

# Structural Calculations

**Project Title: Lot 7 River Fork Ranch**

**Location: Valley County, Idaho**

**Job #: 2025-10726**



Disclaimer:

1. Calculations are not to be used for determining lengths of structural members.
2. Calculations are single use and location specific to property listed above.
3. Calculations shall not to be reproduced, reused, or altered in any way.
4. Calculations based on drawings received prior to stamp date. Any changes made after stamp date must be reviewed and approved by Engineer of Record prior to construction.
5. All work to conform to all local, state, and national codes.

Prepared in accordance with 2018 IBC. Calculations expire by: **10/29/2026**

## 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>0.51</b> | $F_a$ <b>1.39</b>    |
| $S_1$                         | <b>0.15</b> | $F_v$ <b>2.19</b>    |
| $S_{D1}$                      | <b>0.47</b> | $S_{D1}$ <b>0.22</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>.09Wp</b>      | <b>6.5</b>           | Typ @ Ext |
| GYP           | <b>.28Wp</b>      | <b>2</b>             | Typ @ Int |
| Cant. Col.    | <b>.38Wp</b>      | <b>1.5</b>           |           |

### Soil Criteria:

|               |                 |
|---------------|-----------------|
| Brg. Strength | <b>1500 psf</b> |
|---------------|-----------------|

## 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> |

*\*Roof not engineered for Tile, Slate or Concrete.\**

### 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        | 2.0           |
| Ceiling      | 2.0           |
| Flooring     | 2.5           |
| Misc         | 3.0           |
| <b>TOTAL</b> | <b>12 psf</b> |

*\*Floor joists not engineered for concrete overlay.\**

### Interior Wall Dead Loads:

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

### Deck Dead Load

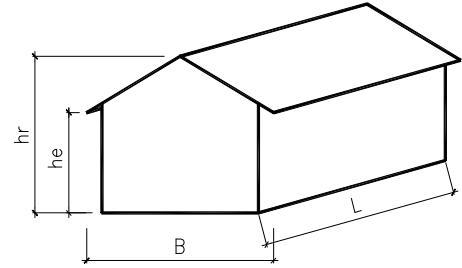
|              |               |
|--------------|---------------|
| Decking      | 4.4           |
| Joist        | 2.0           |
|              | 0.0           |
| Misc         | 3.0           |
| <b>TOTAL</b> | <b>10 psf</b> |

*\*Deck not engineered for hot tub loading.\**

*\*Deck not engineered for concrete overlay.\**

**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                           | $h_r =$    | 30.58 ft             | ft                                               |
| Building height to eave                            | $h_e =$    | 20.75 ft             | ft                                               |
| Building width                                     | $B =$      | 70.46 ft             | ft                                               |
| Building length                                    | $L =$      | 106.00 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**

$$q_h = 0.00256 K_z K_{zt} K_d K_e V^2 = 27.35 \text{ psf}$$

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, page 266) = **0.95**

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

$h$  = mean roof height = **25.67 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,  $\text{MAX}[\text{MIN}(0.1B, 0.1L, 0.4h), \text{MIN}(0.04B, 0.04L), 3] = 7.05 \text{ ft}$

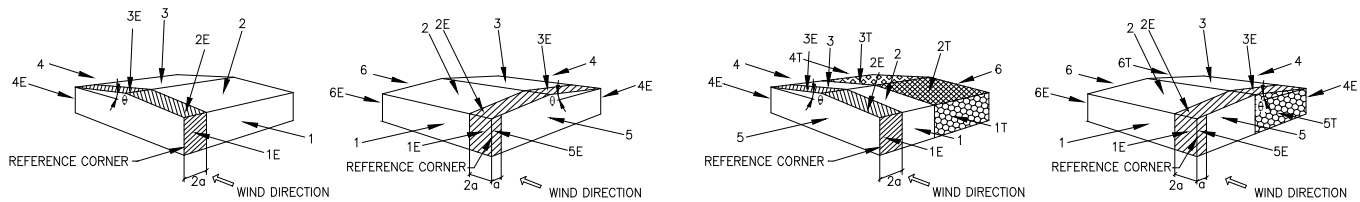
**Net Pressures (psf), Basic Load Cases**

| Surface | Roof angle $q = 36.87$ |                      | Roof angle $q = 36.87$ |            | Roof angle $q = 36.87$ |                      |
|---------|------------------------|----------------------|------------------------|------------|------------------------|----------------------|
|         | $G C_{pf}$             | Net Press. W/        |                        | $G C_{pf}$ | Net Press. W/          |                      |
|         |                        | (+GC <sub>pi</sub> ) | (-GC <sub>pi</sub> )   |            | (+GC <sub>pi</sub> )   | (-GC <sub>pi</sub> ) |
| 1       | 0.56                   | 10.39                | 20.24                  | -0.45      | -17.23                 | -7.39                |
| 2       | 0.21                   | 0.82                 | 10.67                  | -0.69      | -23.80                 | -13.95               |
| 3       | -0.43                  | -16.69               | -6.84                  | -0.37      | -15.04                 | -5.20                |
| 4       | -0.37                  | -15.04               | -5.20                  | -0.45      | -17.23                 | -7.39                |
| 5       |                        |                      |                        | 0.40       | 6.02                   | 15.86                |
| 6       |                        |                      |                        | -0.29      | -12.86                 | -3.01                |
| 1E      | 0.69                   | 13.95                | 23.80                  | -0.48      | -18.05                 | -8.21                |
| 2E      | 0.27                   | 2.46                 | 12.31                  | -1.07      | -34.19                 | -24.34               |
| 3E      | -0.53                  | -19.42               | -9.57                  | -0.53      | -19.42                 | -9.57                |
| 4E      | -0.48                  | -18.05               | -8.21                  | -0.48      | -18.05                 | -8.21                |
| 5E      |                        |                      |                        | 0.61       | 11.76                  | 21.61                |
| 6E      |                        |                      |                        | -0.43      | -16.69                 | -6.84                |

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

| Surface | Roof angle $q = 36.87$ |                      | Roof angle $q = 36.87$ |            |
|---------|------------------------|----------------------|------------------------|------------|
|         | $G C_{pf}$             | Net Press. W/        |                        | $G C_{pf}$ |
|         |                        | (+GC <sub>pi</sub> ) | (-GC <sub>pi</sub> )   |            |
| 1T      | 0.56                   | 2.60                 | 5.06                   |            |
| 2T      | 0.21                   | 0.21                 | 2.67                   |            |
| 3T      | -0.43                  | -4.17                | -1.71                  |            |
| 4T      | 0.00                   | -3.76                | -1.30                  |            |
| Surface | Roof angle $q = 0.00$  |                      | Roof angle $q = 0.00$  |            |
|         | $G C_{pf}$             | Net Press. W/        |                        | $G C_{pf}$ |
|         |                        | (+GC <sub>pi</sub> ) | (-GC <sub>pi</sub> )   |            |
| 5T      | 0.40                   | 1.50                 | 3.97                   |            |
| 6T      | -0.29                  | -3.21                | -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)

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

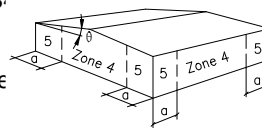
$$G C_p = 1.00 \text{ external pressure coefficient}$$

see table below. (ASCE 7-16 30.3.2)

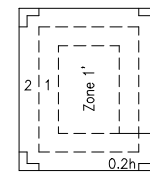
$$q = 36.87 \text{ }^{\circ}$$

$$p_{overhang} = -94.37 \text{ psf}$$

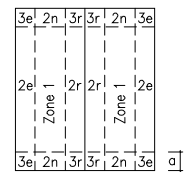
(ASCE 7-16 28.3.3)



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> |
|                          | 1655                              | 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 |
|                            | 13.13    | -26.81   | 13.13    | -26.81   | 13.13    | -54.16   | 13.13    | -26.81   | 13.13    | -32.28   | 13.13                    | -32.28   |
|                            | Zone 3   |          | Zone 3e  |          | Zone 3r  |          | Zone 4   |          | Zone 5   |          |                          |          |
|                            | Positive | Negative | Positive | Negative | Positive | Negative | Positive | Negative | Positive | Negative | (Max Pressure 54.16 psf) |          |
|                            | 13.13    | -54.16   | 13.13    | -54.16   | 13.13    | -54.16   | 31.89    | -34.62   | 31.89    | -42.44   |                          |          |

#### LOAD CASE 'A' FACTORED LOADS

$$0.6 * W_r = (Z_2 + Z_3) * 0.6 = 10.5 \text{ psf}$$

$$0.6 * W_{re} = (Z_{2e} + Z_{3e}) * 0.6 = 13.1 \text{ psf}$$

$$0.6 * W_w = (Z_1 + Z_4) * 0.6 = 15.3 \text{ psf}$$

$$0.6 * W_{we} = (Z_{1e} + Z_{4e}) * 0.6 = 19.2 \text{ psf}$$

#### LOAD CASE 'B' FACTORED LOADS

$$0.6 * W_r = (Z_2 + Z_3) * 0.6 = 5.3 \text{ psf}$$

$$0.6 * W_{re} = (Z_{2e} + Z_{3e}) * 0.6 = 8.9 \text{ psf}$$

$$0.6 * W_w = (Z_5 + Z_6) * 0.6 = 11.3 \text{ psf}$$

$$0.6 * W_{we} = (Z_{5e} + Z_{6e}) * 0.6 = 17.1 \text{ psf}$$

#### ROOF COMPONENTS FACTORED LOAD

$$0.6 * Z_{r,c\&c} = 19.4 \text{ psf}$$

#### WALL COMPONENTS FACTORED LOAD

$$0.6 * Z_{w,c\&c} = 20.8 \text{ psf}$$

**OSB SEISMIC LOADING ANALYSIS**

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

**INPUT DATA****DESIGN SUMMARY**

|                                  |                 |      |                                           |                                       |
|----------------------------------|-----------------|------|-------------------------------------------|---------------------------------------|
| Typical floor height:            | $h = 10$        | ft   | $C_s = 1.2 * S_{DS} / (R / I_e) = 0.0870$ | <= Applicable                         |
| Typical floor weight:            | $w_x = 127.0$   | kips | Period Parameter, $x = 0.75$              | , ASCE Tab 12.8-2                     |
| Number of floors:                | $n = 2$         |      | Period: $T_a = C_t (h_n)^x = 0.26$        | sec, ASCE 12.8.2.1                    |
| Importance factor (ASCE 11.5.1): | $I_e = 1.00$    |      | $C_s < S_{D1} / [(R / I_e) T_a] = 0.1314$ | , ASCE Tab 12.8.1.1 <= Not Applicable |
| Design spectral response:        | $S_{DS} = 0.47$ | g    | $C_s > 0.044 S_{DS} I_e = 0.0207$         | , ASCE Tab 12.8.1.1 <= Not Applicable |
|                                  | $S_{D1} = 0.22$ | g    | $C_s > 0.5 S_1 / (R / I_e) = 0.0117$      | , ASCE Tab 12.8.1.1 <= Not Applicable |
| Mapped spectral resp.:           | $S_1 = 0.15$    | g    | $k = 2.06$                                | , (ASCE 12.8.3, page 91)              |
| Period Parameter, $C_t$ :        |                 |      | $V = C_s W = 0.0870$                      | W                                     |
| (ASCE Tab 12.8-2):               | $C_t = 0.020$   |      | $0.7 * V = 0.0609$                        | W                                     |
| Resp. coefficient: (ASCE         |                 |      |                                           |                                       |
| Tab. 12.2.1):                    | $R = 6.5$       |      |                                           |                                       |
| Seismic design category: SDC = D |                 |      | $W = 254$                                 | kips, total                           |
|                                  | $h_n = 30.6$    | ft   |                                           |                                       |

**SEISMIC COMPONENT & ANCHORING ANALYSIS**

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

$$k_a = 1.0 + \frac{L_f}{100} \quad (12.11-2)$$

$$L_f: 10 \text{ ft} \quad k_a: 1.1$$

$$F_p = 0.4 S_{DS} k_a I_e W_p \quad (12.11-1) = 2.5 \text{ psf} \quad \leq \text{USE FOR O.O.P. WALL}$$

$$\text{Where: } W_p = 12.0 \text{ psf, } I_e = 1.00$$

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

$$F_{px} = 0.4 S_{DS} I_e W_{px} \quad (12.10-3) = 3.2 \text{ psf} \quad \leq \text{USE FOR ROOF FRAMING UPLIFT}$$

$$\text{Where: } W_{px} = 17.0 \text{ psf,}$$

**GYP SEISMIC LOADING ANALYSIS**

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

**INPUT DATA****DESIGN SUMMARY**

|                                        |                                  |                                           |                                                 |
|----------------------------------------|----------------------------------|-------------------------------------------|-------------------------------------------------|
| Typical floor height:                  | $h = 10$ ft                      | $C_s = 1.2 * S_{DS} / (R / I_e) = 0.2827$ | <b>&lt;= Applicable</b>                         |
| Typical floor weight:                  | $w_x = 127.0$ kips               | Period Parameter, $x = 0.75$              | , ASCE Tab 12.8-2                               |
| Number of floors:                      | $n = 2$                          | Period: $T_a = C_t (h_n)^x = 0.26$ sec    | , ASCE 12.8.2.1                                 |
| Importance factor (ASCE 11.5.1):       | $I_e = 1.00$                     | $C_s < S_{D1} / [(R / I_e) T_a] = 0.4270$ | , ASCE Tab 12.8.1.1 <b>&lt;= Not Applicable</b> |
| Design spectral response:              | $S_{DS} = 0.47$ g                | $C_s > 0.044 S_{DS} I_e = 0.0207$         | , ASCE Tab 12.8.1.1 <b>&lt;= Not Applicable</b> |
|                                        | $S_{D1} = 0.22$ g                | $C_s > 0.5 S_1 / (R / I_e) = 0.0380$      | , ASCE Tab 12.8.1.1 <b>&lt;= Not Applicable</b> |
| Mapped spectral resp.:                 | $S_1 = 0.15$ g                   | $k = 2.06$                                | , (ASCE 12.8.3, page 91)                        |
| Period Parameter, $C_t$ :              | (ASCE Tab 12.8-2): $C_t = 0.020$ | $V = C_s W = 0.2827$ W                    |                                                 |
| Resp. coefficient: (ASCE Tab. 12.2.1): | $R = 2$                          | $0.7 * V = 0.1979$ W                      |                                                 |
| Seismic design category: SDC = D       | $h_n = 30.6$ ft                  | $W = 254$ kips, total                     |                                                 |

**SEISMIC COMPONENT & ANCHORING ANALYSIS**

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

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

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 &amp; 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:  $F_{min} = 0.19$  plf,  $1.85 W_p = 188$  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)

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

= **3.69**  $W_p = 188$  plf (Horizontal) **<= Applicable**

For connections (ASCE 7 Sec. 12.11.2.1)

$$F_{anch, seismic} = MAX(0.122 S_{DS} W_p, 0.5 W_p) = 0.5 W_p = 0.5 \text{ plf (Horizontal)}$$

## WIND / SEISMIC SHEAR FORCE CALCULATIONS:

From ASCE 7-16 Wind & Seismic Loading Analysis

| Wall Line | Roof / Floor     |               |        |                 |             |             | Wall             |               |              |                     |                       | Load above |             | *C <sub>s</sub> (Wp) | = | Loading           |                      |                 |
|-----------|------------------|---------------|--------|-----------------|-------------|-------------|------------------|---------------|--------------|---------------------|-----------------------|------------|-------------|----------------------|---|-------------------|----------------------|-----------------|
|           | Wind Force (psf) | Diaph. Weight | Wt, 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      | 11.3             | 55            | 9.1    | 44.0            | 46.5        |             | 16.5             | 12.0          | 9.0          | 44.0                |                       |            |             | 0.06                 | = | 2.53              | 2.39                 | Wind            |
| X2-2      | 11.3             | 55            | 9.1    | 44.0            | 46.5        |             | 16.5             | 12.0          | 9.0          | 44.0                |                       |            |             | 0.06                 | = | 2.54              | 2.39                 | Wind            |
| X3-2      | 12.0             | 55            | 5.8    | 24.0            | 35.9        |             | 17.6             | 12.0          | 8.0          | 24.0                |                       |            |             | 0.06                 | = | 1.68              | 1.57                 | Wind            |
| X4-2      | 12.0             | 55            | 5.8    | 24.0            | 35.9        |             | 17.6             | 12.0          | 8.0          | 24.0                |                       |            |             | 0.06                 | = | 1.68              | 1.57                 | Wind            |
| Y1-2      | 11.3             | 55            | 9.1    | 46.5            | 44.0        |             | 16.5             | 12.0          | 9.0          | 46.5                |                       |            |             | 0.06                 | = | 4.11              | 3.70                 | Wind            |
| Y2-2      | 11.3             | 55            | 9.1    | 46.5            | 44.0        |             | 16.5             | 12.0          | 9.0          | 46.5                |                       |            |             | 0.06                 | = | 6.46              | 5.29                 | Wind            |
|           | 11.6             | 55            | 5.8    | 34.9            | 24.0        |             | 16.9             | 12.0          | 8.0          | 34.9                |                       |            |             | 0.06                 | = |                   |                      |                 |
| Y3-2      | 11.6             | 55            | 5.8    | 34.9            | 24.0        |             | 16.9             | 12.0          | 8.0          | 34.9                |                       |            |             | 0.06                 | = | 2.35              | 1.59                 | Wind            |
| X1-1      | 0.0              | 18            | 0.0    | 30.7            | 30.7        |             | 17.1             | 12.0          | 10.0         | 30.7                | 5.5                   | 2.53       | 2.39        | 0.06                 | = | 5.28              | 3.13                 | Wind            |
| X2-1      | 0.0              | 18            | 0.0    | 30.7            | 30.7        |             | 17.1             | 12.0          | 10.0         | 30.7                | 0.0                   | 0          | 0           | 0.06                 | = | 1.67              | 0.99                 | Wind            |
|           | 0.0              | 18            | 0.0    | 12.5            | 46.5        |             | 19.2             | 12.0          | 10.0         | 12.5                | 0.0                   | 0          | 0           | 0.06                 | = |                   |                      |                 |
| X3-1      | 0.0              | 18            | 0.0    | 12.5            | 46.5        |             | 19.2             | 8.0           | 10.0         | 12.5                | 5.5                   | 1.27       | 1.20        | 0.20                 | = | 4.04              | 4.05                 | Seismic         |
|           | 0.0              | 18            | 0.0    | 12.5            | 54.0        |             | 19.2             | 8.0           | 10.0         | 12.5                | 5.5                   | 1.27       | 1.20        | 0.20                 | = |                   |                      |                 |
| X4-1      | 0.0              | 55            | 6.1    | 12.5            | 54.0        |             | 19.2             | 12.0          | 10.0         | 12.5                | 0.0                   | 0          | 0           | 0.06                 | = | 0.60              | 1.21                 | Seismic         |
| X5-1      | 0.0              | 18            | 0.0    | 36.0            | 52.0        |             | 16.8             | 12.0          | 13.0         | 36.0                | 5.5                   | 1.68       | 1.57        | 0.06                 | = | 5.31              | 2.94                 | Wind            |
| X6-1      | 0.0              | 18            | 0.0    | 36.0            | 52.0        |             | 16.8             | 12.0          | 13.0         | 36.0                | 5.5                   | 1.68       | 1.57        | 0.06                 | = | 5.31              | 2.94                 | Wind            |

|      |      |    |     |      |      |      |      |      |      |     |      |      |      |   |       |      |      |
|------|------|----|-----|------|------|------|------|------|------|-----|------|------|------|---|-------|------|------|
| Y1-1 | 0.0  | 18 | 0.0 | 17.5 | 25.0 | 18.4 | 12.0 | 10.0 | 17.5 | 5.5 | 2.06 | 1.85 | 0.06 | = | 3.75  | 2.22 | Wind |
| Y2-1 | 0.0  | 18 | 0.0 | 17.5 | 25.0 | 18.4 | 12.0 | 10.0 | 17.5 | 5.5 | 1.03 | 0.93 | 0.06 | = | 6.97  | 3.63 | Wind |
|      | 0.0  | 18 | 0.0 | 36.5 | 57.0 | 16.8 | 12.0 | 10.0 | 36.5 | 5.5 | 1.03 | 0.93 | 0.06 | = |       |      |      |
| Y3-1 | 0.0  | 18 | 0.0 | 36.5 | 57.0 | 16.8 | 12.0 | 10.0 | 36.5 | 5.5 | 3.23 | 2.65 | 0.06 | = | 12.22 | 7.78 | Wind |
|      | 0.0  | 18 | 0.0 | 28.0 | 57.0 | 17.2 | 12.0 | 10.0 | 28.0 | 5.5 | 3.23 | 2.65 | 0.06 | = |       |      |      |
| Y4-1 | 0.0  | 18 | 0.0 | 28.0 | 57.0 | 17.2 | 12.0 | 10.0 | 28.0 | 5.5 | 2.35 | 1.59 | 0.06 | = | 6.44  | 3.78 | Wind |
|      | 12.8 | 55 | 5.6 | 16.0 | 36.0 | 18.7 | 12.0 | 13.0 | 16.0 | 0   | 0    | 0    | 0.06 | = |       |      |      |
| Y5-1 | 12.8 | 55 | 5.6 | 16.0 | 36.0 | 18.7 | 12.0 | 13.0 | 16.0 | 0   | 0    | 0    | 0.06 | = | 1.55  | 1.11 | Wind |



| SHEAR WALL CALCULATIONS:              |                                                |            |            |           |           |           |
|---------------------------------------|------------------------------------------------|------------|------------|-----------|-----------|-----------|
|                                       | X1-2                                           | X2-2       | X3-2       | Y1-2      | Y2-2      | Y2-2      |
| Shear Wall Forces                     |                                                |            |            |           |           |           |
| Number of Panels                      | 1                                              | 1          | 1          | 1         | 2         | 1         |
| Total length of wall                  | 19.46 ft                                       | 38.00 ft   | 28.46 ft   | 42.00 ft  | 42.00 ft  | 42.00 ft  |
| Total length of shear wall            | L = 6.00 ft                                    | 38.00 ft   | 12.00 ft   | 5.00 ft   | 5.54 ft   | 4.46 ft   |
| Total length of full ht seg.          | L <sub>w</sub> = 6.00 ft                       | 20.87 ft   | 8.00 ft    | 5.00 ft   | 5.54 ft   | 4.46 ft   |
| height of shear wall                  | H = 9.00 ft                                    | 9.00 ft    | 8.00 ft    | 9.00 ft   | 9.00 ft   | 9.00 ft   |
| Maximum opening height                | H' = 0.00 ft                                   | 9.00 ft    | 0.00 ft    | 9.00 ft   | 0.00 ft   | 9.00 ft   |
| Total force at top of wall            | V <sub>1</sub> = 2533 lbs                      | 2536 lbs   | 1682 lbs   | 4112 lbs  | 2305 lbs  | 1855 lbs  |
| Self weight                           | W <sub>DL self</sub> = 108 plf                 | 108 plf    | 96 plf     | 108 plf   | 108 plf   | 108 plf   |
| Applied dead load                     | W <sub>DL above</sub> = 62 plf                 | 62 plf     | 190 plf    | 62 plf    | 181 plf   | 62 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          | N          | N         | N         | N         |
| Shear Wall Segments                   |                                                |            |            |           |           |           |
|                                       | 6.00                                           | 2.79       | 4.00       | 5.00      | 5.54      | 4.46      |
|                                       |                                                | 8.92       | 4.00       |           |           |           |
|                                       |                                                | 4.00       |            |           |           |           |
|                                       |                                                | 5.17       |            |           |           |           |
|                                       |                                                |            |            |           |           |           |
|                                       |                                                |            |            |           |           |           |
|                                       |                                                |            |            |           |           |           |
|                                       |                                                |            |            |           |           |           |
| Shear Transfer to Concrete            |                                                |            |            |           |           |           |
| T =                                   | 3493 lbs                                       | Not Req'd  | 83 lbs     | 7147 lbs  | 3263 lbs  | 3516 lbs  |
| Provide:                              |                                                |            |            |           |           |           |
| Min # of 1/2 Anchor Bolts             |                                                |            |            |           |           |           |
| Load From Above                       | 0.00                                           | 0.00       | 0.00       | 0.00      | 0.00      | 0.00      |
| Holddown                              | S3                                             |            | Perp. Wall | S6        | S3        | S3        |
| Shear Resisting System                |                                                |            |            |           |           |           |
| Force Calculated                      | 422.14                                         | 231.04     | 210.25     | 822.49    | 415.99    | 415.99    |
|                                       | OSB                                            | OSB        | OSB        | OSB       | OSB       | OSB       |
| Min Shear Wall Segment:               | 2.57 ft                                        | 2.57 ft    | 2.29 ft    | 2.57 ft   | 2.57 ft   | 2.57 ft   |
| Provide: V <sub>a</sub> =             | SW2                                            | SW1        | SW1        | SW4       | SW2       | SW2       |
|                                       |                                                |            |            |           |           |           |
| Min Shear Wall Segment:               |                                                |            |            |           |           |           |
| Provide: V <sub>a</sub> =             |                                                |            |            |           |           |           |
| Blocking / Nailing Framing Attachment |                                                |            |            |           |           |           |
| Blocking Unit Shear                   | 130 plf                                        | 67 plf     | 59 plf     | 98 plf    | 110 plf   | 44 plf    |
| Blocking                              | NONE                                           | NONE       | NONE       | NONE      | NONE      | NONE      |
| Nailing                               | See SCHED                                      | See SCHED  | See SCHED  | See SCHED | See SCHED | See SCHED |
| Unit Base Shear                       |                                                |            |            |           |           |           |
| % of full height segments             | %fh = L <sub>w</sub> /L = 1.000                | 0.549      | 0.667      | 1.000     | 1.000     | 1.000     |
| % of maximum opening height           | %oh = H'/H = 0.000                             | 1.000      | 0.000      | 1.000     | 0.000     | 1.000     |
| Shear cap adj factor                  | SCAF = 1.00                                    | 0.53       | 1.00       | 1.00      | 1.00      | 1.00      |
| Unit base shear                       | vbase V <sub>1</sub> /L <sub>w</sub> = 422 plf | 122 plf    | 210 plf    | 822 plf   | 416 plf   | 416 plf   |
| Effective unit base shear             | vreq=v <sub>base</sub> /SCAF = 422 plf         | 231 plf    | 210 plf    | 822 plf   | 416 plf   | 416 plf   |
| Ovrtrn. mo. Ttl. length of wall       | OTM = 22.8 k-ft                                | 43.4 k-ft  | 13.5 k-ft  | 37.0 k-ft | 20.7 k-ft | 16.7 k-ft |
| Shear wall adjustment factor          |                                                |            |            |           |           |           |
| Resist moment total L. of wall        | RM = 3.1 k-ft                                  | 123.0 k-ft | 20.6 k-ft  | 2.1 k-ft  | 4.4 k-ft  | 1.7 k-ft  |
|                                       | r = 1.0000                                     | 0.5493     | 0.9999     | 1.0000    | 1.0000    | 1.0000    |
|                                       | C <sub>0</sub> = 1.0000                        | 0.5259     | 1.4997     | 1.0000    | 1.0000    | 1.0000    |

| SHEAR WALL CALCULATIONS:              |                                                |            |           |           |           |            |
|---------------------------------------|------------------------------------------------|------------|-----------|-----------|-----------|------------|
|                                       | Y3-2                                           | X4-2       | X1-1      | X1-1      | X2-1      | X2-1       |
| Shear Wall Forces                     |                                                |            |           |           |           |            |
| Number of Panels                      | 1                                              | 1          | 1         | 1         | 1         | 1          |
| Total length of wall                  | 24.00 ft                                       | 35.88 ft   | 23.67 ft  | 23.67 ft  | 46.50 ft  | 46.50 ft   |
| Total length of shear wall            | L = 24.00 ft                                   | 12.00 ft   | 2.25 ft   | 9.08 ft   | 2.25 ft   | 12.50 ft   |
| Total length of full ht seg.          | L <sub>w</sub> = 19.12 ft                      | 6.00 ft    | 2.25 ft   | 9.08 ft   | 2.25 ft   | 12.50 ft   |
| height of shear wall                  | H = 9.00 ft                                    | 8.00 ft    | 9.00 ft   | 10.00 ft  | 9.00 ft   | 10.00 ft   |
| Maximum opening height                | H' = 9.00 ft                                   | 3.50 ft    | 0.00 ft   | 0.00 ft   | 0.00 ft   | 10.00 ft   |
| Total force at top of wall            | V <sub>1</sub> = 2352 lbs                      | 1682 lbs   | 2100 lbs  | 3180 lbs  | 541 lbs   | 1128 lbs   |
| Self weight                           | w <sub>DL self</sub> = 108 plf                 | 96 plf     | 108 plf   | 120 plf   | 108 plf   | 120 plf    |
| Applied dead load                     | w <sub>DL above</sub> = 62 plf                 | 249 plf    | 62 plf    | 62 plf    | 62 plf    | 62 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          |
| Shear Wall Segments                   |                                                |            |           |           |           |            |
|                                       | 4.00                                           | 3.00       | 2.25      | 9.08      | 2.25      | 4.00       |
|                                       | 4.00                                           | 3.00       |           |           |           | 8.50       |
|                                       | 4.00                                           |            |           |           |           |            |
|                                       | 7.12                                           |            |           |           |           |            |
|                                       |                                                |            |           |           |           |            |
|                                       |                                                |            |           |           |           |            |
|                                       |                                                |            |           |           |           |            |
|                                       |                                                |            |           |           |           |            |
| Shear Transfer to Concrete            |                                                |            |           |           |           |            |
| T =                                   | 17 lbs                                         | 106 lbs    | 3500 lbs  | 6497 lbs  | 3500 lbs  | 218 lbs    |
|                                       |                                                |            |           | 36 " O.C. |           | 72 " O.C.  |
| Provide:                              |                                                |            |           | A3        |           | Code Min.  |
| Min # of 1/2 Anchor Bolts             |                                                |            |           | (4) Min   |           | (2) Min    |
| Load From Above                       | 0.00                                           | 0.00       | 0.00      | 3493.00   | 0.00      | 0.00       |
| Holdown                               | Perp. Wall                                     | Perp. Wall | HD3       | HD4       | HD3       | Perp. Wall |
| Shear Resisting System                |                                                |            |           |           |           |            |
| Force Calculated                      | 173.04                                         | 324.14     | 933.55    | 350.08    | 240.65    | 90.24      |
|                                       | OSB                                            | OSB        | P.F.      | OSB       | P.F.      | OSB        |
| Min Shear Wall Segment:               | 2.57 ft                                        | 2.29 ft    | 1.33 ft   | 2.86 ft   | 1.33 ft   | 2.86 ft    |
| Provide: V <sub>a</sub> =             | SW1                                            | SW1        | 2307      | SW1       | 2653      | SW1        |
|                                       |                                                |            |           |           |           |            |
| Min Shear Wall Segment:               |                                                |            |           |           |           |            |
| Provide: V <sub>a</sub> =             |                                                |            |           |           |           |            |
| Blocking / Nailing Framing Attachment |                                                |            |           |           |           |            |
| Blocking Unit Shear                   | 98 plf                                         | 47 plf     | 89 plf    | 134 plf   | 12 plf    | 24 plf     |
| Blocking                              | NONE                                           | NONE       | NONE      | NONE      | NONE      | NONE       |
| Nailing                               | See SCHED                                      | See SCHED  | See SCHED | See SCHED | See SCHED | See SCHED  |
| Unit Base Shear                       |                                                |            |           |           |           |            |
| % of full height segments             | %fh = L <sub>w</sub> /L = 0.797                | 0.500      | 1.000     | 1.000     | 1.000     | 1.000      |
| % of maximum opening height           | %oh = H'/H = 1.000                             | 0.438      | 0.000     | 0.000     | 0.000     | 1.000      |
| Shear cap adj factor                  | SCAF = 0.71                                    | 0.86       | 1.00      | 1.00      | 1.00      | 1.00       |
| Unit base shear                       | vbase V <sub>1</sub> /L <sub>w</sub> = 123 plf | 280 plf    | 934 plf   | 350 plf   | 241 plf   | 90 plf     |
| Effective unit base shear             | vreq=v <sub>base</sub> /SCAF = 173 plf         | 324 plf    | 934 plf   | 350 plf   | 241 plf   | 90 plf     |
| Ovrtrn. mo. Ttl. length of wall       | OTM = 29.8 k-ft                                | 15.6 k-ft  | 18.9 k-ft | 31.8 k-ft | 4.9 k-ft  | 11.3 k-ft  |
| Shear wall adjustment factor          |                                                |            |           |           |           |            |
| Resist moment total L. of wall        | RM = 49.1 k-ft                                 | 24.9 k-ft  | 0.4 k-ft  | 7.5 k-ft  | 0.4 k-ft  | 14.2 k-ft  |
|                                       | r = 0.7967                                     | 0.6957     | 1.0000    | 1.0000    | 1.0000    | 1.0000     |
|                                       | C <sub>0</sub> = 0.7109                        | 0.8649     | 1.0000    | 1.0000    | 1.0000    | 1.0000     |

**SHEAR WALL CALCULATIONS:**

|                                              | X3-1                                   | X3-1       | X4-1      | X5-1       | X5-1      | X6-1       |
|----------------------------------------------|----------------------------------------|------------|-----------|------------|-----------|------------|
| <b>Shear Wall Forces</b>                     |                                        |            |           |            |           |            |
| Number of Panels                             | 1                                      | 1          | 1         | 1          | 1         | 1          |
| Total length of wall                         | 54.00 ft                               | 54.00 ft   | 54.00 ft  | 44.00 ft   | 44.00 ft  | 44.00 ft   |
| Total length of shear wall                   | L = 37.54 ft                           | 2.00 ft    | 46.58 ft  | 2.75 ft    | 16.00 ft  | 44.00 ft   |
| Total length of full ht seg.                 | L <sub>w</sub> = 22.91 ft              | 2.00 ft    | 16.00 ft  | 2.75 ft    | 4.00 ft   | 24.92 ft   |
| height of shear wall                         | H = 10.00 ft                           | 9.00 ft    | 10.00 ft  | 9.00 ft    | 13.00 ft  | 13.00 ft   |
| Maximum opening height                       | H' = 8.00 ft                           | 0.00 ft    | 10.00 ft  | 0.00 ft    | 12.00 ft  | 13.00 ft   |
| Total force at top of wall                   | V <sub>1</sub> = 2822 lbs              | 1232 lbs   | 1207 lbs  | 2164 lbs   | 3148 lbs  | 5312 lbs   |
| Self weight                                  | w <sub>DL self</sub> = 120 plf         | 108 plf    | 120 plf   | 108 plf    | 156 plf   | 156 plf    |
| Applied dead load                            | w <sub>DL above</sub> = 62 plf         | 62 plf     | 62 plf    | 62 plf     | 62 plf    | 62 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>                   |                                        |            |           |            |           |            |
|                                              | 11.62                                  | 2.00       | 4.00      | 2.75       | 2.00      | 3.50       |
|                                              | 11.29                                  |            | 4.00      |            | 2.00      | 3.67       |
|                                              |                                        |            | 4.00      |            |           | 4.00       |
|                                              |                                        |            | 4.00      |            |           | 4.00       |
|                                              |                                        |            |           |            |           | 4.88       |
|                                              |                                        |            |           |            |           | 4.88       |
|                                              |                                        |            |           |            |           |            |
|                                              |                                        |            |           |            |           |            |
| <b>Shear Transfer to Concrete</b>            |                                        |            |           |            |           |            |
| T =                                          | Not Req'd                              | 3500 lbs   | Not Req'd | 3500 lbs   | 3500 lbs  | 84 lbs     |
| 1/2 Anchor Bolts @                           | 72 " O.C.                              |            | 72 " O.C. |            |           | 72 " O.C.  |
| Provide:                                     | Code Min.                              |            | Code Min. |            |           | Code Min.  |
| Min # of 1/2 Anchor Bolts                    | (3) Min                                |            | (2) Min   |            |           | (6) Min    |
| Load From Above                              | 0.00                                   | 0.00       | 0.00      | 0.00       | 0.00      | 0.00       |
|                                              |                                        | HD3        |           | HD3        | HD3       | Perp. Wall |
| <b>Shear Resisting System</b>                |                                        |            |           |            |           |            |
| Force Calculated                             | 190.38                                 | 615.86     | 174.55    | 786.94     | 786.94    | 398.02     |
|                                              | Gyp.                                   | P.F.       | OSB       | P.F.       | B.F.      | OSB        |
| Min Shear Wall Segment:                      | 5.00 ft                                | 1.33 ft    | 2.86 ft   | 1.33 ft    | 1.33 ft   | 3.71 ft    |
| Provide: Va =                                | SWD                                    | 1400       | SW1       | 3003       | 4400      | SW3        |
|                                              |                                        |            |           |            |           |            |
| Min Shear Wall Segment:                      |                                        |            |           |            |           |            |
| Provide: Va =                                |                                        |            |           |            |           |            |
| <b>Blocking / Nailing Framing Attachment</b> |                                        |            |           |            |           |            |
| Blocking Unit Shear                          | 52 plf                                 | 23 plf     | 22 plf    | 49 plf     | 72 plf    | 121 plf    |
| Blocking                                     | NONE                                   | NONE       | NONE      | NONE       | NONE      | NONE       |
| Nailing                                      | See SCHED                              | See SCHED  | See SCHED | See SCHED  | See SCHED | See SCHED  |
| <b>Unit Base Shear</b>                       |                                        |            |           |            |           |            |
| % of full height segments                    | %fh = L <sub>w</sub> /L =              | 0.610      | 1.000     | 0.343      | 1.000     | 0.250      |
| % of maximum opening height                  | %oh = H'/H =                           | 0.800      | 0.000     | 1.000      | 0.000     | 0.923      |
| Shear cap adj factor                         | SCAF =                                 | 0.65       | 1.00      | 0.43       | 1.00      | 0.43       |
| Unit base shear                              | vbase V <sub>1</sub> /L <sub>w</sub> = | 123 plf    | 616 plf   | 75 plf     | 787 plf   | 787 plf    |
| Effective unit base shear                    | vreq=v <sub>base</sub> /SCAF =         | 190 plf    | 616 plf   | 175 plf    | 787 plf   | 1831 plf   |
| Ovrtrn. mo. Ttl. length of wall              | OTM =                                  | 43.6 k-ft  | 11.1 k-ft | 27.9 k-ft  | 19.5 k-ft | 20.5 k-ft  |
| <b>Shear wall adjustment factor</b>          |                                        |            |           |            |           |            |
| Resist moment total L. of wall               | RM =                                   | 128.5 k-ft | 0.3 k-ft  | 197.9 k-ft | 0.6 k-ft  | 0.4 k-ft   |
|                                              | r =                                    | 0.6619     | 1.0000    | 0.3435     | 1.0000    | 0.2653     |
|                                              | C <sub>0</sub> =                       | 0.6470     | 1.0000    | 0.4323     | 1.0000    | 0.4298     |
|                                              |                                        |            |           |            |           | 0.5355     |

