King Stud (9.5' Max Opening)	12.25' Trimmer
	Type:	2x Lumber (2"-4")	2x Lumber (2"-4")	2x Lumber (2"-4")	2x Lumber (2"-4")	2x Lumber (2"-4")
Species:	DF-L	DF-L	DF-L	DF-L	DF-L	DF-L
Grade:	No. 2	No. 2	No. 2	No. 2	No. 2	No. 2
Nominal width, t =	(1) 2	(2) 2	(1) 2	(1) 2	(2) 2	(1) 2
Actual width =	1.50 in	3.00 in	1.50 in	1.50 in	3.00 in	1.50 in
Nominal depth, d =	6	6	6	6	6	6
Actual depth =	5.50 in	5.50 in	5.50 in	5.50 in	5.50 in	5.50 in
Span, L =	12.000 ft	12.000 ft	12.000 ft	12.250 ft	12.250 ft	12.250 ft
w/o Plates	11.750 ft	11.750 ft	11.750 ft	12.000 ft	12.000 ft	12.000 ft
Stud spacing, s =	16 in	48 in	16 in	12 in	65 in	12 in
Lat. Pressure, w <sub>wind</sub> =	14.73 psf	14.73 psf	5.00 psf	14.73 psf	14.73 psf	5.00 psf
Axial load, P =	1893 lbs	50 lbs	4436 lbs	2950 lbs	50 lbs	4426 lbs
Eccentricity, e =	0 in	0 in	0 in	0 in	0 in	0 in
K <sub>CE</sub> =	0.3	0.3	0.3	0.3	0.3	0.3
c =	0.8	0.8	0.8	0.8	0.8	0.8
w =	19.6 plf	58.6 plf	6.7 plf	14.7 plf	80.1 plf	5.0 plf
F <sub>b</sub>	900 psi	900 psi	900 psi	900 psi	900 psi	900 psi
F <sub>v</sub>	180 psi	180 psi	180 psi	180 psi	180 psi	180 psi
F <sub>c-prll</sub>	1,350 psi	1,350 psi	1,350 psi	1,350 psi	1,350 psi	1,350 psi
F <sub>c-perp</sub>	625 psi	625 psi	625 psi	625 psi	625 psi	625 psi
C <sub>d</sub>	1.60	1.60	1.15	1.60	1.60	1.15
C <sub>F,Fb</sub>	1.30	1.30	1.30	1.30	1.30	1.30
C <sub>F,Fcprll</sub>	1.10	1.10	1.10	1.10	1.10	1.10
C <sub>r</sub>	1.15	1.00	1.00	1.15	1.00	1.00
C <sub>p</sub>	0.28	0.28	0.38	0.27	0.27	0.37
C <sub>H</sub>	1.00	1.00	1.00	1.00	1.00	6.00
C <sub>b</sub>	1.07	1.07	1.07	1.07	1.07	1.07
E	1,600,000 psi	1,600,000 psi	1,600,000 psi	1,600,000 psi	1,600,000 psi	1,600,000 psi
E <sub>min</sub>	580,000 psi	580,000 psi	580,000 psi	580,000 psi	580,000 psi	580,000 psi
<b>Allowable Stress:</b>						
F' <sub>b</sub> = F <sub>b</sub> C <sub>d</sub> C <sub>F</sub> C <sub>r</sub>	2153 psi	1872 psi	1346 psi	2153 psi	1872 psi	1346 psi
F' <sub>v</sub> = F <sub>v</sub> C <sub>d</sub> C <sub>H</sub>	288 psi	288 psi	207 psi	288 psi	288 psi	1242 psi
F' <sub>c</sub> = F <sub>c</sub> C <sub>d</sub> C <sub>F</sub>	2376 psi	2376 psi	1708 psi	2376 psi	2376 psi	1708 psi
F' <sub>CE</sub> = (K <sub>CE</sub> E') / (d)2	730 psi	730 psi	730 psi	700 psi	700 psi	700 psi
F' <sub>c</sub> = F <sub>c</sub> C <sub>d</sub> C <sub>F</sub> C <sub>p</sub>	676 psi	676 psi	650 psi	651 psi	651 psi	627 psi
F' <sub>c-perp</sub> = F <sub>c-perp</sub> C <sub>b</sub>	668 psi	668 psi	668 psi	668 psi	668 psi	668 psi
E' = E	1600000 psi	1600000 psi	1600000 psi	1600000 psi	1600000 psi	1600000 psi
F <sub>bE</sub>	2019 psi	8077 psi	2019 psi	1977 psi	7909 psi	1977 psi
<b>Slenderness Ratio:</b>	< 50 OK	< 50 OK	< 50 OK	< 50 OK	< 50 OK	< 50 OK
R <sub>b</sub>	19	9	19	19	9	19
<b>Bending:</b>	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK	< F' <sub>b</sub> OK
M = w L <sup>2</sup> /8 + P e/12	339 ft-lbs	1011 ft-lbs	115 ft-lbs	265 ft-lbs	1442 ft-lbs	90 ft-lbs
f <sub>b</sub> = M/S	538 psi	802 psi	183 psi	421 psi	1144 psi	143 psi
S =	8 in <sup>3</sup>	15 in <sup>3</sup>	8 in <sup>3</sup>	8 in <sup>3</sup>	15 in <sup>3</sup>	8 in <sup>3</sup>
<b>Shear:</b>	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK	< F' <sub>v</sub> OK
V = w L/2	115 lbs	344 lbs	39 lbs	88 lbs	481 lbs	30 lbs
f <sub>v</sub> = 1.5 V/A	21 psi	31 psi	7 psi	16 psi	44 psi	5 psi
A =	8 in <sup>2</sup>	17 in <sup>2</sup>	8 in <sup>2</sup>	8 in <sup>2</sup>	17 in <sup>2</sup>	8 in <sup>2</sup>
<b>Compression:</b>	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK
f <sub>c</sub> = P/A	229 psi	3 psi	538 psi	358 psi	3 psi	536 psi
<b>Compression (perp.):</b>	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK	< F' <sub>c</sub> OK
f <sub>c-perp</sub> = P/A	229 psi	3 psi	538 psi	358 psi	3 psi	536 psi
<b>Combined:</b>	< 1.0 OK			< 1.0 OK		
((f <sub>c</sub> /F' <sub>c</sub> )2 + (f <sub>b</sub> /F' <sub>b</sub> (1-(f <sub>c</sub> /F' <sub>c</sub> E)))	0.48			0.70		
<b>Deflection:</b>	> 180 OK	> 180 OK	> 180 OK	> 180 OK	> 180 OK	> 180 OK
D = 22.5 w L <sup>4</sup> /E' I =	0.25 in	0.38 in	0.09 in	0.21 in	0.56 in	0.07 in
I =	21 in <sup>4</sup>	42 in <sup>4</sup>	21 in <sup>4</sup>	21 in <sup>4</sup>	42 in <sup>4</sup>	21 in <sup>4</sup>
SPAN /	557	373	1641	697	256	2054



524 CLEVELAND BLVD. #230  
 CALDWELL, IDAHO 83605  
 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 18.0ft )	= 306plf
Snow Live	( 150psf )	( 18.0ft )	= 2700plf

