

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--		

## PROJECT SUMMARY

Project Name: 25-002 River Fork Ranch - Lot 7

Governing Codes:

Building Code: 2018 International Building Code

ASCE: ASCE 7-16

Steel: AISC 360-16

Concrete: ACI 318-14

Masonry: TMS 402/602-16

Module Location: Outlookers

Module Level: Roof

Module Type: Floor Joist

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 1.5 in. X 5.5 in. X 4.5 ft

Section Adequacy: 30.5%

Controlling Factor: Bending Stress Y

Module Location: Trusses #1

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 11 ft

Section Adequacy: 89.41%

Controlling Factor: Bearing Stress

Module Location: Trusses #2

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 22 ft

Section Adequacy: 84.59%

Controlling Factor: Bearing Stress

Module Location: Trusses #3

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 19 ft

Section Adequacy: 84.2%

Controlling Factor: Bearing Stress

Module Location: Trusses #4

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 22 ft

Section Adequacy: 84.59%

Controlling Factor: Bearing Stress

Module Location: Trusses #5

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 30 ft

Section Adequacy:

61.59%

Controlling Factor: Deflection Y

Module Location: Rafters #1

Module Level: Roof

Module Type: Roof Rafter

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 1.5 in. X 7.25 in. X 8 ft @ 16 in. Spacing

Section Adequacy: 30.16%

Controlling Factor: Bending-Compression

Module Location: Trusses #6

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 30 ft

Section Adequacy: 61.59%

Controlling Factor: Deflection Y

Module Location: Trusses #7

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 30 ft

Section Adequacy: 61.59%

Controlling Factor: Deflection Y

Module Location: Trusses #8

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 8.25 ft

Section Adequacy: 88.78%

Controlling Factor: Bearing Stress

Module Location: Trusses #9

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 17 ft

Section Adequacy: 88.09%

Controlling Factor: Bearing Stress

Module Location: Trusses #10

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 9.5 ft

Section Adequacy: 90.28%

Controlling Factor: Bearing Stress

Module Location: Trusses #11

Module Level: Roof

Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 20 ft  
 Section Adequacy: 85.99%  
 Controlling Factor: Bearing Stress

**Module Location: Rafters #2**

Module Level: Roof  
 Module Type: Roof Rafter  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 1.5 in. X 7.25 in. X 8.5 ft @ 16 in. Spacing  
 Section Adequacy: 30.22%  
 Controlling Factor: Bending-Compression

**Module Location: Rafters #3**

Module Level: Roof  
 Module Type: Roof Rafter  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 1.5 in. X 7.25 in. X 10 ft @ 16 in. Spacing  
 Section Adequacy: 28.5%  
 Controlling Factor: Bending-Compression

**Module Location: Trusses #12**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 12 ft  
 Section Adequacy: 88.8%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #13**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 10 ft  
 Section Adequacy: 90%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #14**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 10 ft  
 Section Adequacy: 90%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #15**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 12 ft  
 Section Adequacy: 88.8%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #16**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 13 ft  
 Section Adequacy: 90.36%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #17**

Module Level: Roof

Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 19.5 ft  
 Section Adequacy: 83.86%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #18**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 5 ft  
 Section Adequacy: 91.25%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #19**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 18 ft  
 Section Adequacy: 84.87%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #20**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 21 ft  
 Section Adequacy: 85.29%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #21**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 19 ft  
 Section Adequacy: 86.69%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #22**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 22.5 ft  
 Section Adequacy: 79.54%  
 Controlling Factor: Deflection Y

**Module Location: Trusses #23**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 14 ft  
 Section Adequacy: 87.52%  
 Controlling Factor: Bearing Stress

**Module Location: Trusses #24**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 22.5 ft  
 Section Adequacy: 79.54%  
 Controlling Factor: Deflection Y

**Module Location: Trusses #25**

Module Level: Roof  
 Module Type: Floor Joist  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 20 in. X 9.5 ft  
 Section Adequacy:

**Module Location: Beam #1**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 6.75 in. X 27 in. X 23.5 ft

Section Adequacy: 10.52%

Controlling Factor: Bearing Stress

**Module Location: Girder #1**

Module Level: Roof

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 18 in. X 27.5 ft

Section Adequacy: 5.43%

Controlling Factor: Bearing Stress

**Module Location: Girder #2**

Module Level: Roof

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 18 in. X 27.5 ft

Section Adequacy: 5.43%

Controlling Factor: Bearing Stress

**Module Location: Beam #6**

Module Level: Roof

Module Type: Roof Beam

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 5.5 in. X 9.5 in. X 4.5 ft

Section Adequacy: 49.32%

Controlling Factor: Bending Stress Y

**Module Location: Girder #3**

Module Level: Roof

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 18 in. X 15 ft

Section Adequacy: 20.58%

Controlling Factor: Bearing Stress

**Module Location: Beam #8**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 5.5 in. X 18 in. X 20 ft

Section Adequacy: 12.98%

Controlling Factor: Bending Stress Y

**Module Location: Beam #9**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 8.75 in. X 21 in. X 20 ft

Section Adequacy: 13.06%

Controlling Factor: Bearing Stress

**Module Location: Trusses #26**

Module Level: Roof

Module Type: Floor Joist

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 20 in. X 25.5 ft

Section Adequacy: 80.62%

Controlling Factor: Deflection Y

**Module Location: Rafters #4**

Module Level: Roof

Module Type: Roof Rafter

Material Type: Solid Sawn Alaska Cedar Select Structural

Member Dimensions: (1) 1.5 in. X 11.25 in. X 15 ft @ 12 in. Spacing

Section Adequacy: 30.6%

Controlling Factor: Bending-Tension

**Module Location: Rafters #5**

Module Level: Roof

Module Type: Roof Rafter

Material Type: Solid Sawn Alaska Cedar Select Structural

Member Dimensions: (1) 1.5 in. X 11.25 in. X 15 ft @ 12 in. Spacing

Section Adequacy: 30.6%

Controlling Factor: Bending-Tension

**Module Location: Beam #11**

Module Level: Roof

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (2) 1.75 in. X 7.25 in. X 12.5 ft

Section Adequacy: 33.28%

Controlling Factor: Deflection Y

**Module Location: Beam #12**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 6.75 in. X 13.5 in. X 26 ft

Section Adequacy: 16.97%

Controlling Factor: Bearing Stress

**Module Location: Beam #13**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 5.125 in. X 15.5 in. X 11 ft

Section Adequacy: 59.53%

Controlling Factor: Bearing Stress

**Module Location: Beam #14**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 5.125 in. X 13.5 in. X 14 ft

Section Adequacy: 47.73%

Controlling Factor: Bearing Stress

**Module Location: Beam #15**

Module Level: Roof

Module Type: Hip Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 8.75 in. X 12 in. X 22.39 ft

Section Adequacy: 14.35%

Controlling Factor: Deflection Y

**Module Location: Beam #16**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 6.75 in. X 15 in. X 42 ft

Section Adequacy: 6.48%

Controlling Factor: Bearing Stress

**Module Location: Beam #17**

Module Level: Roof

Module Type: Roof Beam

Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF

Member Dimensions: (1) 6.75 in. X 15 in. X 20.5 ft

Section Adequacy: 7.62%

Controlling Factor: Deflection Y

**Module Location: Rafters #1 - Calc**

Module Level: Roof

Module Type: Floor Joist

Material Type: Solid Sawn Alaska Cedar Select Structural

Member Dimensions: (1) 1.5 in. X 7.25 in. X 8 ft

Section Adequacy: 43.92%

Controlling Factor: Bending Stress Y

**Module Location: Beam #20**

Module Level: Roof

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 9.5 in. X 7 ft

Section Adequacy: 33.2%

Controlling Factor: Shear Stress Y

**Module Location: Header #8**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 9.25 in. X 6 ft

Section Adequacy: 30.9%

Controlling Factor: Shear Stress Y

**Module Location: Header #13**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 3.5 in. X 7.25 in. X 4 ft

Section Adequacy: 49.66%

Controlling Factor: Bearing Stress

**Module Location: Header #15**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 9.25 in. X 2 ft

Section Adequacy: 33.99%

Controlling Factor: Shear Stress Y

**Module Location: Header #16**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 3.5 in. X 9.25 in. X 6.5 ft

Section Adequacy: 15.4%

Controlling Factor: Bending Stress Y

**Module Location: Header #18**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (2) 1.75 in. X 9.5 in. X 6.75 ft

Section Adequacy: 28.06%

Controlling Factor: Shear Stress Y

**Module Location: Header #19**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 3.5 in. X 7.25 in. X 3 ft

Section Adequacy: 21.98%

Controlling Factor: Bearing Stress

**Module Location: Header #20**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 3.5 in. X 7.25 in. X 2 ft

Section Adequacy: 42.93%

Controlling Factor: Bearing Stress

**Module Location: Header #21**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Solid Sawn Douglas Fir-Larch Select Structural