**SHEAR WALL CALCULATIONS:**

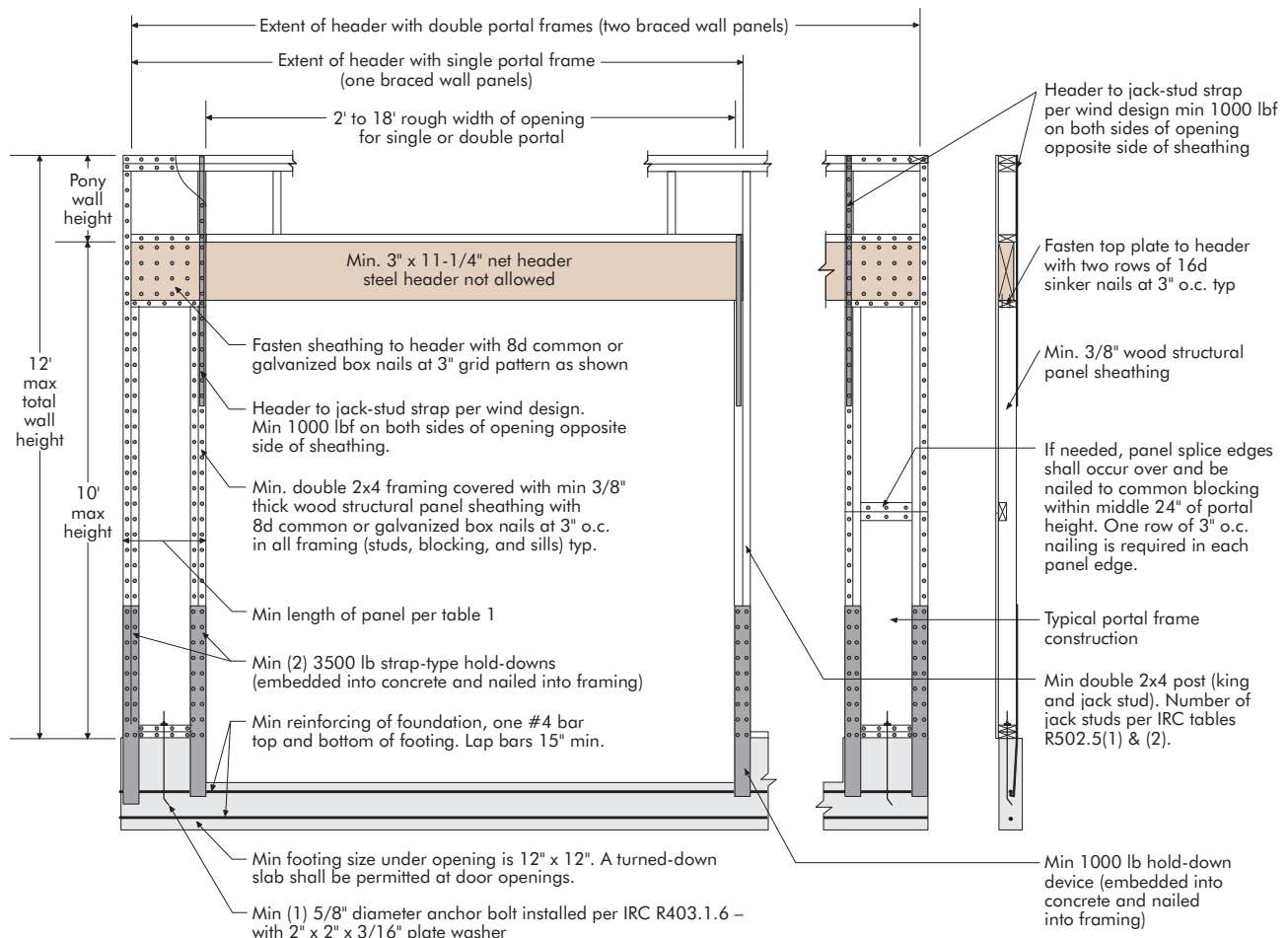
|                                              | Y1-1                                           | Y2-1             | Y3-1       | Y4-1        | Y5-1             |  |
|----------------------------------------------|------------------------------------------------|------------------|------------|-------------|------------------|--|
| <b>Shear Wall Forces</b>                     |                                                |                  |            |             |                  |  |
| Number of Panels                             | 1                                              | 1                | 1          | 2           | 1                |  |
| Total length of wall                         | 25.00 ft                                       | 55.50 ft         | 66.50 ft   | 36.00 ft    | 36.00 ft         |  |
| Total length of shear wall                   | L = 12.46 ft                                   | 21.10 ft         | 57.67 ft   | 4.00 ft     | 16.00 ft         |  |
| Total length of full ht seg.                 | L <sub>w</sub> = 10.45 ft                      | 20.12 ft         | 31.71 ft   | 4.00 ft     | 14.00 ft         |  |
| height of shear wall                         | H = 10.00 ft                                   | 10.00 ft         | 10.00 ft   | 13.00 ft    | 13.00 ft         |  |
| Maximum opening height                       | H' = 8.00 ft                                   | 10.00 ft         | 10.00 ft   | 0.00 ft     | 13.00 ft         |  |
| Total force at top of wall                   | V <sub>1</sub> = 3750 lbs                      | 6969 lbs         | 12219 lbs  | 3218 lbs    | 1548 lbs         |  |
| Self weight                                  | w <sub>DL self</sub> = 120 plf                 | 120 plf          | 120 plf    | 156 plf     | 156 plf          |  |
| Applied dead load                            | w <sub>DL above</sub> = 62 plf                 | 62 plf           | 86 plf     | 181 plf     | 113 plf          |  |
| Prefered OSB thickness                       | in 7/16                                        | 7/16             | 7/16       | 7/16        | 7/16             |  |
| Prefered Gyp thickness                       | in 1/2                                         | 1/2              | 1/2        | 1/2         | 1/2              |  |
| Wall Connected to Concrete                   | y/n = Y                                        | Y                | Y          | Y           | Y                |  |
| <b>Shear Wall Segments</b>                   |                                                |                  |            |             |                  |  |
|                                              | 4.62                                           | 8.58             | 3.21       | 4.00        | 3.75             |  |
|                                              | 5.83                                           | 8.54             | 2.92       |             | 3.25             |  |
|                                              |                                                | 3.00             | 5.00       |             | 3.25             |  |
|                                              |                                                |                  | 6.54       |             | 3.75             |  |
|                                              |                                                |                  | 6.54       |             |                  |  |
|                                              |                                                |                  | 7.50       |             |                  |  |
|                                              |                                                |                  |            |             |                  |  |
|                                              |                                                |                  |            |             |                  |  |
| <b>Shear Transfer to Concrete</b>            |                                                |                  |            |             |                  |  |
| T =                                          | 3583 lbs                                       | 2575 lbs         | 3673 lbs   | 10053 lbs   | 319 lbs          |  |
| 1/2 Anchor Bolts @                           | 48 " O.C.                                      | 36 " O.C.        | 60 " O.C.  | 12 " O.C.   | 72 " O.C.        |  |
| Provide:                                     | A4                                             | A3               | A5         | A1          | Code Min.        |  |
| Min # of 1/2 Anchor Bolts                    | (4) Min                                        | (7) Min          | (12) Min   | (4) Min     | (2) Min          |  |
| Load From Above                              | 0.00                                           | 0.00             | 0.00       | 0.00        | 0.00             |  |
| Holdown                                      | HD3                                            | HD2              | HD3        | HD6         | Perp. Wall       |  |
| <b>Shear Resisting System</b>                |                                                |                  |            |             |                  |  |
| Force Calculated                             | 439.56                                         | 378.57           | 732.37     | 804.43      | 138.24           |  |
|                                              | <b>OSB</b>                                     | <b>OSB</b>       | <b>OSB</b> | <b>OSB</b>  | <b>OSB</b>       |  |
| Min Shear Wall Segment:                      | 2.86 ft                                        | 2.86 ft          | 2.86 ft    | 3.71 ft     | 3.71 ft          |  |
| Provide: Va =                                | <b>SW2</b>                                     | <b>SW2</b>       | <b>SW4</b> | <b>SW4</b>  | <b>SW1</b>       |  |
|                                              |                                                |                  |            |             |                  |  |
| Min Shear Wall Segment:                      |                                                |                  |            |             |                  |  |
| Provide: Va =                                |                                                |                  |            |             |                  |  |
| <b>Blocking / Nailing Framing Attachment</b> |                                                |                  |            |             |                  |  |
| Blocking Unit Shear                          | 150 plf                                        | 126 plf          | 184 plf    | 179 plf     | 43 plf           |  |
| Blocking                                     | <b>NONE</b>                                    | <b>NONE</b>      | <b>B1</b>  | <b>NONE</b> | <b>NONE</b>      |  |
| Nailing                                      | <b>T1</b>                                      | <b>See SCHED</b> | <b>T1</b>  | <b>T1</b>   | <b>See SCHED</b> |  |
| <b>Unit Base Shear</b>                       |                                                |                  |            |             |                  |  |
| % of full height segments                    | %fh = L <sub>w</sub> /L = 0.839                | 0.954            | 0.550      | 1.000       | 0.875            |  |
| % of maximum opening height                  | %oh = H'/H = 0.800                             | 1.000            | 1.000      | 0.000       | 1.000            |  |
| Shear cap adj factor                         | SCAF = 0.82                                    | 0.92             | 0.53       | 1.00        | 0.80             |  |
| Unit base shear                              | vbase V <sub>1</sub> /L <sub>w</sub> = 359 plf | 346 plf          | 385 plf    | 804 plf     | 111 plf          |  |
| Effective unit base shear                    | vreq=v <sub>base</sub> /SCAF = 440 plf         | 379 plf          | 732 plf    | 804 plf     | 138 plf          |  |
| Ovrtrn. mo. Ttl. length of wall              | OTM = 46.0 k-ft                                | 76.2 k-ft        | 11.2 k-ft  | 41.8 k-ft   | 25.2 k-ft        |  |
| <b>Shear wall adjustment factor</b>          |                                                |                  |            |             |                  |  |
| Resist moment total L. of wall               | RM = 14.2 k-ft                                 | 40.6 k-ft        | 0.9 k-ft   | 2.7 k-ft    | 34.5 k-ft        |  |
|                                              | r = 0.8669                                     | 0.9536           | 0.5498     | 1.0000      | 0.8750           |  |
|                                              | C <sub>0</sub> = 0.8161                        | 0.9150           | 0.5262     | 1.0000      | 0.8000           |  |

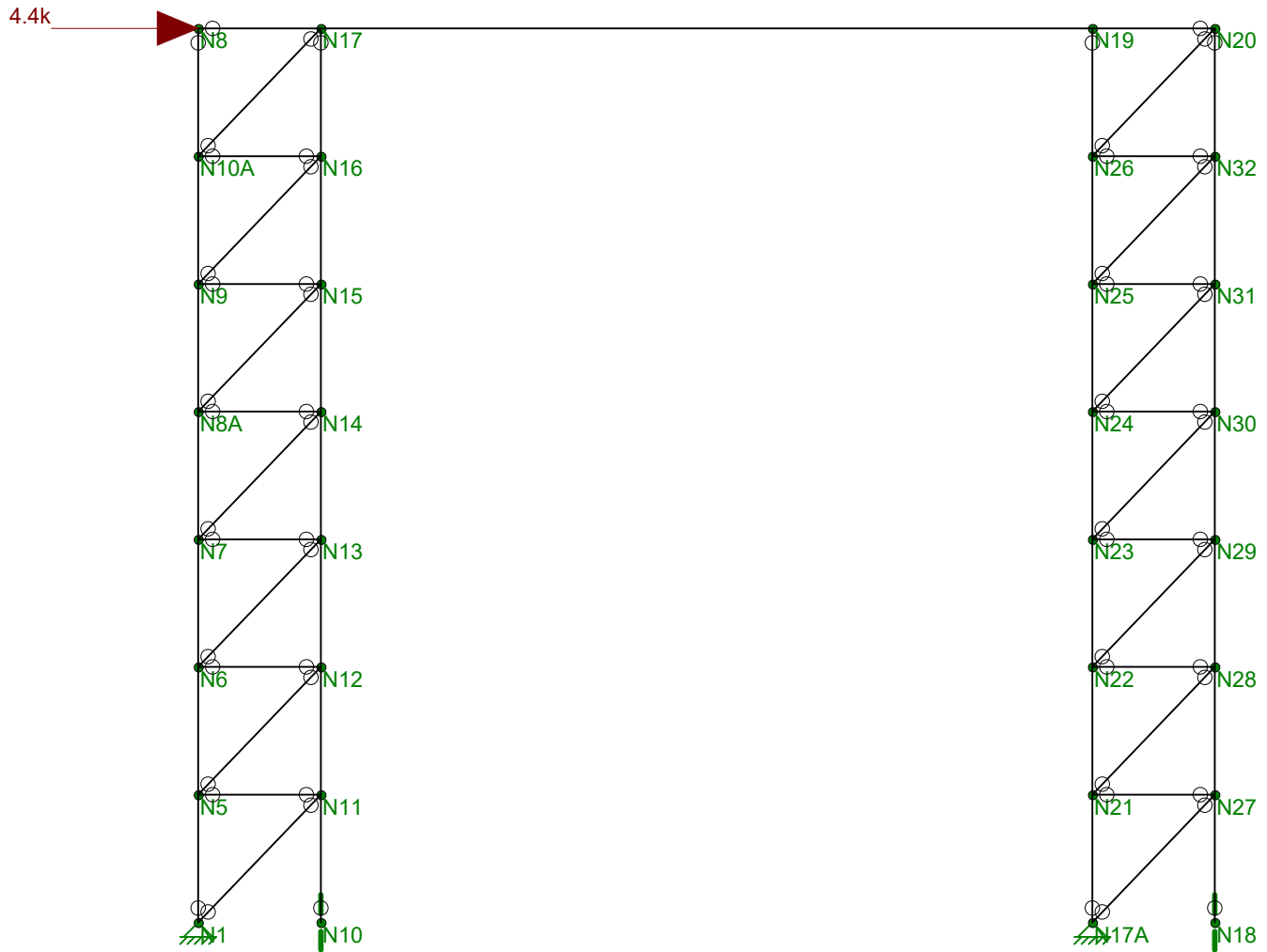
| Minimum Width<br>(in.) | Maximum Height<br>(ft) | Allowable Design (ASD) Values per Frame Segment |                  |             |
|------------------------|------------------------|-------------------------------------------------|------------------|-------------|
|                        |                        | Shear <sup>(e,f)</sup> (lbf)                    | Deflection (in.) | Load Factor |
| 16                     | 8                      | 850                                             | 0.33             | 3.09        |
|                        | 10                     | 625                                             | 0.44             | 2.97        |
| 24                     | 8                      | 1,675                                           | 0.38             | 2.88        |
|                        | 10                     | 1,125                                           | 0.51             | 3.42        |

### Foundation for Wind or Seismic Loading<sup>(a,b,c,d)</sup>

- (a) Design values are based on the use of Douglas-fir or Southern pine framing. For other species of framing, multiply the above shear design value by the specific gravity adjustment factor =  $(1 - (0.5 - SG))$ , where SG = specific gravity of the actual framing. This adjustment shall not be greater than 1.0.
- (b) For construction as shown in Figure 1.
- (c) Values are for a single portal-frame segment (one vertical leg and a portion of the header). For multiple portal-frame segments, the allowable shear design values are permitted to be multiplied by the number of frame segments (e.g., two = 2x, three = 3x, etc.).
- (d) Interpolation of design values for heights between 8 and 10 feet, and for portal widths between 16 and 24 inches, is permitted.
- (e) The allowable shear design value is permitted to be multiplied by a factor of 1.4 for wind design.
- (f) If story drift is not a design consideration, the tabulated design shear values are permitted to be multiplied by a factor of 1.15. This factor is permitted to be used cumulatively with the wind-design adjustment factor in Footnote (e) above.

**Figure 1. Construction Details for APA Portal-Frame Design with Hold Downs**





Loads: BLC 1, Wind Load  
Envelope Only Solution

***KccX'GYWjcb'GYlg***

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| F | Ö@   ā | I È Y I È Ü | Ö     { } | Ü & cæ *   æ | Ö Ø SAG              | V   āā      | G È I   | I È I I | I È I I | I È I I |
| G | Y ^ à  | G Y I       | Ö āæ      | Ö   } ^      | Ö Ø SAG              | V   āā      | I È     | F È I I | G È J I | G È J I |
| H | Ö āæ   | I YFG       | Ö āæ      | Ö   } ^      | G Ø È I Ö Ø Ö āā & ā | V   āā      | H È I I | I È J I | I È I I | I È I I |

***>c|bh7ccfX|bUHyg'UbX'HYa dYfUli fYg***

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|----|---------|--------|-------|----------|
| F  | Ö F     | €      | €     | €        |
| G  | Ö I     | €      | FI    | €        |
| H  | Ö F€    | F È G  | €     | €        |
| I  | Ö F I   | F È G  | FI    | €        |
| Í  | Ö I     | €      | G     | €        |
| Î  | Ö I     | €      | I     | €        |
| Ï  | Ö I     | €      | Î     | €        |
| İ  | Ö I ÖE  | €      | İ     | €        |
| J  | Ö J     | €      | F€    | €        |
| F€ | Ö F€ ÖE | €      | FG    | €        |
| FF | Ö FF    | F È G  | G     | €        |
| FG | Ö FG    | F È G  | I     | €        |
| FH | Ö FH    | F È G  | Î     | €        |
| FI | Ö FI    | F È G  | İ     | €        |
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| FÎ | Ö FÎ    | F È G  | FG    | €        |
| FÏ | Ö FÏ ÖE | FI     | €     | €        |
| Fİ | Ö Fİ    | FÍ È G | €     | €        |
| FJ | Ö FJ    | FI     | FI    | €        |
| G€ | Ö G€    | FÍ È G | FI    | €        |
| Gf | Ö Gf    | FI     | G     | €        |
| GG | Ö GG    | FI     | I     | €        |
| GH | Ö GH    | FI     | Î     | €        |
| G  | Ö G     | FI     | İ     | €        |
| G  | Ö G     | FI     | F€    | €        |
| G  | Ö G     | FI     | FG    | €        |
| G  | Ö G     | FÍ È G | G     | €        |
| G  | Ö G     | FÍ È G | I     | €        |
| GJ | Ö GJ    | FÍ È G | Î     | €        |
| H€ | Ö H€    | FÍ È G | İ     | €        |
| HF | Ö HF    | FÍ È G | F€    | €        |
| HG | Ö HG    | FÍ È G | FG    | €        |

***>c|bh6ci bXUfmi7cbX|hjcbg***

|   | R ā Šāā\ | Y /āā    | Y /āā    | Ü ( cæ ) Ž È Öāā |
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| G | Ö F I    |          | Ü ^ āā } |                  |
| H | Ö F€     |          | Ü ^ āā } |                  |
| I | Ö F I ÖE | Ü ^ āā } | Ü ^ āā } |                  |





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| I  |             | { a | Ě Ě Ī    | FGĚ Ě   | FĪ  | Ě Ě Ī    | GĚ Ě G  | J   | Ě Ě Ī            | FĚ Ě Ī  | J   |
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| FF | TĪ          | { æ | FGĚ H    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
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| FJ | TF€         | { æ | FGĚ      | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| G€ |             | { a | Ě Ě Ī    | €       | F   | €        | €       | F   | €                | €       | F   |
| GF | TFG         | { æ | Ě Ě Ī    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| GG |             | { a | Ě Ě G    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| GH | TFH         | { æ | FGĚ G    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
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| G  | TFI         | { æ | Ě Ě Ī    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| G  |             | { a | Ě Ě FĪ   | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| G  | TFĪ         | { æ | FGĚ H    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| G  |             | { a | Ě Ě Ī    | €       | F   | €        | €       | F   | €                | €       | F   |
| GJ | TFĪ         | { æ | Ě Ě Ī    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| H€ |             | { a | Ě Ě Ī    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| HF | TFĪ         | { æ | GĚ Ě Ī   | FGĚ Ě   | J   | Ě Ě H    | FĚ Ě H  | J   | Ě Ě Ī            | GĚ Ě G  | J   |
| HG |             | { a | Ě Ě Ī    | €       | FĪ  | Ě Ě F    | €       | J   | Ě Ě Ī            | FĚ Ě Ī  | J   |
| HH | TFĪ         | { æ | Ě Ě H    | €       | J   | Ě Ě G    | Ě Ě H   | J   | Ě Ě Ī            | Ě Ě H   | FĪ  |
| HI |             | { a | Ě Ě F    | FGĚ Ě   | J   | Ě Ě H    | GĚ Ě G  | J   | Ě Ě Ī            | FĚ Ě Ī  | J   |
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| HĪ | TG€         | { æ | FĚ Ě Ī   | €       | J   | €        | €       | F   | €                | €       | F   |
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| HJ | TG€         | { æ | Ě Ě Ī    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
| I€ |             | { a | Ě Ě G    | €       | J   | €        | €       | F   | €                | €       | F   |
| IF | TGG         | { æ | FĚ Ě Ī   | €       | J   | €        | €       | F   | €                | €       | F   |
| IG |             | { a | Ě Ě Ī    | €       | FĪ  | €        | €       | F   | €                | €       | F   |
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| II |             | { a | Ě Ě Ī    | €       | J   | €        | €       | F   | €                | €       | F   |
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| ÍG |             | { a | Ě Ě Ī    | €       | J   | €        | €       | F   | €                | €       | F   |
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| íJ | THF                   | { æ | ĒĒĒ           | €     | FĒ | €      | €     | F  | €                       | €     | F  |
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| íF | THFOE                 | { æ | ĒĒĒ           | €     | FĒ | FĒĒ    | FĒĒJ  | J  | HĒĒ                     | FĒĒH  | J  |
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| F  | TF                    | Q                     | { æ | ĒĒ            | FĒ | €      | F  | €                       | F  |
| G  |                       |                       | { a | ĒĒĒH          | FĒ | ĒĒG    | FĒ | €                       | F  |
| H  |                       | R                     | { æ | FĒUF          | FĒ | ĒĒ     | F  | €                       | F  |
| I  |                       |                       | { a | ĒĒFF          | F  | ĒĒFH   | FĒ | €                       | F  |
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| J  | TI                    | Q                     | { æ | ĒĒ            | FĒ | €      | F  | €                       | F  |
| F€ |                       |                       | { a | ĒĒĒJF         | FĒ | €      | F  | €                       | F  |
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| FG |                       |                       | { a | ĒĒĒJF         | FĒ | €      | F  | €                       | F  |
| FH | TÍ                    | Q                     | { æ | FĒĒ           | FĒ | €      | F  | €                       | F  |
| FĪ |                       |                       | { a | ĒĒĒ           | F  | €      | F  | €                       | F  |
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| FĪ |                       |                       | { a | ĒĒĒ           | F  | €      | F  | €                       | F  |
| FĪ | TĪ                    | Q                     | { æ | ĒĒJF          | FĒ | €      | F  | €                       | F  |
| FĪ |                       |                       | { a | ĒĒĒFĒ         | FĒ | €      | F  | €                       | F  |
| FJ |                       | R                     | { æ | ĒĒJF          | FĒ | €      | F  | €                       | F  |
| G€ |                       |                       | { a | ĒĒĒFĒ         | FĒ | €      | F  | €                       | F  |
| GF | TĪ                    | Q                     | { æ | FĒĒH          | FĒ | €      | F  | €                       | F  |
| GG |                       |                       | { a | ĒĒĒ           | F  | €      | F  | €                       | F  |
| GH |                       | R                     | { æ | FĒĒH          | FĒ | €      | F  | €                       | F  |
| G  |                       |                       | { a | ĒĒĒ           | F  | €      | F  | €                       | F  |
| G  | TĪ                    | Q                     | { æ | ĒĒJ           | FĒ | €      | F  | €                       | F  |
| G  |                       |                       | { a | ĒĒĒH          | FĒ | €      | F  | €                       | F  |
| G  |                       | R                     | { æ | ĒĒJ           | FĒ | €      | F  | €                       | F  |
| G  |                       |                       | { a | ĒĒĒH          | FĒ | €      | F  | €                       | F  |
| GJ | TJ                    | Q                     | { æ | FĒĒ           | FĒ | €      | F  | €                       | F  |
| H€ |                       |                       | { a | ĒĒĒ           | F  | €      | F  | €                       | F  |
| HF |                       | R                     | { æ | FĒĒ           | FĒ | €      | F  | €                       | F  |
| HG |                       |                       | { a | ĒĒĒ           | F  | €      | F  | €                       | F  |
| HH | TF€                   | Q                     | { æ | ĒĒJ           | FĒ | €      | F  | €                       | F  |
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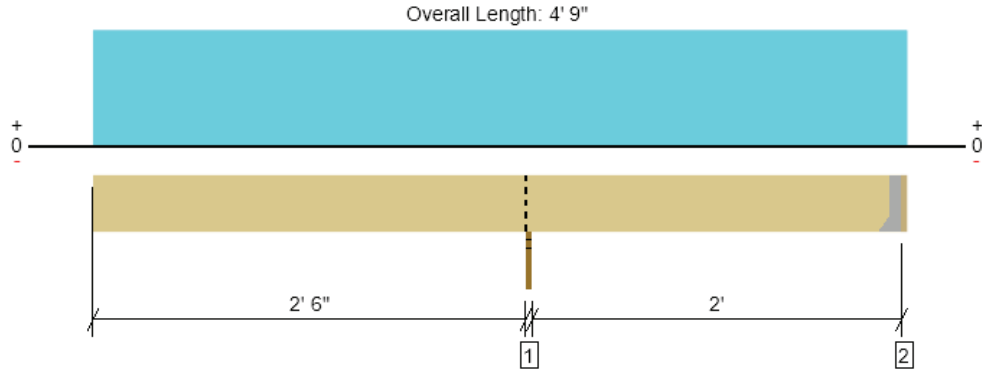
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| I F | T FG    |          | Q | { æ | ŒJ   | F | € | F | €            | F  |
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| I X |         | R        |   | { æ | ŒJ   | F | € | F | €            | F  |
| I Y |         |          |   | { à | ŒÉ I | F | € | F | €            | F  |
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Roof, Outlookers

1 piece(s) 2 x 6 DF No.2 @ 16" OC



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

| Design Results        | Actual @ Location | Allowed      | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 1155 @ 2' 6 3/4"  | 1406 (1.50") | Passed (82%)    | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 468 @ 3' 1"       | 1139         | Passed (41%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | -731 @ 2' 6 3/4"  | 975          | Passed (75%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.111 @ 0         | 0.256        | Passed (2L/554) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.123 @ 0         | 0.342        | Passed (2L/500) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 4' 7 1/2"  
System : Roof  
Member Type : Joist  
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).
- Left 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.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- 200 lbs uplift at support located at 4' 7 1/2". Strapping or other restraint may be required.
- Applicable calculations are based on NDS.

| Supports                     | Bearing Length |                     |          | Loads to Supports (lbs) |         |          | Accessories           |
|------------------------------|----------------|---------------------|----------|-------------------------|---------|----------|-----------------------|
|                              | Total          | Available           | Required | Dead                    | Snow    | Factored |                       |
| 1 - Stud wall - DF           | 1.50"          | 1.50"               | 1.50"    | 118                     | 1037    | 1155     | Blocking              |
| 2 - Hanger on 5 1/2" DF beam | 1.50"          | Hanger <sup>1</sup> | 1.50"    | -10                     | 72/-190 | 62/-200  | 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)    | 4' 8" o/c         |          |
| Bottom Edge (Lu) | 4' 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 | LU26  | 1.50"       | N/A           | 6-10dx1.5      | 4-10dx1.5        |             |

- 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 4' 9"      | 16"     | 17.0        | 150.0       | Default Load |

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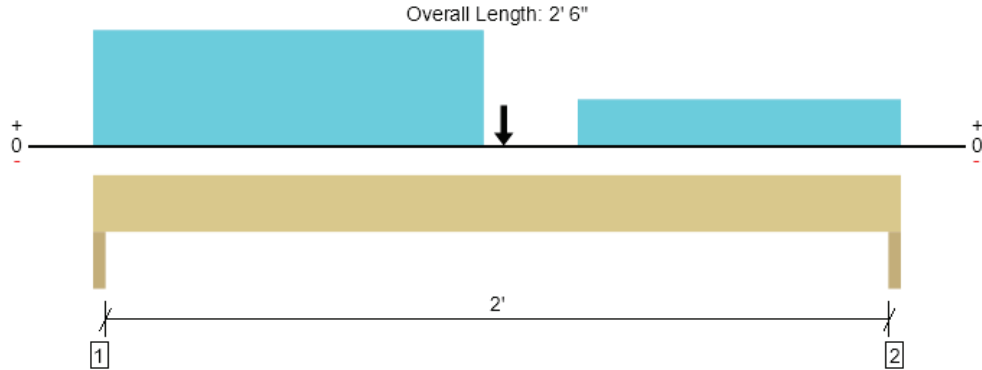
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

| ForteWEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6572<br>jed@snakeriverengineering.com |           |



10/29/2025 11:07:09 PM UTC  
ForteWEB v3.9, Engine: V8.4.3.94, Data: V8.1.7.3  
File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, HDR @ gt1  
1 piece(s) 6 x 10 DF No.2



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

| Design Results        | Actual @ Location   | Allowed       | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|---------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 7137 @ 1' 1/2"      | 10313 (3.00") | Passed (69%)    | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 6131 @ 1' 5 1/2"    | 6810          | Passed (90%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 6998 @ 1' 3 1/4"    | 6937          | Passed (101%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.009 @ 1' 2 15/16" | 0.075         | Passed (L/999+) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.010 @ 1' 2 15/16" | 0.112         | Passed (L/999+) | --   | 1.0 D + 1.0 S (All Spans)   |

- 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.

Member Length : 2' 6"  
System : Wall  
Member Type : Header  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports         | Bearing Length |           |          | Loads to Supports (lbs) |      |          | Accessories |
|------------------|----------------|-----------|----------|-------------------------|------|----------|-------------|
|                  | Total          | Available | Required | Dead                    | Snow | Factored |             |
| 1 - Trimmer - DF | 3.00"          | 3.00"     | 2.08"    | 822                     | 6315 | 7137     | None        |
| 2 - Trimmer - DF | 3.00"          | 3.00"     | 1.96"    | 783                     | 5946 | 6729     | None        |

| Lateral Bracing  | Bracing Intervals | Comments |
|------------------|-------------------|----------|
| Top Edge (Lu)    | 6" o/c            |          |
| Bottom Edge (Lu) | 2' 6" 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' 6"     | N/A             | 13.2        | --          |                             |
| 1 - Uniform (PSF)     | 0 to 1' 2 1/2" | 8' 9"           | 17.0        | 150.0       | Default Load                |
| 2 - Uniform (PSF)     | 1' 6" to 2' 6" | 3' 6"           | 17.0        | 150.0       | Default Load                |
| 3 - Point (lb)        | 1' 3 1/4"      | N/A             | 1323        | 10068       | Linked from: gt1, Support 2 |

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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<br>Snake River Engineering<br>(208) 493-6572<br>jed@snakeriverengineering.com |           |

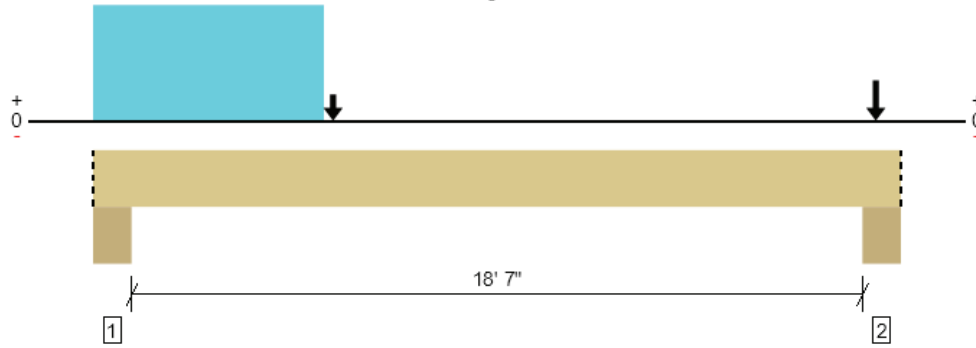


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ForteWEB v3.9, Engine: V8.4.3.94, Data: V8.1.7.3  
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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Beam #8

1 piece(s) 5 1/8" x 18" 24F-V4 DF Glulam

Overall Length: 20' 1 1/2"



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

| Design Results        | Actual @ Location  | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|--------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 28497 @ 19' 5 3/4" | 30814 (9.25") | Passed (92%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 11831 @ 2' 3 1/4"  | 18742         | Passed (63%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Pos Moment (Ft-lbs)   | 56050 @ 5' 11 3/4" | 61792         | Passed (91%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.537 @ 9' 1/4"    | 0.942         | Passed (L/421) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.619 @ 9' 1/2"    | 1.256         | Passed (L/365) | --   | 1.0 D + 1.0 S (All Spans)   |

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Volume factor of 0.97 was calculated for positive bending using length L = 18' 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.