<i>Upper Floor</i>			
Floor Dead	( 17psf )	( 8.5ft )	= 145plf
Floor Live	( 40psf )	( 8.5ft )	= 340plf

<i>Main Floor</i>			
Floor Dead	( 17psf )	( 4.1ft )	= 69plf
Floor Live	( 40psf )	( 4.1ft )	= 163plf

<i>Deck Floor</i>			
Floor Dead	( 17psf )	( 2.5ft )	= 43plf
Snow Live	( 150psf )	( 2.5ft )	= 375plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 20.6ft )	= 247plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**3686plf**

Use Footing Width:	<b>36</b>	<b>x</b>	<b>10</b>	<b>in</b>
W/	<b>(3)</b>	<b>#4</b>	<b>Cont.</b>	



524 CLEVELAND BLVD. #230  
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Completed by: JDJ  
 Review/Check: ARA

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 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 11.1ft )	= 189plf
Snow Live	( 150psf )	( 11.1ft )	= 1669plf

<i>Upper Floor</i>			
Floor Dead	( 17psf )	( 11.0ft )	= 187plf
Floor Live	( 40psf )	( 11.0ft )	= 440plf

<i>Main Floor</i>			
Floor Dead	( 17psf )	( 4.1ft )	= 69plf
Floor Live	( 40psf )	( 4.1ft )	= 163plf

<i>Deck Cover</i>			
Roof Dead	( 17psf )	( 2.7ft )	= 45plf
Snow Live	( 150psf )	( 2.7ft )	= 401plf

<i>Deck Floor</i>			
Floor Dead	( 17psf )	( 2.3ft )	= 38plf
Snow Live	( 150psf )	( 2.3ft )	= 338plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 20.6ft )	= 247plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**3227plf**

Use Footing Width:	<b>30</b>	<b>x</b>	<b>10</b>	<b>in</b>
W/	<b>(3)</b>	<b>#4</b>	<b>Cont.</b>	





524 CLEVELAND BLVD. #230  
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Completed by: JDJ  
 Review/Check: ARA

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 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 9.5ft )	= 162plf
Snow Live	( 150psf )	( 9.5ft )	= 1425plf

<i>Upper Floor</i>			
Floor Dead	( 17psf )	( 1.0ft )	= 17plf
Floor Live	( 40psf )	( 1.0ft )	= 40plf

<i>Main Floor</i>			
Floor Dead	( 17psf )	( 1.0ft )	= 17plf
Floor Live	( 40psf )	( 1.0ft )	= 40plf

<i>Deck Cover</i>			
Roof Dead	( 17psf )	( .5ft )	= 9plf
Snow Live	( 150psf )	( .5ft )	= 75plf

<i>Deck Floor</i>			
Floor Dead	( 17psf )	( .5ft )	= 9plf
Snow Live	( 150psf )	( .5ft )	= 75plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 20.6ft )	= 247plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**1894plf**

Use Footing Width:	<b>18</b>	<b>x</b>	<b>8</b>	<b>in</b>
W/	<b>(2)</b>	<b>#4</b>	<b>Cont.</b>	



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 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 15.0ft )	= 255plf
Snow Live	( 150psf )	( 15.0ft )	= 2250plf

<i>Upper Floor</i>			
Floor Dead	( 17psf )	( 1.0ft )	= 17plf
Floor Live	( 40psf )	( 1.0ft )	= 40plf

<i>Main Floor</i>			
Floor Dead	( 17psf )	( 1.0ft )	= 17plf
Floor Live	( 40psf )	( 1.0ft )	= 40plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 20.6ft )	= 247plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**2477plf**

Use Footing Width:	<b>24</b>	<b>x</b>	<b>8</b>	<b>in</b>
w/	<b>(2)</b>	<b>#4</b>	<b>Cont.</b>	



524 CLEVELAND BLVD. #230  
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 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 10.3ft )	= 176plf
Snow Live	( 150psf )	( 10.3ft )	= 1551plf

<i>Main Floor</i>			
Floor Dead	( 17psf )	( 1.0ft )	= 17plf
Floor Live	( 40psf )	( 1.0ft )	= 40plf

<i>Deck Cover</i>			
Roof Dead	( 17psf )	( .0ft )	= plf
Snow Live	( 150psf )	( .0ft )	= plf

<i>Deck Floor</i>			
Floor Dead	( 17psf )	( .5ft )	= 9plf
Snow Live	( 150psf )	( .5ft )	= 75plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 18.0ft )	= 216plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**1860plf**

Use Footing Width:	<b>18</b>	<b>x</b>	<b>8</b>	<b>in</b>
W/	<b>(2)</b>	<b>#4</b>	<b>Cont.</b>	



524 CLEVELAND BLVD. #230  
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 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 17.0ft )	= 289plf
Snow Live	( 150psf )	( 17.0ft )	= 2550plf

<i>Upper Floor</i>			
Floor Dead	( 17psf )	( 14.0ft )	= 238plf
Floor Live	( 40psf )	( 14.0ft )	= 560plf

<i>Deck Cover</i>			
Roof Dead	( 17psf )	( 2.5ft )	= 43plf
Snow Live	( 150psf )	( 2.5ft )	= 375plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 18.0ft )	= 216plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**3592plf**

Use Footing Width:	<b>36</b>	<b>x</b>	<b>10</b>	<b>in</b>
w/	<b>(3)</b>	<b>#4</b>	<b>Cont.</b>	



524 CLEVELAND BLVD. #230  
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 (208) 453-6512

Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 10.0ft )	= 170plf
Snow Live	( 150psf )	( 10.0ft )	= 1500plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 13.0ft )	= 156plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**1644plf**

Use Footing Width:	<b>16</b>	<b>x</b>	<b>8</b>	<b>in</b>
W/	<b>(2)</b>	<b>#4</b>	<b>Cont.</b>	



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Completed by: JDJ  
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 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Upper Floor</i>			
Floor Dead	( 17psf )	( 18.5ft )	= 315plf
Floor Live	( 40psf )	( 18.5ft )	= 740plf

<i>Main Floor</i>			
Floor Dead	( 17psf )	( 9.8ft )	= 167plf
Floor Live	( 40psf )	( 9.8ft )	= 393plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 13.0ft )	= 156plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**1964plf**

Use Footing Width:	<b>18</b>	<b>x</b>	<b>8</b>	<b>in</b>
W/	<b>(2)</b>		<b>#4</b>	<b>Cont.</b>



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Completed by: JDJ  
 Review/Check: ARA

Project Name: Charters Residence  
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 City and State: McCall, Idaho

## Individual Footing Design

**Program: Continuous Footing**

Soil Bearing Pressure: 1500psf

<i>Roof</i>			
Roof Dead	( 17psf )	( 11.8ft )	= 200plf
Snow Live	( 150psf )	( 11.8ft )	= 1763plf

<i>Main Floor</i>			
Floor Dead	( 17psf )	( 8.5ft )	= 145plf
Floor Live	( 40psf )	( 8.5ft )	= 342plf

<i>Misc</i>			
Wall Load:	( 12psf )	( 13.0ft )	= 156plf
Conc Stem:	( 145pcf )	( 2 x .7ft )	= 193plf
Misc Load:	( .0ft )	( .0ft ) ( .0ft )	= plf