Member Dimensions: (1) 5.5 in. X 9.5 in. X 5.5 ft

Section Adequacy: 16.11%

Controlling Factor: Shear Stress Y

**Module Location: Header #25**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Solid Sawn Douglas Fir-Larch No. 2

Member Dimensions: (1) 5.5 in. X 9.5 in. X 6.5 ft

Section Adequacy: 36.66%

Controlling Factor: Bending Stress Y

**Module Location: Header #28**

Module Level: Headers - 2nd Level

Module Type: Roof Beam

Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (3) 1.75 in. X 11.875 in. X 10 ft

Section Adequacy: 10.22%

Controlling Factor: Bearing Stress

**Module Location: Joist #1**

Module Level: Floor - 2nd Level

Module Type: Floor Joist

Material Type: I-Joists Weyerhaeuser TJI 560D

Member Dimensions: (1) 3.5 in. X 18 in. X 24 ft

Section Adequacy: 30.61%

Controlling Factor: Bearing Load

**Module Location: Joist #2**

Module Level: Floor - 2nd Level

Module Type: Floor Joist

Material Type: I-Joists Weyerhaeuser TJI 560D

Member Dimensions: (1) 3.5 in. X 18 in. X 12.5 ft

Section Adequacy: 63.86%

Controlling Factor: Bearing Load

**Module Location: Joist #3**

Module Level: Floor - 2nd Level

Module Type: Floor Joist

Material Type: I-Joists Weyerhaeuser TJI 560D

Member Dimensions: (1) 3.5 in. X 18 in. X 8 ft

Section Adequacy: 76.87%

Controlling Factor: Bearing Load

**Module Location: Joist #4**

Module Level: Floor - 2nd Level

Module Type: Floor Joist

Material Type: I-Joists Weyerhaeuser TJI 560D

Member Dimensions: (1) 3.5 in. X 18 in. X 7 ft

Section Adequacy: 79.76%

Controlling Factor: Bearing Load

**Module Location: Joist #5**

Module Level: Floor - 2nd Level

Module Type: Floor Joist  
 Material Type: I-Joists Weyerhaeuser TJI 560D  
 Member Dimensions: (1) 1.75 in. X 18 in. X 37.5 ft  
 Section Adequacy: 36.24%  
 Controlling Factor: Bearing Load

Module Location: Joist #6  
 Module Level: Floor - 2nd Level  
 Module Type: Floor Joist  
 Material Type: I-Joists Weyerhaeuser TJI 560D  
 Member Dimensions: (1) 1.75 in. X 18 in. X 19 ft  
 Section Adequacy: 55.55%  
 Controlling Factor: Bearing Load

Module Location: Beam #2  
 Module Level: Floor - 2nd Level  
 Module Type: Roof Beam  
 Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF  
 Member Dimensions: (1) 8.75 in. X 36 in. X 28.5 ft  
 Section Adequacy: 8.08%  
 Controlling Factor: Bearing Stress

Module Location: Beam #3  
 Module Level: Floor - 2nd Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (1) 1.75 in. X 11.25 in. X 3.5 ft  
 Section Adequacy: 83.75%  
 Controlling Factor: Shear Stress Y

Module Location: Beam #4  
 Module Level: Floor - 2nd Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (1) 1.75 in. X 11.25 in. X 3.5 ft  
 Section Adequacy: 89.49%  
 Controlling Factor: Shear Stress Y

Module Location: Beam #5  
 Module Level: Floor - 2nd Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (2) 1.75 in. X 11.25 in. X 24 ft  
 Section Adequacy: 57.67%  
 Controlling Factor: Deflection Y