Member Length : 20' 1 1/2"  
System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 0/12

| Supports        | Bearing Length |           |          | Loads to Supports (lbs) |       |          | Accessories |
|-----------------|----------------|-----------|----------|-------------------------|-------|----------|-------------|
|                 | Total          | Available | Required | Dead                    | Snow  | Factored |             |
| 1 - Column - DF | 9.25"          | 9.25"     | 4.42"    | 1819                    | 12908 | 14726    | Blocking    |
| 2 - Column - DF | 9.25"          | 9.25"     | 8.55"    | 3520                    | 24976 | 28497    | 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)    | 17' 8" o/c        |          |
| Bottom Edge (Lu) | 20' 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 20' 1 1/2"  | N/A             | 22.4        | --          |                                 |
| 1 - Uniform (PSF)     | 0 to 5' 9" (Top) | 7' 6"           | 17.0        | 150.0       | Default Load                    |
| 2 - Point (lb)        | 5' 11 3/4" (Top) | N/A             | 1323        | 10068       | Linked from: gt1, Support 1     |
| 3 - Point (lb)        | 19' 6" (Top)     | N/A             | 2832        | 21347       | Linked from: Beam #9, Support 1 |

- Side loads are assumed to not induce cross-grain tension.

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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<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |

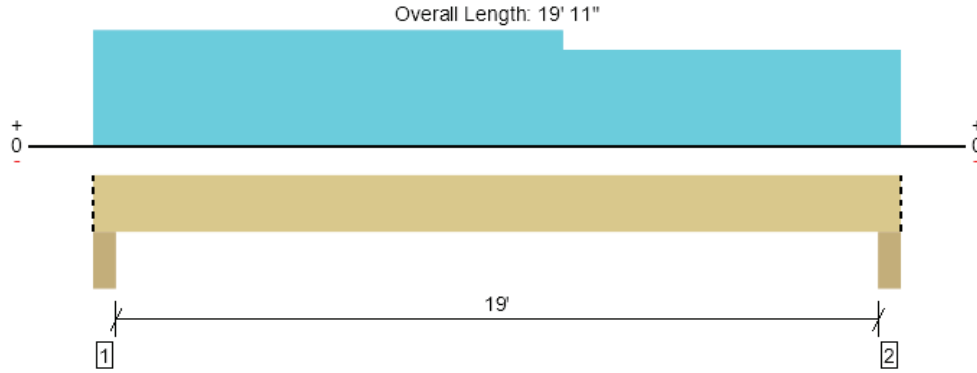


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File Name: 2025-10726 Lot 7 River Fork Ranch



Roof, Beam #9

1 piece(s) 8 3/4" x 19 1/2" 24F-V4 DF Glulam



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

| Design Results        | Actual @ Location    | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|----------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 24180 @ 4"           | 31281 (5.50") | Passed (77%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 18976 @ 2' 1"        | 34665         | Passed (55%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Pos Moment (Ft-lbs)   | 109114 @ 9' 8 3/16"  | 116176        | Passed (94%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.657 @ 9' 10 11/16" | 0.962         | Passed (L/352) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.744 @ 9' 10 3/4"   | 1.283         | Passed (L/310) | --   | 1.0 D + 1.0 S (All Spans)   |

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Volume factor of 0.91 was calculated for positive bending 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.

Member Length : 19' 11"  
System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 0/12

| Supports        | Bearing Length |           |          | Loads to Supports (lbs) |       |          | Accessories |
|-----------------|----------------|-----------|----------|-------------------------|-------|----------|-------------|
|                 | Total          | Available | Required | Dead                    | Snow  | Factored |             |
| 1 - Column - DF | 5.50"          | 5.50"     | 4.25"    | 2832                    | 21347 | 24180    | Blocking    |
| 2 - Column - DF | 5.50"          | 5.50"     | 3.88"    | 2619                    | 19469 | 22088    | 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             | 41.5        | --          |              |
| 1 - Uniform (PSF)     | 0 to 19' 11" (Front)     | 9' 7"           | 17.0        | 150.0       | Default Load |
| 2 - Uniform (PSF)     | 0 to 11' 7" (Back)       | 5' 1 1/2"       | 17.0        | 150.0       | Default Load |
| 3 - Uniform (PSF)     | 11' 7" to 19' 11" (Back) | 2' 7 1/2"       | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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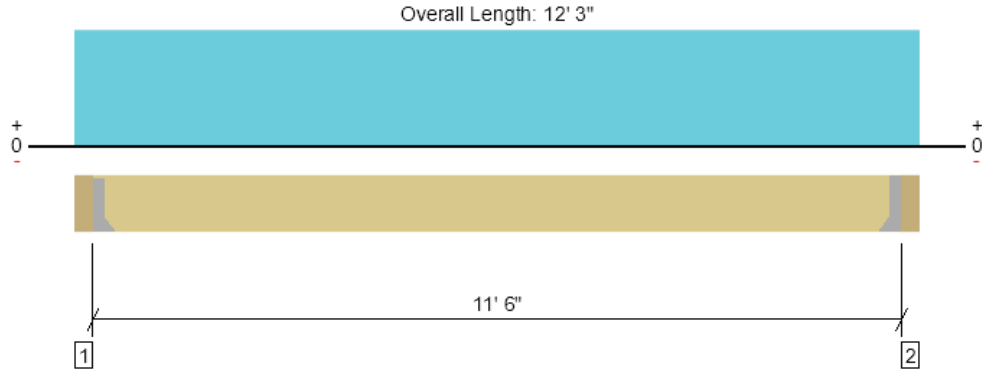
| ForteWEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6572<br>jed@snakeriverengineering.com |           |



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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Beam #11

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



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

| Design Results        | Actual @ Location | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 1483 @ 4 1/2"     | 3938 (1.50") | Passed (38%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 1327 @ 11 3/4"    | 5544         | Passed (24%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 4263 @ 6' 1 1/2"  | 8182         | Passed (52%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.415 @ 6' 1 1/2" | 0.575        | Passed (L/332) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.476 @ 6' 1 1/2" | 0.767        | Passed (L/290) | --   | 1.0 D + 1.0 S (All Spans)   |

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

Member Length : 11' 6"  
System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 0/12

| 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"    | 199                     | 1378 | 1577     | See note <sup>1</sup> |
| 2 - Hanger on 7 1/4" DF beam | 4.50"          | Hanger <sup>1</sup> | 1.50"    | 199                     | 1378 | 1577     | 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' 6" o/c        |          |
| Bottom Edge (Lu) | 11' 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         | HUC46 | 2.50"       | N/A           | 12-10d         | 6-10d            |             |
| 2 - Face Mount Hanger         | HUC46 | 2.50"       | N/A           | 12-10d         | 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 11' 10 1/2" | N/A             | 7.4         | --          |              |
| 1 - Uniform (PSF)     | 0 to 12' 3" (Front)   | 1' 6"           | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

| Weyerhaeuser Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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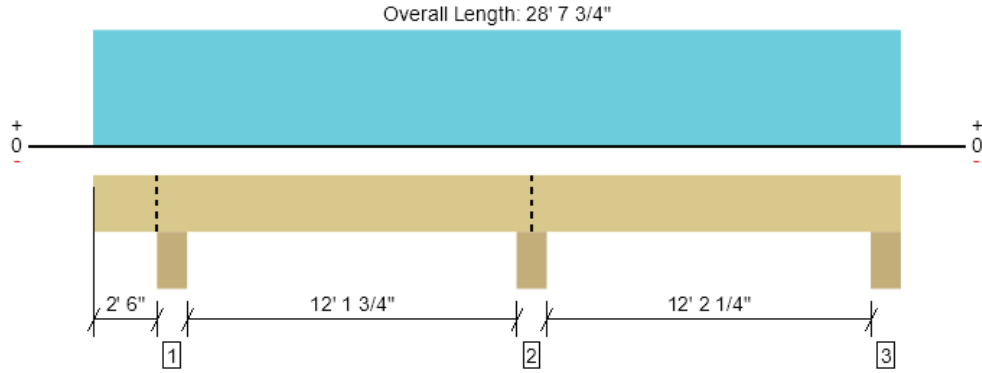
| ForteWEB Software Operator                                                              | Job Notes |
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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Beam #12

1 piece(s) 6 3/4" x 10 1/2" 24F-V4 DF Glulam



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

| Design Results        | Actual @ Location    | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|----------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 13289 @ 15' 6 5/8"   | 31809 (7.25") | Passed (42%)   | --   | 1.0 D + 1.0 S (Adj Spans)   |
| Shear (lbs)           | 5693 @ 16' 8 3/4"    | 14399         | Passed (40%)   | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Pos Moment (Ft-lbs)   | 11292 @ 23' 1/4"     | 28527         | Passed (40%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Neg Moment (Ft-lbs)   | -16665 @ 15' 6 5/8"  | 21990         | Passed (76%)   | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Live Load Defl. (in)  | 0.213 @ 22' 4 13/16" | 0.631         | Passed (L/711) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.234 @ 22' 5 1/4"   | 0.841         | Passed (L/646) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 28' 7 3/4"  
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.
- Volume factor of 1.00 was calculated for positive bending using length L = 10' 3 9/16".
- Volume factor of 1.00 was calculated for negative bending using length L = 6' 3 3/8".
- 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 - Column - DF | 7.25"          | 7.25"     | 1.62"    | 816                     | 6280  | 7096     | Blocking    |
| 2 - Column - DF | 7.25"          | 7.25"     | 3.03"    | 1573                    | 11716 | 13289    | Blocking    |
| 3 - Column - DF | 7.25"          | 7.25"     | 1.50"    | 539                     | 4257  | 4796     | 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)    | 28' 8" o/c        |          |
| Bottom Edge (Lu) | 28' 8" 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 28' 7 3/4"       | N/A             | 17.2        | --          |              |
| 1 - Uniform (PSF)     | 0 to 28' 7 3/4" (Top) | 5'              | 17.0        | 150.0       | Default Load |

• Side loads are assumed to not induce cross-grain tension.

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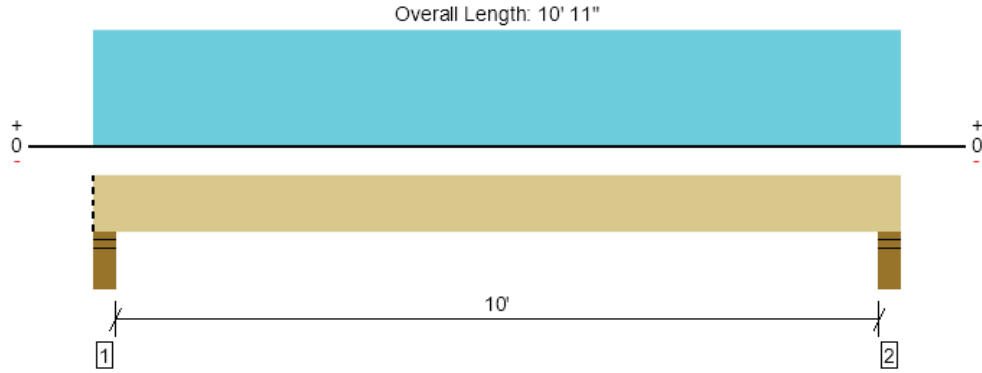
| ForteWEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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Roof, Beam #13

1 piece(s) 5 1/8" x 9" 24F-V4 DF Glulam



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

| Design Results        | Actual @ Location | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 4391 @ 4"         | 17617 (5.50") | Passed (25%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 3419 @ 1' 2 1/2"  | 9371          | Passed (36%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Pos Moment (Ft-lbs)   | 10565 @ 5' 5 1/2" | 15913         | Passed (66%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.316 @ 5' 5 1/2" | 0.512         | Passed (L/390) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.357 @ 5' 5 1/2" | 0.683         | Passed (L/345) | --   | 1.0 D + 1.0 S (All Spans)   |

Member Length : 10' 11"  
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.
- Volume factor of 1.00 was calculated for positive bending using length L = 10' 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"     | 1.50"    | 502                     | 3889 | 4391     | Blocking    |
| 2 - Stud wall - DF | 5.50"          | 5.50"     | 1.50"    | 502                     | 3889 | 4391     | 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)    | 10' 11" o/c       |          |
| Bottom Edge (Lu) | 10' 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 10' 11"       | N/A             | 11.2        | --          |              |
| 1 - Uniform (PSF)     | 0 to 10' 11" (Top) | 4' 9"           | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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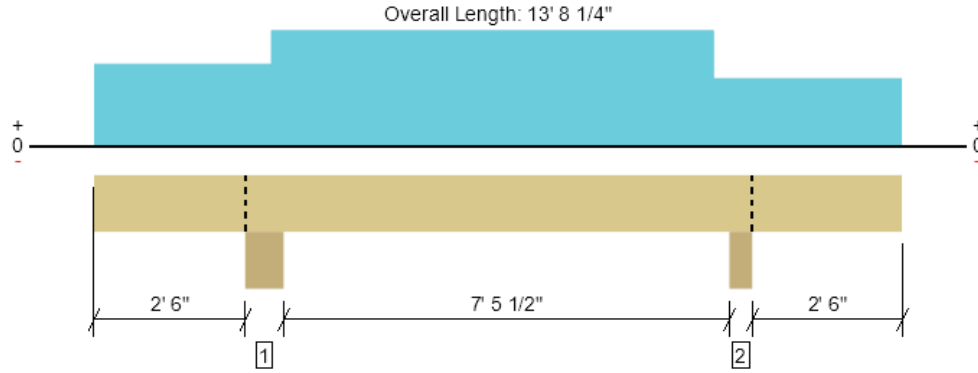
| ForteWEB Software Operator                                                              | Job Notes |
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Roof, Beam #14

1 piece(s) 5 1/8" x 9" 24F-V4 DF Glulam



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

| Design Results        | Actual @ Location   | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 5597 @ 10' 11 1/2"  | 18322 (5.50") | Passed (31%)   | --   | 1.0 D + 1.0 S (Adj Spans)   |
| Shear (lbs)           | 3170 @ 9' 11 3/4"   | 9371          | Passed (34%)   | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Pos Moment (Ft-lbs)   | 6775 @ 6' 11 5/8"   | 15913         | Passed (43%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Neg Moment (Ft-lbs)   | -3001 @ 2' 10 5/8"  | 12266         | Passed (24%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.124 @ 6' 11 3/16" | 0.404         | Passed (L/781) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.136 @ 6' 11 1/4"  | 0.538         | Passed (L/714) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 13' 8 1/4"  
 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.
- Volume factor of 1.00 was calculated for positive bending using length L = 7' 3 3/4".
- Volume factor of 1.00 was calculated for negative bending using length L = 3' 8 3/16".
- 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"     | 1.91"    | 704                     | 5645 | 6349     | Blocking    |
| 2 - Column - DF | 5.50"          | 5.50"     | 1.68"    | 621                     | 4976 | 5597     | 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' 8" o/c        |          |
| Bottom Edge (Lu) | 13' 8" 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' 8 1/4"            | N/A             | 11.2        | --          |              |
| 1 - Uniform (PSF)     | 0 to 3' (Top)              | 4' 3"           | 17.0        | 150.0       | Default Load |
| 2 - Uniform (PSF)     | 3' to 10' 6" (Top)         | 6'              | 17.0        | 150.0       | Default Load |
| 3 - Uniform (PSF)     | 10' 6" to 13' 8 1/4" (Top) | 3' 6"           | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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| ForteWEB Software Operator                                                              | Job Notes |
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| Jed Jones<br>Snake River Engineering<br>(208) 493-6572<br>jed@snakeriverengineering.com |           |

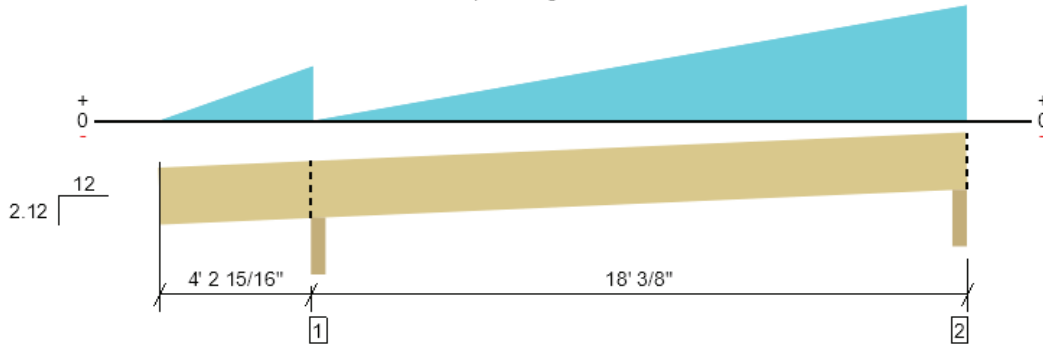


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Roof, Beam #15

**1 piece(s) 8 3/4" x 12" 24F-V4 DF Glulam**

Sloped Length: 22' 7 7/16"



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

| Design Results        | Actual @ Location   | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 9218 @ 22' 1 5/16"  | 13016 (3.50") | Passed (71%)   | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Shear (lbs)           | 7336 @ 21'          | 21333         | Passed (34%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Pos Moment (Ft-lbs)   | 30522 @ 14' 7 7/8"  | 46583         | Passed (66%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Neg Moment (Ft-lbs)   | -2602 @ 4' 4 11/16" | 37231         | Passed (7%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.666 @ 13' 7 3/8"  | 0.900         | Passed (L/324) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.760 @ 13' 7 3/8"  | 1.200         | Passed (L/284) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 22' 9 9/16"  
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.
- Volume factor of 0.96 was calculated for positive bending using length L = 17' 7 15/16".
- Volume factor of 1.00 was calculated for negative bending using length L = 5' 1/16".
- 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"     | 1.71"    | 973                     | 5491 | 6464     | Blocking    |
| 2 - Beveled Plate - SPF | 3.50"          | 3.50"     | 2.48"    | 1108                    | 8111 | 9218     | 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)    | 22' 7" o/c        |          |
| Bottom Edge (Lu) | 22' 7" o/c        |          |

- Maximum allowable bracing intervals based on applied load.
- Dimensions for lateral bracing intervals are measured along the length of the member for sloped conditions.

| Vertical Loads        | Location (Side)            | Tributary Width | Dead (0.90)  | Snow (1.15)   | Comments                     |
|-----------------------|----------------------------|-----------------|--------------|---------------|------------------------------|
| 0 - Self Weight (PLF) | 0 to 22' 3 5/16"           | N/A             | 25.5         | --            |                              |
| 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 22' 3 5/16" | N/A             | 0.0 to 147.0 | 0.0 to 1352.3 | Generated from Roof Geometry |

- Side loads are assumed to not induce cross-grain tension.

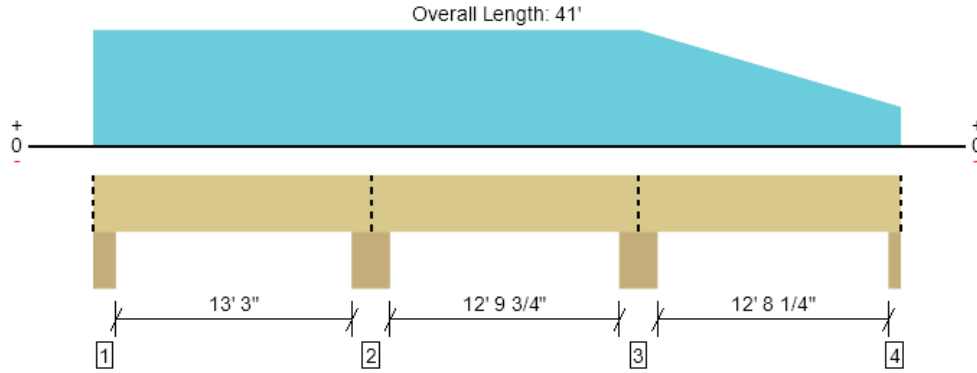
| FortewEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Beam #16

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



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

| Design Results        | Actual @ Location   | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 24321 @ 14' 1 1/8"  | 40584 (9.25") | Passed (60%)   | --   | 1.0 D + 1.0 S (Adj Spans)   |
| Shear (lbs)           | 10313 @ 12' 5 1/2"  | 20571         | Passed (50%)   | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Pos Moment (Ft-lbs)   | 25080 @ 6' 3/4"     | 58219         | Passed (43%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Neg Moment (Ft-lbs)   | -31661 @ 14' 1 1/8" | 44877         | Passed (71%)   | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Live Load Defl. (in)  | 0.197 @ 6' 8 3/16"  | 0.688         | Passed (L/840) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.218 @ 6' 7 7/8"   | 0.917         | Passed (L/758) | --   | 1.0 D + 1.0 S (Alt Spans)   |

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Volume factor of 1.00 was calculated for positive bending using length L = 11' 5 1/2".
- Volume factor of 1.00 was calculated for negative bending using length L = 6' 7 5/8".
- 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.

Member Length : 41'  
System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 0/12

| Supports        | Bearing Length |           |          | Loads to Supports (lbs) |       |          | Accessories |
|-----------------|----------------|-----------|----------|-------------------------|-------|----------|-------------|
|                 | Total          | Available | Required | Dead                    | Snow  | Factored |             |
| 1 - Column - DF | 5.50"          | 5.50"     | 2.11"    | 1026                    | 8237  | 9263     | Blocking    |
| 2 - Column - DF | 9.25"          | 9.25"     | 5.54"    | 2751                    | 21570 | 24321    | Blocking    |
| 3 - Column - DF | 9.25"          | 9.25"     | 4.61"    | 2284                    | 17938 | 20223    | Blocking    |
| 4 - Column - DF | 3.00"          | 3.00"     | 1.50"    | 541                     | 4083  | 4624     | 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' o/c           |          |
| Bottom Edge (Lu) | 41' 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'            | N/A             | 24.6        | --          |              |
| 1 - Uniform (PSF)     | 0 to 27' 9" (Top)   | 9'              | 17.0        | 150.0       | Default Load |
| 2 - Tapered (PSF)     | 27' 9" to 41' (Top) | 9' to 3'        | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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

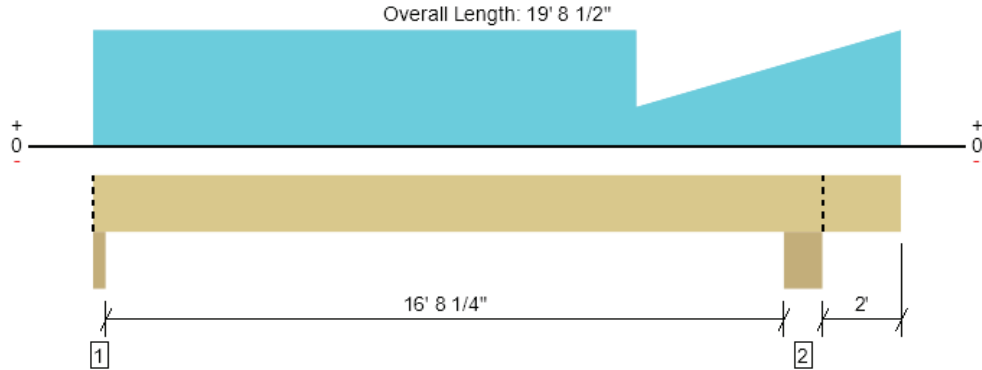
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| Jed Jones<br>Snake River Engineering<br>(208) 431-6572<br>jed@snakeriverengineering.com |           |



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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Beam #17

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



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

| Design Results        | Actual @ Location   | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 12815 @ 1 1/2"      | 13163 (3.00") | Passed (97%)   | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Shear (lbs)           | 10524 @ 1' 6"       | 20571         | Passed (51%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Pos Moment (Ft-lbs)   | 52165 @ 8' 4 11/16" | 56574         | Passed (92%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Neg Moment (Ft-lbs)   | -3995 @ 17' 3 7/8"  | 44877         | Passed (9%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.708 @ 8' 7 7/16"  | 0.860         | Passed (L/291) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.800 @ 8' 7 7/16"  | 1.147         | Passed (L/258) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 19' 8 1/2"  
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).
- Upward deflection on right cantilever exceeds overhang deflection criteria.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Volume factor of 0.97 was calculated for positive bending using length L = 16' 11 7/8".
- Volume factor of 1.00 was calculated for negative bending using length L = 2' 9 1/16".
- 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 | 3.00"          | 3.00"     | 2.92"    | 1483                    | 11332 | 12815    | Blocking    |
| 2 - Column - DF | 9.25"          | 9.25"     | 3.23"    | 1688                    | 12470 | 14158    | 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' 9" o/c        |          |
| Bottom Edge (Lu) | 19' 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 19' 8 1/2"            | N/A             | 24.6        | --          |              |
| 1 - Uniform (PSF)     | 0 to 13' 3" (Top)          | 9'              | 17.0        | 150.0       | Default Load |
| 2 - Tapered (PSF)     | 13' 3" to 19' 8 1/2" (Top) | 3' to 9'        | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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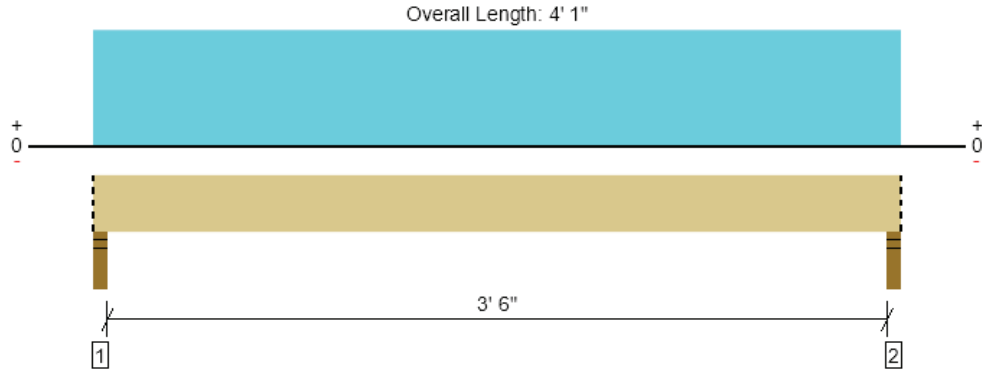
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|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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File Name: 2025-10726 Lot 7 River Fork Ranch



Roof, Beam #6  
1 piece(s) 6 x 8 DF No.2



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

| Design Results        | Actual @ Location | Allowed       | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|---------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 3793 @ 2"         | 12031 (3.50") | Passed (32%)    | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 2090 @ 11"        | 5376          | Passed (39%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 3266 @ 2' 1/2"    | 3706          | Passed (88%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.029 @ 2' 1/2"   | 0.188         | Passed (L/999+) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.033 @ 2' 1/2"   | 0.250         | Passed (L/999+) | --   | 1.0 D + 1.0 S (All Spans)   |

- 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.

Member Length : 4' 1"  
System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 0/12

| Supports           | Bearing Length |           |          | Loads to Supports (lbs) |      |          | Accessories |
|--------------------|----------------|-----------|----------|-------------------------|------|----------|-------------|
|                    | Total          | Available | Required | Dead                    | Snow | Factored |             |
| 1 - Stud wall - DF | 3.50"          | 3.50"     | 1.50"    | 405                     | 3388 | 3793     | Blocking    |
| 2 - Stud wall - DF | 3.50"          | 3.50"     | 1.50"    | 405                     | 3388 | 3793     | 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' 1" o/c         |          |
| Bottom Edge (Lu) | 4' 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 4' 1"         | N/A             | 10.4        | --          |              |
| 1 - Uniform (PSF)     | 0 to 4' 1" (Top)   | 8'              | 17.0        | 150.0       | Default Load |
| 2 - Uniform (PSF)     | 0 to 4' 1" (Front) | 3' 3/4"         | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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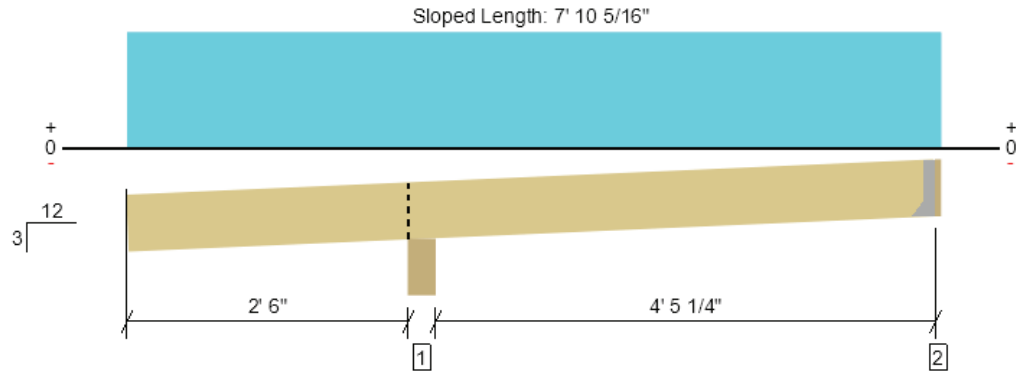
| ForteWEB Software Operator                                                              | Job Notes |
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| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Rafter #1

1 piece(s) 2 x 8 DF No.2 @ 16" OC



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

| Design Results        | Actual @ Location | Allowed      | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 426 @ 7' 6"       | 1406 (1.50") | Passed (30%)    | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Shear (lbs)           | 516 @ 3' 7 13/16" | 1501         | Passed (34%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | -864 @ 2' 9 3/8"  | 1564         | Passed (55%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.088 @ 0         | 0.287        | Passed (2L/780) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.095 @ 0         | 0.382        | Passed (2L/724) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 7' 10 9/16"  
 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).
- Left 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.
- 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         | 6.75"          | 6.75"               | 1.50"    | 139                     | 1192 | 1331     | Blocking              |
| 2 - Hanger on 7 1/4" DF Ledger | 1.50"          | Hanger <sup>1</sup> | 1.50"    | 39                      | 415  | 454      | 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)    | 7' 9" o/c         |          |
| Bottom Edge (Lu) | 7' 9" o/c         |          |

- Maximum allowable bracing intervals based on applied load.
- Dimensions for lateral bracing intervals are measured along the length of the member for sloped conditions.

#### Connector: Simpson Strong-Tie

| Support               | Model       | Seat Length | Top Fasteners | Face Fasteners | Member Fasteners | Accessories |
|-----------------------|-------------|-------------|---------------|----------------|------------------|-------------|
| 2 - Face Mount Hanger | HU28X SLD14 | 2.25"       | N/A           | 6-10dx1.5      | 4-10dx1.5        |             |

- 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' 7 1/2"  | 16"     | 17.0        | 150.0       | Default Load |

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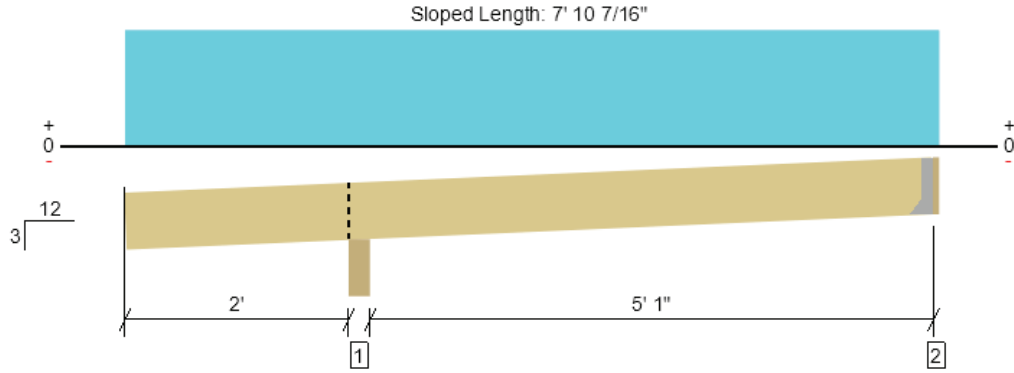
| ForteWEB Software Operator                                                              | Job Notes |
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| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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 File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Rafter #2

1 piece(s) 2 x 8 DF No.2 @ 16" OC



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

| Design Results        | Actual @ Location    | Allowed      | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|----------------------|--------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 535 @ 7' 6 1/8"      | 1406 (1.50") | Passed (38%)    | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Shear (lbs)           | 516 @ 3' 3/16"       | 1501         | Passed (34%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 640 @ 5' 1 7/16"     | 1564         | Passed (41%)    | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Live Load Defl. (in)  | 0.039 @ 4' 11 1/2"   | 0.273        | Passed (L/999+) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.042 @ 4' 11 11/16" | 0.364        | Passed (L/999+) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 7' 10 11/16"  
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         | 5.13"          | 5.13"               | 1.50"    | 124                     | 1065 | 1189     | Blocking              |
| 2 - Hanger on 7 1/4" DF Ledger | 1.50"          | Hanger <sup>1</sup> | 1.50"    | 54                      | 508  | 562      | 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)    | 7' 9" o/c         |          |
| Bottom Edge (Lu) | 7' 9" o/c         |          |

- Maximum allowable bracing intervals based on applied load.
- Dimensions for lateral bracing intervals are measured along the length of the member for sloped conditions.

#### Connector: Simpson Strong-Tie

| Support               | Model       | Seat Length | Top Fasteners | Face Fasteners | Member Fasteners | Accessories |
|-----------------------|-------------|-------------|---------------|----------------|------------------|-------------|
| 2 - Face Mount Hanger | HU28X SLD14 | 2.25"       | N/A           | 6-10dx1.5      | 4-10dx1.5        |             |

- 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' 7 5/8"  | 16"     | 17.0        | 150.0       | Default Load |

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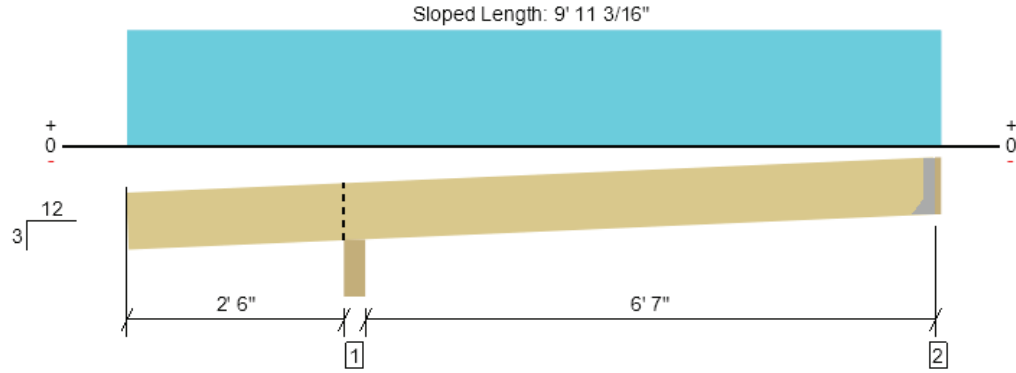
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|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Rafter #3

1 piece(s) 2 x 8 DF No.2 @ 16" OC



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

| Design Results        | Actual @ Location  | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|--------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 692 @ 9' 6 1/8"    | 1406 (1.50") | Passed (49%)   | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Shear (lbs)           | 701 @ 3' 6 3/16"   | 1501         | Passed (47%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 1073 @ 6' 4 15/16" | 1564         | Passed (69%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Live Load Defl. (in)  | 0.108 @ 6' 2 1/2"  | 0.350        | Passed (L/775) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.118 @ 6' 2 5/8"  | 0.467        | Passed (L/712) | --   | 1.0 D + 1.0 S (Alt Spans)   |

- 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.

Member Length : 9' 11 7/16"  
System : Roof  
Member Type : Joist  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 3/12

| Supports                       | Bearing Length |                     |          | Loads to Supports (lbs) |      |          | Accessories           |
|--------------------------------|----------------|---------------------|----------|-------------------------|------|----------|-----------------------|
|                                | Total          | Available           | Required | Dead                    | Snow | Factored |                       |
| 1 - Beveled Plate - DF         | 5.13"          | 5.13"               | 1.54"    | 155                     | 1331 | 1486     | Blocking              |
| 2 - Hanger on 7 1/4" DF Ledger | 1.50"          | Hanger <sup>1</sup> | 1.50"    | 70                      | 651  | 720      | 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' o/c            |          |
| Bottom Edge (Lu) | 9' 10" o/c        |          |

- Maximum allowable bracing intervals based on applied load.
- Dimensions for lateral bracing intervals are measured along the length of the member for sloped conditions.