**2272plf**

Use Footing Width:	<b>24</b>	<b>x</b>	<b>8</b>	<b>in</b>
w/	<b>(2)</b>	<b>#4</b>	<b>Cont.</b>	



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 (208) 453-6512

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 Review/Check: ARA

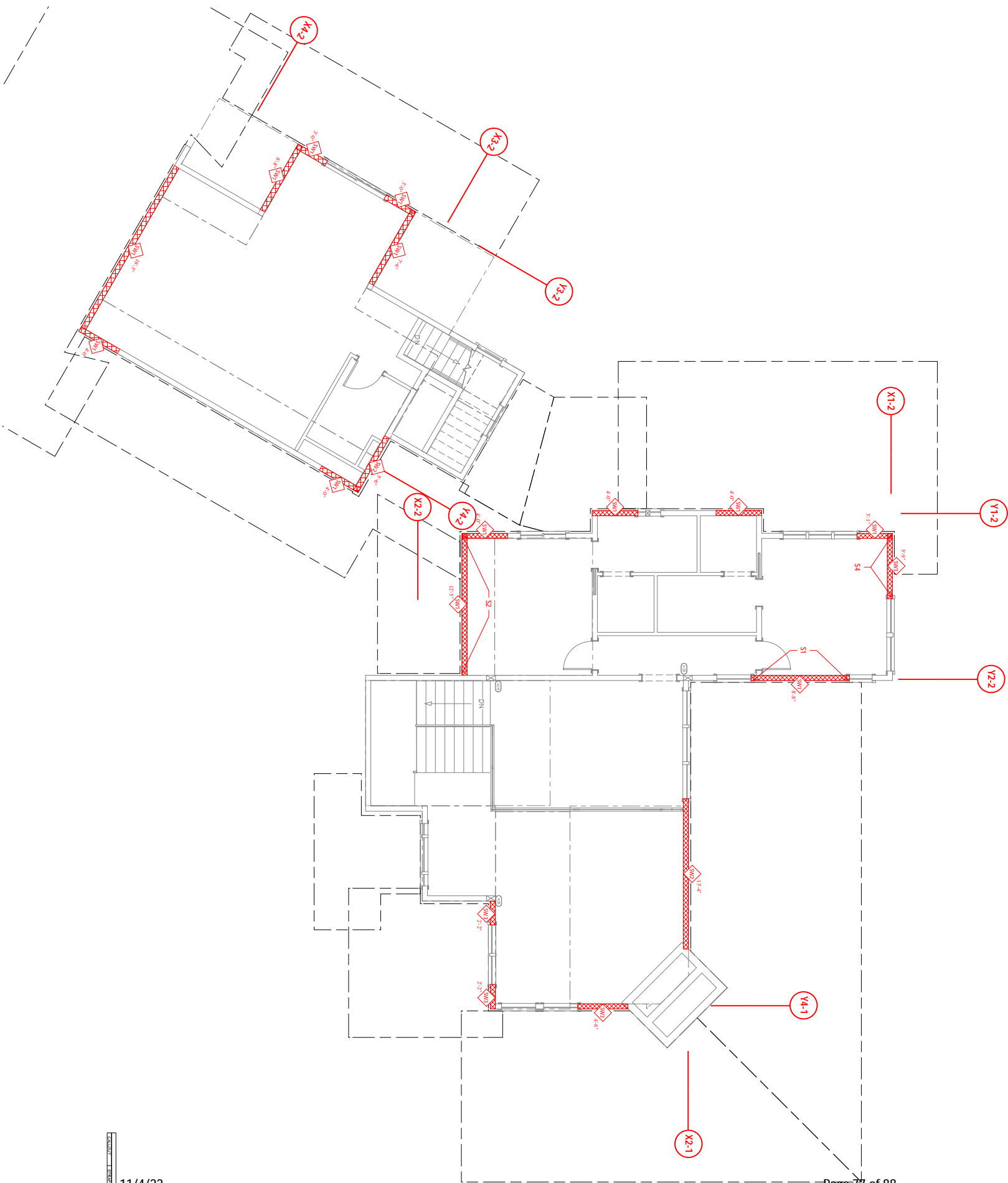
Project Name: Charters Residence  
 SRE Project #: 2022-4218  
 City and State: McCall, Idaho