Module Location: Beam #7  
 Module Level: Floor - 2nd Level  
 Module Type: Roof Beam  
 Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF  
 Member Dimensions: (1) 6.75 in. X 13.5 in. X 15 ft  
 Section Adequacy: 11.12%  
 Controlling Factor: Bearing Stress

Module Location: Beam #10  
 Module Level: Floor - 2nd Level  
 Module Type: Roof Beam  
 Material Type: Glulams Stress Class Rated 24F-1.8E 24F-V4 DF/DF  
 Member Dimensions: (1) 5.5 in. X 10.5 in. X 10 ft  
 Section Adequacy: 11.12%  
 Controlling Factor: Shear Stress Y

Module Location: Beam #19  
 Module Level: Floor - 2nd Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL

Member Dimensions: (2) 1.75 in. X 11.875 in. X 12.5 ft  
 Section Adequacy: 41.26%  
 Controlling Factor: Bending Stress Y

Module Location: Header #1  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 9.25 in. X 8 ft  
 Section Adequacy: 9.95%  
 Controlling Factor: Bending Stress Y

Module Location: Header #2  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 3.5 in. X 7.25 in. X 2.5 ft  
 Section Adequacy: 31.89%  
 Controlling Factor: Bearing Stress

Module Location: Header #3  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 5.5 in. X 9.5 in. X 6 ft  
 Section Adequacy: 46.03%  
 Controlling Factor: Bending Stress Y

Module Location: Header #4  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 3.5 in. X 7.25 in. X 2.5 ft  
 Section Adequacy: 31.89%  
 Controlling Factor: Bearing Stress

Module Location: Header #5  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 11.25 in. X 12 ft  
 Section Adequacy: 14.94%  
 Controlling Factor: Bearing Stress

Module Location: Header #6  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 5.5 in. X 9.5 in. X 2.5 ft  
 Section Adequacy: 29.83%  
 Controlling Factor: Bearing Stress

Module Location: Header #7  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 9.25 in. X 2.5 ft  
 Section Adequacy: 19.61%  
 Controlling Factor: Bearing Stress

Module Location: Header #9  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 9.25 in. X 2.5 ft  
 Section Adequacy: 20.9%  
 Controlling Factor: Shear Stress Y

Module Location: Header #10

Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 5.5 in. X 9.5 in. X 3 ft  
 Section Adequacy: 15.8%  
 Controlling Factor: Bearing Stress

Module Location: Header #11  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 11.25 in. X 10 ft  
 Section Adequacy: 40.98%  
 Controlling Factor: Bending Stress Y

Module Location: Header #12  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 3.5 in. X 7.25 in. X 3 ft  
 Section Adequacy: 25.68%  
 Controlling Factor: Bearing Stress

Module Location: Header #14  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 9.25 in. X 10 ft  
 Section Adequacy: 40.88%  
 Controlling Factor: Bending Stress Y

Module Location: Header #17  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (2) 1.75 in. X 9.5 in. X 10 ft  
 Section Adequacy: 24.53%  
 Controlling Factor: Bending Stress Y

Module Location: Header #22  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (2) 1.75 in. X 11.25 in. X 8.5 ft  
 Section Adequacy: 39.18%  
 Controlling Factor: Bearing Stress

Module Location: Header #23  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 5.5 in. X 9.5 in. X 7.5 ft  
 Section Adequacy: 15.67%  
 Controlling Factor: Bending Stress Y

Module Location: Header #24  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (2) 1.75 in. X 9.5 in. X 6.5 ft  
 Section Adequacy: 35%  
 Controlling Factor: Shear Stress Y

Module Location: Header #26

Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (2) 1.75 in. X 9.5 in. X 10.5 ft  
 Section Adequacy: 30.76%  
 Controlling Factor: Bending Stress Y

Module Location: Header #27  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (3) 1.75 in. X 14 in. X 10 ft  
 Section Adequacy: 3.17%  
 Controlling Factor: Shear Stress Y

Module Location: Header #29  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Structural Composite Lumber Weyerhaeuser 2.0E Microlam LVL  
 Member Dimensions: (4) 1.75 in. X 14 in. X 10 ft  
 Section Adequacy: 18.44%  
 Controlling Factor: Shear Stress Y