#### Connector: Simpson Strong-Tie

| Support               | Model  | Seat Length | Top Fasteners | Face Fasteners | Member Fasteners | Accessories |
|-----------------------|--------|-------------|---------------|----------------|------------------|-------------|
| 2 - Face Mount Hanger | LRU28Z | 1.94"       | N/A           | 6-10dx1.5      | 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' 7 5/8"  | 16"     | 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

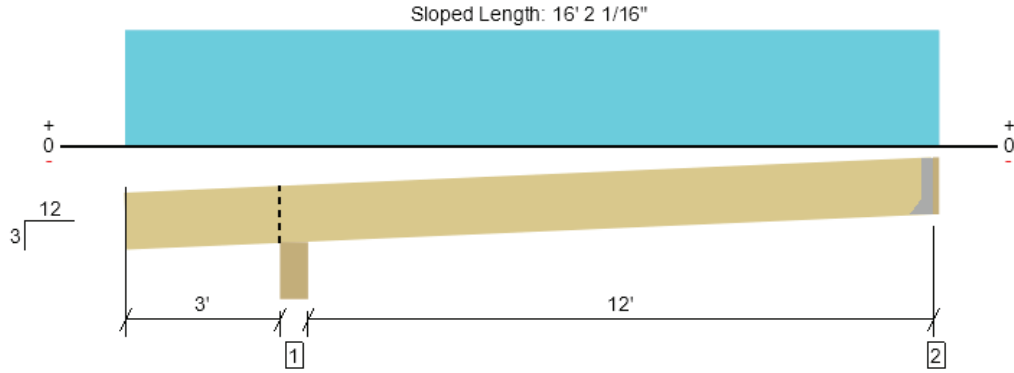
| ForteWEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6572<br>jed@snakeriverengineering.com |           |



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File Name: 2025-10726 Lot 7 River Fork Ranch

Roof, Rafter #4

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



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

| Design Results        | Actual @ Location   | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 988 @ 15' 6 3/4"    | 1406 (1.50") | Passed (70%)   | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Shear (lbs)           | 903 @ 4' 5 11/16"   | 2329         | Passed (39%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 2914 @ 9' 7 15/16"  | 3138         | Passed (93%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Live Load Defl. (in)  | 0.262 @ 9' 5 15/16" | 0.633        | Passed (L/580) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.290 @ 9' 6 1/16"  | 0.844        | Passed (L/524) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 16' 3 5/16"  
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          | 6.75"          | 6.75"               | 1.71"    | 173                     | 1479 | 1652     | Blocking              |
| 2 - Hanger on 11 1/4" DF Ledger | 1.50"          | Hanger <sup>1</sup> | 1.50"    | 102                     | 907  | 1009     | 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)    | 3' 1" o/c         |          |
| Bottom Edge (Lu) | 16' o/c           |          |

- Maximum allowable bracing intervals based on applied load.
- Dimensions for lateral bracing intervals are measured along the length of the member for sloped conditions.

| Connector: Simpson Strong-Tie |             |             |               |                |                  |             |  |
|-------------------------------|-------------|-------------|---------------|----------------|------------------|-------------|--|
| Support                       | Model       | Seat Length | Top Fasteners | Face Fasteners | Member Fasteners | Accessories |  |
| 2 - Face Mount Hanger         | U210X SLD14 | 2.00"       | N/A           | 10-10dx1.5     | 6-10dx1.5        |             |  |

- 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 15' 8 1/4" | 12"     | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

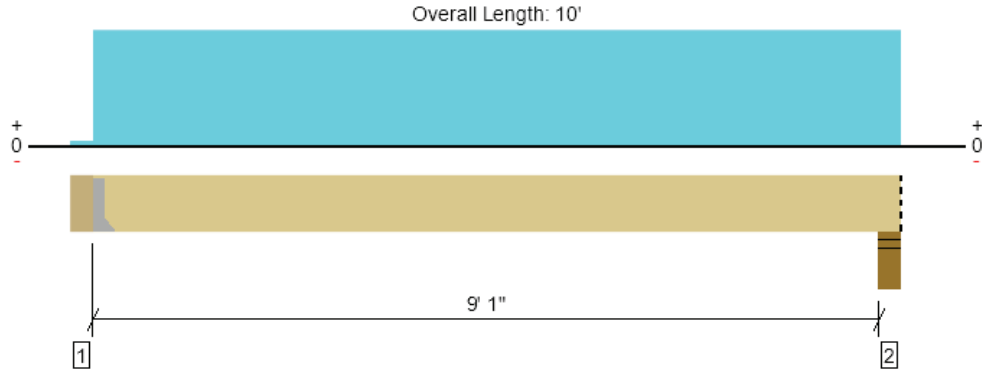
| ForteWEB Software Operator                                                              | Job Notes |
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Roof, Beam #10

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



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

| Design Results        | Actual @ Location | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 13271 @ 5 1/2"    | 13271 (3.98") | Passed (100%)  | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 10028 @ 1' 7"     | 14057         | Passed (71%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Pos Moment (Ft-lbs)   | 30551 @ 5' 3/4"   | 35805         | Passed (85%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.211 @ 5' 3/4"   | 0.460         | Passed (L/523) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.247 @ 5' 3/4"   | 0.614         | Passed (L/448) | --   | 1.0 D + 1.0 S (All Spans)   |

Member Length : 9' 6 1/2"  
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.
- Volume factor of 1.00 was calculated for positive bending using length L = 9' 2 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                    | Snow  | Factored |                       |
| 1 - Hanger on 13 1/2" DF beam | 5.50"          | Hanger <sup>1</sup> | 3.98"    | 1958                    | 11367 | 13324    | See note <sup>1</sup> |
| 2 - Stud wall - DF            | 5.50"          | 5.50"               | 4.44"    | 2042                    | 12189 | 14232    | 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)    | 9' 7" o/c         |          |
| Bottom Edge (Lu) | 9' 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 |
|-----------------------|---------------------|-------------|---------------|----------------|------------------|-------------|
| 1 - Face Mount Hanger | HHGU5.25-SDS H=13.5 | 5.25"       | N/A           | 44-SDS25212    | 28-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 10'         | N/A             | 16.8        | --          |              |
| 1 - Uniform (PSF)     | 5 1/2" to 10' (Front) | 4' 6 1/2"       | 17.0        | 150.0       | Default Load |
| 2 - Uniform (PSF)     | 5 1/2" to 10' (Top)   | 11' 11"         | 17.0        | 150.0       | Default Load |
| 3 - Uniform (PSF)     | 0 to 10' (Top)        | 9' 9"           | 12.0        | --          |              |

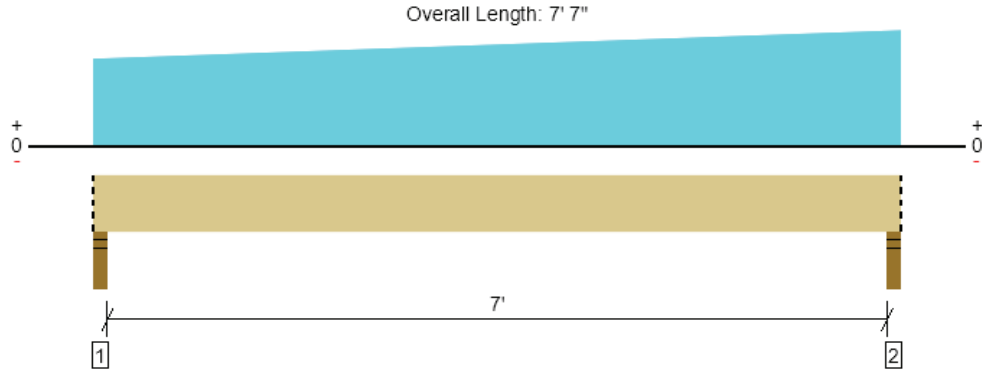
- Side loads are assumed to not induce cross-grain tension.

| ForteWEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
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Roof, Beam #20  
2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL



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

| Design Results        | Actual @ Location   | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 5641 @ 7' 5"        | 7656 (3.50") | Passed (74%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 3920 @ 6' 6"        | 7265         | Passed (54%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 9327 @ 3' 10 7/16"  | 13541        | Passed (69%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.186 @ 3' 9 11/16" | 0.363        | Passed (L/467) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.209 @ 3' 9 11/16" | 0.483        | Passed (L/417) | --   | 1.0 D + 1.0 S (All Spans)   |

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

Member Length : 7' 7"  
System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 0/12

| Supports           | Bearing Length |           |          | Loads to Supports (lbs) |      |          | Accessories |
|--------------------|----------------|-----------|----------|-------------------------|------|----------|-------------|
|                    | Total          | Available | Required | Dead                    | Snow | Factored |             |
| 1 - Stud wall - DF | 3.50"          | 3.50"     | 2.34"    | 554                     | 4564 | 5118     | Blocking    |
| 2 - Stud wall - DF | 3.50"          | 3.50"     | 2.58"    | 607                     | 5034 | 5641     | 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)    | 7' 7" o/c         |          |
| Bottom Edge (Lu) | 7' 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 7' 7"         | N/A                | 9.7         | --          |              |
| 1 - Tapered (PSF)     | 0 to 7' 7" (Front) | 7' 3" to 9' 7 1/2" | 17.0        | 150.0       | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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

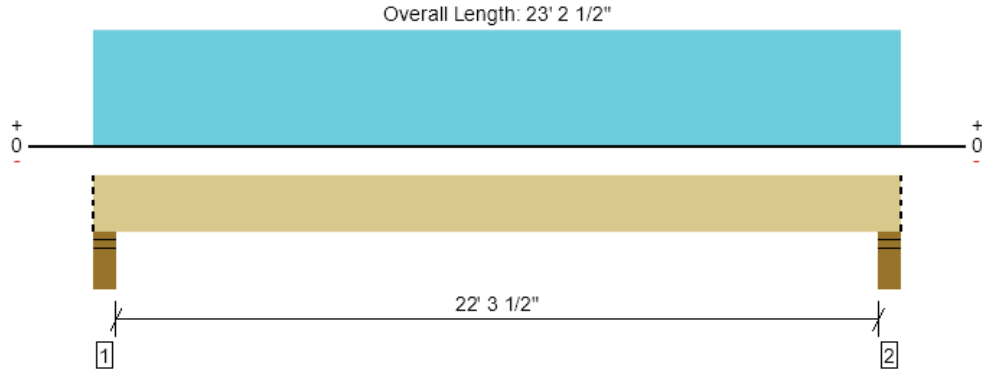
| ForteWEB Software Operator                                                              | Job Notes |
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Upper Floor, Beam #1

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



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

| Design Results        | Actual @ Location   | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 22513 @ 4"          | 23203 (5.50") | Passed (97%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 17258 @ 2' 8 1/2"   | 37027         | Passed (47%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Pos Moment (Ft-lbs)   | 123224 @ 11' 7 1/4" | 168017        | Passed (73%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.492 @ 11' 7 1/4"  | 0.564         | Passed (L/550) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.566 @ 11' 7 1/4"  | 1.127         | Passed (L/478) | --   | 1.0 D + 1.0 S (All Spans)   |

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Volume factor of 0.89 was calculated for positive bending using length L = 22' 6 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.

Member Length : 23' 2 1/2"  
System : Floor  
Member Type : Flush Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports           | Bearing Length |           |          | Loads to Supports (lbs) |            |       |          | Accessories |
|--------------------|----------------|-----------|----------|-------------------------|------------|-------|----------|-------------|
|                    | Total          | Available | Required | Dead                    | Floor Live | Snow  | Factored |             |
| 1 - Stud wall - DF | 5.50"          | 5.50"     | 5.34"    | 2931                    | 464        | 19582 | 22513    | Blocking    |
| 2 - Stud wall - DF | 5.50"          | 5.50"     | 5.34"    | 2931                    | 464        | 19582 | 22513    | 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' 3" o/c        |          |
| Bottom Edge (Lu) | 23' 3" 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' 2 1/2"         | N/A             | 44.3        | --                | --          |              |
| 1 - Uniform (PSF)     | 0 to 23' 2 1/2" (Front) | 1'              | 17.0        | 40.0              | --          | Default Load |
| 2 - Uniform (PSF)     | 0 to 23' 2 1/2" (Back)  | 7' 9"           | 17.0        | --                | 150.0       | Snow         |
| 3 - Uniform (PSF)     | 0 to 23' 2 1/2" (Top)   | 3' 6"           | 17.0        | --                | 150.0       | Snow         |

- Side loads are assumed to not induce cross-grain tension.

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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<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |

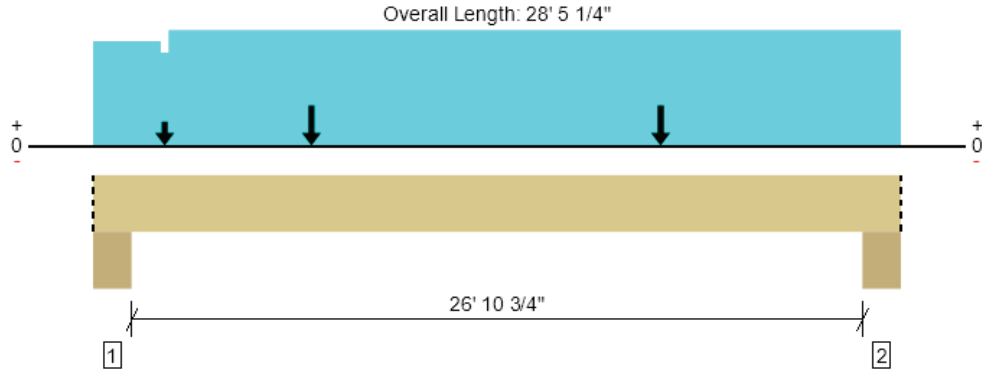


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Upper Floor, Beam #2

1 piece(s) 8 3/4" x 34 1/2" 24F-V4 DF Glulam



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

| Design Results        | Actual @ Location  | Allowed       | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|--------------------|---------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 47147 @ 7 3/4"     | 52609 (9.25") | Passed (90%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 36291 @ 3' 7 3/4"  | 61331         | Passed (59%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Pos Moment (Ft-lbs)   | 307885 @ 14' 3"    | 331879        | Passed (93%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.632 @ 14' 2 5/8" | 0.679         | Passed (L/516) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.764 @ 14' 2 5/8" | 1.357         | Passed (L/427) | --   | 1.0 D + 1.0 S (All Spans)   |

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Volume factor of 0.83 was calculated for positive bending 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.

Member Length : 28' 5 1/4"  
System : Floor  
Member Type : Flush Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports        | Bearing Length |           |          | Loads to Supports (lbs) |            |       |          | Accessories |
|-----------------|----------------|-----------|----------|-------------------------|------------|-------|----------|-------------|
|                 | Total          | Available | Required | Dead                    | Floor Live | Snow  | Factored |             |
| 1 - Column - DF | 9.25"          | 9.25"     | 8.29"    | 8298                    | 6565       | 38850 | 47147    | Blocking    |
| 2 - Column - DF | 9.25"          | 9.25"     | 8.23"    | 8151                    | 6569       | 38638 | 46789    | 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)    | 22' 3" 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             | 73.4        | --                | --          |                                 |
| 1 - Uniform (PSF)     | 0 to 2' 4 1/2" (Front)      | 5' 10"          | 17.0        | 40.0              | --          | Default Load                    |
| 2 - Uniform (PSF)     | 0 to 28' 5 1/4" (Top)       | 14' 6"          | 17.0        | --                | 150.0       | Snow                            |
| 3 - Uniform (PSF)     | 0 to 28' 5 1/4" (Back)      | 1' 11"          | 17.0        | --                | 150.0       | Snow                            |
| 4 - Uniform (PSF)     | 2' 8" to 28' 5 1/4" (Front) | 11' 6"          | 17.0        | 40.0              | --          | Default Load                    |
| 5 - Point (lb)        | 2' 6 1/4" (Front)           | N/A             | 458         | 725               | --          | Linked from: Beam #5, Support 2 |
| 6 - Point (lb)        | 7' 8 1/4" (Front)           | N/A             | 347         | --                | 3730        | Gt                              |
| 7 - Point (lb)        | 19' 11 3/4" (Front)         | N/A             | 347         | --                | 3730        | Gt                              |

- Side loads are assumed to not induce cross-grain tension.

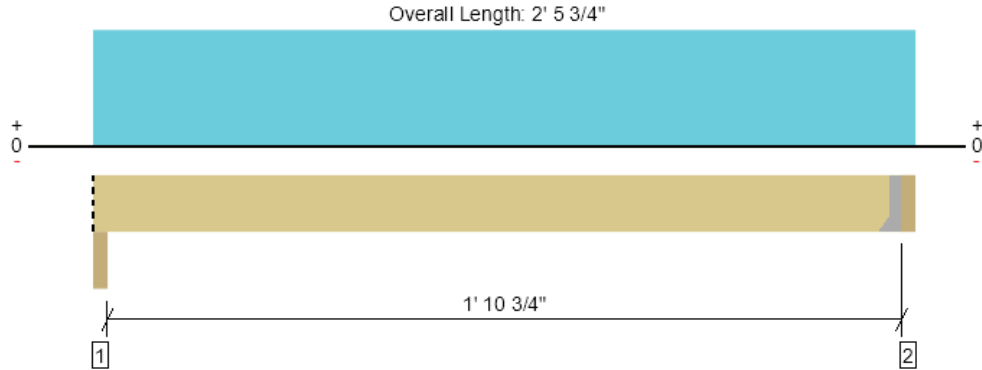
| FortewEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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Upper Floor, Beam #3

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



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

| Design Results        | Actual @ Location | Allowed      | Result           | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|------------------|------|-----------------------------|
| Member Reaction (lbs) | 348 @ 2' 2 1/4"   | 3938 (1.50") | Passed (9%)      | --   | 1.0 D + 1.0 L (All Spans)   |
| Shear (lbs)           | 36 @ 1' 3 3/8"    | 7897         | Passed (0%)      | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Moment (Ft-lbs)       | 176 @ 1' 2 1/8"   | 17848        | Passed (1%)      | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Live Load Defl. (in)  | 0.000 @ 0         | 0.051        | Passed (2L/999+) | --   | 1.0 D + 1.0 L (All Spans)   |
| Total Load Defl. (in) | 0.001 @ 1' 2 1/8" | 0.101        | Passed (L/999+)  | --   | 1.0 D + 1.0 L (All Spans)   |

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

Member Length : 2' 2 1/4"  
System : Floor  
Member Type : Flush Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports                       | Bearing Length |                     |          | Loads to Supports (lbs) |            |          | Accessories           |
|--------------------------------|----------------|---------------------|----------|-------------------------|------------|----------|-----------------------|
|                                | Total          | Available           | Required | Dead                    | Floor Live | Factored |                       |
| 1 - Column - DF                | 3.50"          | 3.50"               | 1.50"    | 131                     | 275        | 406      | Blocking              |
| 2 - Hanger on 11 7/8" LVL beam | 3.50"          | Hanger <sup>1</sup> | 1.50"    | 141                     | 304        | 445      | 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' 2" o/c         |          |
| Bottom Edge (Lu) | 2' 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 |
|-----------------------|--------|-------------|---------------|----------------|------------------|-------------|
| 2 - Face Mount Hanger | LUS410 | 2.00"       | N/A           | 8-10dx1.5      | 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) | Floor Live (1.00) | Comments     |
|-----------------------|------------------------|-----------------|-------------|-------------------|--------------|
| 0 - Self Weight (PLF) | 0 to 2' 2 1/4"         | N/A             | 12.1        | --                |              |
| 1 - Uniform (PSF)     | 0 to 2' 5 3/4" (Front) | 5' 10"          | 17.0        | 40.0              | Default Load |

- Side loads are assumed to not induce cross-grain tension.

#### Weyerhaeuser Notes

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

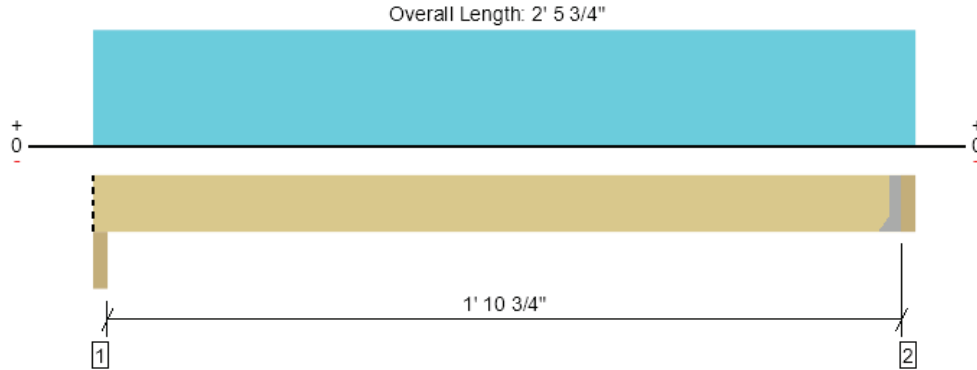
| ForteWEB Software Operator                                                              | Job Notes |
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Upper Floor, Beam #4

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



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

| Design Results        | Actual @ Location | Allowed      | Result           | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|------------------|------|-----------------------------|
| Member Reaction (lbs) | 348 @ 2' 2 1/4"   | 3938 (1.50") | Passed (9%)      | --   | 1.0 D + 1.0 L (All Spans)   |
| Shear (lbs)           | 36 @ 1' 3 3/8"    | 7897         | Passed (0%)      | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Moment (Ft-lbs)       | 176 @ 1' 2 1/8"   | 17848        | Passed (1%)      | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Live Load Defl. (in)  | 0.000 @ 0         | 0.051        | Passed (2L/999+) | --   | 1.0 D + 1.0 L (All Spans)   |
| Total Load Defl. (in) | 0.001 @ 1' 2 1/8" | 0.101        | Passed (L/999+)  | --   | 1.0 D + 1.0 L (All Spans)   |

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

Member Length : 2' 2 1/4"  
System : Floor  
Member Type : Flush Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports                       | Bearing Length |                     |          | Loads to Supports (lbs) |            |          | Accessories           |
|--------------------------------|----------------|---------------------|----------|-------------------------|------------|----------|-----------------------|
|                                | Total          | Available           | Required | Dead                    | Floor Live | Factored |                       |
| 1 - Column - DF                | 3.50"          | 3.50"               | 1.50"    | 131                     | 275        | 406      | Blocking              |
| 2 - Hanger on 11 7/8" LVL beam | 3.50"          | Hanger <sup>1</sup> | 1.50"    | 141                     | 304        | 445      | 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' 2" o/c         |          |
| Bottom Edge (Lu) | 2' 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 |
|-----------------------|--------|-------------|---------------|----------------|------------------|-------------|
| 2 - Face Mount Hanger | LUS410 | 2.00"       | N/A           | 8-10dx1.5      | 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) | Floor Live (1.00) | Comments     |
|-----------------------|------------------------|-----------------|-------------|-------------------|--------------|
| 0 - Self Weight (PLF) | 0 to 2' 2 1/4"         | N/A             | 12.1        | --                |              |
| 1 - Uniform (PSF)     | 0 to 2' 5 3/4" (Front) | 5' 10"          | 17.0        | 40.0              | Default Load |

- Side loads are assumed to not induce cross-grain tension.

#### Weyerhaeuser Notes

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

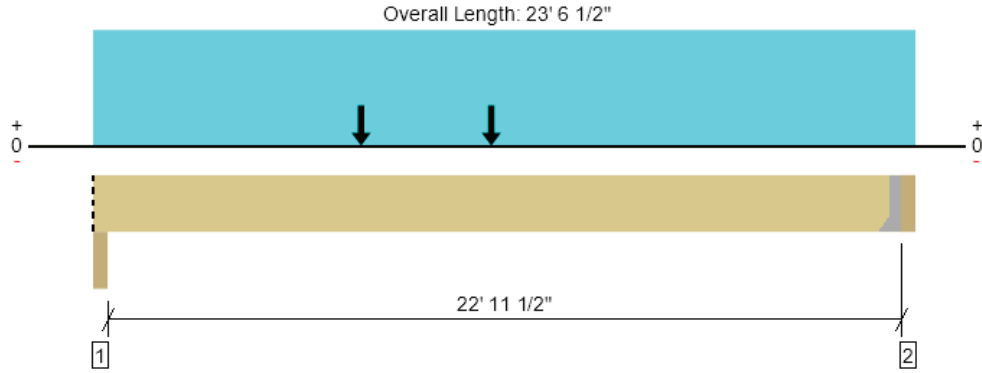
| ForteWEB Software Operator                                                              | Job Notes |
|-----------------------------------------------------------------------------------------|-----------|
| Jed Jones<br>Snake River Engineering<br>(208) 493-6512<br>jed@snakeriverengineering.com |           |



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Upper Floor, Beam #5

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



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

| Design Results        | Actual @ Location    | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|----------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 1166 @ 23' 3"        | 3938 (1.50") | Passed (30%)   | --   | 1.0 D + 1.0 L (All Spans)   |
| Shear (lbs)           | 1243 @ 1' 3 3/8"     | 7897         | Passed (16%)   | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Moment (Ft-lbs)       | 8888 @ 11' 7 1/4"    | 17848        | Passed (50%)   | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Live Load Defl. (in)  | 0.532 @ 11' 5 11/16" | 0.577        | Passed (L/521) | --   | 1.0 D + 1.0 L (All Spans)   |
| Total Load Defl. (in) | 0.850 @ 11' 5 7/8"   | 1.154        | Passed (L/326) | --   | 1.0 D + 1.0 L (All Spans)   |

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

Member Length : 23' 3"  
System : Floor  
Member Type : Flush Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports                       | Bearing Length |                     |          | Loads to Supports (lbs) |            |          | Accessories           |
|--------------------------------|----------------|---------------------|----------|-------------------------|------------|----------|-----------------------|
|                                | Total          | Available           | Required | Dead                    | Floor Live | Factored |                       |
| 1 - Column - DF                | 3.50"          | 3.50"               | 1.50"    | 506                     | 825        | 1331     | Blocking              |
| 2 - Hanger on 11 7/8" LVL beam | 3.50"          | Hanger <sup>1</sup> | 1.50"    | 458                     | 725        | 1182     | 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)    | 16' 7" o/c        |          |
| Bottom Edge (Lu) | 23' 3" 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 | LUS410 | 2.00"       | N/A           | 8-10dx1.5      | 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) | Floor Live (1.00) | Comments                        |
|-----------------------|-------------------------|-----------------|-------------|-------------------|---------------------------------|
| 0 - Self Weight (PLF) | 0 to 23' 3"             | N/A             | 12.1        | --                |                                 |
| 1 - Uniform (PSF)     | 0 to 23' 6 1/2" (Front) | 1'              | 17.0        | 40.0              | Default Load                    |
| 2 - Point (lb)        | 7' 9 3/4" (Front)       | N/A             | 141         | 304               | Linked from: Beam #4, Support 2 |
| 3 - Point (lb)        | 11' 7 1/4" (Front)      | N/A             | 141         | 304               | Linked from: Beam #3, Support 2 |

- Side loads are assumed to not induce cross-grain tension.

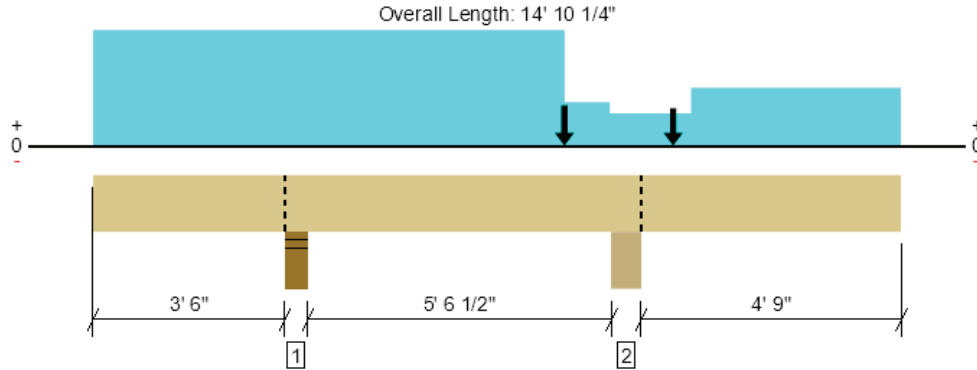
| ForteWEB Software Operator                                                              | Job Notes |
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Upper Floor, Beam #7

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



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

| Design Results        | Actual @ Location   | Allowed       | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|---------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 19976 @ 3' 8 3/4"   | 23203 (5.50") | Passed (86%)    | --   | 1.0 D + 1.0 S (Adj Spans)   |
| Shear (lbs)           | 10652 @ 8' 4 1/2"   | 18514         | Passed (58%)    | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Pos Moment (Ft-lbs)   | 3973 @ 7' 9/16"     | 47157         | Passed (8%)     | 1.15 | 1.0 D + 1.0 S (Alt Spans)   |
| Neg Moment (Ft-lbs)   | -22195 @ 9' 9 5/8"  | 36180         | Passed (61%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.198 @ 14' 10 1/4" | 0.253         | Passed (2L/612) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.235 @ 14' 10 1/4" | 0.505         | Passed (2L/516) | --   | 1.0 D + 1.0 S (Alt Spans)   |

Member Length : 14' 10 1/4"  
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.
- Moment capacity over cantilever support 2 has been reduced by 0.5% to lessen the effects of buckling.
- Volume factor of 1.00 was calculated for positive bending using length L = 3' 4 3/4".
- Volume factor of 1.00 was calculated for negative bending using length L = 14' 10 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"     | 4.74"    | 2653                    | 316        | 17323 | 19976    | Blocking    |
| 2 - Column - DF    | 7.25"          | 7.25"     | 6.07"    | 3967                    | 408        | 22681 | 26647    | 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)    | 14' 10" o/c       |          |
| Bottom Edge (Lu) | 14' 10" 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 14' 10 1/4"            | N/A             | 22.1        | --                | --          |                                   |
| 1 - Uniform (PSF)     | 0 to 14' 10 1/4" (Front)    | 1'              | 17.0        | 40.0              | --          | Default Load                      |
| 2 - Uniform (PSF)     | 0 to 14' 10 1/4" (Top)      | 9'              | 12.0        | --                | --          | wall                              |
| 3 - Uniform (PSF)     | 0 to 8' 8" (Top)            | 10'             | 17.0        | --                | 150.0       | Snow                              |
| 4 - Uniform (PSF)     | 0 to 9' 6" (Back)           | 5'              | 17.0        | --                | 150.0       | Snow                              |
| 5 - Uniform (PSF)     | 9' 6" to 14' 10 1/4" (Back) | 3' 6"           | 17.0        | --                | 150.0       | Snow                              |
| 6 - Uniform (PSF)     | 11' to 14' 10 1/4" (Top)    | 3' 6"           | 17.0        | --                | 150.0       | Snow                              |
| 7 - Point (lb)        | 8' 8" (Top)                 | N/A             | 822         | --                | 6315        | Linked from: HDR @ gt1, Support 1 |
| 8 - Point (lb)        | 10' 8" (Top)                | N/A             | 783         | --                | 5946        | Linked from: HDR @ gt1, Support 2 |

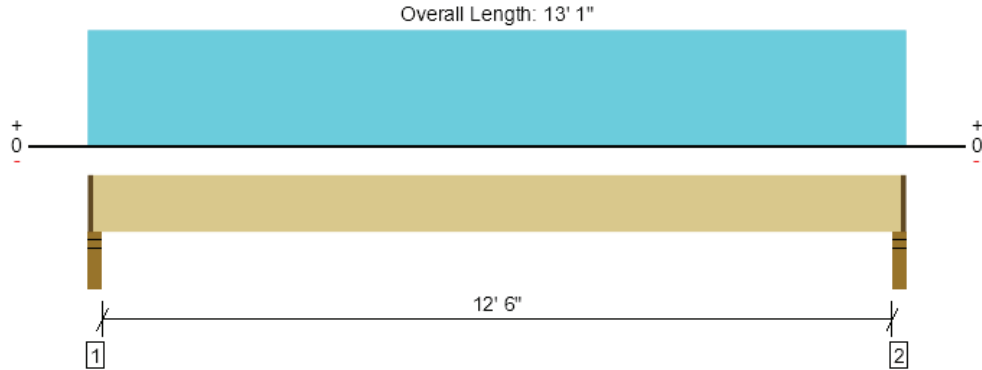
| Forteweb Software Operator                                                              | Job Notes |
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Upper Floor, Beam #18

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



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

| Design Results        | Actual @ Location | Allowed      | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 1870 @ 2"         | 4922 (2.25") | Passed (38%)    | --   | 1.0 D + 1.0 L (All Spans)   |
| Shear (lbs)           | 1528 @ 1' 3 3/8"  | 7897         | Passed (19%)    | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Moment (Ft-lbs)       | 5904 @ 6' 6 1/2"  | 17848        | Passed (33%)    | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Live Load Defl. (in)  | 0.142 @ 6' 6 1/2" | 0.319        | Passed (L/999+) | --   | 1.0 D + 1.0 L (All Spans)   |
| Total Load Defl. (in) | 0.193 @ 6' 6 1/2" | 0.637        | Passed (L/792)  | --   | 1.0 D + 1.0 L (All Spans)   |

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

Member Length : 12' 10 1/2"  
System : Floor  
Member Type : Flush Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports           | Bearing Length |           |          | Loads to Supports (lbs) |            |          | Accessories      |
|--------------------|----------------|-----------|----------|-------------------------|------------|----------|------------------|
|                    | Total          | Available | Required | Dead                    | Floor Live | Factored |                  |
| 1 - Stud wall - DF | 3.50"          | 2.25"     | 1.50"    | 498                     | 1401       | 1899     | 1 1/4" Rim Board |
| 2 - Stud wall - DF | 3.50"          | 2.25"     | 1.50"    | 498                     | 1401       | 1899     | 1 1/4" Rim Board |

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

| Lateral Bracing  | Bracing Intervals | Comments |
|------------------|-------------------|----------|
| Top Edge (Lu)    | 12' 11" o/c       |          |
| Bottom Edge (Lu) | 12' 11" 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) | 1 1/4" to 12' 11 3/4" | N/A             | 12.1        | --                |              |
| 1 - Uniform (PSF)     | 0 to 13' 1" (Front)   | 5' 4 1/4"       | 12.0        | 40.0              | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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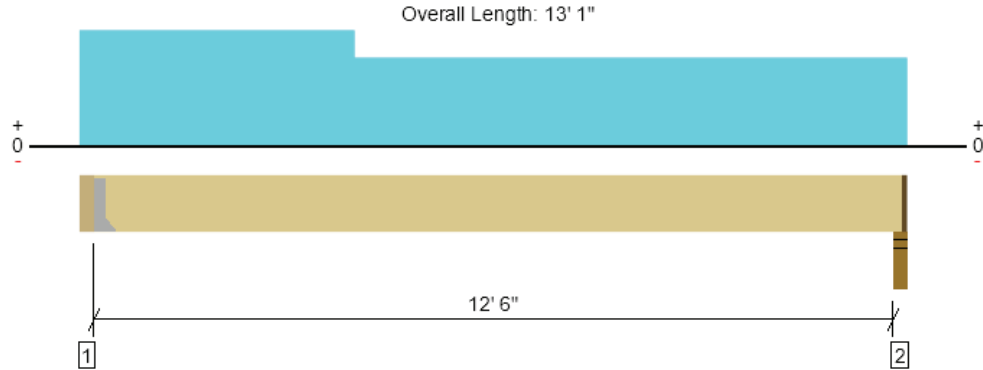
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File Name: 2025-10726 Lot 7 River Fork Ranch

Upper Floor, Beam #19

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



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

| Design Results        | Actual @ Location   | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 4026 @ 3 1/2"       | 4026 (1.53") | Passed (100%)  | --   | 1.0 D + 1.0 L (All Spans)   |
| Shear (lbs)           | 3318 @ 1' 3 3/8"    | 7897         | Passed (42%)   | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Moment (Ft-lbs)       | 11613 @ 6' 4 15/16" | 17848        | Passed (65%)   | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Live Load Defl. (in)  | 0.260 @ 6' 6 11/16" | 0.316        | Passed (L/584) | --   | 1.0 D + 1.0 L (All Spans)   |
| Total Load Defl. (in) | 0.375 @ 6' 6 3/4"   | 0.631        | Passed (L/404) | --   | 1.0 D + 1.0 L (All Spans)   |

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

Member Length : 12' 8 1/4"  
 System : Floor  
 Member Type : Flush Beam  
 Building Use : Residential  
 Building Code : IBC 2018  
 Design Methodology : ASD

| 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> | 1.53"    | 1275                    | 2957       | 4232     | See note <sup>1</sup> |
| 2 - Stud wall - DF            | 3.50"          | 2.25"               | 1.65"    | 1139                    | 2522       | 3661     | 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)    | 12' o/c           |          |
| Bottom Edge (Lu) | 12' 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 | HUCQ410-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) | Floor Live (1.00) | Comments     |
|-----------------------|------------------------|-----------------|-------------|-------------------|--------------|
| 0 - Self Weight (PLF) | 3 1/2" to 12' 11 3/4"  | N/A             | 12.1        | --                |              |
| 1 - Uniform (PSF)     | 0 to 4' 3 1/2" (Front) | 3' 2 1/2"       | 12.0        | 40.0              | Default Load |
| 2 - Uniform (PSF)     | 0 to 13' 1" (Back)     | 9' 5"           | 17.0        | 40.0              | Default Load |

- Side loads are assumed to not induce cross-grain tension.