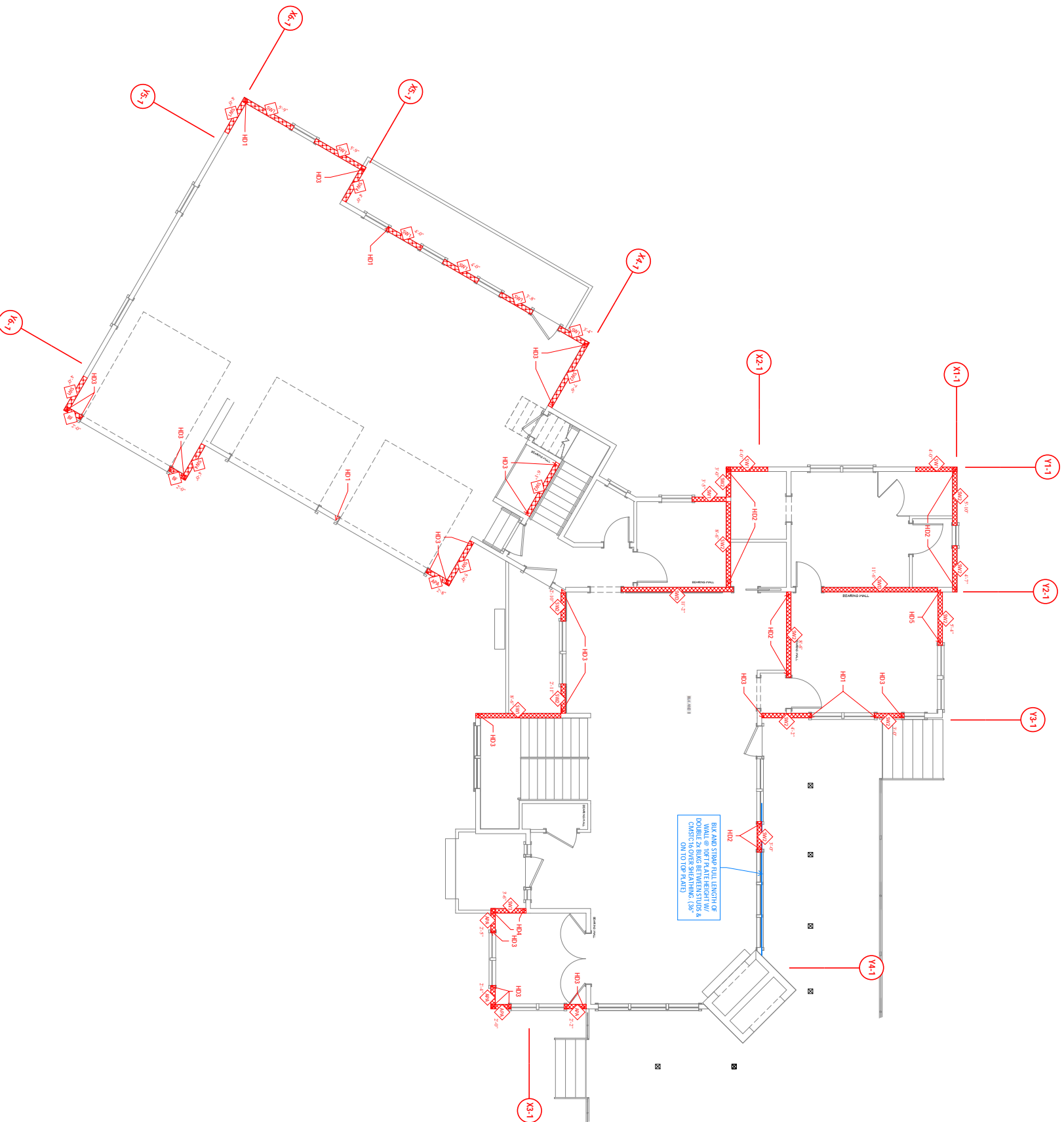
### Pad Footing Design Capacities

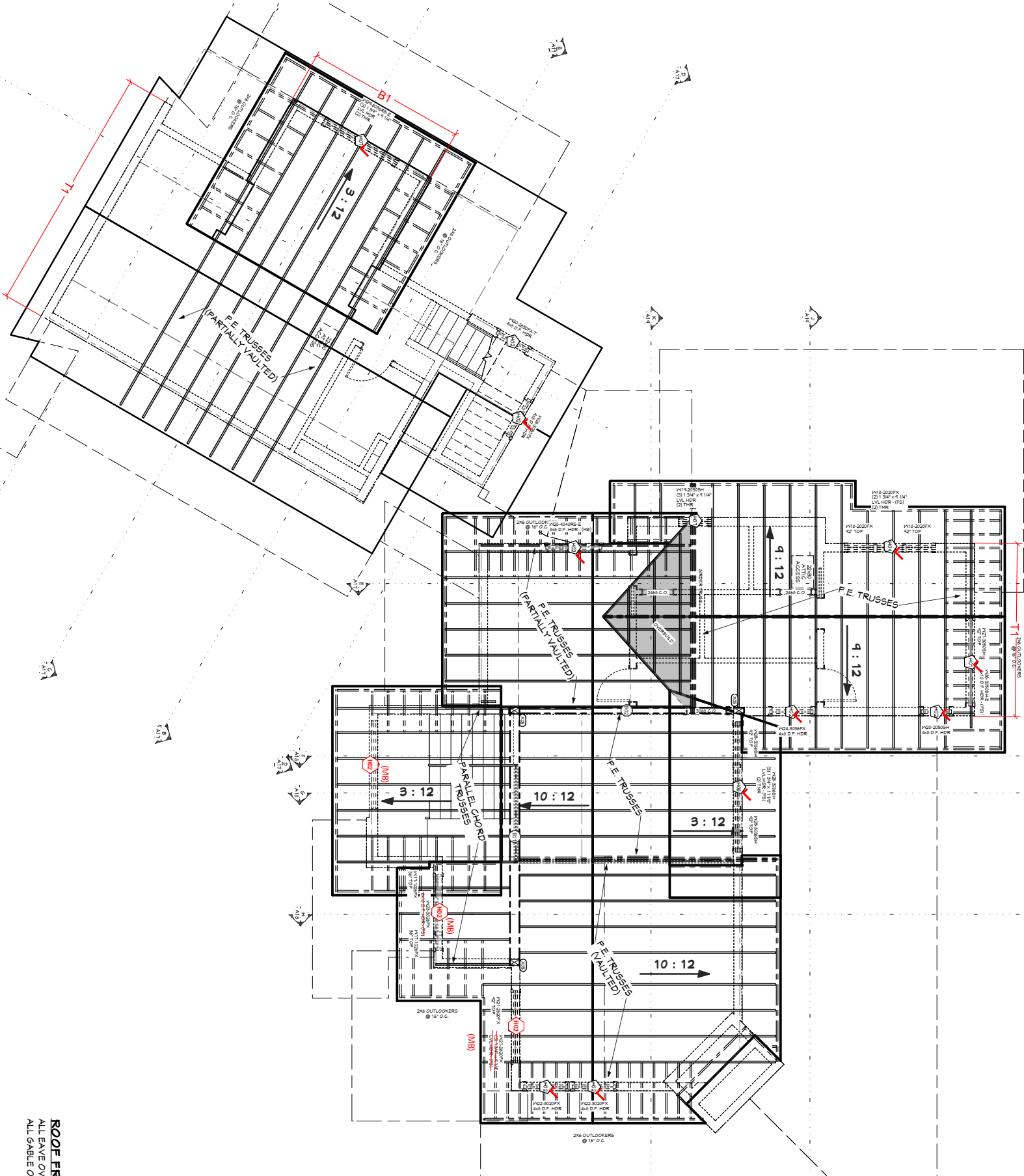
Soil Bearing (1500 psf)					Min. Column Size		
Dimensions (Inches)			Capacity	# of Bars			
84	x	84	x	14	64,300 lbs	10	8. sq.
72	x	72	x	12	47,500 lbs	8	3.5 sq.
66	x	66	x	12	39,750 lbs	8	3.5 sq.
60	x	60	x	10	33,450 lbs	6	3.5 sq.
54	x	54	x	10	27,000 lbs	5	3.5 sq.
48	x	48	x	8	21,500 lbs	4	3.5 sq.
42	x	42	x	8	16,500 lbs	4	3.5 sq.
36	x	36	x	8	12,000 lbs	4	3.5 sq.
30	x	30	x	8	8,350 lbs	3	3.5 sq.
24	x	24	x	8	5,300 lbs	2	3.5 sq.
18	x	18	x	8	2,900 lbs	2	3.5 sq.

Bars to be 3 1/2" from bottom of pad. Evenly space in both directions.