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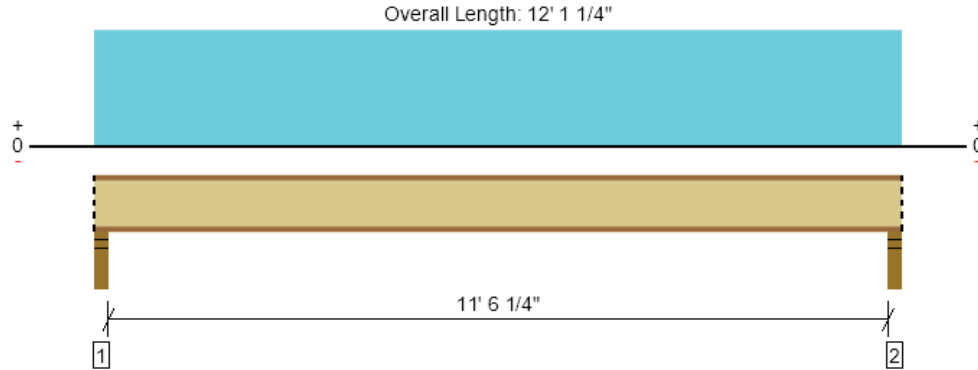
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Main Floor, Floor: Joist

1 piece(s) 9 1/2" TJI® 110 @ 24" OC



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

| Design Results        | Actual @ Location | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 629 @ 2 1/2"      | 1375 (3.50") | Passed (46%)   | 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)       | 1776 @ 6' 5/8"    | 2500         | Passed (71%)   | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Live Load Defl. (in)  | 0.188 @ 6' 5/8"   | 0.292        | Passed (L/745) | --   | 1.0 D + 1.0 L (All Spans)   |
| Total Load Defl. (in) | 0.245 @ 6' 5/8"   | 0.584        | Passed (L/573) | --   | 1.0 D + 1.0 L (All Spans)   |
| TJ-Pro™ Rating        | 41                | 40           | Passed         | --   | --                          |

Member Length : 12' 1 1/4"  
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 | Details |
|---------------------|----------------|-----------|----------|-------------------------|------------|----------|-------------|---------|
|                     | Total          | Available | Required | Dead                    | Floor Live | Factored |             |         |
| 1 - Stud wall - SPF | 3.50"          | 3.50"     | 1.75"    | 145                     | 484        | 629      | Blocking    | A1      |
| 2 - Stud wall - DF  | 3.50"          | 3.50"     | 1.75"    | 145                     | 484        | 629      | Blocking    | A1      |

• 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' 8" o/c         |          |
| Bottom Edge (Lu) | 12' 1" o/c        |          |

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

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

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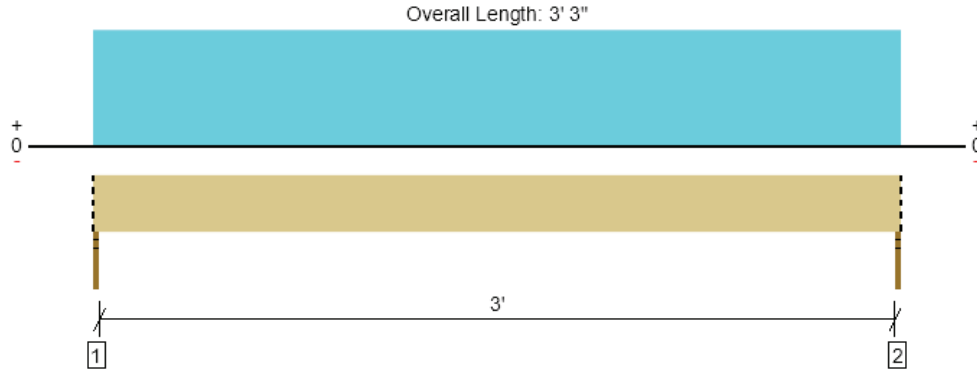
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Main Floor, Beam #21  
1 piece(s) 4 x 10 DF No.2



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

| Design Results        | Actual @ Location | Allowed      | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 2760 @ 0          | 3281 (1.50") | Passed (84%)    | --   | 1.0 D + 1.0 L (All Spans)   |
| Shear (lbs)           | 1238 @ 10 3/4"    | 3885         | Passed (32%)    | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Moment (Ft-lbs)       | 2242 @ 1' 7 1/2"  | 4492         | Passed (50%)    | 1.00 | 1.0 D + 1.0 L (All Spans)   |
| Live Load Defl. (in)  | 0.008 @ 1' 7 1/2" | 0.081        | Passed (L/999+) | --   | 1.0 D + 1.0 L (All Spans)   |
| Total Load Defl. (in) | 0.012 @ 1' 7 1/2" | 0.162        | Passed (L/999+) | --   | 1.0 D + 1.0 L (All Spans)   |

- 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.

Member Length : 3' 3"  
System : Floor  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| 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"    | 913                     | 1847       | 2760     | Blocking    |
| 2 - Stud wall - DF | 1.50"          | 1.50"     | 1.50"    | 913                     | 1847       | 2760     | 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) | 9' 11"          | 12.0        | 40.0              | Default Load |
| 2 - Uniform (PSF)     | 0 to 3' 3" (Top)   | 10'             | 12.0        | --                | wall         |
| 3 - Uniform (PSF)     | 0 to 3' 3" (Top)   | 18' 6"          | 17.0        | 40.0              | wall         |

- Side loads are assumed to not induce cross-grain tension.

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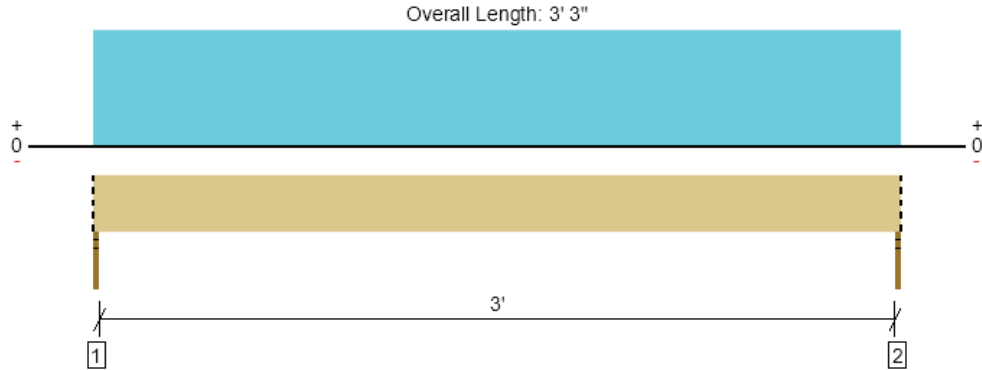
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Main Floor, Beam #22

1 piece(s) 4 x 10 DF No.2



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

| Design Results        | Actual @ Location | Allowed      | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 2621 @ 0          | 3281 (1.50") | Passed (80%)    | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 1176 @ 10 3/4"    | 4468         | Passed (26%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 2130 @ 1' 7 1/2"  | 5166         | Passed (41%)    | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.008 @ 1' 7 1/2" | 0.081        | Passed (L/999+) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.011 @ 1' 7 1/2" | 0.162        | Passed (L/999+) | --   | 1.0 D + 1.0 S (All Spans)   |

- 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.

Member Length : 3' 3"  
System : Floor  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD

| Supports           | Bearing Length |           |          | Loads to Supports (lbs) |            |      |          | Accessories |
|--------------------|----------------|-----------|----------|-------------------------|------------|------|----------|-------------|
|                    | Total          | Available | Required | Dead                    | Floor Live | Snow | Factored |             |
| 1 - Stud wall - DF | 1.50"          | 1.50"     | 1.50"    | 671                     | 130        | 1950 | 2621     | Blocking    |
| 2 - Stud wall - DF | 1.50"          | 1.50"     | 1.50"    | 671                     | 130        | 1950 | 2621     | 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) | Snow (1.15) | Comments     |
|-----------------------|--------------------|-----------------|-------------|-------------------|-------------|--------------|
| 0 - Self Weight (PLF) | 0 to 3' 3"         | N/A             | 8.2         | --                | --          |              |
| 1 - Uniform (PSF)     | 0 to 3' 3" (Front) | 1'              | 12.0        | 40.0              | --          | Default Load |
| 2 - Uniform (PSF)     | 0 to 3' 3" (Top)   | 20'             | 12.0        | --                | --          | wall         |
| 3 - Uniform (PSF)     | 0 to 3' 3" (Top)   | 1'              | 17.0        | 40.0              | --          | wall         |
| 4 - Uniform (PSF)     | 0 to 3' 3" (Top)   | 3' 6"           | 17.0        | --                | 150.0       | Snow         |
| 5 - Uniform (PSF)     | 0 to 3' 3" (Top)   | 4' 6"           | 17.0        | --                | 150.0       | Snow         |

- Side loads are assumed to not induce cross-grain tension.

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|                          |                          |                       |          |                                                  |              |               |  |                   |
|--------------------------|--------------------------|-----------------------|----------|--------------------------------------------------|--------------|---------------|--|-------------------|
| <b>Floor 2 (1)</b>       |                          | Wall on Concrete      | Ext Wall |                                                  | Plate Height | Header Height |  | Overhang          |
|                          |                          | Y                     | Y        |                                                  | 9.67         | 6.67          |  | 2.67              |
| <b>Loading</b>           |                          |                       |          |                                                  |              |               |  |                   |
|                          |                          | <b>Roof</b>           |          |                                                  |              |               |  | <b>Comb Total</b> |
|                          |                          | Dead: 17              |          |                                                  |              |               |  | 2,068.4 plf       |
|                          |                          | Snow: 150             |          |                                                  |              |               |  |                   |
| Span                     | 19                       | 0                     |          |                                                  |              |               |  | <b>Total</b>      |
| Dead                     | 206.9 plf                |                       |          |                                                  |              |               |  | 242.9 plf         |
| Live                     |                          |                       |          |                                                  |              |               |  | 0.0 plf           |
| Snow                     | 1,825.5 plf              |                       |          |                                                  |              |               |  | 1,825.5 plf       |
| Load from Above          |                          | Calc                  |          |                                                  |              |               |  |                   |
|                          |                          |                       |          |                                                  |              |               |  |                   |
| Size                     |                          |                       |          |                                                  |              |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2 @ 16 O.C. | Continuous Footing    |          | Additional Footing Load: 2140plf                 |              |               |  |                   |
|                          |                          |                       |          | Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |              |               |  |                   |
| <b>Openings</b>          |                          |                       |          |                                                  |              |               |  |                   |
| Opening Size             |                          | 5.0 ft                |          |                                                  |              |               |  |                   |
| Header Callout           |                          | 6X10<br>DF-L No. 2    |          |                                                  |              |               |  |                   |
| Stress                   | Max Ratio                | 0.91                  |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| Deflection               | ΔTL                      | 0.05 in               |          |                                                  |              |               |  |                   |
|                          |                          | L/1,143               |          |                                                  |              |               |  |                   |
|                          | ΔLL                      | 0.05 in               |          |                                                  |              |               |  |                   |
|                          |                          | L/1,295               |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| Trimmers                 |                          | (2) 2x6<br>DF-L No. 2 |          |                                                  |              |               |  |                   |
| Bearing Area             |                          | 1.58 in               |          |                                                  |              |               |  |                   |
| Bend.                    | M/S                      | 117 psi               |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| Comp.                    | P/A                      | 627 psi               |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| Def.                     | ΔTL                      | 0.04 in               |          |                                                  |              |               |  |                   |
|                          |                          | L/3,185               |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| King Studs               |                          | (1) 2x6<br>DF-L No. 2 |          |                                                  |              |               |  |                   |
| Bend.                    | M/S                      | 1226 psi              |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| Comp.                    | P/A                      | 6 psi                 |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| Def.                     | ΔTL                      | 0.37 in               |          |                                                  |              |               |  |                   |
|                          |                          | L/305                 |          |                                                  |              |               |  |                   |
|                          |                          | Pass                  |          |                                                  |              |               |  |                   |
| Wind Check               |                          | Good                  |          |                                                  |              |               |  |                   |
| Lateral Bracing Hardware |                          | Not Req'd             |          |                                                  |              |               |  |                   |
| Reactions                |                          | 5,171 lbs             |          |                                                  |              |               |  |                   |
| (If Req'd)               | Pad Footing              | Not Req'd             |          |                                                  |              |               |  |                   |
|                          | Rebar                    |                       |          |                                                  |              |               |  |                   |

|                          |             |                               |                       |                    |              |                                                   |  |             |
|--------------------------|-------------|-------------------------------|-----------------------|--------------------|--------------|---------------------------------------------------|--|-------------|
| <b>Floor 2 (2)</b>       |             | Wall on Concrete              | Ext Wall              |                    | Plate Height | Header Height                                     |  | Overhang    |
|                          |             | Y                             | Y                     |                    | 13           | 6.67                                              |  | 2.67        |
| <b>Loading</b>           |             |                               |                       |                    |              |                                                   |  |             |
|                          |             | Roof                          | Roof                  |                    |              |                                                   |  | Comb Total  |
|                          |             | Dead: 17<br>Snow: 150         | Dead: 17<br>Snow: 150 |                    |              |                                                   |  | 3,493.6 plf |
| Span                     |             | 19                            | 11.25                 |                    |              |                                                   |  | Total       |
| Dead                     |             | 206.9 plf                     | 141.0 plf             |                    |              |                                                   |  | 423.9 plf   |
| Live                     |             |                               |                       |                    |              |                                                   |  | 0.0 plf     |
| Snow                     |             | 1,825.5 plf                   | 1,244.3 plf           |                    |              |                                                   |  | 3,069.8 plf |
| Load from Above          |             | Calc                          |                       |                    |              |                                                   |  |             |
| Size                     |             |                               |                       |                    |              |                                                   |  |             |
| Stud Wall                |             | 2x8 DF-L No. 2 @ 16 O.C.      |                       | Continuous Footing |              | Additional Footing Load: 3560plf                  |  |             |
|                          |             |                               |                       |                    |              | Size: 36 x 10 in Cont. Footing W/3 #4 Rebar Cont. |  |             |
| <b>Openings</b>          |             |                               |                       |                    |              |                                                   |  |             |
| Opening Size             |             | 9.5 ft                        |                       |                    |              |                                                   |  |             |
| Header Callout           |             | (4) 14<br>LVL 2.0E            |                       |                    |              |                                                   |  |             |
| Stress                   | Max Ratio   | 0.77                          |                       |                    |              |                                                   |  |             |
|                          |             | Pass                          |                       |                    |              |                                                   |  |             |
| Deflection               | ΔTL         | 0.20 in                       |                       |                    |              |                                                   |  |             |
|                          |             | L/570                         |                       |                    |              |                                                   |  |             |
|                          | ΔLL         | 0.18 in                       |                       |                    |              |                                                   |  |             |
|                          |             | L/649                         |                       |                    |              |                                                   |  |             |
|                          |             | Pass                          |                       |                    |              |                                                   |  |             |
| Trimmers                 |             | (3) 2x8<br>DF-L No. 2         |                       |                    |              |                                                   |  |             |
| Bearing Area             | M/S         | 3.79 in                       |                       |                    |              |                                                   |  |             |
|                          |             | 124 psi                       |                       |                    |              |                                                   |  |             |
| Comp.                    | P/A         | 509 psi                       |                       |                    |              |                                                   |  |             |
|                          |             | Pass                          |                       |                    |              |                                                   |  |             |
| Def.                     | ΔTL         | 0.05 in                       |                       |                    |              |                                                   |  |             |
|                          |             | L/2,942                       |                       |                    |              |                                                   |  |             |
|                          |             | Pass                          |                       |                    |              |                                                   |  |             |
| King Studs               |             | (2) 2x8<br>DF-L No. 2         |                       |                    |              |                                                   |  |             |
| Bearing Area             | M/S         | 1080 psi                      |                       |                    |              |                                                   |  |             |
|                          |             | Pass                          |                       |                    |              |                                                   |  |             |
| Comp.                    | P/A         | 2 psi                         |                       |                    |              |                                                   |  |             |
|                          |             | Pass                          |                       |                    |              |                                                   |  |             |
| Def.                     | ΔTL         | 0.45 in                       |                       |                    |              |                                                   |  |             |
|                          |             | L/337                         |                       |                    |              |                                                   |  |             |
|                          |             | Pass                          |                       |                    |              |                                                   |  |             |
| Wind Check               |             | Good                          |                       |                    |              |                                                   |  |             |
| Lateral Bracing Hardware |             | Not Req'd                     |                       |                    |              |                                                   |  |             |
| Reactions                |             | 16,595 lbs                    |                       |                    |              |                                                   |  |             |
| (If Req'd)               | Pad Footing | 48 x 48 x 8 in<br>Pad Footing |                       |                    |              |                                                   |  |             |
|                          | Rebar       | W/(4)#4<br>Rebar E.W.         |                       |                    |              |                                                   |  |             |

|                                                                                                                          |                         |                       |                                                  |  |              |               |  |                   |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------|--------------------------------------------------|--|--------------|---------------|--|-------------------|
| <b>Floor 2 (3)</b>                                                                                                       |                         | Wall on Concrete      | Ext Wall                                         |  | Plate Height | Header Height |  | Overhang          |
|                                                                                                                          |                         | Y                     | Y                                                |  | 20.75        | 6.67          |  | 2.67              |
| <b>Loading</b>                                                                                                           |                         |                       |                                                  |  |              |               |  |                   |
| <div>Roof</div> <div>Dead: 17</div> <div>Snow: 150</div> <div>Span</div> <div>Dead</div> <div>Live</div> <div>Snow</div> |                         |                       |                                                  |  |              |               |  | <b>Comb Total</b> |
|                                                                                                                          |                         |                       |                                                  |  |              |               |  | 781.9 plf         |
|                                                                                                                          |                         |                       |                                                  |  |              |               |  | <b>Total</b>      |
|                                                                                                                          |                         |                       |                                                  |  |              |               |  | 231.4 plf         |
|                                                                                                                          |                         |                       |                                                  |  |              |               |  | 0.0 plf           |
|                                                                                                                          |                         |                       |                                                  |  |              |               |  | 550.5 plf         |
| Load from Above                                                                                                          | Calc                    |                       |                                                  |  |              |               |  |                   |
| Size                                                                                                                     |                         |                       |                                                  |  |              |               |  |                   |
| Stud Wall                                                                                                                | 2x8 DF-L No. 2@ 12 O.C. | Continuous Footing    | Additional Footing Load: 2161plf                 |  |              |               |  |                   |
|                                                                                                                          |                         |                       | Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |  |              |               |  |                   |
| <b>Openings</b>                                                                                                          |                         |                       |                                                  |  |              |               |  |                   |
| Opening Size                                                                                                             |                         | 6.3 ft                | 10.0 ft                                          |  |              |               |  |                   |
| Header Callout                                                                                                           |                         | (2)2x10<br>DF-L No. 2 | (2)11.8<br>LVL 2.0E                              |  |              |               |  |                   |
| Stress                                                                                                                   | Max Ratio               | 0.96                  | 0.46                                             |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| Deflection                                                                                                               | ΔTL                     | 0.08 in               | 0.18 in                                          |  |              |               |  |                   |
|                                                                                                                          |                         | L/885                 | L/666                                            |  |              |               |  |                   |
|                                                                                                                          | ΔLL                     | 0.06 in               | 0.13 in                                          |  |              |               |  |                   |
|                                                                                                                          |                         | L/1,256               | L/946                                            |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| Trimmers                                                                                                                 |                         | (1) 2x8<br>DF-L No. 2 | (2) 2x8<br>DF-L No. 2                            |  |              |               |  |                   |
| Bearing Area                                                                                                             |                         | 1.30 in               | 1.79 in                                          |  |              |               |  |                   |
| Bend.                                                                                                                    | M/S                     | 240 psi               | 240 psi                                          |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| Comp.                                                                                                                    | P/A                     | 225 psi               | 359 psi                                          |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| Def.                                                                                                                     | ΔTL                     | 0.26 in               | 0.26 in                                          |  |              |               |  |                   |
|                                                                                                                          |                         | L/944                 | L/944                                            |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| King Studs                                                                                                               |                         | (4) 2x8<br>DF-L No. 2 | (5) 2x8<br>DF-L No. 2                            |  |              |               |  |                   |
| Bend.                                                                                                                    | M/S                     | 950 psi               | 1134 psi                                         |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| Comp.                                                                                                                    | P/A                     | 1 psi                 | 1 psi                                            |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| Def.                                                                                                                     | ΔTL                     | 1.03 in               | 1.23 in                                          |  |              |               |  |                   |
|                                                                                                                          |                         | L/238                 | L/200                                            |  |              |               |  |                   |
|                                                                                                                          |                         | Pass                  | Pass                                             |  |              |               |  |                   |
| Wind Check                                                                                                               |                         | Good                  | Good                                             |  |              |               |  |                   |
| Lateral Bracing Hardware                                                                                                 |                         | Not Req'd             | Add Hardware<br>(1077 lbs)                       |  |              |               |  |                   |
| Reactions                                                                                                                |                         | 2,443 lbs             | 3,909 lbs                                        |  |              |               |  |                   |
| (If Req'd)                                                                                                               | Pad Footing             | Not Req'd             | Not Req'd                                        |  |              |               |  |                   |
|                                                                                                                          | Rebar                   |                       |                                                  |  |              |               |  |                   |

|                          |                         |                       |                       |  |                                                  |               |         |                   |
|--------------------------|-------------------------|-----------------------|-----------------------|--|--------------------------------------------------|---------------|---------|-------------------|
| <b>Floor 2 (4)</b>       |                         | Wall on Concrete      | Ext Wall              |  | Plate Height                                     | Header Height |         | Overhang          |
|                          |                         | Y                     | Y                     |  | 9                                                | 6.67          |         | 2.67              |
| <b>Loading</b>           |                         |                       |                       |  |                                                  |               |         |                   |
|                          |                         | <b>Roof</b>           |                       |  |                                                  |               |         | <b>Comb Total</b> |
|                          |                         | Dead: 17              |                       |  |                                                  |               |         | 1,559.4 plf       |
|                          |                         | Snow: 150             |                       |  |                                                  |               |         |                   |
| Span                     |                         | 13                    | 0                     |  |                                                  |               |         | <b>Total</b>      |
| Dead                     |                         | 155.9 plf             |                       |  |                                                  |               |         | 183.9 plf         |
| Live                     |                         |                       |                       |  |                                                  |               |         | 0.0 plf           |
| Snow                     |                         | 1,375.5 plf           |                       |  |                                                  |               |         | 1,375.5 plf       |
| Load from Above          |                         | Calc                  |                       |  |                                                  |               |         |                   |
|                          |                         |                       |                       |  |                                                  |               |         |                   |
| Size                     |                         |                       |                       |  |                                                  |               |         |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing    |  | Additional Footing Load:                         |               | 1588plf |                   |
|                          |                         |                       |                       |  | Size: 16 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |         |                   |
| <b>Openings</b>          |                         |                       |                       |  |                                                  |               |         |                   |
| Opening Size             |                         | 2.0 ft                | 6.5 ft                |  |                                                  |               |         |                   |
|                          |                         |                       |                       |  |                                                  |               |         |                   |
| Header Callout           |                         | (2)2x6<br>DF-L No. 2  | (2)9.5<br>LVL 2.0E    |  |                                                  |               |         |                   |
| Stress                   | Max Ratio               | 0.68                  | 0.70                  |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Deflection               | ΔTL                     | 0.01 in               | 0.13 in               |  |                                                  |               |         |                   |
|                          |                         | L/2,845               | L/623                 |  |                                                  |               |         |                   |
|                          | ΔLL                     | 0.01 in               | 0.11 in               |  |                                                  |               |         |                   |
|                          |                         | L/3,225               | L/706                 |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  |                       |  |                                                  |               |         |                   |
| Trimmers                 |                         | (1) 2x6<br>DF-L No. 2 | (2) 2x6<br>DF-L No. 2 |  |                                                  |               |         |                   |
| Bearing Area             |                         | 0.83 in               | 2.32 in               |  |                                                  |               |         |                   |
| Bend.                    | M/S                     | 101 psi               | 101 psi               |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Comp.                    | P/A                     | 189 psi               | 614 psi               |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Def.                     | ΔTL                     | 0.03 in               | 0.03 in               |  |                                                  |               |         |                   |
|                          |                         | L/3,974               | L/3,974               |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  |                       |  |                                                  |               |         |                   |
| King Studs               |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 |  |                                                  |               |         |                   |
| Bend.                    | M/S                     | 585 psi               | 1295 psi              |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Comp.                    | P/A                     | 6 psi                 | 6 psi                 |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Def.                     | ΔTL                     | 0.15 in               | 0.34 in               |  |                                                  |               |         |                   |
|                          |                         | L/688                 | L/311                 |  |                                                  |               |         |                   |
|                          | Pass                    | Pass                  |                       |  |                                                  |               |         |                   |
| Wind Check               |                         | Good                  | Good                  |  |                                                  |               |         |                   |
| Lateral Bracing Hardware |                         | Not Req'd             | Not Req'd             |  |                                                  |               |         |                   |
| Reactions                |                         | 1,559 lbs             | 5,068 lbs             |  |                                                  |               |         |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             | Not Req'd             |  |                                                  |               |         |                   |
|                          | Rebar                   |                       |                       |  |                                                  |               |         |                   |

|                                 |                         |                       |                       |                       |                                                  |               |  |                   |
|---------------------------------|-------------------------|-----------------------|-----------------------|-----------------------|--------------------------------------------------|---------------|--|-------------------|
| <b>Floor 2 (5)</b>              |                         | Wall on Concrete      | Ext Wall              |                       | Plate Height                                     | Header Height |  | Overhang          |
|                                 |                         | Y                     | Y                     |                       | 9                                                | 6.67          |  | 2.67              |
| <b>Loading</b>                  |                         |                       |                       |                       |                                                  |               |  |                   |
|                                 |                         | <b>Roof</b>           |                       |                       |                                                  |               |  | <b>Comb Total</b> |
|                                 |                         | Dead: 17              |                       |                       |                                                  |               |  | 640.9 plf         |
|                                 |                         | Snow: 150             |                       |                       |                                                  |               |  |                   |
| Span                            | 2                       | 0                     |                       |                       |                                                  |               |  | <b>Total</b>      |
| Dead                            | 62.4 plf                |                       |                       |                       |                                                  |               |  | 90.4 plf          |
| Live                            |                         |                       |                       |                       |                                                  |               |  | 0.0 plf           |
| Snow                            | 550.5 plf               |                       |                       |                       |                                                  |               |  | 550.5 plf         |
| Load from Above                 |                         | Calc                  |                       |                       |                                                  |               |  |                   |
| Size                            |                         |                       |                       |                       |                                                  |               |  |                   |
| Stud Wall                       | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing    |                       | Additional Footing Load: 755plf                  |               |  |                   |
|                                 |                         |                       |                       |                       | Size: 12 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |                   |
| <b>Openings</b>                 |                         |                       |                       |                       |                                                  |               |  |                   |
| <b>Opening Size</b>             |                         | 2.0 ft                | 3.0 ft                | 4.0 ft                | 6.5 ft                                           |               |  |                   |
| <b>Header Callout</b>           |                         | (2)2x4<br>DF-L No. 2  | (2)2x4<br>DF-L No. 2  | (2)2x6<br>DF-L No. 2  | (2)2x10<br>DF-L No. 2                            |               |  |                   |
| Stress                          | Max Ratio               | 0.44                  | 0.91                  | 0.76                  | 0.85                                             |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| Deflection                      | $\Delta_{TL}$           | 0.01 in               | 0.07 in               | 0.06 in               | 0.08 in                                          |               |  |                   |
|                                 |                         | L/1,784               | L/529                 | L/865                 | L/959                                            |               |  |                   |
|                                 | $\Delta_{LL}$           | 0.01 in               | 0.06 in               | 0.05 in               | 0.07 in                                          |               |  |                   |
|                                 |                         | L/2,077               | L/615                 | L/1,007               | L/1,117                                          |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| <b>Trimmers</b>                 |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2                            |               |  |                   |
| <b>Bearing Area</b>             |                         | 0.34 in               | 0.51 in               | 0.68 in               | 1.11 in                                          |               |  |                   |
| Bend.                           | M/S                     | 101 psi               | 101 psi               | 101 psi               | 101 psi                                          |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| Comp.                           | P/A                     | 78 psi                | 117 psi               | 155 psi               | 252 psi                                          |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.03 in               | 0.03 in               | 0.03 in               | 0.03 in                                          |               |  |                   |
|                                 |                         | L/3,974               | L/3,974               | L/3,974               | L/3,974                                          |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| <b>King Studs</b>               |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2                            |               |  |                   |
| Bend.                           | M/S                     | 585 psi               | 743 psi               | 900 psi               | 1295 psi                                         |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| Comp.                           | P/A                     | 6 psi                 | 6 psi                 | 6 psi                 | 6 psi                                            |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.15 in               | 0.19 in               | 0.24 in               | 0.34 in                                          |               |  |                   |
|                                 |                         | L/688                 | L/542                 | L/447                 | L/311                                            |               |  |                   |
|                                 |                         | Pass                  | Pass                  | Pass                  | Pass                                             |               |  |                   |
| <b>Wind Check</b>               |                         | Good                  | Good                  | Good                  | Good                                             |               |  |                   |
| <b>Lateral Bracing Hardware</b> |                         | Not Req'd             | Not Req'd             | Not Req'd             | Not Req'd                                        |               |  |                   |
| <b>Reactions</b>                |                         | 641 lbs               | 961 lbs               | 1,282 lbs             | 2,083 lbs                                        |               |  |                   |
| (If Req'd)                      | <b>Pad Footing</b>      | Not Req'd             | Not Req'd             | Not Req'd             | Not Req'd                                        |               |  |                   |
|                                 | <b>Rebar</b>            |                       |                       |                       |                                                  |               |  |                   |

|                          |                          |                       |                    |  |                                                  |               |  |                   |
|--------------------------|--------------------------|-----------------------|--------------------|--|--------------------------------------------------|---------------|--|-------------------|
| <b>Floor 2 (6)</b>       |                          | Wall on Concrete      | Ext Wall           |  | Plate Height                                     | Header Height |  | Overhang          |
|                          |                          | Y                     | Y                  |  | 9                                                | 6.67          |  | 2.67              |
| <b>Loading</b>           |                          |                       |                    |  |                                                  |               |  |                   |
|                          |                          | <b>Roof</b>           |                    |  |                                                  |               |  | <b>Comb Total</b> |
|                          |                          | Dead: 17              |                    |  |                                                  |               |  | 1,830.7 plf       |
|                          |                          | Snow: 150             |                    |  |                                                  |               |  |                   |
| Span                     |                          | 16.25                 | 0                  |  |                                                  |               |  | <b>Total</b>      |
| Dead                     |                          | 183.5 plf             |                    |  |                                                  |               |  | 211.5 plf         |
| Live                     |                          |                       |                    |  |                                                  |               |  | 0.0 plf           |
| Snow                     |                          | 1,619.3 plf           |                    |  |                                                  |               |  | 1,619.3 plf       |
| Load from Above          |                          | Calc                  |                    |  |                                                  |               |  |                   |
| Size                     |                          |                       |                    |  |                                                  |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2 @ 16 O.C. |                       | Continuous Footing |  | Additional Footing Load: 2157plf                 |               |  |                   |
|                          |                          |                       |                    |  | Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |                   |
| <b>Openings</b>          |                          |                       |                    |  |                                                  |               |  |                   |
| Opening Size             |                          | 2.0 ft                |                    |  |                                                  |               |  |                   |
| Header Callout           |                          | (2)2x6<br>DF-L No. 2  |                    |  |                                                  |               |  |                   |
| Stress                   | Max Ratio                | 0.80                  |                    |  |                                                  |               |  |                   |
|                          |                          | Pass                  |                    |  |                                                  |               |  |                   |
| Deflection               | $\Delta_{TL}$            | 0.01 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/2,423               |                    |  |                                                  |               |  |                   |
|                          | $\Delta_{LL}$            | 0.01 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/2,740               |                    |  |                                                  |               |  |                   |
|                          |                          | Pass                  |                    |  |                                                  |               |  |                   |
| Trimmers                 |                          | (1) 2x6<br>DF-L No. 2 |                    |  |                                                  |               |  |                   |
| Bearing Area             |                          | 0.98 in               |                    |  |                                                  |               |  |                   |
|                          | M/S                      | 101 psi               |                    |  |                                                  |               |  |                   |
| Comp.                    |                          | Pass                  |                    |  |                                                  |               |  |                   |
|                          | P/A                      | 222 psi               |                    |  |                                                  |               |  |                   |
| Def.                     |                          | Pass                  |                    |  |                                                  |               |  |                   |
|                          | $\Delta_{TL}$            | 0.03 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/3,974               |                    |  |                                                  |               |  |                   |
|                          |                          | Pass                  |                    |  |                                                  |               |  |                   |
| King Studs               |                          | (1) 2x6<br>DF-L No. 2 |                    |  |                                                  |               |  |                   |
| Bend.                    | M/S                      | 585 psi               |                    |  |                                                  |               |  |                   |
|                          |                          | Pass                  |                    |  |                                                  |               |  |                   |
| Comp.                    | P/A                      | 6 psi                 |                    |  |                                                  |               |  |                   |
|                          |                          | Pass                  |                    |  |                                                  |               |  |                   |
| Def.                     | $\Delta_{TL}$            | 0.15 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/688                 |                    |  |                                                  |               |  |                   |
|                          |                          | Pass                  |                    |  |                                                  |               |  |                   |
| Wind Check               |                          | Good                  |                    |  |                                                  |               |  |                   |
| Lateral Bracing Hardware |                          | Not Req'd             |                    |  |                                                  |               |  |                   |
| Reactions                |                          | 1,831 lbs             |                    |  |                                                  |               |  |                   |
| (If Req'd)               | Pad Footing              | Not Req'd             |                    |  |                                                  |               |  |                   |
|                          | Rebar                    |                       |                    |  |                                                  |               |  |                   |



|                          |                          |                       |                    |  |                                                  |               |  |                   |
|--------------------------|--------------------------|-----------------------|--------------------|--|--------------------------------------------------|---------------|--|-------------------|
| <b>Floor 2 error</b>     |                          | Wall on Concrete      | Ext Wall           |  | Plate Height                                     | Header Height |  | Overhang          |
|                          |                          | Y                     | Y                  |  | 9                                                | 6.67          |  | 2.67              |
| <b>Loading</b>           |                          |                       |                    |  |                                                  |               |  |                   |
|                          |                          | <b>Roof</b>           |                    |  |                                                  |               |  | <b>Comb Total</b> |
|                          |                          | Dead: 17              |                    |  |                                                  |               |  | 2,477.9 plf       |
|                          |                          | Snow: 150             |                    |  |                                                  |               |  |                   |
| Span                     | 24                       | 0                     |                    |  |                                                  |               |  | <b>Total</b>      |
| Dead                     | 249.4 plf                |                       |                    |  |                                                  |               |  | 277.4 plf         |
| Live                     |                          |                       |                    |  |                                                  |               |  | 0.0 plf           |
| Snow                     | 2,200.5 plf              |                       |                    |  |                                                  |               |  | 2,200.5 plf       |
| Load from Above          |                          | Calc                  |                    |  |                                                  |               |  |                   |
| Size                     |                          |                       |                    |  |                                                  |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2 @ 16 O.C. |                       | Continuous Footing |  | Additional Footing Load: 2726plf                 |               |  |                   |
|                          |                          |                       |                    |  | Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |                   |
| <b>Openings</b>          |                          |                       |                    |  |                                                  |               |  |                   |
| Opening Size             |                          | 6.0 ft                |                    |  |                                                  |               |  |                   |
| Header Callout           |                          | (3) 9.5<br>LVL 2.0E   |                    |  |                                                  |               |  |                   |
| Stress                   | Max Ratio                | 0.68                  |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| Deflection               | ΔTL                      | 0.10 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/748                 |                    |  |                                                  |               |  |                   |
|                          | ΔLL                      | 0.09 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/842                 |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| Trimmers                 |                          | (2) 2x6<br>DF-L No. 2 |                    |  |                                                  |               |  |                   |
| Bearing Area             |                          | 2.27 in               |                    |  |                                                  |               |  |                   |
| Bend.                    | M/S                      | 101 psi               |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| Comp.                    | P/A                      | 451 psi               |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| Def.                     | ΔTL                      | 0.03 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/3,974               |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| King Studs               |                          | (1) 2x6<br>DF-L No. 2 |                    |  |                                                  |               |  |                   |
| Bend.                    | M/S                      | 1216 psi              |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| Comp.                    | P/A                      | 6 psi                 |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| Def.                     | ΔTL                      | 0.32 in               |                    |  |                                                  |               |  |                   |
|                          |                          | L/331                 |                    |  |                                                  |               |  |                   |
|                          | Pass                     |                       |                    |  |                                                  |               |  |                   |
| Wind Check               |                          | Good                  |                    |  |                                                  |               |  |                   |
| Lateral Bracing Hardware |                          | Not Req'd             |                    |  |                                                  |               |  |                   |
| Reactions                |                          | 7,434 lbs             |                    |  |                                                  |               |  |                   |
| (If Req'd)               | Pad Footing              | Not Req'd             |                    |  |                                                  |               |  |                   |
|                          | Rebar                    |                       |                    |  |                                                  |               |  |                   |

|                          |                         |                       |                    |  |                                                  |               |         |                   |
|--------------------------|-------------------------|-----------------------|--------------------|--|--------------------------------------------------|---------------|---------|-------------------|
| <b>Floor 2 error</b>     |                         | Wall on Concrete      | Ext Wall           |  | Plate Height                                     | Header Height |         | Overhang          |
|                          |                         | Y                     | Y                  |  | 12.375                                           | 6.67          |         | 2.67              |
| <b>Loading</b>           |                         |                       |                    |  |                                                  |               |         |                   |
|                          |                         | <b>Roof</b>           |                    |  |                                                  |               |         | <b>Comb Total</b> |
|                          |                         | Dead: 17              |                    |  |                                                  |               |         | 1,412.0 plf       |
|                          |                         | Snow: 150             |                    |  |                                                  |               |         |                   |
| Span                     |                         | 10.75                 | 0                  |  |                                                  |               |         | <b>Total</b>      |
| Dead                     |                         | 136.8 plf             |                    |  |                                                  |               |         | 205.2 plf         |
| Live                     |                         |                       |                    |  |                                                  |               |         | 0.0 plf           |
| Snow                     |                         | 1,206.8 plf           |                    |  |                                                  |               |         | 1,206.8 plf       |
| Load from Above          |                         | Calc                  |                    |  |                                                  |               |         |                   |
| Size                     |                         |                       |                    |  |                                                  |               |         |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing |  | Additional Footing Load:                         |               | 1500plf |                   |
|                          |                         |                       |                    |  | Size: 16 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |         |                   |
| <b>Openings</b>          |                         |                       |                    |  |                                                  |               |         |                   |
| Opening Size             |                         | 6.5 ft                |                    |  |                                                  |               |         |                   |
| Header Callout           |                         | (2)9.5<br>LVL 2.0E    |                    |  |                                                  |               |         |                   |
| Stress                   | Max Ratio               | 0.63                  |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| Deflection               | ΔTL                     | 0.11 in               |                    |  |                                                  |               |         |                   |
|                          |                         | L/688                 |                    |  |                                                  |               |         |                   |
|                          | ΔLL                     | 0.10 in               |                    |  |                                                  |               |         |                   |
|                          |                         | L/805                 |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| Trimmers                 |                         | (2) 2x6<br>DF-L No. 2 |                    |  |                                                  |               |         |                   |
| Bearing Area             |                         | 2.10 in               |                    |  |                                                  |               |         |                   |
| Bend.                    | M/S                     | 194 psi               |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| Comp.                    | P/A                     | 556 psi               |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| Def.                     | ΔTL                     | 0.10 in               |                    |  |                                                  |               |         |                   |
|                          |                         | L/1,493               |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| King Studs               |                         | (2) 2x6<br>DF-L No. 2 |                    |  |                                                  |               |         |                   |
| Bend.                    | M/S                     | 1243 psi              |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| Comp.                    | P/A                     | 3 psi                 |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| Def.                     | ΔTL                     | 0.62 in               |                    |  |                                                  |               |         |                   |
|                          |                         | L/234                 |                    |  |                                                  |               |         |                   |
|                          |                         | Pass                  |                    |  |                                                  |               |         |                   |
| Wind Check               |                         | Good                  |                    |  |                                                  |               |         |                   |
| Lateral Bracing Hardware |                         | Not Req'd             |                    |  |                                                  |               |         |                   |
| Reactions                |                         | 4,589 lbs             |                    |  |                                                  |               |         |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             |                    |  |                                                  |               |         |                   |
|                          | Rebar                   |                       |                    |  |                                                  |               |         |                   |

|                          |                         |                       |                       |  |                                                  |               |         |                   |
|--------------------------|-------------------------|-----------------------|-----------------------|--|--------------------------------------------------|---------------|---------|-------------------|
| <b>Floor 2 error</b>     |                         | Wall on Concrete      | Ext Wall              |  | Plate Height                                     | Header Height |         | Overhang          |
|                          |                         | Y                     | Y                     |  | 10.67                                            | 6.67          |         | 2.67              |
| <b>Loading</b>           |                         |                       |                       |  |                                                  |               |         |                   |
|                          |                         | <b>Roof</b>           |                       |  |                                                  |               |         | <b>Comb Total</b> |
|                          |                         | Dead: 17              |                       |  |                                                  |               |         | 974.0 plf         |
|                          |                         | Snow: 150             |                       |  |                                                  |               |         |                   |
| Span                     |                         | 5.75                  | 0                     |  |                                                  |               |         | <b>Total</b>      |
| Dead                     |                         | 94.3 plf              |                       |  |                                                  |               |         | 142.3 plf         |
| Live                     |                         |                       |                       |  |                                                  |               |         | 0.0 plf           |
| Snow                     |                         | 831.8 plf             |                       |  |                                                  |               |         | 831.8 plf         |
| Load from Above          |                         | Calc                  |                       |  |                                                  |               |         |                   |
| Size                     |                         |                       |                       |  |                                                  |               |         |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing    |  | Additional Footing Load:                         |               | 1959plf |                   |
|                          |                         |                       |                       |  | Size: 18 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |         |                   |
| <b>Openings</b>          |                         |                       |                       |  |                                                  |               |         |                   |
| Opening Size             |                         | 1.0 ft                | 3.0 ft                |  |                                                  |               |         |                   |
| Header Callout           |                         | (2)2x4<br>DF-L No. 2  | (2)2x6<br>DF-L No. 2  |  |                                                  |               |         |                   |
| Stress                   | Max Ratio               | 0.34                  | 0.65                  |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Deflection               | ΔTL                     | 0.00 in               | 0.03 in               |  |                                                  |               |         |                   |
|                          |                         | L/9,391               | L/1,350               |  |                                                  |               |         |                   |
|                          | ΔLL                     | 0.00 in               | 0.02 in               |  |                                                  |               |         |                   |
|                          |                         | L/10,997              | L/1,580               |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Trimmers                 |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 |  |                                                  |               |         |                   |
| Bearing Area             |                         | 0.26 in               | 0.78 in               |  |                                                  |               |         |                   |
| Bend.                    | M/S                     | 144 psi               | 144 psi               |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Comp.                    | P/A                     | 59 psi                | 177 psi               |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Def.                     | ΔTL                     | 0.05 in               | 0.05 in               |  |                                                  |               |         |                   |
|                          |                         | L/2,353               | L/2,353               |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| King Studs               |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 |  |                                                  |               |         |                   |
| Bend.                    | M/S                     | 606 psi               | 1053 psi              |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Comp.                    | P/A                     | 6 psi                 | 6 psi                 |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Def.                     | ΔTL                     | 0.22 in               | 0.39 in               |  |                                                  |               |         |                   |
|                          |                         | L/558                 | L/321                 |  |                                                  |               |         |                   |
|                          |                         | Pass                  | Pass                  |  |                                                  |               |         |                   |
| Wind Check               |                         | Good                  | Good                  |  |                                                  |               |         |                   |
| Lateral Bracing Hardware |                         | Not Req'd             | Not Req'd             |  |                                                  |               |         |                   |
| Reactions                |                         | 487 lbs               | 1,461 lbs             |  |                                                  |               |         |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             | Not Req'd             |  |                                                  |               |         |                   |
|                          | Rebar                   |                       |                       |  |                                                  |               |         |                   |

|                          |             |                         |                       |                    |              |                                                   |  |             |
|--------------------------|-------------|-------------------------|-----------------------|--------------------|--------------|---------------------------------------------------|--|-------------|
| <b>Floor 2 (10)</b>      |             | Wall on Concrete        | Ext Wall              |                    | Plate Height | Header Height                                     |  | Overhang    |
|                          |             | Y                       | Y                     |                    | 9            | 6.67                                              |  | 2.67        |
| <b>Loading</b>           |             |                         |                       |                    |              |                                                   |  |             |
|                          |             | Roof                    | Roof                  |                    |              |                                                   |  | Comb Total  |
|                          |             | Dead: 17<br>Snow: 150   | Dead: 17<br>Snow: 150 |                    |              |                                                   |  | 2,060.4 plf |
| Span                     |             | 19                      | 0                     |                    |              |                                                   |  | Total       |
| Dead                     |             | 206.9 plf               | 0.0 plf               |                    |              |                                                   |  | 234.9 plf   |
| Live                     |             |                         |                       |                    |              |                                                   |  | 0.0 plf     |
| Snow                     |             | 1,825.5 plf             | 0.0 plf               |                    |              |                                                   |  | 1,825.5 plf |
| Load from Above          |             | Calc                    |                       |                    |              |                                                   |  |             |
| Size                     |             |                         |                       |                    |              |                                                   |  |             |
| Stud Wall                |             | 2x8 DF-L No. 2@ 16 O.C. |                       | Continuous Footing |              | Additional Footing Load: 3781plf                  |  |             |
|                          |             |                         |                       |                    |              | Size: 36 x 10 in Cont. Footing W/3 #4 Rebar Cont. |  |             |
| <b>Openings</b>          |             |                         |                       |                    |              |                                                   |  |             |
| Opening Size             |             | 9.5 ft                  |                       |                    |              |                                                   |  |             |
| Header Callout           |             | (2)11.8<br>LVL 2.0E     |                       |                    |              |                                                   |  |             |
| Stress                   | Max Ratio   | 0.72                    |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| Deflection               | ΔTL         | 0.26 in                 |                       |                    |              |                                                   |  |             |
|                          |             | L/442                   |                       |                    |              |                                                   |  |             |
|                          | ΔLL         | 0.23 in                 |                       |                    |              |                                                   |  |             |
|                          |             | L/499                   |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| Trimmers                 |             | (2) 2x8<br>DF-L No. 2   |                       |                    |              |                                                   |  |             |
| Bearing Area             |             | 2.98 in                 |                       |                    |              |                                                   |  |             |
| Bend.                    | M/S         | 58 psi                  |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| Comp.                    | P/A         | 450 psi                 |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| Def.                     | ΔTL         | 0.01 in                 |                       |                    |              |                                                   |  |             |
|                          |             | L/9,101                 |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| King Studs               |             | (1) 2x8<br>DF-L No. 2   |                       |                    |              |                                                   |  |             |
| Bend.                    | M/S         | 1017 psi                |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| Comp.                    | P/A         | 5 psi                   |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| Def.                     | ΔTL         | 0.20 in                 |                       |                    |              |                                                   |  |             |
|                          |             | L/521                   |                       |                    |              |                                                   |  |             |
|                          |             | Pass                    |                       |                    |              |                                                   |  |             |
| Wind Check               |             | Good                    |                       |                    |              |                                                   |  |             |
| Lateral Bracing Hardware |             | Not Req'd               |                       |                    |              |                                                   |  |             |
| Reactions                |             | 9,787 lbs               |                       |                    |              |                                                   |  |             |
| (If Req'd)               | Pad Footing | Not Req'd               |                       |                    |              |                                                   |  |             |
|                          | Rebar       |                         |                       |                    |              |                                                   |  |             |

|                          |                         |                               |                                                                                      |  |              |               |  |                   |
|--------------------------|-------------------------|-------------------------------|--------------------------------------------------------------------------------------|--|--------------|---------------|--|-------------------|
| <b>Floor 1 (1)</b>       |                         | Wall on Concrete              | Ext Wall                                                                             |  | Plate Height | Header Height |  | Overhang          |
|                          |                         | Y                             | Y                                                                                    |  | 10           | 6.67          |  | 2.67              |
| <b>Loading</b>           |                         |                               |                                                                                      |  |              |               |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>            |                                                                                      |  |              |               |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40          |                                                                                      |  |              |               |  | 1,192.3 plf       |
|                          | <b>2</b>                | <b>14.58</b>                  |                                                                                      |  |              |               |  | <b>Total</b>      |
|                          | Dead 62.4 plf           | 247.9 plf                     |                                                                                      |  |              |               |  | 350.2 plf         |
|                          | Live                    | 291.6 plf                     |                                                                                      |  |              |               |  | 291.6 plf         |
|                          | Snow 550.5 plf          |                               |                                                                                      |  |              |               |  | 550.5 plf         |
| Load from Above          | Calc                    |                               |                                                                                      |  |              |               |  |                   |
| Size                     |                         |                               |                                                                                      |  |              |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. | Continuous Footing            | Additional Footing Load: 1126plf<br>Size: 12 x 8 in Cont. Footing W/2 #4 Rebar Cont. |  |              |               |  |                   |
| <b>Openings</b>          |                         |                               |                                                                                      |  |              |               |  |                   |
| Opening Size             |                         | 9.8 ft                        |                                                                                      |  |              |               |  |                   |
| Header Callout           |                         | (2)11.8<br>LVL 2.0E           |                                                                                      |  |              |               |  |                   |
| Stress                   | Max Ratio               | 0.66                          |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| Deflection               | $\Delta_{TL}$           | 0.25 in                       |                                                                                      |  |              |               |  |                   |
|                          |                         | L/471                         |                                                                                      |  |              |               |  |                   |
|                          | $\Delta_{LL}$           | 0.18 in                       |                                                                                      |  |              |               |  |                   |
|                          |                         | L/667                         |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| Trimmers                 |                         | (2) 2x6<br>DF-L No. 2         |                                                                                      |  |              |               |  |                   |
| Bearing Area             |                         | 2.66 in                       |                                                                                      |  |              |               |  |                   |
| Bend.                    | M/S                     | 126 psi                       |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| Comp.                    | P/A                     | 352 psi                       |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| Def.                     | $\Delta_{TL}$           | 0.04 in                       |                                                                                      |  |              |               |  |                   |
|                          |                         | L/2,872                       |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| King Studs               |                         | (2) 2x6<br>DF-L No. 2         |                                                                                      |  |              |               |  |                   |
| Bend.                    | M/S                     | 1122 psi                      |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| Comp.                    | P/A                     | 3 psi                         |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| Def.                     | $\Delta_{TL}$           | 0.36 in                       |                                                                                      |  |              |               |  |                   |
|                          |                         | L/322                         |                                                                                      |  |              |               |  |                   |
|                          |                         | Pass                          |                                                                                      |  |              |               |  |                   |
| Wind Check               |                         | Good                          |                                                                                      |  |              |               |  |                   |
| Lateral Bracing Hardware |                         | Not Req'd                     |                                                                                      |  |              |               |  |                   |
| Reactions                |                         | 5,813 lbs                     |                                                                                      |  |              |               |  |                   |
| (If Req'd)               | Pad Footing             | 30 x 30 x 8 in<br>Pad Footing |                                                                                      |  |              |               |  |                   |
|                          | Rebar                   | W/(3)#4<br>Rebar E.W.         |                                                                                      |  |              |               |  |                   |

|                          |                         |                       |                                                                                       |  |              |               |  |                   |
|--------------------------|-------------------------|-----------------------|---------------------------------------------------------------------------------------|--|--------------|---------------|--|-------------------|
| <b>Floor 1 (2)</b>       |                         | Wall on Concrete      | Ext Wall                                                                              |  | Plate Height | Header Height |  | Overhang          |
|                          |                         | Y                     | Y                                                                                     |  | 10           | 6.67          |  | 2.67              |
| <b>Loading</b>           |                         |                       |                                                                                       |  |              |               |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>    |                                                                                       |  |              |               |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40  |                                                                                       |  |              |               |  | 2,530.6 plf       |
|                          | <b>16.25</b>            | <b>22</b>             |                                                                                       |  |              |               |  | <b>Total</b>      |
|                          | Dead: 183.5 plf         | 247.9 plf             |                                                                                       |  |              |               |  | 471.3 plf         |
|                          | Live                    | 440.0 plf             |                                                                                       |  |              |               |  | 440.0 plf         |
|                          | Snow                    | 1,619.3 plf           |                                                                                       |  |              |               |  | 1,619.3 plf       |
| Load from Above          | Calc                    |                       |                                                                                       |  |              |               |  |                   |
| Size                     |                         |                       |                                                                                       |  |              |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. | Continuous Footing    | Additional Footing Load: 2960plf<br>Size: 30 x 10 in Cont. Footing W/3 #4 Rebar Cont. |  |              |               |  |                   |
| <b>Openings</b>          |                         |                       |                                                                                       |  |              |               |  |                   |
| Opening Size             |                         | 6.3 ft                |                                                                                       |  |              |               |  |                   |
| Header Callout           |                         | (2)11.8<br>LVL 2.0E   |                                                                                       |  |              |               |  |                   |
| Stress                   | Max Ratio               | 0.87                  |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| Deflection               | ΔTL                     | 0.09 in               |                                                                                       |  |              |               |  |                   |
|                          |                         | L/843                 |                                                                                       |  |              |               |  |                   |
|                          | ΔLL                     | 0.07 in               |                                                                                       |  |              |               |  |                   |
|                          |                         | L/1,036               |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| Trimmers                 |                         | (3) 2x6<br>DF-L No. 2 |                                                                                       |  |              |               |  |                   |
| Bearing Area             |                         | 3.62 in               |                                                                                       |  |              |               |  |                   |
| Bend.                    | M/S                     | 126 psi               |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| Comp.                    | P/A                     | 479 psi               |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| Def.                     | ΔTL                     | 0.04 in               |                                                                                       |  |              |               |  |                   |
|                          |                         | L/2,872               |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| King Studs               |                         | (1) 2x6<br>DF-L No. 2 |                                                                                       |  |              |               |  |                   |
| Bend.                    | M/S                     | 1559 psi              |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| Comp.                    | P/A                     | 6 psi                 |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| Def.                     | ΔTL                     | 0.51 in               |                                                                                       |  |              |               |  |                   |
|                          |                         | L/232                 |                                                                                       |  |              |               |  |                   |
|                          |                         | Pass                  |                                                                                       |  |              |               |  |                   |
| Wind Check               |                         | Good                  |                                                                                       |  |              |               |  |                   |
| Lateral Bracing Hardware |                         | Not Req'd             |                                                                                       |  |              |               |  |                   |
| Reactions                |                         | 7,908 lbs             |                                                                                       |  |              |               |  |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             |                                                                                       |  |              |               |  |                   |
|                          | Rebar                   |                       |                                                                                       |  |              |               |  |                   |

|                          |                         |                       |                    |             |                                                  |               |  |             |
|--------------------------|-------------------------|-----------------------|--------------------|-------------|--------------------------------------------------|---------------|--|-------------|
| <b>Floor 1 (3)</b>       |                         | Wall on Concrete      | Ext Wall           |             | Plate Height                                     | Header Height |  | Overhang    |
|                          |                         | Y                     | Y                  |             | 10                                               | 6.67          |  | 0           |
| <b>Loading</b>           |                         |                       |                    |             |                                                  |               |  |             |
| Span                     | Upper Floor             | Upper Floor           |                    |             |                                                  |               |  | Comb Total  |
|                          | Dead: 12<br>40          | Live:<br>40           | Dead: 12<br>40     | Live:<br>40 |                                                  |               |  | 1,409.0 plf |
|                          | 0                       | 37                    |                    |             |                                                  |               |  | Total       |
|                          | Dead                    | 0.0 plf               | 629.0 plf          |             |                                                  |               |  | 669.0 plf   |
|                          | Live                    | 0.0 plf               | 740.0 plf          |             |                                                  |               |  | 740.0 plf   |
|                          | Snow                    |                       |                    |             |                                                  |               |  | 0.0 plf     |
| Load from Above          |                         | Calc                  |                    |             |                                                  |               |  |             |
| Size                     |                         |                       |                    |             |                                                  |               |  |             |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing |             | Additional Footing Load: 1926plf                 |               |  |             |
|                          |                         |                       |                    |             | Size: 18 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |             |
| <b>Openings</b>          |                         |                       |                    |             |                                                  |               |  |             |
| Opening Size             |                         | 3.0 ft                |                    |             |                                                  |               |  |             |
| Header Callout           |                         | (2)2x6<br>DF-L No. 2  |                    |             |                                                  |               |  |             |
| Stress                   | Max Ratio               | 0.94                  |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| Deflection               | ΔTL                     | 0.04 in               |                    |             |                                                  |               |  |             |
|                          |                         | L/933                 |                    |             |                                                  |               |  |             |
|                          | ΔLL                     | 0.02 in               |                    |             |                                                  |               |  |             |
|                          |                         | L/1,776               |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| Trimmers                 |                         | (1) 2x6<br>DF-L No. 2 |                    |             |                                                  |               |  |             |
| Bearing Area             |                         | 1.13 in               |                    |             |                                                  |               |  |             |
| Bend.                    | M/S                     | 126 psi               |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| Comp.                    | P/A                     | 256 psi               |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| Def.                     | ΔTL                     | 0.04 in               |                    |             |                                                  |               |  |             |
|                          |                         | L/2,872               |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| King Studs               |                         | (1) 2x6<br>DF-L No. 2 |                    |             |                                                  |               |  |             |
| Bend.                    | M/S                     | 922 psi               |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| Comp.                    | P/A                     | 6 psi                 |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| Def.                     | ΔTL                     | 0.30 in               |                    |             |                                                  |               |  |             |
|                          |                         | L/392                 |                    |             |                                                  |               |  |             |
|                          |                         | Pass                  |                    |             |                                                  |               |  |             |
| Wind Check               |                         | Good                  |                    |             |                                                  |               |  |             |
| Lateral Bracing Hardware |                         | Not Req'd             |                    |             |                                                  |               |  |             |
| Reactions                |                         | 2,113 lbs             |                    |             |                                                  |               |  |             |
| (If Req'd)               | Pad Footing             | Not Req'd             |                    |             |                                                  |               |  |             |
|                          | Rebar                   |                       |                    |             |                                                  |               |  |             |

|                                 |                         |                       |                       |  |                                                                                      |               |  |                   |
|---------------------------------|-------------------------|-----------------------|-----------------------|--|--------------------------------------------------------------------------------------|---------------|--|-------------------|
| <b>Floor 1 (4)</b>              |                         | Wall on Concrete      | Ext Wall              |  | Plate Height                                                                         | Header Height |  | Overhang          |
|                                 |                         | Y                     | Y                     |  | 10                                                                                   | 6.67          |  | 2.67              |
| <b>Loading</b>                  |                         |                       |                       |  |                                                                                      |               |  |                   |
| Span                            | <b>Roof</b>             | <b>Upper Floor</b>    |                       |  |                                                                                      |               |  | <b>Comb Total</b> |
|                                 | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40  |                       |  |                                                                                      |               |  | 1,645.4 plf       |
|                                 | <b>13</b>               | <b>2</b>              |                       |  |                                                                                      |               |  | <b>Total</b>      |
|                                 | Dead: 155.9 plf         | 34.0 plf              |                       |  |                                                                                      |               |  | 229.9 plf         |
|                                 | Live                    | 40.0 plf              |                       |  |                                                                                      |               |  | 40.0 plf          |
|                                 | Snow: 1,375.5 plf       |                       |                       |  |                                                                                      |               |  | 1,375.5 plf       |
| Load from Above                 | Calc                    |                       |                       |  |                                                                                      |               |  |                   |
| <b>Size</b>                     |                         |                       |                       |  |                                                                                      |               |  |                   |
| Stud Wall                       | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing    |  | Additional Footing Load: 1617plf<br>Size: 16 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |                   |
| <b>Openings</b>                 |                         |                       |                       |  |                                                                                      |               |  |                   |
| <b>Opening Size</b>             |                         | <b>2.0 ft</b>         | <b>6.3 ft</b>         |  |                                                                                      |               |  |                   |
| <b>Header Callout</b>           |                         | (2)2x6<br>DF-L No. 2  | (2)9.5<br>LVL 2.0E    |  |                                                                                      |               |  |                   |
| Stress                          | Max Ratio               | 0.72                  | 0.71                  |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Deflection                      | $\Delta_{TL}$           | 0.01 in               | 0.11 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/2,696               | L/664                 |  |                                                                                      |               |  |                   |
|                                 | $\Delta_{LL}$           | 0.01 in               | 0.10 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/3,134               | L/772                 |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| <b>Trimmers</b>                 |                         | (1) 2x6<br>DF-L No. 2 | (2) 2x6<br>DF-L No. 2 |  |                                                                                      |               |  |                   |
| <b>Bearing Area</b>             |                         | 0.88 in               | 2.35 in               |  |                                                                                      |               |  |                   |
| Bend.                           | M/S                     | 126 psi               | 126 psi               |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Comp.                           | P/A                     | 199 psi               | 623 psi               |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.04 in               | 0.04 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/2,872               | L/2,872               |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| <b>King Studs</b>               |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 |  |                                                                                      |               |  |                   |
| Bend.                           | M/S                     | 726 psi               | 1559 psi              |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Comp.                           | P/A                     | 6 psi                 | 6 psi                 |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.24 in               | 0.51 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/497                 | L/232                 |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| <b>Wind Check</b>               |                         | Good                  | Good                  |  |                                                                                      |               |  |                   |
| <b>Lateral Bracing Hardware</b> |                         | Not Req'd             | Not Req'd             |  |                                                                                      |               |  |                   |
| <b>Reactions</b>                |                         | 1,645 lbs             | 5,142 lbs             |  |                                                                                      |               |  |                   |
| (If Req'd)                      | <b>Pad Footing</b>      | Not Req'd             | Not Req'd             |  |                                                                                      |               |  |                   |
|                                 | <b>Rebar</b>            |                       |                       |  |                                                                                      |               |  |                   |



|                          |                         |                      |                       |                          |              |                                             |  |                   |
|--------------------------|-------------------------|----------------------|-----------------------|--------------------------|--------------|---------------------------------------------|--|-------------------|
| <b>Floor 1 (5)</b>       |                         | Wall on Concrete     | Ext Wall              |                          | Plate Height | Header Height                               |  | Overhang          |
|                          |                         | Y                    | Y                     |                          | 10           | 6.67                                        |  | 2.67              |
| <b>Loading</b>           |                         |                      |                       |                          |              |                                             |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>   | <b>Roof</b>           |                          |              |                                             |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12 Live:<br>40 | Dead: 17<br>Snow: 150 |                          |              |                                             |  | 3,093.2 plf       |
|                          | <b>13</b>               | <b>2</b>             | <b>12</b>             |                          |              |                                             |  | <b>Total</b>      |
|                          | Dead: 155.9 plf         | 34.0 plf             | 147.4 plf             |                          |              |                                             |  | 377.2 plf         |
|                          | Live                    | 40.0 plf             |                       |                          |              |                                             |  | 40.0 plf          |
|                          | Snow                    | 1,375.5 plf          | 1,300.5 plf           |                          |              |                                             |  | 2,676.0 plf       |
| Load from Above          |                         | Calc                 |                       |                          |              |                                             |  |                   |
| Size                     |                         |                      |                       |                          |              |                                             |  |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                      | Continuous Footing    | Additional Footing Load: |              | 3065plf                                     |  |                   |
|                          |                         |                      |                       | Size:                    |              | 30 x 10 in Cont. Footing W/3 #4 Rebar Cont. |  |                   |
| <b>Openings</b>          |                         |                      |                       |                          |              |                                             |  |                   |
| Opening Size             |                         |                      |                       |                          |              |                                             |  |                   |
| Header Callout           |                         |                      |                       |                          |              |                                             |  |                   |
| Stress                   | Max Ratio               |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
|                          | $\Delta_{TL}$           |                      |                       |                          |              |                                             |  |                   |
|                          | $\Delta_{LL}$           |                      |                       |                          |              |                                             |  |                   |
| Deflection               |                         |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
| Trimmers                 |                         |                      |                       |                          |              |                                             |  |                   |
| Bearing Area             |                         |                      |                       |                          |              |                                             |  |                   |
| Bend.                    | M/S                     |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
| Comp.                    | P/A                     |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
| Def.                     | $\Delta_{TL}$           |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
| King Studs               |                         |                      |                       |                          |              |                                             |  |                   |
| Bend.                    | M/S                     |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
| Comp.                    | P/A                     |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
| Def.                     | $\Delta_{TL}$           |                      |                       |                          |              |                                             |  |                   |
|                          |                         |                      |                       |                          |              |                                             |  |                   |
| Wind Check               |                         |                      |                       |                          |              |                                             |  |                   |
| Lateral Bracing Hardware |                         |                      |                       |                          |              |                                             |  |                   |
| Reactions                |                         |                      |                       |                          |              |                                             |  |                   |
| (If Req'd)               | Pad Footing             |                      |                       |                          |              |                                             |  |                   |
|                          | Rebar                   |                      |                       |                          |              |                                             |  |                   |

|                          |                         |                               |                       |                          |              |                                             |  |                   |
|--------------------------|-------------------------|-------------------------------|-----------------------|--------------------------|--------------|---------------------------------------------|--|-------------------|
| <b>Floor 1 (6)</b>       |                         | Wall on Concrete              | Ext Wall              |                          | Plate Height | Header Height                               |  | Overhang          |
|                          |                         | Y                             | Y                     |                          | 10           | 6.67                                        |  | 2.67              |
| <b>Loading</b>           |                         |                               |                       |                          |              |                                             |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>            | <b>Roof</b>           |                          |              |                                             |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12 Live:<br>40          | Dead: 17<br>Snow: 150 |                          |              |                                             |  | 3,882.5 plf       |
|                          | <b>19.25</b>            | <b>18.5</b>                   | <b>11.25</b>          |                          |              |                                             |  | <b>Total</b>      |
|                          | Dead: 209.0 plf         | 34.0 plf                      | 141.0 plf             |                          |              |                                             |  | 424.0 plf         |
|                          | Live:                   | 370.0 plf                     |                       |                          |              |                                             |  | 370.0 plf         |
|                          | Snow: 1,844.3 plf       |                               | 1,244.3 plf           |                          |              |                                             |  | 3,088.5 plf       |
| Load from Above          | Calc                    |                               |                       |                          |              |                                             |  |                   |
| Size                     |                         |                               |                       |                          |              |                                             |  |                   |
| Stud Wall                | 2x8 DF-L No. 2@ 16 O.C. |                               | Continuous Footing    | Additional Footing Load: |              | 3686plf                                     |  |                   |
|                          |                         |                               |                       | Size:                    |              | 36 x 10 in Cont. Footing W/3 #4 Rebar Cont. |  |                   |
| <b>Openings</b>          |                         |                               |                       |                          |              |                                             |  |                   |
| Opening Size             |                         | <b>10.0 ft</b>                |                       |                          |              |                                             |  |                   |
| Header Callout           |                         | (4) 14<br>LVL 2.0E            |                       |                          |              |                                             |  |                   |
| Stress                   | Max Ratio               | 0.91                          |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| Deflection               | ΔTL                     | 0.27 in                       |                       |                          |              |                                             |  |                   |
|                          |                         | L/440                         |                       |                          |              |                                             |  |                   |
|                          | ΔLL                     | 0.24 in                       |                       |                          |              |                                             |  |                   |
|                          |                         | L/494                         |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| Trimmers                 |                         | (3) 2x8<br>DF-L No. 2         |                       |                          |              |                                             |  |                   |
| Bearing Area             |                         | 4.44 in                       |                       |                          |              |                                             |  |                   |
| Bend.                    | M/S                     | 72 psi                        |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| Comp.                    | P/A                     | 595 psi                       |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| Def.                     | ΔTL                     | 0.02 in                       |                       |                          |              |                                             |  |                   |
|                          |                         | L/6,578                       |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| King Studs               |                         | (1) 2x8<br>DF-L No. 2         |                       |                          |              |                                             |  |                   |
| Bend.                    | M/S                     | 1320 psi                      |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| Comp.                    | P/A                     | 5 psi                         |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| Def.                     | ΔTL                     | 0.32 in                       |                       |                          |              |                                             |  |                   |
|                          |                         | L/361                         |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                          |                       |                          |              |                                             |  |                   |
| Wind Check               |                         | Good                          |                       |                          |              |                                             |  |                   |
| Lateral Bracing Hardware |                         | Not Req'd                     |                       |                          |              |                                             |  |                   |
| Reactions                |                         | 19,412 lbs                    |                       |                          |              |                                             |  |                   |
| (If Req'd)               | Pad Footing             | 48 x 48 x 8 in<br>Pad Footing |                       |                          |              |                                             |  |                   |
|                          | Rebar                   | W/(4)#4<br>Rebar E.W.         |                       |                          |              |                                             |  |                   |

|                          |                         |                  |                    |  |                                                                                      |               |  |            |
|--------------------------|-------------------------|------------------|--------------------|--|--------------------------------------------------------------------------------------|---------------|--|------------|
| <b>Floor 1 (7)</b>       |                         | Wall on Concrete | Ext Wall           |  | Plate Height                                                                         | Header Height |  | Overhang   |
|                          |                         | Y                | Y                  |  | 10                                                                                   | 6.67          |  | 0          |
| <b>Loading</b>           |                         |                  |                    |  |                                                                                      |               |  |            |
| Span                     | Upper Floor             | Upper Floor      |                    |  |                                                                                      |               |  | Comb Total |
|                          | Dead: 12<br>40          | Live: 12<br>40   |                    |  |                                                                                      |               |  | 724.5 plf  |
|                          | 0                       | 18.5             |                    |  |                                                                                      |               |  | Total      |
|                          | Dead                    | 0.0 plf          | 314.5 plf          |  |                                                                                      |               |  | 354.5 plf  |
|                          | Live                    | 0.0 plf          | 370.0 plf          |  |                                                                                      |               |  | 370.0 plf  |
|                          | Snow                    |                  |                    |  |                                                                                      |               |  | 0.0 plf    |
| Load from Above          |                         | Calc             |                    |  |                                                                                      |               |  |            |
| Size                     |                         |                  |                    |  |                                                                                      |               |  |            |
| Stud Wall                | 2x4 DF-L No. 2@ 12 O.C. |                  | Continuous Footing |  | Additional Footing Load: 1080plf<br>Size: 12 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |            |
| <b>Openings</b>          |                         |                  |                    |  |                                                                                      |               |  |            |
| Opening Size             |                         |                  |                    |  |                                                                                      |               |  |            |
| Header Callout           |                         |                  |                    |  |                                                                                      |               |  |            |
| Stress                   | Max Ratio               |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| Deflection               | $\Delta_{TL}$           |                  |                    |  |                                                                                      |               |  |            |
|                          | $\Delta_{LL}$           |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| Trimmers                 |                         |                  |                    |  |                                                                                      |               |  |            |
| Bearing Area             |                         |                  |                    |  |                                                                                      |               |  |            |
| Bend.                    | M/S                     |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| Comp.                    | P/A                     |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| Def.                     | $\Delta_{TL}$           |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| King Studs               |                         |                  |                    |  |                                                                                      |               |  |            |
| Bend.                    | M/S                     |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| Comp.                    | P/A                     |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| Def.                     | $\Delta_{TL}$           |                  |                    |  |                                                                                      |               |  |            |
|                          |                         |                  |                    |  |                                                                                      |               |  |            |
| Wind Check               |                         |                  |                    |  |                                                                                      |               |  |            |
| Lateral Bracing Hardware |                         |                  |                    |  |                                                                                      |               |  |            |
| Reactions                |                         |                  |                    |  |                                                                                      |               |  |            |
| (If Req'd)               | Pad Footing             |                  |                    |  |                                                                                      |               |  |            |
|                          | Rebar                   |                  |                    |  |                                                                                      |               |  |            |