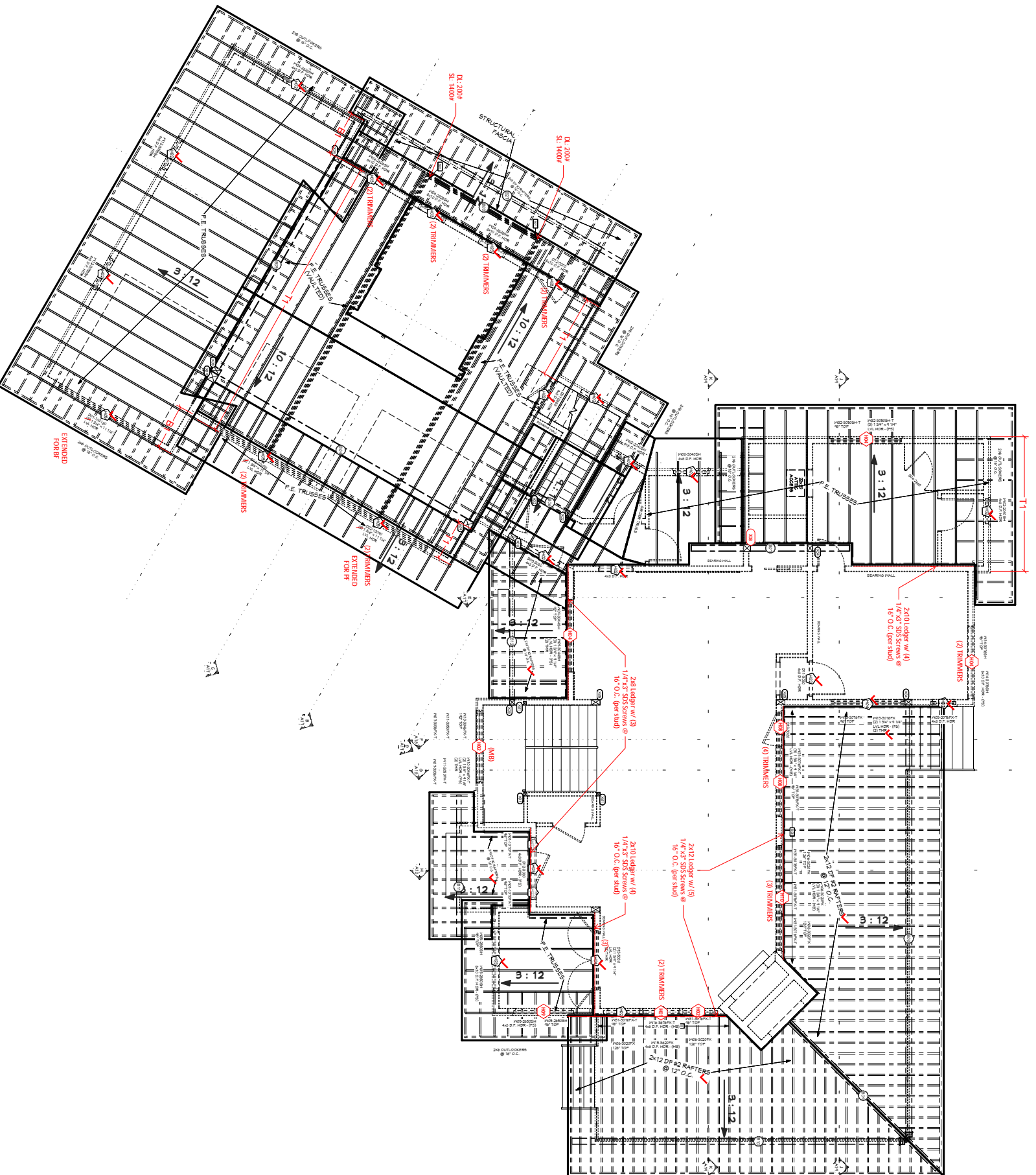








ROOF FR  
ALL EAVE DV  
ALL GABLE O

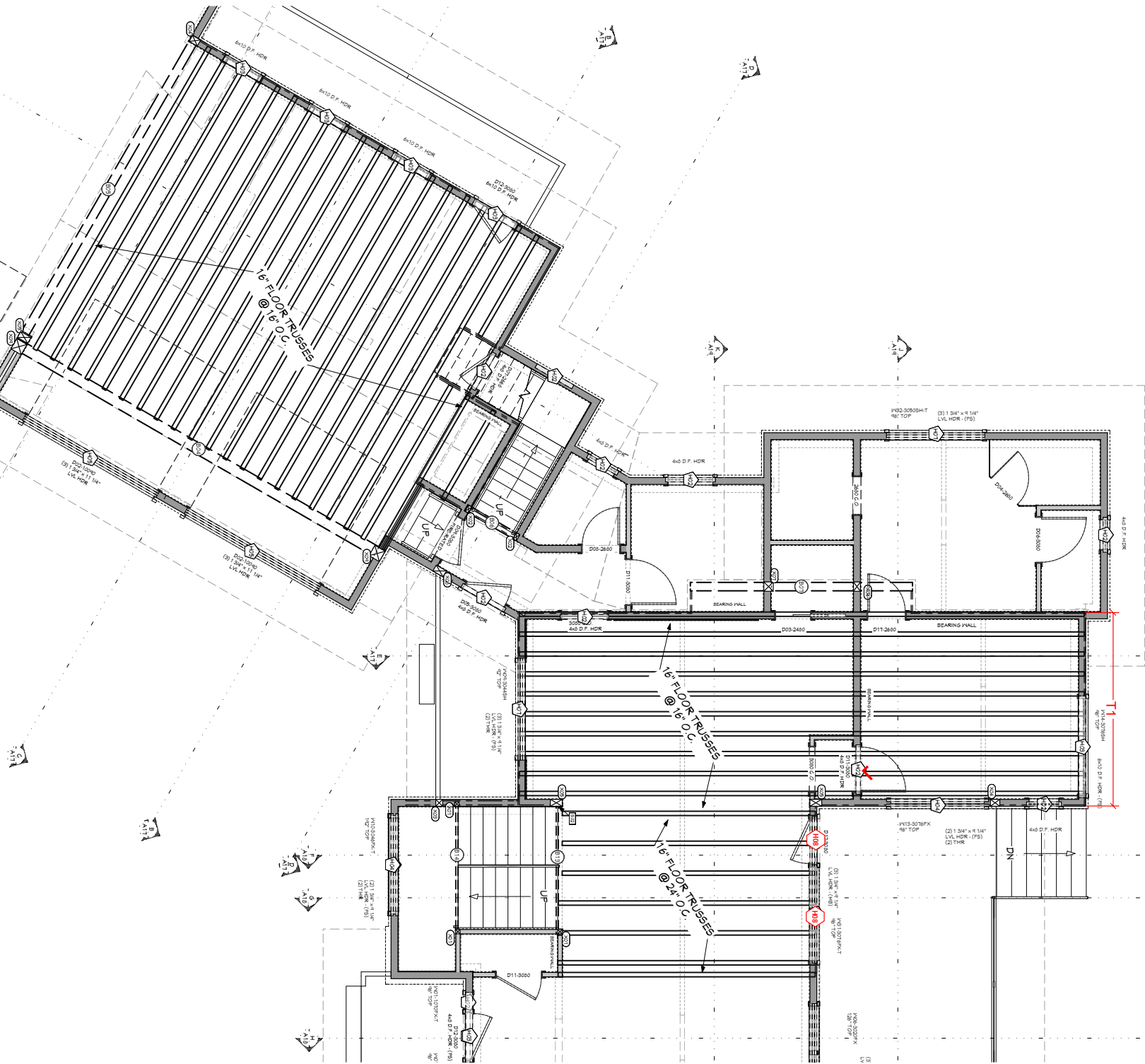


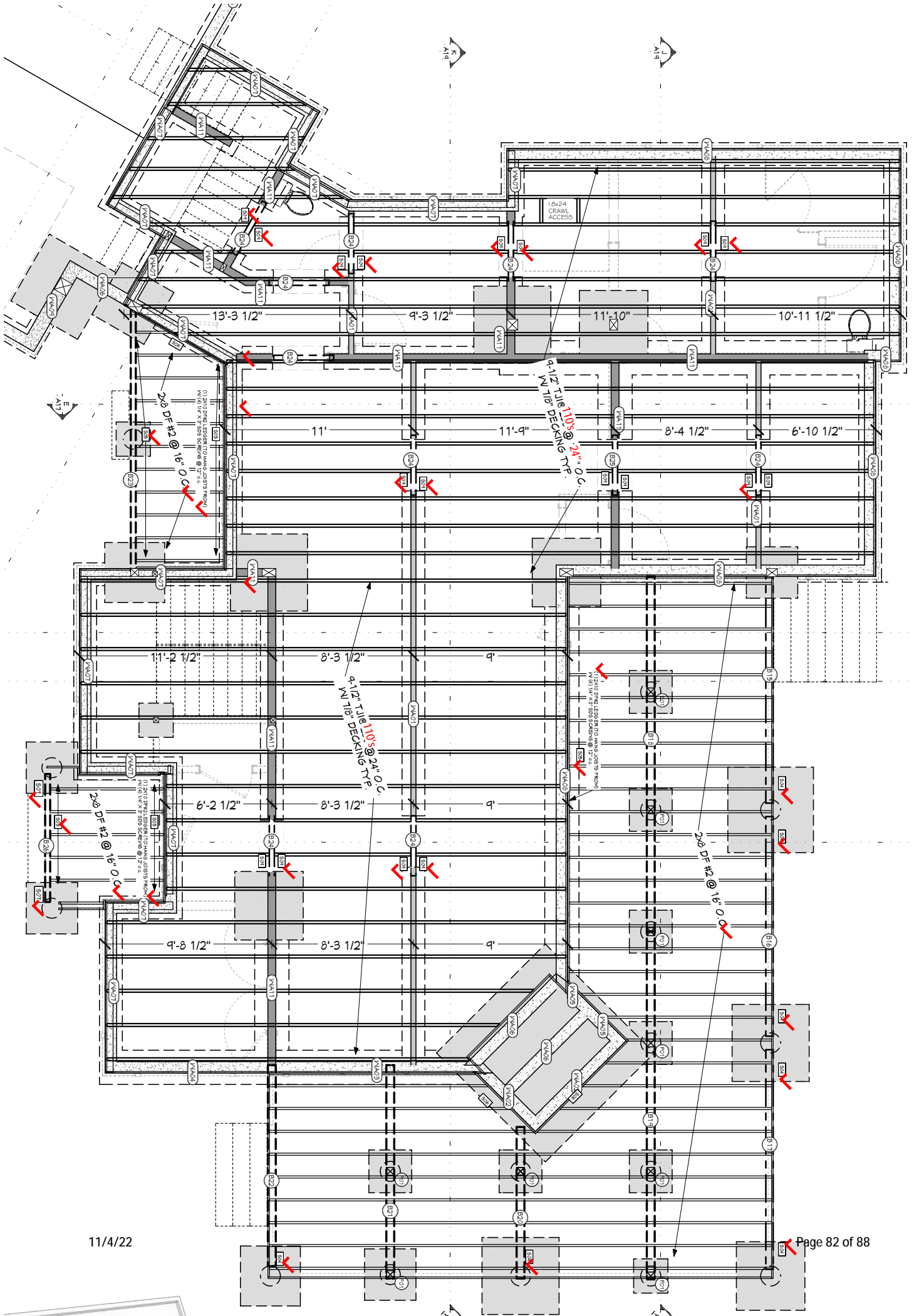


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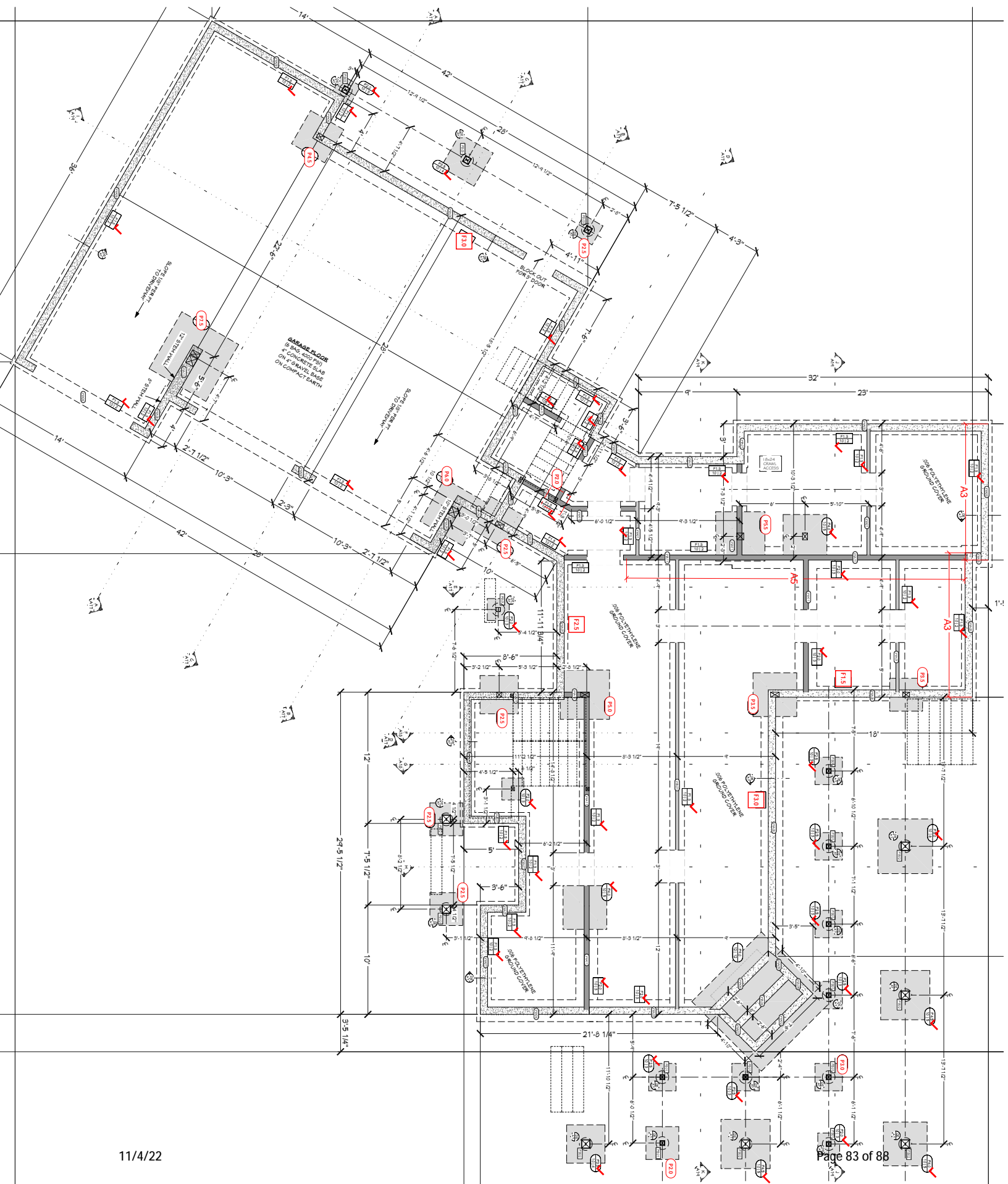
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BEAM SCHEDULE									
NO.	FLR.	PLY(S)	NOTES	CTR. LG +/-	MIN BRG	T.O. BEAM	B.O. BEAM	CALC #	
B01	2	1	(B-01) 8 3/4 X 21 GLULAM OR BOX GIRDER ✓	19'-11"	5 1/2"	22'-4 1/8"	20'-7 1/8"	1	
B02	2	1	(B-02) 5 1/8 X 15 GLULAM OR BOX GIRDER	18'-2"	9 1/2"	20'-3"	18'-3"	2	
B03	1	2	(B-03) 1 3/4 X 7 1/4 MICROLLAM LVL ✓	11'-7 3/8"		11'-4 5/8"	10'-9 3/8"	3	
B04	1	1	(B-04) 8 3/4 X 36 GLULAM ✓ 33 Min.	28'-4 7/8"	9 1/2"	13'-1 1/8"	10'-1 1/8"	4	
B05	1	1	(B-05) 6 3/4 X 27 GLULAM ✓	23'-5 1/2"	5 1/2"	12'-4 1/8"	10'-1 1/8"	5	
B06	1	1	(B-06) 6X10 D.F. #2 6x8 Min.	4'	9 1/2"	10'-10 5/8"	10'-1 1/8"	6	
B07	1	1	(B-07) 6 3/4 X 16 1/2 GLULAM 13 1/2 Min. or (4) 16" LVL	14'-10 1/2"		11'-5 5/8"	10'-1 1/8"	7	
B08	1	1	(B-08) 6 3/4 X 15 GLULAM 13 1/2 Min.	40'-10 1/2"	5 1/2"	9'-5 1/8"	8'-2 1/8"	8	
B09	1	1	(B-09) 5 1/8 X 13 1/2 GLULAM 12 Min.	19'-10 1/2"		13'-1 3/8"	11'-11 7/8"	9	