|                          |                         |                       |                       |                          |              |                                             |  |                   |
|--------------------------|-------------------------|-----------------------|-----------------------|--------------------------|--------------|---------------------------------------------|--|-------------------|
| <b>Floor 1 (8)</b>       |                         | Wall on Concrete      | Ext Wall              |                          | Plate Height | Header Height                               |  | Overhang          |
|                          |                         | Y                     | Y                     |                          | 10           | 6.67                                        |  | 2.67              |
| <b>Loading</b>           |                         |                       |                       |                          |              |                                             |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>    | <b>Roof</b>           |                          |              |                                             |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12 Live:<br>40  | Dead: 17<br>Snow: 150 |                          |              |                                             |  | 4,162.5 plf       |
|                          | <b>24</b>               | <b>23</b>             | <b>4.5</b>            |                          |              |                                             |  | <b>Total</b>      |
|                          | 249.4 plf               | 391.0 plf             | 83.6 plf              |                          |              |                                             |  | 764.0 plf         |
|                          |                         | 460.0 plf             |                       |                          |              |                                             |  | 460.0 plf         |
|                          | 2,200.5 plf             |                       | 738.0 plf             |                          |              |                                             |  | 2,938.5 plf       |
| Load from Above          |                         | Calc                  |                       |                          |              |                                             |  |                   |
| Size                     |                         |                       |                       |                          |              |                                             |  |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 12 O.C. |                       | Continuous Footing    | Additional Footing Load: |              | 3702plf                                     |  |                   |
|                          |                         |                       |                       | Size:                    |              | 36 x 10 in Cont. Footing W/3 #4 Rebar Cont. |  |                   |
| <b>Openings</b>          |                         |                       |                       |                          |              |                                             |  |                   |
| Opening Size             |                         | <b>3.0 ft</b>         |                       |                          |              |                                             |  |                   |
| Header Callout           |                         | 6x10<br>DF-L No. 2    |                       |                          |              |                                             |  |                   |
| Stress                   | Max Ratio               | 0.93                  |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| Deflection               | $\Delta_{TL}$           | 0.01 in               |                       |                          |              |                                             |  |                   |
|                          |                         | L/2,629               |                       |                          |              |                                             |  |                   |
|                          | $\Delta_{LL}$           | 0.01 in               |                       |                          |              |                                             |  |                   |
|                          |                         | L/3,220               |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| Trimmers                 |                         | (2) 2x6<br>DF-L No. 2 |                       |                          |              |                                             |  |                   |
| Bearing Area             |                         | 1.90 in               |                       |                          |              |                                             |  |                   |
| Bend.                    | M/S                     | 94 psi                |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| Comp.                    | P/A                     | 378 psi               |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| Def.                     | $\Delta_{TL}$           | 0.03 in               |                       |                          |              |                                             |  |                   |
|                          |                         | L/3,829               |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| King Studs               |                         | (1) 2x6<br>DF-L No. 2 |                       |                          |              |                                             |  |                   |
| Bend.                    | M/S                     | 857 psi               |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| Comp.                    | P/A                     | 6 psi                 |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| Def.                     | $\Delta_{TL}$           | 0.28 in               |                       |                          |              |                                             |  |                   |
|                          |                         | L/421                 |                       |                          |              |                                             |  |                   |
|                          |                         | Pass                  |                       |                          |              |                                             |  |                   |
| Wind Check               |                         | Good                  |                       |                          |              |                                             |  |                   |
| Lateral Bracing Hardware |                         | Not Req'd             |                       |                          |              |                                             |  |                   |
| Reactions                |                         | 6,244 lbs             |                       |                          |              |                                             |  |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             |                       |                          |              |                                             |  |                   |
|                          | Rebar                   |                       |                       |                          |              |                                             |  |                   |

|                          |                         |                       |                    |  |                                                                                      |               |  |                   |
|--------------------------|-------------------------|-----------------------|--------------------|--|--------------------------------------------------------------------------------------|---------------|--|-------------------|
| <b>Floor 1 (9)</b>       |                         | Wall on Concrete      | Ext Wall           |  | Plate Height                                                                         | Header Height |  | Overhang          |
|                          |                         | Y                     | Y                  |  | 10                                                                                   | 6.67          |  | 2.67              |
| <b>Loading</b>           |                         |                       |                    |  |                                                                                      |               |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>    |                    |  |                                                                                      |               |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40  |                    |  |                                                                                      |               |  | 819.9 plf         |
|                          | <b>4</b>                | <b>0</b>              |                    |  |                                                                                      |               |  | <b>Total</b>      |
|                          | Dead: 79.4 plf          | 0.0 plf               |                    |  |                                                                                      |               |  | 119.4 plf         |
|                          | Live: 0.0 plf           | 0.0 plf               |                    |  |                                                                                      |               |  | 0.0 plf           |
|                          | Snow: 700.5 plf         |                       |                    |  |                                                                                      |               |  | 700.5 plf         |
| Load from Above          |                         | Calc                  |                    |  |                                                                                      |               |  |                   |
| Size                     |                         |                       |                    |  |                                                                                      |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing |  | Additional Footing Load: 1585plf<br>Size: 16 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |                   |
| <b>Openings</b>          |                         |                       |                    |  |                                                                                      |               |  |                   |
| Opening Size             |                         | 10.0 ft               |                    |  |                                                                                      |               |  |                   |
| Header Callout           |                         | (2)11.8<br>LVL 2.0E   |                    |  |                                                                                      |               |  |                   |
| Stress                   | Max Ratio               | 0.48                  |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| Deflection               | ΔTL                     | 0.19 in               |                    |  |                                                                                      |               |  |                   |
|                          |                         | L/635                 |                    |  |                                                                                      |               |  |                   |
|                          | ΔLL                     | 0.16 in               |                    |  |                                                                                      |               |  |                   |
|                          |                         | L/744                 |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| Trimmers                 |                         | (2) 2x6<br>DF-L No. 2 |                    |  |                                                                                      |               |  |                   |
| Bearing Area             |                         | 1.87 in               |                    |  |                                                                                      |               |  |                   |
| Bend.                    | M/S                     | 126 psi               |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| Comp.                    | P/A                     | 497 psi               |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| Def.                     | ΔTL                     | 0.04 in               |                    |  |                                                                                      |               |  |                   |
|                          |                         | L/2,872               |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| King Studs               |                         | (2) 2x6<br>DF-L No. 2 |                    |  |                                                                                      |               |  |                   |
| Bend.                    | M/S                     | 1146 psi              |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| Comp.                    | P/A                     | 3 psi                 |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| Def.                     | ΔTL                     | 0.37 in               |                    |  |                                                                                      |               |  |                   |
|                          |                         | L/315                 |                    |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                    |  |                                                                                      |               |  |                   |
| Wind Check               |                         | Good                  |                    |  |                                                                                      |               |  |                   |
| Lateral Bracing Hardware |                         | Not Req'd             |                    |  |                                                                                      |               |  |                   |
| Reactions                |                         | 4,099 lbs             |                    |  |                                                                                      |               |  |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             |                    |  |                                                                                      |               |  |                   |
|                          | Rebar                   |                       |                    |  |                                                                                      |               |  |                   |

|                                 |                         |                       |                       |  |                                                                                      |               |  |                   |
|---------------------------------|-------------------------|-----------------------|-----------------------|--|--------------------------------------------------------------------------------------|---------------|--|-------------------|
| <b>Floor 1 (10)</b>             |                         | Wall on Concrete      | Ext Wall              |  | Plate Height                                                                         | Header Height |  | Overhang          |
|                                 |                         | Y                     | Y                     |  | 10                                                                                   | 6.67          |  | 2.67              |
| <b>Loading</b>                  |                         |                       |                       |  |                                                                                      |               |  |                   |
| Span                            | <b>Roof</b>             | <b>Upper Floor</b>    |                       |  |                                                                                      |               |  | <b>Comb Total</b> |
|                                 | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40  |                       |  |                                                                                      |               |  | 1,613.1 plf       |
|                                 | <b>13.5</b>             | <b>0</b>              |                       |  |                                                                                      |               |  | <b>Total</b>      |
|                                 | Dead: 160.1 plf         | 0.0 plf               |                       |  |                                                                                      |               |  | 200.1 plf         |
|                                 | Live                    | 0.0 plf               |                       |  |                                                                                      |               |  | 0.0 plf           |
|                                 | Snow: 1,413.0 plf       |                       |                       |  |                                                                                      |               |  | 1,413.0 plf       |
| Load from Above                 | Calc                    |                       |                       |  |                                                                                      |               |  |                   |
| <b>Size</b>                     |                         |                       |                       |  |                                                                                      |               |  |                   |
| Stud Wall                       | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing    |  | Additional Footing Load: 2390plf<br>Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |                   |
| <b>Openings</b>                 |                         |                       |                       |  |                                                                                      |               |  |                   |
| <b>Opening Size</b>             |                         | <b>3.0 ft</b>         | <b>6.3 ft</b>         |  |                                                                                      |               |  |                   |
| <b>Header Callout</b>           |                         | (2)2x8<br>DF-L No. 2  | (2)9.5<br>LVL 2.0E    |  |                                                                                      |               |  |                   |
| Stress                          | Max Ratio               | 0.81                  | 0.69                  |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Deflection                      | $\Delta_{TL}$           | 0.02 in               | 0.11 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/1,867               | L/677                 |  |                                                                                      |               |  |                   |
|                                 | $\Delta_{LL}$           | 0.02 in               | 0.10 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/2,131               | L/773                 |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| <b>Trimmers</b>                 |                         | (1) 2x6<br>DF-L No. 2 | (2) 2x6<br>DF-L No. 2 |  |                                                                                      |               |  |                   |
| <b>Bearing Area</b>             |                         | 1.29 in               | 2.30 in               |  |                                                                                      |               |  |                   |
| Bend.                           | M/S                     | 126 psi               | 126 psi               |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Comp.                           | P/A                     | 293 psi               | 611 psi               |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.04 in               | 0.04 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/2,872               | L/2,872               |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| <b>King Studs</b>               |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 |  |                                                                                      |               |  |                   |
| Bend.                           | M/S                     | 922 psi               | 1559 psi              |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Comp.                           | P/A                     | 6 psi                 | 6 psi                 |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.30 in               | 0.51 in               |  |                                                                                      |               |  |                   |
|                                 |                         | L/392                 | L/232                 |  |                                                                                      |               |  |                   |
|                                 |                         | Pass                  | Pass                  |  |                                                                                      |               |  |                   |
| <b>Wind Check</b>               |                         | Good                  | Good                  |  |                                                                                      |               |  |                   |
| <b>Lateral Bracing Hardware</b> |                         | Not Req'd             | Not Req'd             |  |                                                                                      |               |  |                   |
| <b>Reactions</b>                |                         | 2,420 lbs             | 5,041 lbs             |  |                                                                                      |               |  |                   |
| (If Req'd)                      | <b>Pad Footing</b>      | Not Req'd             | Not Req'd             |  |                                                                                      |               |  |                   |
|                                 | <b>Rebar</b>            |                       |                       |  |                                                                                      |               |  |                   |

|                          |                       |                         |                       |                                                                                      |              |               |  |                   |
|--------------------------|-----------------------|-------------------------|-----------------------|--------------------------------------------------------------------------------------|--------------|---------------|--|-------------------|
| <b>Floor 1 (11)</b>      |                       | Wall on Concrete        | Ext Wall              |                                                                                      | Plate Height | Header Height |  | Overhang          |
|                          |                       | Y                       | Y                     |                                                                                      | 10           | 6.67          |  | 2.67              |
| <b>Loading</b>           |                       |                         |                       |                                                                                      |              |               |  |                   |
| Span                     | <b>Roof</b>           | <b>Upper Floor</b>      | <b>Roof</b>           |                                                                                      |              |               |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150 | Dead: 12<br>Live: 40    | Dead: 17<br>Snow: 150 |                                                                                      |              |               |  | 1,907.2 plf       |
|                          | <b>9</b>              | <b>2</b>                | <b>2</b>              |                                                                                      |              |               |  | <b>Total</b>      |
|                          | Dead: 121.9 plf       | 17.0 plf                | 62.4 plf              |                                                                                      |              |               |  | 241.2 plf         |
|                          | Live                  | 40.0 plf                |                       |                                                                                      |              |               |  | 40.0 plf          |
|                          | Snow                  | 1,075.5 plf             | 550.5 plf             |                                                                                      |              |               |  | 1,626.0 plf       |
| Load from Above          |                       | Calc                    |                       |                                                                                      |              |               |  |                   |
| Size                     |                       |                         |                       |                                                                                      |              |               |  |                   |
| Stud Wall                |                       | 2x6 DF-L No. 2@ 16 O.C. | Continuous Footing    | Additional Footing Load: 2644plf<br>Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |              |               |  |                   |
| <b>Openings</b>          |                       |                         |                       |                                                                                      |              |               |  |                   |
| Opening Size             |                       | 3.0 ft                  |                       |                                                                                      |              |               |  |                   |
| Header Callout           |                       | (2)2x8<br>DF-L No. 2    |                       |                                                                                      |              |               |  |                   |
| Stress                   | Max Ratio             | 0.95                    |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| Deflection               | ΔTL                   | 0.02 in                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | L/1,579                 |                       |                                                                                      |              |               |  |                   |
|                          | ΔLL                   | 0.02 in                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | L/1,807                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| Trimmers                 |                       | (2) 2x6<br>DF-L No. 2   |                       |                                                                                      |              |               |  |                   |
| Bearing Area             |                       | 1.53 in                 |                       |                                                                                      |              |               |  |                   |
| Bend.                    | M/S                   | 126 psi                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| Comp.                    | P/A                   | 347 psi                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| Def.                     | ΔTL                   | 0.04 in                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | L/2,872                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| King Studs               |                       | (1) 2x6<br>DF-L No. 2   |                       |                                                                                      |              |               |  |                   |
| Bend.                    | M/S                   | 922 psi                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| Comp.                    | P/A                   | 6 psi                   |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| Def.                     | ΔTL                   | 0.30 in                 |                       |                                                                                      |              |               |  |                   |
|                          |                       | L/392                   |                       |                                                                                      |              |               |  |                   |
|                          |                       | Pass                    |                       |                                                                                      |              |               |  |                   |
| Wind Check               |                       | Good                    |                       |                                                                                      |              |               |  |                   |
| Lateral Bracing Hardware |                       | Not Req'd               |                       |                                                                                      |              |               |  |                   |
| Reactions                |                       | 2,861 lbs               |                       |                                                                                      |              |               |  |                   |
| (If Req'd)               | Pad Footing           | Not Req'd               |                       |                                                                                      |              |               |  |                   |
|                          | Rebar                 |                         |                       |                                                                                      |              |               |  |                   |

|                          |               |                         |                    |                    |              |                                                                                      |  |                   |
|--------------------------|---------------|-------------------------|--------------------|--------------------|--------------|--------------------------------------------------------------------------------------|--|-------------------|
| <b>Floor 1 (12)</b>      |               | Wall on Concrete        | Ext Wall           |                    | Plate Height | Header Height                                                                        |  | Overhang          |
|                          |               | Y                       | Y                  |                    | 13           | 6.67                                                                                 |  | 2.67              |
| <b>Loading</b>           |               |                         |                    |                    |              |                                                                                      |  |                   |
| Span                     | <b>Roof</b>   | <b>Upper Floor</b>      | <b>Upper Floor</b> |                    |              |                                                                                      |  | <b>Comb Total</b> |
|                          | Dead: 17      | Dead: 12                | Live: 40           | Dead: 12           | Live: 40     |                                                                                      |  | 1,857.9 plf       |
|                          | Snow: 150     | 40                      |                    | 40                 |              |                                                                                      |  |                   |
|                          | <b>16</b>     | <b>0</b>                | <b>0</b>           |                    |              |                                                                                      |  | <b>Total</b>      |
|                          | Dead          | 181.4 plf               | 0.0 plf            | 0.0 plf            |              |                                                                                      |  | 257.4 plf         |
|                          | Live          |                         | 0.0 plf            | 0.0 plf            |              |                                                                                      |  | 0.0 plf           |
|                          | Snow          | 1,600.5 plf             |                    |                    |              |                                                                                      |  | 1,600.5 plf       |
| Load from Above          |               | Calc                    |                    |                    |              |                                                                                      |  |                   |
| Size                     |               |                         |                    |                    |              |                                                                                      |  |                   |
| Stud Wall                |               | 2x6 DF-L No. 2@ 12 O.C. |                    | Continuous Footing |              | Additional Footing Load: 2623plf<br>Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |  |                   |
| <b>Openings</b>          |               |                         |                    |                    |              |                                                                                      |  |                   |
| Opening Size             |               | 2.5 ft                  |                    |                    |              |                                                                                      |  |                   |
| Header Callout           |               | (2)2x8<br>DF-L No. 2    |                    |                    |              |                                                                                      |  |                   |
| Stress                   | Max Ratio     | 0.77                    |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| Deflection               | $\Delta_{TL}$ | 0.01 in                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | L/2,801                 |                    |                    |              |                                                                                      |  |                   |
|                          | $\Delta_{LL}$ | 0.01 in                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | L/3,251                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| Trimmers                 |               | (1) 2x6<br>DF-L No. 2   |                    |                    |              |                                                                                      |  |                   |
| Bearing Area             |               | 1.24 in                 |                    |                    |              |                                                                                      |  |                   |
| Bend.                    | M/S           | 161 psi                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| Comp.                    | P/A           | 281 psi                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| Def.                     | $\Delta_{TL}$ | 0.09 in                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | L/1,712                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| King Studs               |               | (1) 2x6<br>DF-L No. 2   |                    |                    |              |                                                                                      |  |                   |
| Bend.                    | M/S           | 1298 psi                |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| Comp.                    | P/A           | 6 psi                   |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| Def.                     | $\Delta_{TL}$ | 0.72 in                 |                    |                    |              |                                                                                      |  |                   |
|                          |               | L/213                   |                    |                    |              |                                                                                      |  |                   |
|                          |               | Pass                    |                    |                    |              |                                                                                      |  |                   |
| Wind Check               |               | Good                    |                    |                    |              |                                                                                      |  |                   |
| Lateral Bracing Hardware |               | Not Req'd               |                    |                    |              |                                                                                      |  |                   |
| Reactions                |               | 2,322 lbs               |                    |                    |              |                                                                                      |  |                   |
| (If Req'd)               | Pad Footing   | Not Req'd               |                    |                    |              |                                                                                      |  |                   |
|                          | Rebar         |                         |                    |                    |              |                                                                                      |  |                   |



|                          |                       |                         |                       |                    |              |                                                                                      |  |                   |
|--------------------------|-----------------------|-------------------------|-----------------------|--------------------|--------------|--------------------------------------------------------------------------------------|--|-------------------|
| <b>Floor 1 (13)</b>      |                       | Wall on Concrete        | Ext Wall              |                    | Plate Height | Header Height                                                                        |  | Overhang          |
|                          |                       | Y                       | Y                     |                    | 13           | 6.67                                                                                 |  | 2.67              |
| <b>Loading</b>           |                       |                         |                       |                    |              |                                                                                      |  |                   |
| Span                     | <b>Roof</b>           | <b>Upper Floor</b>      | <b>Upper Floor</b>    |                    |              |                                                                                      |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150 | Dead: 12<br>Live: 40    | Dead: 12<br>Live: 40  |                    |              |                                                                                      |  | 688.9 plf         |
|                          | <b>2</b>              | <b>0</b>                | <b>0</b>              |                    |              |                                                                                      |  | <b>Total</b>      |
|                          | Dead: 62.4 plf        | 0.0 plf                 | 0.0 plf               |                    |              |                                                                                      |  | 138.4 plf         |
|                          | Live: 0.0 plf         | 0.0 plf                 | 0.0 plf               |                    |              |                                                                                      |  | 0.0 plf           |
|                          | Snow: 550.5 plf       |                         |                       |                    |              |                                                                                      |  | 550.5 plf         |
| Load from Above          |                       | Calc                    |                       |                    |              |                                                                                      |  |                   |
| Size                     |                       |                         |                       |                    |              |                                                                                      |  |                   |
| Stud Wall                |                       | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing |              | Additional Footing Load: 1454plf<br>Size: 16 x 8 in Cont. Footing W/2 #4 Rebar Cont. |  |                   |
| <b>Openings</b>          |                       |                         |                       |                    |              |                                                                                      |  |                   |
| Opening Size             |                       | 6.3 ft                  | 12.0 ft               |                    |              |                                                                                      |  |                   |
| Header Callout           |                       | (2)2x10<br>DF-L No. 2   | (2)11.8<br>LVL 2.0E   |                    |              |                                                                                      |  |                   |
| Stress                   | Max Ratio             | 0.84                    | 0.59                  |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| Deflection               | ΔTL                   | 0.07 in                 | 0.33 in               |                    |              |                                                                                      |  |                   |
|                          |                       | L/1,004                 | L/438                 |                    |              |                                                                                      |  |                   |
|                          | ΔLL                   | 0.06 in                 | 0.26 in               |                    |              |                                                                                      |  |                   |
|                          |                       | L/1,256                 | L/548                 |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| Trimmers                 |                       | (1) 2x6<br>DF-L No. 2   | (2) 2x6<br>DF-L No. 2 |                    |              |                                                                                      |  |                   |
| Bearing Area             |                       | 1.15 in                 | 1.89 in               |                    |              |                                                                                      |  |                   |
| Bend.                    | M/S                   | 215 psi                 | 215 psi               |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| Comp.                    | P/A                   | 261 psi                 | 501 psi               |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| Def.                     | ΔTL                   | 0.12 in                 | 0.12 in               |                    |              |                                                                                      |  |                   |
|                          |                       | L/1,284                 | L/1,284               |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| King Studs               |                       | (2) 2x6<br>DF-L No. 2   | (4) 2x6<br>DF-L No. 2 |                    |              |                                                                                      |  |                   |
| Bend.                    | M/S                   | 1333 psi                | 1148 psi              |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| Comp.                    | P/A                   | 3 psi                   | 2 psi                 |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| Def.                     | ΔTL                   | 0.74 in                 | 0.64 in               |                    |              |                                                                                      |  |                   |
|                          |                       | L/207                   | L/241                 |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    | Pass                  |                    |              |                                                                                      |  |                   |
| Wind Check               |                       | Good                    | Good                  |                    |              |                                                                                      |  |                   |
| Lateral Bracing Hardware |                       | Not Req'd               | Not Req'd             |                    |              |                                                                                      |  |                   |
| Reactions                |                       | 2,153 lbs               | 4,133 lbs             |                    |              |                                                                                      |  |                   |
| (If Req'd)               | Pad Footing           | Not Req'd               | Not Req'd             |                    |              |                                                                                      |  |                   |
|                          | Rebar                 |                         |                       |                    |              |                                                                                      |  |                   |

|                          |                       |                         |                      |                    |              |                                                                                      |  |                   |
|--------------------------|-----------------------|-------------------------|----------------------|--------------------|--------------|--------------------------------------------------------------------------------------|--|-------------------|
| <b>Floor 1 (14)</b>      |                       | Wall on Concrete        | Ext Wall             |                    | Plate Height | Header Height                                                                        |  | Overhang          |
|                          |                       | Y                       | Y                    |                    | 10           | 6                                                                                    |  | 0                 |
| <b>Loading</b>           |                       |                         |                      |                    |              |                                                                                      |  |                   |
| Span                     | <b>Roof</b>           | <b>Upper Floor</b>      | <b>Upper Floor</b>   |                    |              |                                                                                      |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150 | Dead: 12<br>Live: 40    | Dead: 12<br>Live: 40 |                    |              |                                                                                      |  | 1,976.9 plf       |
|                          | <b>23.1</b>           | <b>0</b>                | <b>0</b>             |                    |              |                                                                                      |  | <b>Total</b>      |
|                          | Dead: 196.4 plf       | 0.0 plf                 | 0.0 plf              |                    |              |                                                                                      |  | 244.4 plf         |
|                          | Live                  | 0.0 plf                 | 0.0 plf              |                    |              |                                                                                      |  | 0.0 plf           |
|                          | Snow: 1,732.5 plf     |                         |                      |                    |              |                                                                                      |  | 1,732.5 plf       |
| Load from Above          |                       | Calc                    |                      |                    |              |                                                                                      |  |                   |
| Size                     |                       |                         |                      |                    |              |                                                                                      |  |                   |
| Stud Wall                |                       | 2x6 DF-L No. 2@ 16 O.C. |                      | Continuous Footing |              | Additional Footing Load: 2742plf<br>Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |  |                   |
| <b>Openings</b>          |                       |                         |                      |                    |              |                                                                                      |  |                   |
| Opening Size             |                       | 8.0 ft                  |                      |                    |              |                                                                                      |  |                   |
| Header Callout           |                       | (3) 9.5<br>LVL 2.0E     |                      |                    |              |                                                                                      |  |                   |
| Stress                   | Max Ratio             | 0.73                    |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| Deflection               | ΔTL                   | 0.24 in                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | L/395                   |                      |                    |              |                                                                                      |  |                   |
|                          | ΔLL                   | 0.21 in                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | L/451                   |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| Trimmers                 |                       | (2) 2x6<br>DF-L No. 2   |                      |                    |              |                                                                                      |  |                   |
| Bearing Area             |                       | 2.41 in                 |                      |                    |              |                                                                                      |  |                   |
| Bend.                    | M/S                   | 126 psi                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| Comp.                    | P/A                   | 479 psi                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| Def.                     | ΔTL                   | 0.04 in                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | L/2,872                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| King Studs               |                       | (2) 2x6<br>DF-L No. 2   |                      |                    |              |                                                                                      |  |                   |
| Bend.                    | M/S                   | 951 psi                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| Comp.                    | P/A                   | 3 psi                   |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| Def.                     | ΔTL                   | 0.31 in                 |                      |                    |              |                                                                                      |  |                   |
|                          |                       | L/380                   |                      |                    |              |                                                                                      |  |                   |
|                          |                       | Pass                    |                      |                    |              |                                                                                      |  |                   |
| Wind Check               |                       | Good                    |                      |                    |              |                                                                                      |  |                   |
| Lateral Bracing Hardware |                       | Not Req'd               |                      |                    |              |                                                                                      |  |                   |
| Reactions                |                       | 7,907 lbs               |                      |                    |              |                                                                                      |  |                   |
| (If Req'd)               | Pad Footing           | Not Req'd               |                      |                    |              |                                                                                      |  |                   |
|                          | Rebar                 |                         |                      |                    |              |                                                                                      |  |                   |

|                          |                         |                       |                       |                                                                                      |              |               |  |                   |
|--------------------------|-------------------------|-----------------------|-----------------------|--------------------------------------------------------------------------------------|--------------|---------------|--|-------------------|
| <b>Floor 1 (15)</b>      |                         | Wall on Concrete      | Ext Wall              |                                                                                      | Plate Height | Header Height |  | Overhang          |
|                          |                         | Y                     | Y                     |                                                                                      | 10           | 6             |  | 2.67              |
| <b>3</b>                 |                         |                       |                       |                                                                                      |              |               |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>    | <b>Upper Floor</b>    |                                                                                      |              |               |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40  | Dead: 12<br>Live: 40  |                                                                                      |              |               |  | 1,161.9 plf       |
|                          | <b>8</b>                | <b>0</b>              | <b>0</b>              |                                                                                      |              |               |  | <b>Total</b>      |
|                          | Dead: 113.4 plf         | 0.0 plf               | 0.0 plf               |                                                                                      |              |               |  | 161.4 plf         |
|                          | Live                    | 0.0 plf               | 0.0 plf               |                                                                                      |              |               |  | 0.0 plf           |
|                          | Snow: 1,000.5 plf       |                       |                       |                                                                                      |              |               |  | 1,000.5 plf       |
| Load from Above          | Calc                    |                       |                       |                                                                                      |              |               |  |                   |
| Size                     |                         |                       |                       |                                                                                      |              |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing    | Additional Footing Load: 1927plf<br>Size: 18 x 8 in Cont. Footing W/2 #4 Rebar Cont. |              |               |  |                   |
| <b>Openings</b>          |                         |                       |                       |                                                                                      |              |               |  |                   |
| Opening Size             |                         | <b>3.0 ft</b>         | <b>9.5 ft</b>         |                                                                                      |              |               |  |                   |
| Header Callout           |                         | (2)2x6<br>DF-L No. 2  | (2)11.8<br>LVL 2.0E   |                                                                                      |              |               |  |                   |
| Stress                   | Max Ratio               | 0.77                  | 0.61                  |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
| Deflection               | ΔTL                     | 0.03 in               | 0.22 in               |                                                                                      |              |               |  |                   |
|                          |                         | L/1,131               | L/523                 |                                                                                      |              |               |  |                   |
|                          | ΔLL                     | 0.03 in               | 0.19 in               |                                                                                      |              |               |  |                   |
|                          |                         | L/1,314               | L/607                 |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
| Trimmers                 |                         | (1) 2x6<br>DF-L No. 2 | (2) 2x6<br>DF-L No. 2 |                                                                                      |              |               |  |                   |
| Bearing Area             |                         | 0.93 in               | 2.52 in               |                                                                                      |              |               |  |                   |
| Bend.                    | M/S                     | 126 psi               | 126 psi               |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
| Comp.                    | P/A                     | 211 psi               | 334 psi               |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
| Def.                     | ΔTL                     | 0.04 in               | 0.04 in               |                                                                                      |              |               |  |                   |
|                          |                         | L/2,872               | L/2,872               |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
|                          |                         |                       |                       |                                                                                      |              |               |  |                   |
| King Studs               |                         | (1) 2x6<br>DF-L No. 2 | (2) 2x6<br>DF-L No. 2 |                                                                                      |              |               |  |                   |
| Bend.                    | M/S                     | 922 psi               | 1098 psi              |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
| Comp.                    | P/A                     | 6 psi                 | 3 psi                 |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
| Def.                     | ΔTL                     | 0.30 in               | 0.36 in               |                                                                                      |              |               |  |                   |
|                          |                         | L/392                 | L/329                 |                                                                                      |              |               |  |                   |
|                          |                         | Pass                  | Pass                  |                                                                                      |              |               |  |                   |
|                          |                         |                       |                       |                                                                                      |              |               |  |                   |
| Wind Check               |                         | Good                  | Good                  |                                                                                      |              |               |  |                   |
| Lateral Bracing Hardware |                         | Not Req'd             | Not Req'd             |                                                                                      |              |               |  |                   |
| Reactions                |                         | 1,743 lbs             | 5,519 lbs             |                                                                                      |              |               |  |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             | Not Req'd             |                                                                                      |              |               |  |                   |
|                          | Rebar                   |                       |                       |                                                                                      |              |               |  |                   |

|                          |                         |                       |                      |  |                                                                                      |               |  |                   |
|--------------------------|-------------------------|-----------------------|----------------------|--|--------------------------------------------------------------------------------------|---------------|--|-------------------|
| <b>Floor 1 (16)</b>      |                         | Wall on Concrete      | Ext Wall             |  | Plate Height                                                                         | Header Height |  | Overhang          |
|                          |                         | Y                     | Y                    |  | 10                                                                                   | 6             |  | 2.67              |
| <b>3</b>                 |                         |                       |                      |  |                                                                                      |               |  |                   |
| Span                     | <b>Roof</b>             | <b>Upper Floor</b>    | <b>Upper Floor</b>   |  |                                                                                      |               |  | <b>Comb Total</b> |
|                          | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40  | Dead: 12<br>Live: 40 |  |                                                                                      |               |  | 1,293.8 plf       |
|                          | <b>9.58</b>             | <b>0</b>              | <b>0</b>             |  |                                                                                      |               |  | <b>Total</b>      |
|                          | Dead: 126.8 plf         | 0.0 plf               | 0.0 plf              |  |                                                                                      |               |  | 174.8 plf         |
|                          | Live                    | 0.0 plf               | 0.0 plf              |  |                                                                                      |               |  | 0.0 plf           |
|                          | Snow: 1,119.0 plf       |                       |                      |  |                                                                                      |               |  | 1,119.0 plf       |
| Load from Above          | Calc                    |                       |                      |  |                                                                                      |               |  |                   |
| Size                     |                         |                       |                      |  |                                                                                      |               |  |                   |
| Stud Wall                | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing   |  | Additional Footing Load: 2117plf<br>Size: 24 x 8 in Cont. Footing W/2 #4 Rebar Cont. |               |  |                   |
| <b>Openings</b>          |                         |                       |                      |  |                                                                                      |               |  |                   |
| Opening Size             |                         | <b>8.3 ft</b>         |                      |  |                                                                                      |               |  |                   |
| Header Callout           |                         | (2)9.5<br>LVL 2.0E    |                      |  |                                                                                      |               |  |                   |
| Stress                   | Max Ratio               | 0.49                  |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| Deflection               | ΔTL                     | 0.18 in               |                      |  |                                                                                      |               |  |                   |
|                          |                         | L/551                 |                      |  |                                                                                      |               |  |                   |
|                          | ΔLL                     | 0.16 in               |                      |  |                                                                                      |               |  |                   |
|                          |                         | L/637                 |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| Trimmers                 |                         | (2) 2x6<br>DF-L No. 2 |                      |  |                                                                                      |               |  |                   |
| Bearing Area             |                         | 1.63 in               |                      |  |                                                                                      |               |  |                   |
| Bend.                    | M/S                     | 126 psi               |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| Comp.                    | P/A                     | 647 psi               |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| Def.                     | ΔTL                     | 0.04 in               |                      |  |                                                                                      |               |  |                   |
|                          |                         | L/2,872               |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| King Studs               |                         | (2) 2x6<br>DF-L No. 2 |                      |  |                                                                                      |               |  |                   |
| Bend.                    | M/S                     | 975 psi               |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| Comp.                    | P/A                     | 3 psi                 |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| Def.                     | ΔTL                     | 0.32 in               |                      |  |                                                                                      |               |  |                   |
|                          |                         | L/370                 |                      |  |                                                                                      |               |  |                   |
|                          |                         | Pass                  |                      |  |                                                                                      |               |  |                   |
| Wind Check               |                         | Good                  |                      |  |                                                                                      |               |  |                   |
| Lateral Bracing Hardware |                         | Not Req'd             |                      |  |                                                                                      |               |  |                   |
| Reactions                |                         | 5,337 lbs             |                      |  |                                                                                      |               |  |                   |
| (If Req'd)               | Pad Footing             | Not Req'd             |                      |  |                                                                                      |               |  |                   |
|                          | Rebar                   |                       |                      |  |                                                                                      |               |  |                   |