B10	1	1	(B-10) 6 3/4 X 15 GLULAM 13 1/2 Min.	31'-0 3/4"	5 1/2"	9'-5 1/8"	8'-2 1/8"	10	
B11	1	1	(B-11) 5 1/8 X 13 1/2 GLULAM 6x12 Min.	13'-3 3/8"	5 1/2"	9'-1 1/8"	7'-11 5/8"	11	
B12	1	1	(B-12) 5 1/8 X 15 1/2 GLULAM 12 Min.	15'-11 1/8"	5 1/2"	9'-11 1/8"	8'-7 5/8"	12	
B13	1	2	(B-13) 1 3/4 X 11 7/8 MICROLLAM LVL	8'-6 1/2"		11'-1"	10'-1 1/8"	13	
B14	1	2	(B-14) 1 3/4 X 11 7/8 MICROLLAM LVL	8'-9"		5'-9 7/8"	4'-10"	14	
B15	0	1	(B-15) 5 1/8 X 10 1/2 GLULAM ✓	13'-2 7/8"		-0'-11 3/8"	-1'-9 7/8"	15	
B16	0	1	(B-16) 5 1/8 X 10 1/2 GLULAM ✓	12'-9 7/8"		-0'-11 3/8"	-1'-9 7/8"	16	
B17	0	1	(B-17) 5 1/8 X 10 1/2 GLULAM ✓	12'-9 7/8"		-0'-11 3/8"	-1'-9 7/8"	17	
B18	0	1	(B-18) 6X10 D.F. #2 ✓	20'-8 7/8"		-0'-11 3/8"	-1'-8 7/8"	18	
B19	0	1	(B-19) 6X10 D.F. #2 ✓	20'-3 1/8"		-0'-11 3/8"	-1'-8 7/8"	19	
B20	0	1	(B-20) 6X10 D.F. #2 ✓	8'-10 1/8"		-0'-11 3/8"	-1'-8 7/8"	20	
B21	0	1	(B-21) 6X10 D.F. #2 ✓	12'-5 1/2"		-0'-11 3/8"	-1'-8 7/8"	21	
B22	0	1	(B-22) 6X12 D.F. #2 ✓	11'-8 7/8"		-0'-11 3/8"	-1'-10 7/8"	22	
B23	0	1	(B-23) 4X10 D.F. #2 ✓	15'-4 7/8"		-0'-4 1/8"	-1'-1 3/8"	23	
B24	0	10	(B-24CS) 4X10 D.F. #2 (CRAWL SPACE HDRS) (1 PLY) ✓	3'-6"		-0'-0 3/4"	-0'-10"	24CS	
B25	0	1	(B-25) 4X10 D.F. #2 ✓	3'-6"		-0'-0 3/4"	-0'-10"	25	
B26	0	1	(B-26) 4X10 D.F. #2 ✓	7'-5 5/8"		-0'-4 1/8"	-1'-1 3/8"	26	
B27	1	1	(B-27) 5 1/8 X 13 1/2 GLULAM 12 Min.	28'-10 7/8"	5 1/2"	8'-5 1/8"	7'-3 5/8"	27	

HEADER SCHEDULE	
NO.	TYPE
H01	(1) 4X10 D.F.
H02	(1) 4X8 D.F.
H03	(1) 6X10 D.F.
H04	(2) 1 3/4 X 9 1/2 LVL
H05	(2) 1 3/4 X 11 7/8 LVL
H06	(3) 1 3/4 X 11 7/8 LVL
H07	(3) 1 3/4 X 9 1/2 LVL

- H08 (3) 1 3/4 x 16 LVL
- H09 (2) 2x12 DF #2
- H10 (3) 1 3/4 x 14 LVL

HANGER SCHEDULE					
CALLOUT	MODEL	TOP NAILS	SEAT LG.	MEMBER NAILS	FACE NAILS
S01	HUS48	N/A	2.50"	(6) 0.162 X 3.5	(6) 0.162 X 3.5
S02	HUCQ1.81/11-SDS	N/A	3.00"	(4) 1/4 X 1.75 SDS	(10) 1/4 X 1.75 SDS
S03	FAB HGR 2	N/A	3.875"	2 - 3/4 X THRU	12 - 1/2" X 3" LAG
S04	HUCQ5.25/11-SDS	N/A	2.50"	(6) 1/4 X 2.5 SDS	(14) 1/4 X 2.5 SDS
S05	LUS28	N/A	1.75"	3-10D	6-10DX1.5
S06	SUL26	N/A	2.50"	(6) 0.162 X 3.5	(6) 0.162 X 3.5
S07	HUC410	N/A	2.50"	(6) 0.148 X 3	(14) 0.162 X 3.5
S08	U210	N/A	2"	(6) 0.148 X 3	(10) 0.162 X 3.5
S09	IUS1.81/9.5	N/A	2.00"	(6) 0.148 X 1.5	(14) 0.148 X 3.5

BEARING SCHEDULE	
NO.	BEARING AREA (X)
X01	3 1/2" X 3 1/2"
X02	5 1/2" X 3"
X03	5 1/2" X 5 1/2"
X04	5 1/2" X 7 1/2"
X05	5 1/2" X 9 1/2"
X07	7 1/2" X 7 1/2"
X08	9 1/2" X 5 1/2"
X09	9 1/2" X 9 1/2"