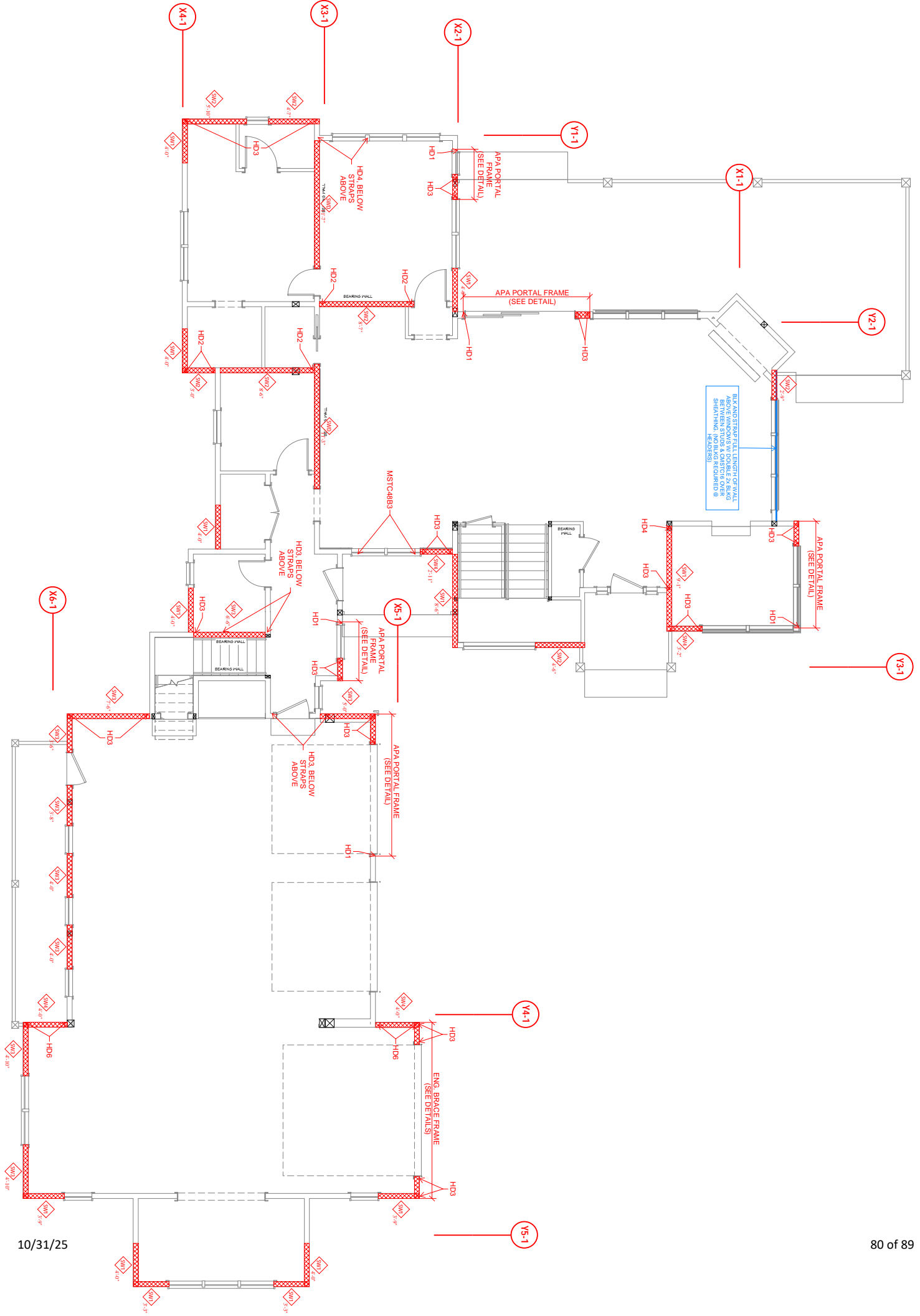
|                                 |                         |                       |                       |                                                  |              |               |  |                   |
|---------------------------------|-------------------------|-----------------------|-----------------------|--------------------------------------------------|--------------|---------------|--|-------------------|
| <b>Floor 1 (17)</b>             |                         | Wall on Concrete      | Ext Wall              |                                                  | Plate Height | Header Height |  | Overhang          |
|                                 |                         | Y                     | Y                     |                                                  | 10           | 6             |  | 2.67              |
| <b>3</b>                        |                         |                       |                       |                                                  |              |               |  |                   |
| Span                            | <b>Roof</b>             | <b>Upper Floor</b>    | <b>Upper Floor</b>    |                                                  |              |               |  | <b>Comb Total</b> |
|                                 | Dead: 17<br>Snow: 150   | Dead: 12<br>Live: 40  | Dead: 12<br>Live: 40  |                                                  |              |               |  | 660.9 plf         |
|                                 | <b>2</b>                | <b>0</b>              | <b>0</b>              |                                                  |              |               |  | <b>Total</b>      |
|                                 | Dead: 62.4 plf          | 0.0 plf               | 0.0 plf               |                                                  |              |               |  | 110.4 plf         |
|                                 | Live:                   | 0.0 plf               | 0.0 plf               |                                                  |              |               |  | 0.0 plf           |
|                                 | Snow: 550.5 plf         |                       |                       |                                                  |              |               |  | 550.5 plf         |
| Load from Above                 | Calc                    |                       |                       |                                                  |              |               |  |                   |
| Size                            |                         |                       |                       |                                                  |              |               |  |                   |
| Stud Wall                       | 2x6 DF-L No. 2@ 16 O.C. |                       | Continuous Footing    | Additional Footing Load:                         |              | 1484plf       |  |                   |
|                                 |                         |                       |                       | Size: 16 x 8 in Cont. Footing W/2 #4 Rebar Cont. |              |               |  |                   |
| <b>Openings</b>                 |                         |                       |                       |                                                  |              |               |  |                   |
| <b>Opening Size</b>             |                         | <b>3.0 ft</b>         | <b>7.3 ft</b>         |                                                  |              |               |  |                   |
| <b>Header Callout</b>           |                         | (2)2x4<br>DF-L No. 2  | 6x10<br>DF-L No. 2    |                                                  |              |               |  |                   |
| Stress                          | Max Ratio               | 0.94                  | 0.61                  |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| Deflection                      | $\Delta_{TL}$           | 0.07 in               | 0.07 in               |                                                  |              |               |  |                   |
|                                 |                         | L/513                 | L/1,173               |                                                  |              |               |  |                   |
|                                 | $\Delta_{LL}$           | 0.06 in               | 0.06 in               |                                                  |              |               |  |                   |
|                                 |                         | L/615                 | L/1,408               |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| <b>Trimmers</b>                 |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 |                                                  |              |               |  |                   |
| <b>Bearing Area</b>             |                         | 0.53 in               | 0.73 in               |                                                  |              |               |  |                   |
| Bend.                           | M/S                     | 126 psi               | 126 psi               |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| Comp.                           | P/A                     | 120 psi               | 290 psi               |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.04 in               | 0.04 in               |                                                  |              |               |  |                   |
|                                 |                         | L/2,872               | L/2,872               |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| <b>King Studs</b>               |                         | (1) 2x6<br>DF-L No. 2 | (1) 2x6<br>DF-L No. 2 |                                                  |              |               |  |                   |
| Bend.                           | M/S                     | 922 psi               | 1754 psi              |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| Comp.                           | P/A                     | 6 psi                 | 6 psi                 |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| Def.                            | $\Delta_{TL}$           | 0.30 in               | 0.57 in               |                                                  |              |               |  |                   |
|                                 |                         | L/392                 | L/206                 |                                                  |              |               |  |                   |
|                                 |                         | Pass                  | Pass                  |                                                  |              |               |  |                   |
| <b>Wind Check</b>               |                         | Good                  | Good                  |                                                  |              |               |  |                   |
| <b>Lateral Bracing Hardware</b> |                         | Not Req'd             | Not Req'd             |                                                  |              |               |  |                   |
| <b>Reactions</b>                |                         | 991 lbs               | 2,396 lbs             |                                                  |              |               |  |                   |
| (If Req'd)                      | <b>Pad Footing</b>      | Not Req'd             | Not Req'd             |                                                  |              |               |  |                   |
|                                 | <b>Rebar</b>            |                       |                       |                                                  |              |               |  |                   |

## Pad Footing Design Capacities

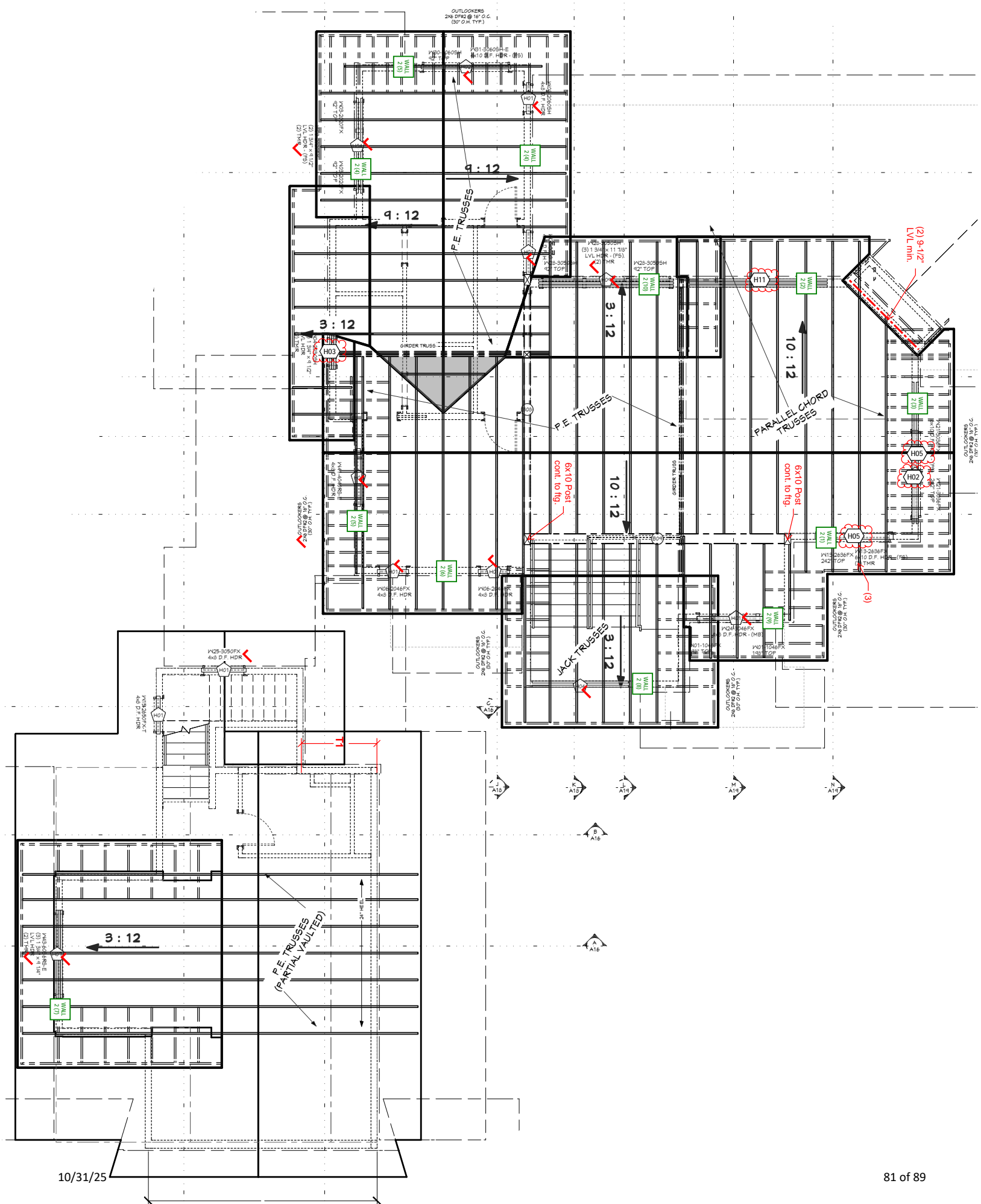
| Soil Bearing (1500 psf) |   |          |             |           | Min. Column Size |
|-------------------------|---|----------|-------------|-----------|------------------|
| Dimensions (Inches)     |   |          | Capacity    | # of Bars |                  |
| 168                     | x | 168 x 20 | 238,000 lbs | 21        | 17. sq.          |
| 156                     | x | 156 x 18 | 208,000 lbs | 19        | 17. sq.          |
| 144                     | x | 144 x 18 | 178,000 lbs | 18        | 16. sq.          |
| 132                     | x | 132 x 16 | 152,000 lbs | 14        | 15. sq.          |
| 120                     | x | 120 x 16 | 126,000 lbs | 12        | 12. sq.          |
| 108                     | x | 108 x 14 | 104,000 lbs | 14        | 12. sq.          |
| 102                     | x | 102 x 14 | 92,000 lbs  | 14        | 9. sq.           |
| 96                      | x | 96 x 14  | 76,400 lbs  | 13        | 6. sq.           |
| 90                      | x | 90 x 12  | 73,800 lbs  | 11        | 10.5 sq.         |
| 84                      | x | 84 x 12  | 63,200 lbs  | 10        | 7.5 sq.          |
| 78                      | x | 78 x 12  | 55,000 lbs  | 9         | 6. sq.           |
| 72                      | x | 72 x 12  | 47,000 lbs  | 8         | 6. sq.           |
| 66                      | x | 66 x 10  | 39,750 lbs  | 6         | 6.5 sq.          |
| 60                      | x | 60 x 10  | 33,250 lbs  | 6         | 5.5 sq.          |
| 54                      | x | 54 x 10  | 27,000 lbs  | 5         | 5.5 sq.          |
| 48                      | x | 48 x 8   | 21,500 lbs  | 4         | 5.5 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.

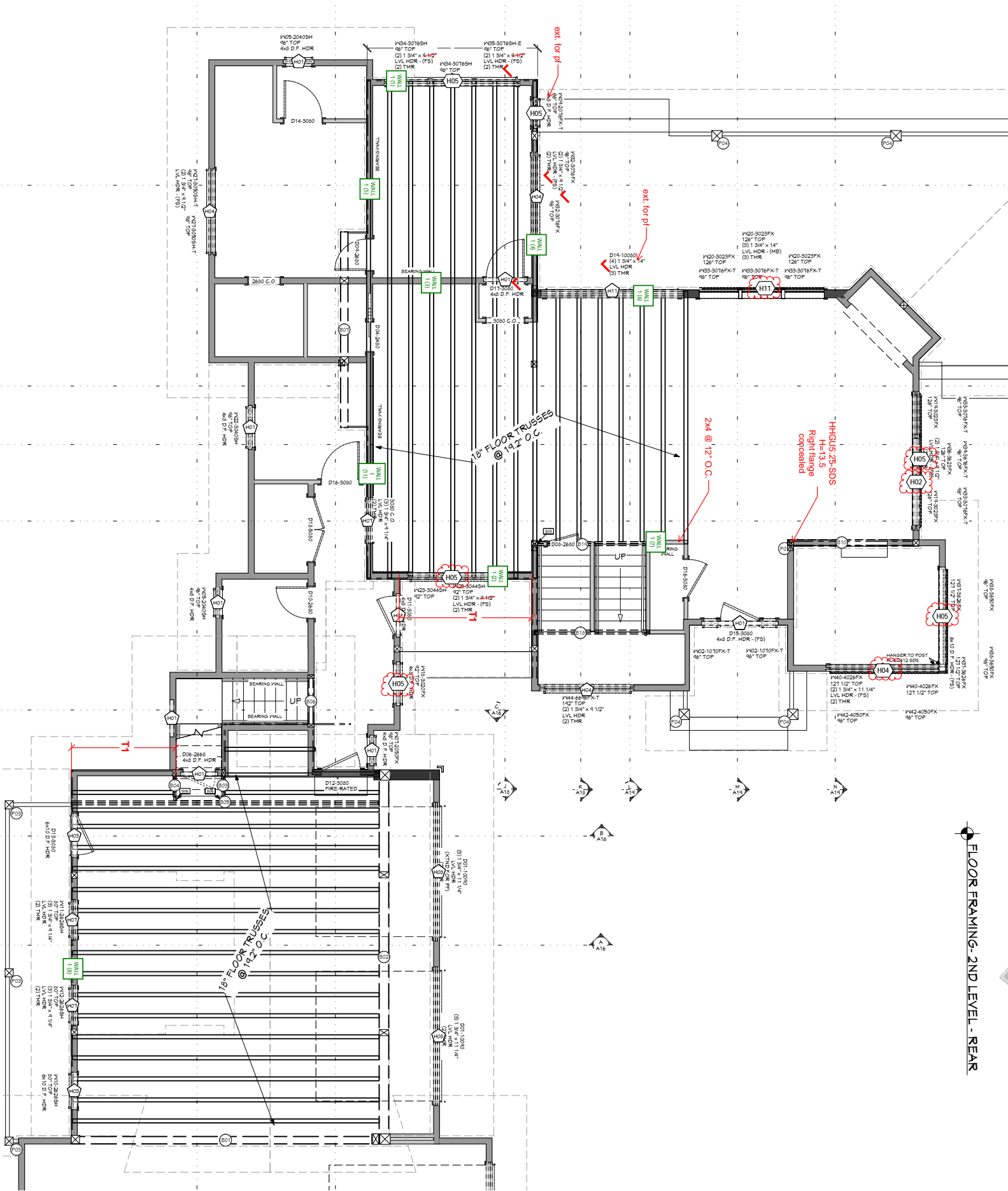


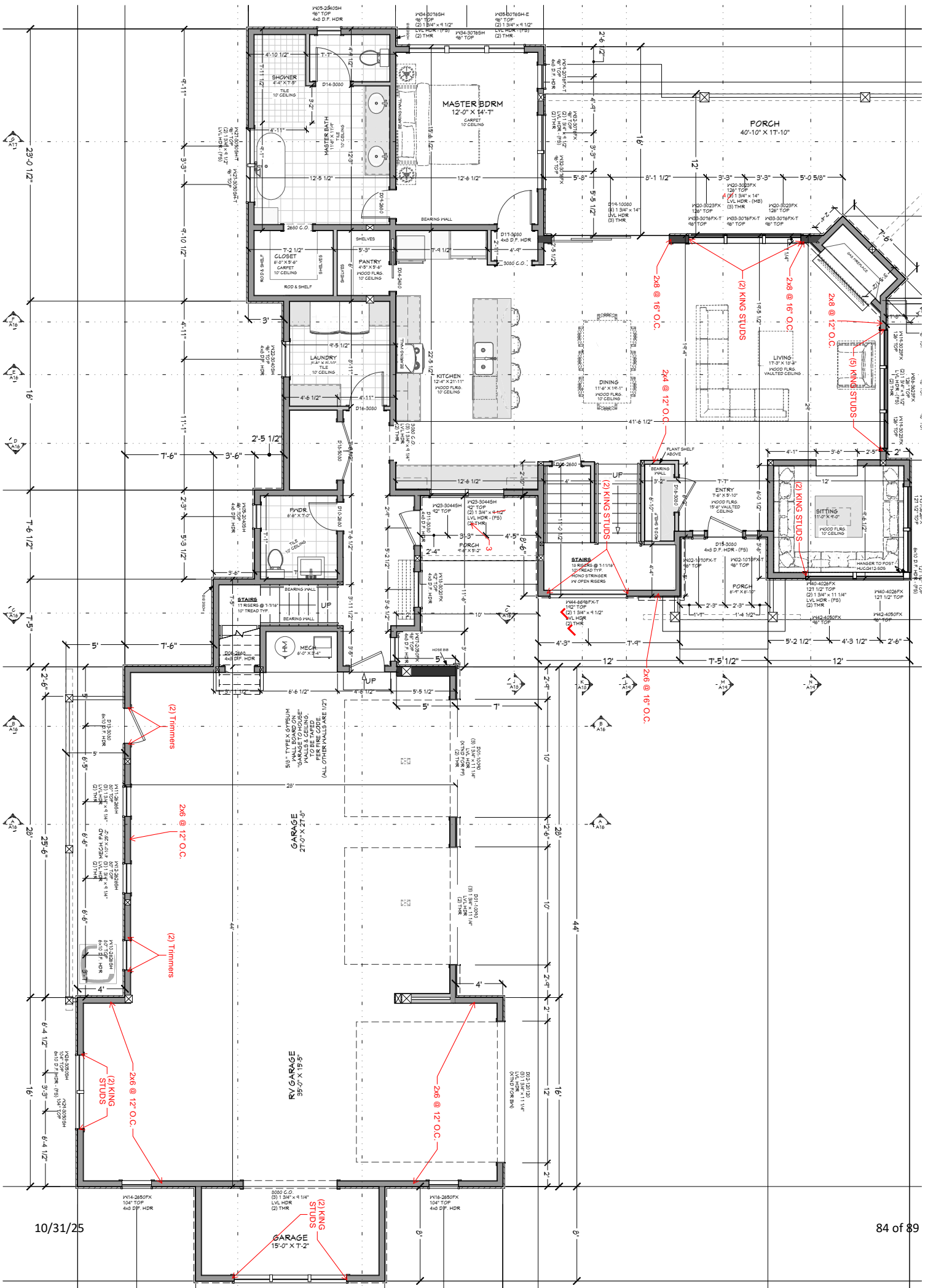




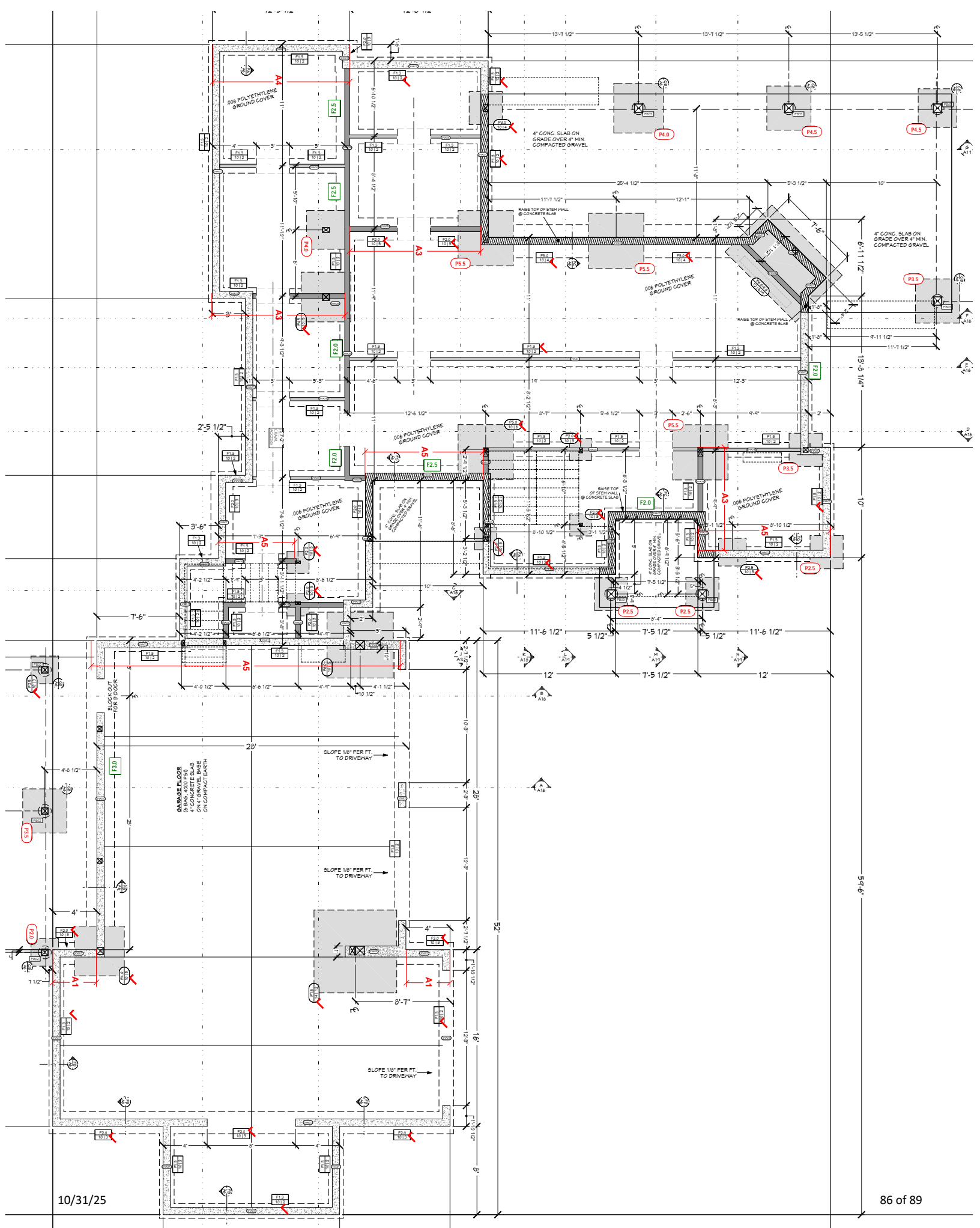














(2) for truss hangers

| BEAM SCHEDULE |      |        |                                                             |             |             |             |        |  |
|---------------|------|--------|-------------------------------------------------------------|-------------|-------------|-------------|--------|--|
| NO.           | FLR. | PLY(S) | NOTES                                                       | CTR. LG +/- | T.O. BEAM   | B.O. BEAM   | CALC # |  |
| B01           | 1    | 1      | (B-01) 6 3/4 X 27 GLULAM ✓                                  | 23'-5 1/2"  | 11'-4 1/8"  | 9'-1 1/8"   | 1      |  |
| B02           | 1    | 1      | (B-02) 8 3/4 X 36 GLULAM X 34.5" MIN. ✓                     | 28'-4 7/8"  | 12'-1 1/8"  | 9'-1 1/8"   | 2      |  |
| B03           | 1    | 1      | (B-03) 1 3/4 X 11 1/4 MICROLLAM LVL ✓                       | 2'-4 1/2"   | 10'-0 3/8"  | 9'-1 1/8"   | 3      |  |
| B04           | 1    | 1      | (B-04) 1 3/4 X 11 1/4 MICROLLAM LVL ✓                       | 2'-4 1/2"   | 10'-0 3/8"  | 9'-1 1/8"   | 4      |  |
| B05           | 1    | 2      | (B-05) 1 3/4 X 11 1/4 MICROLLAM LVL ✓                       | 23'-3 3/4"  | 10'-0 3/8"  | 9'-1 1/8"   | 5      |  |
| B06           | 1    | 1      | (B-06) 6X10 D.F. #2 6x8 MIN. ✓                              | 3'-11 3/8"  | 10'-10 5/8" | 10'-1 1/8"  | 6      |  |
| B07           | 1    | 1      | (B-07) 6 3/4 X 13 1/2 GLULAM ✓                              | 14'-10 1/2" | 11'-2 5/8"  | 10'-1 1/8"  | 7      |  |
| B08           | 2    | 1      | (B-08) 5 1/2 X 18 GLULAM OR BOX GIRDER ✓                    | 20'-2"      | 20'-7 1/8"  | 19'-1 1/8"  | 8      |  |
| B09           | 2    | 1      | (B-09) 8 3/4 X 21 GLULAM OR BOX GIRDER X 19-1/2" MIN. ✓     | 19'-11"     | 22'-6 1/8"  | 20'-9 1/8"  | 9      |  |
| B10           | 1    | 1      | (B-10) 5 1/2 X 10-1/2 GLULAM X 13-1/2" MIN. ✓               | 9'-11 7/8"  | 11'-11 5/8" | 11'-1 1/8"  | 10     |  |
| B11           | 1    | 2      | (B-11) 1 3/4 X 7 1/4 MICROLLAM LVL ✓                        | 11'-7 3/8"  | 11'-4 5/8"  | 10'-9 3/8"  | 11     |  |
| B12           | 1    | 1      | (B-12) 6 3/4 X 13 1/2 GLULAM X 10-1/2" MIN. ✓               | 28'-10 7/8" | 8'-5 1/8"   | 7'-3 5/8"   | 12     |  |
| B13           | 1    | 1      | (B-13) 5 1/8 X 15 1/2 GLULAM X 9" MIN. ✓                    | 10'-11 1/4" | 9'-11 1/8"  | 8'-7 5/8"   | 13     |  |
| B14           | 1    | 1      | (B-14) 5 1/8 X 13 1/2 GLULAM X 9" MIN. ✓                    | 13'-3 3/8"  | 9'-1 1/8"   | 7'-11 5/8"  | 14     |  |
| B15           | 1    | 1      | (B-15) 8 3/4 X 12 GLULAM ✓                                  | 22'-10 3/4" | 13'-7 1/2"  | 12'-7 1/2"  | 15     |  |
| B16           | 1    | 1      | (B-16) 6 3/4 X 15 GLULAM ✓                                  | 40'-9 3/4"  | 9'-5 1/8"   | 8'-2 1/8"   | 16     |  |
| B17           | 1    | 1      | (B-17) 6 3/4 X 15 GLULAM ✓                                  | 19'-3 1/8"  | 9'-5 1/8"   | 8'-2 1/8"   | 17     |  |
| B18           | 1    | 2      | (B-18) 1 3/4 X 11 7/8 MICROLLAM LVL ✓                       | 8'-9"       | 5'-9 7/8"   | 4'-10"      | 18     |  |
| B19           | 1    | 2      | (B-19) 1 3/4 X 11 7/8 MICROLLAM LVL ✓                       | 8'-6 1/2"   | 11'-1"      | 10'-1 1/8"  | 19     |  |
| B20           | 2    | 3      | (B-20) 1 3/4 X 9 1/2 MICROLLAM LVL ✓                        | 7'-9 1/8"   | 8'-9 1/2"   | 8'          | 20     |  |
| B21           | 0    | 11     | (B-21C) 4X10 D.F. #2 (CRAWL SPACE HDRS) (1-PLY) ✓           | 3'-6"       | -0'-0 7/8"  | -0'-10 1/8" | 21C    |  |
| B22           | 0    | 3      | (4x10 MIN. 1 3/4 X 9 1/2 MICROLLAM LVL (CRAWL SPACE HDRS) ✓ | 3'-6"       | -0'-0 7/8"  | -0'-10 3/8" | 22C    |  |
| B23           | 2    | 1      | (B-23F) 8X10 D.F. #2 (COSMETIC)                             | 10'-10 1/2" | 20'-0 1/2"  | 19'-3"      | 23F    |  |
| B24           | 2    | 1      | (B-24F) 8X10 D.F. #2 (COSMETIC)                             | 12'-0 3/8"  | 24'-9 1/2"  | 24'         | 24F    |  |
| B25           | 2    | 1      | (B-25F) 8X10 D.F. #2 (COSMETIC)                             | 10'-6 3/8"  | 22'-0 1/2"  | 21'-3"      | 25F    |  |
| B26           | 2    | 1      | (B-26F) 8X10 D.F. #2 (COSMETIC)                             | 13'         | 22'-3 1/2"  | 21'-6"      | 26F    |  |

(2) okay

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

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

| PAD FOOTING SCHEDULE |                 |                    |     |
|----------------------|-----------------|--------------------|-----|
| CALLOUT              | FOOTING SIZE    | REINFORCEMENT      | QTY |
| F2.0<br>10   3       | 24" X 24" X 10" | (3) #4 REBAR E.W.  | 5   |
| F2.5<br>10   3       | 30" X 30" X 10" | (3) #4 REBAR E.W.  | 3   |
| F3.0<br>10   4       | 36" X 36" X 10" | (4) #4 REBAR E.W.  | 5   |
| F3.5<br>10   4       | 42" X 42" X 10" | (4) #4 REBAR E.W.  | 2   |
| F4.0<br>10   5       | 48" X 48" X 10" | (5) #4 REBAR E.W.  | 3   |
| F4.0<br>10   56      | 48" X 48" X 10" | (5G) #4 REBAR E.W. | 1   |
| F4.5<br>10   5       | 54" X 54" X 10" | (5) #4 REBAR E.W.  | 2   |
| F5.0<br>10   6       | 60" X 60" X 10" | (6) #4 REBAR E.W.  | 4   |
| F6.0<br>10   8       | 72" X 72" X 12" | (8) #4 REBAR E.W.  | 1   |
| P5.5                 | 66"x66"x12"     | (8) #4 Rebar E.W.  |     |
| P6.5                 | 78"x78"x12"     | (9) #4 Rebar E.W.  |     |
| P7.5                 | 90"x90"x12"     | (11) #4 Rebar E.W. |     |

**OSB SHEAR WALL SCHEDULE:**

| MARK       | SHEATHING          | SIDES<br>OF WALL | SHEET NAILING<br>PERIMETER / FIELD |                                  | SHEET STAPLING<br>PERIMETER / FIELD            | BLKG | NAILING (UNO)<br>BOTTOM PLATE<br>INTO RIM |
|------------|--------------------|------------------|------------------------------------|----------------------------------|------------------------------------------------|------|-------------------------------------------|
| <b>SW1</b> | 7/16" APA<br>RATED | 1                | 8d @ 6 / 12                        | OR                               | 16ga x 1-1/2" @ 3 / 12<br>(NOT FOR WALLS >10') | YES  | (2) 16d NAILS<br>PER 16" BAY              |
| <b>SW2</b> | 7/16" APA<br>RATED | 1                | 8d @ 4 / 12                        | OR                               | 16ga x 1-1/2" @ 2 / 12<br>(NOT FOR WALLS >10') | YES  | (3) 16d NAILS<br>PER 16" BAY              |
| <b>SW3</b> | 7/16" APA<br>RATED | 1                | 8d @ 3 / 12                        |                                  |                                                | YES  | (4) 16d NAILS<br>PER 16" BAY              |
| <b>SW4</b> | 7/16" APA<br>RATED | 1                | 8d @ 2 / 12                        | (4x STUDS @ SHEATHING PERIMETER) |                                                | YES  | (4) SDS SCREWS<br>PER 16" BAY             |

**GYP. SHEAR WALL SCHEDULE:**

|            |                          |   |                                       |    |                                                    |    |                              |
|------------|--------------------------|---|---------------------------------------|----|----------------------------------------------------|----|------------------------------|
| <b>SWD</b> | 1/2" GYP.<br>BOARD (MIN) | 2 | 5d COOLER @ 6 / 6<br>(6d @ 5/8" GYP.) | OR | #6 TYPE S OR W DRYWALL<br>SCREWS 1-1/4" LONG 6 / 6 | NO | (2) 16d NAILS<br>PER 16" BAY |
|------------|--------------------------|---|---------------------------------------|----|----------------------------------------------------|----|------------------------------|

## 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)

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

| MARK      | STRAP TYPE | STRAP<br>FASTENERS  | # OF<br>STUDS |    | BOLT TYPE                          | # OF<br>STUDS | BOLT FASTENERS          |
|-----------|------------|---------------------|---------------|----|------------------------------------|---------------|-------------------------|
| <b>S3</b> | MSTC52     | (48) 16d<br>SINKERS | 2             | OR | HDU5-SDS2.5<br>W/ 5/8"Ø ALL THREAD | 2             | (14) 1/4"x2-1/2"<br>SDS |
| <b>S6</b> | CMST12     | (98) 16d<br>SINKERS | 2             | OR | HDU14-SDS2.5<br>W/ 1"Ø ALL THREAD  | 4             | (36) 1/4"x2-1/2"<br>SDS |



**BLOCKING KEY NOTES:**

| MARK                                                                     | DESCRIPTION                                                                                                                                    |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>B1</b>                                                                | - FULL HEIGHT BLOCKING BETWEEN EVERY OTHER FRAMING BAY<br>W/ (6)10d TOENAILS FROM BLOCKING TO TOP PLATE,<br>NAIL 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<br>W/ 10d TOENAILS @ 6" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS OR RIM |
|-----------|-------------------------------------------------------------------------------------------------------------------------|

**ANCHOR BOLT KEY NOTES:**

|           |   |                               |
|-----------|---|-------------------------------|
| <b>A1</b> | - | 1/2"Ø ANCHOR BOLTS @ 12" O.C. |
| <b>A3</b> | - | 1/2"Ø ANCHOR BOLTS @ 36" O.C. |
| <b>A4</b> | - | 1/2"Ø ANCHOR BOLTS @ 48" O.C. |
| <b>A5</b> | - | 1/2"Ø ANCHOR BOLTS @ 60" O.C. |

**HOLDOWN SCHEDULE:**

| MARK       | STRAP TYPE                   | STRAP FASTENERS     | # OF STUDS | ANCHOR BOLT TYPE                                         | # OF STUDS | ANCHOR BOLT FASTENERS   |
|------------|------------------------------|---------------------|------------|----------------------------------------------------------|------------|-------------------------|
| <b>HD1</b> | LSTD8 OR<br>LSTD8RJ W/ RIM   | (20) 16d<br>SINKERS | 2 OR       | DTT2Z W/1/2"Øx10"                                        | 2          | (8) 1/4"x1-1/2"<br>SDS  |
| <b>HD2</b> | STHD10 OR<br>STHD10RJ W/ RIM | (24) 16d<br>SINKERS | 2 OR       | HDU2- SDS2.5<br>W/ SB5/8x24 OR PAB5<br>@ INT. PONY WALLS | 2          | (6) 1/4"x2-1/2"<br>SDS  |
| <b>HD3</b> | STHD14 OR<br>STHD14RJ W/ RIM | (30) 16d<br>SINKERS | 2 OR       | HDU5-SDS2.5<br>W/ SB5/8x24 OR PAB5<br>@ INT. PONY WALLS  | 2          | (14) 1/4"x2-1/2"<br>SDS |
| <b>HD4</b> | -                            |                     |            | HDU8-SDS2.5<br>W/ SB7/8x24 OR PAB7<br>@ INT. PONY WALLS  | 3          | (20) 1/4"x2-1/2"<br>SDS |
| <b>HD6</b> | -                            |                     |            | HDU14-SDS2.5<br>W/ SB1x30 OR PAB8H<br>@ INT. PONY WALLS  | 4          | (36) 1/4"x2-1/2"<br>SDS |