All Bearing to have solid bearing to foundation

POST SCHEDULE			
NO.	QTY	FLR.	NOTES
P01	11	0	6X6 D.F. #2
P02	7	1	10X10 D.F. #2
P03	3	1	8X8 D.F. #2





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PAD FOOTING SCHEDULE			
CALLOUT	FOOTING SIZE	REINFORCEMENT	QTY
<b>P2.0</b> 10 3	24" X 24" X 10"	(3) #4 REBAR E.W.	4
<b>P2.5</b> 10 3	30" X 30" X 10"	(3) #4 REBAR E.W.	7
<b>P3.0</b> 10 4	36" X 36" X 10"	(4) #4 REBAR E.W.	3
<b>P3.5</b> 10 4	42" X 42" X 10"	(4) #4 REBAR E.W.	5
<b>P4.0</b> 10 5	48" X 48" X 10"	(5) #4 REBAR E.W.	4
<b>P4.5</b> 10 5	54" X 54" X 10"	(5) #4 REBAR E.W.	5
<b>P5.0</b> 10 6	60" X 60" X 10"	(6) #4 REBAR E.W.	1
<b>P6.0</b> 12 6	72" X 72" X 12"	(8) #4 REBAR E.W.	1
<b>P9.0</b> 12 12	108" X 108" X 12"	(12) #4 REBAR E.W.	1
<b>P7.5</b>	<b>90" x 90" x 14"</b>	<b>(14) #4 REBAR E.W.</b>	

CONTINUOUS FOOTING SCHEDULE (ALL FOOTINGS "F1.3" UNO)

CALLOUT	FOOTING SIZE	REINFORCEMENT
<b>F1.3</b> 10 2	16" X 10"	(2) #4 CONT. REBAR
<b>F2.0</b> 10 3	24" X 10"	(3) #4 CONT. REBAR
<b>F2.5</b> 10 3	30" X 10"	(3) #4 CONT. REBAR
<b>F3.0</b>	<b>36" x 10"</b>	<b>(3) #4 CONT. REBAR</b>



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**OSB SHEAR WALL SCHEDULE:**

MARK	SHEATHING	SIDES OF WALL	SHEET NAILING PERIMETER / FIELD		SHEET STAPLING PERIMETER / FIELD	BLKG	NAILING (UNO) BOTTOM PLATE INTO RIM
SW1	7/16" APA RATED	1	8d @ 6 / 12	OR	16ga x 1-1/2" @ 3 / 12	YES	(2) 16d NAILS PER 16" BAY
SW2	7/16" APA RATED	1	8d @ 4 / 12	OR	16ga x 1-1/2" @ 2 / 12	YES	(3) 16d NAILS PER 16" BAY
SW3	7/16" APA RATED	1	8d @ 3 / 12			YES	(4) 16d NAILS PER 16" BAY
SW4	7/16" APA RATED	1	8d @ 2 / 12	(4x STUDS @ SHEATHING PERIMETER)		YES	(4) SDS SCREWS PER 16" BAY
APA	7/16" APA RATED	1	8d @ 3 / 12	APA TESTED PORTAL FRAME ASSEMBLY		YES	(SEE ATTACHED DETAIL)
BF	7/16" APA RATED	2	8d @ 3 / 3	ENGINEERED BRACE FRAME ASSEMBLY		YES	(SEE ATTACHED DETAIL)

**GYP. SHEAR WALL SCHEDULE:**

SWD	1/2" GYP. BOARD	2	5d COOLER @ 6 / 6			NO	(2) 16d NAILS PER 16" BAY
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TYP. NOTES:

- 1 ALL SHEATHING PANEL EDGES SHALL BE BLOCKED UNO
- 2 PROVIDE SAME NAILING PATTERN ABOVE AND BELOW OPENINGS AS ADJACENT SHEAR PANEL.
- 3 ALL EXTERIOR WALLS SHALL BE SHEARWALL "SW1" WITHOUT BLKG UNO
- 4 FASTEN GABLE/RIM TO SHEAR WALLS BELOW W/ 10d TOENAILS @ 12" O.C. UNO
- 5 FASTEN TRUSS HEELS TO SHEAR WALLS W/ H2.5A AND (2) 10d TOENAILS @ EACH
- 6 GYP BOARD SHEAR WALLS MAY BE SUBSTITUTED WITH AN SW1 SHEAR WALL @ CONTRACTOR'S OPTION
- 7 WALL SHEATHING CAN BE APPLIED TO EITHER SIDE OF THE WALL. (UNLESS NOTED OTHERWISE)



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### HOLDOWN SCHEDULE:

MARK	STRAP TYPE	STRAP FASTENERS	# OF STUDS		ANCHOR BOLT	# OF STUDS	FASTENERS
HD1	LSTHD8 OR LSTHD8RJ W/ RIM	(20) 16d SINKERS	2	OR	DTT2Z W/1/2"Øx10"	2	(8) 1/4"x1-1/2" SDS
HD2	STHD10 OR STHD10RJ W/ RIM	(24) 16d SINKERS	2	OR	HDU2- SDS2.5 W/ SB5/8x24 OR PAB5 @ INT. PONY WALLS	2	(6) 1/4"x2-1/2" SDS
HD3	STHD14 OR STHD14RJ W/ RIM	(30) 16d SINKERS	2	OR	HDU5-SDS2.5 W/ SB5/8x24 OR PAB5 @ INT. PONY WALLS	2	(14) 1/4"x2-1/2" SDS
HD4	-	-	-	-	HDU8-SDS2.5 W/ SB7/8x24 OR PAB7 @ INT. PONY WALLS	3	(20) 1/4"x2-1/2" SDS
HD5	-	-	-	-	HDU11-SDS2.5 W/ SB1x30 OR PAB8 @ INT. PONY WALLS	4	(30) 1/4"x2-1/2" SDS

### STRAP SCHEDULE:

(STRAP / ALL THREAD TO CLEAR SPAN ACROSS RIM TO WALL BELOW)

S1	MSTC28	(16) 16d SINKERS	2	OR	DTT2Z W/ 1/2"Ø ALL THREAD	2	(8) 1/4"x1-1/2" SDS
S2	MSTC40	(32) 16d SINKERS	2	OR	HDU2-SDS2.5 W/ 5/8"Ø ALL THREAD	2	(6) 1/4"x2-1/2" SDS
S4	MSTC66	(68) 16d SINKERS	2	OR	HDU8-SDS2.5 W/ 7/8"Ø ALL THREAD	3	(20) 1/4"x2-1/2" SDS

### ANCHOR BOLT KEY NOTES:

A3	-	1/2"Ø ANCHOR BOLTS @ 36" O.C.
A4	-	1/2"Ø ANCHOR BOLTS @ 48" O.C.
A5	-	1/2"Ø ANCHOR BOLTS @ 60" O.C.



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**BLOCKING KEY NOTES:**

MARK		DESCRIPTION
<b>B1</b>	-	FULL HEIGHT BLOCKING BETWEEN EVERY OTHER TRUSS BAYS W/ (6)10d TOENAILS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING 3" O.C.
TYP. NOTES:		
1 FASTEN GABLE/RIM TO SHEAR WALLS BELOW W/ 10d TOENAILS @ 12" O.C. UNO 2 FASTEN TRUSS HEELS TO SHEAR WALLS W/ H2.5A AND (2) 10d TOENAILS @ EACH		

**GABLE / DRAG TRUSS OR RIM KEY NOTES:**

<b>T1</b>	-	ATTACH GABLE / DRAG TRUSS OR RIM TO TOP PLATE W/ 10d TOENAILS @ 6" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS OR RIM
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