Module Location: Header #30  
 Module Level: Headers - 1st Level  
 Module Type: Roof Beam  
 Material Type: Solid Sawn Douglas Fir-Larch No. 2  
 Member Dimensions: (1) 3.5 in. X 7.25 in. X 3 ft  
 Section Adequacy: 33.95%  
 Controlling Factor: Shear Stress Y

Module Location: Joists #7  
 Module Level: Floor - 1st Level  
 Module Type: Floor Joist  
 Material Type: I-Joists Weyerhaeuser TJI 110  
 Member Dimensions: (1) 1.75 in. X 9.5 in. X 7.5 ft  
 Section Adequacy: 73.72%  
 Controlling Factor: Shear Force

Module Location: Joists #8  
 Module Level: Floor - 1st Level  
 Module Type: Floor Joist  
 Material Type: I-Joists Weyerhaeuser TJI 110  
 Member Dimensions: (1) 1.75 in. X 9.5 in. X 54 ft  
 Section Adequacy: 38.17%  
 Controlling Factor: Bearing Load

Module Location: Joists #9  
 Module Level: Floor - 1st Level  
 Module Type: Floor Joist  
 Material Type: I-Joists Weyerhaeuser TJI 110  
 Member Dimensions: (1) 1.75 in. X 9.5 in. X 23 ft  
 Section Adequacy: 36.39%  
 Controlling Factor: Bearing Load

Module Location: Joists #10  
 Module Level: Floor - 1st Level  
 Module Type: Floor Joist  
 Material Type: I-Joists Weyerhaeuser TJI 110  
 Member Dimensions: (1) 1.75 in. X 9.5 in. X 38 ft  
 Section Adequacy: 42.66%  
 Controlling Factor: Bearing Load

Module Location: Joists #11  
 Module Level: Floor - 1st Level  
 Module Type: Floor Joist  
 Material Type: I-Joists Weyerhaeuser TJI 110  
 Member Dimensions: (1) 1.75 in. X 9.5 in. X 30 ft  
 Section Adequacy:

Controlling Factor: Bearing Load

**Module Location: Joists #12**

Module Level: Floor - 1st Level

Module Type: Floor Joist

Material Type: I-Joists Weyerhaeuser TJI 110

Member Dimensions: (1) 1.75 in. X 9.5 in. X 25 ft

Section Adequacy: 45.56%

Controlling Factor: Bearing Load

**Module Location: Joists #13**

Module Level: Floor - 1st Level

Module Type: Floor Joist

Material Type: I-Joists Weyerhaeuser TJI 110

Member Dimensions: (1) 1.75 in. X 9.5 in. X 19 ft

Section Adequacy: 46.46%

Controlling Factor: Bearing Load

**Module Location: Joists #14**

Module Level: Floor - 1st Level

Module Type: Floor Joist

Material Type: I-Joists Weyerhaeuser TJI 110

Member Dimensions: (1) 1.75 in. X 9.5 in. X 9.5 ft

Section Adequacy: 61.42%

Controlling Factor: Bending Moment

**Module Location: Footing #1**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 26.1%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #2**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 7.54%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #3**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 26.1%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #4**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 26.1%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #5**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 26.1%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing Page 7

**Module Location: Footing #6**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2.5 ft. wide X 10 in. tall

Section Adequacy: 10.44%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #7**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 1.333 ft. wide X 10 in. tall

Section Adequacy: 17.4%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #8**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 1.333 ft. wide X 10 in. tall

Section Adequacy: 13.41%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing - WD-#9**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 27.72%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #10**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 31.5%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #11**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall

Section Adequacy: 31.5%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #12**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 1.333 ft. wide X 10 in. tall

Section Adequacy: 17.46%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing - WD-#13**

Module Level: Basement

Module Type: Continuous Footing

Material Type: Concrete

Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 14.29%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #14**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 17.46%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #15**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 82.23%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #16**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 23.3%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #17**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 48.71%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #18**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 2 ft. wide X 10 in. tall  
 Section Adequacy: 6.25%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #19**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 5.31%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #20**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 35.28%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #21**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 2 ft. wide X 10 in. tall  
 Section Adequacy: 12.6%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #22**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 3 ft. wide X 10 in. tall  
 Section Adequacy: 15.62%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #23**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 7.01%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing #24**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 1.333 ft. wide X 10 in. tall  
 Section Adequacy: 0.68%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: Footing - WD-#25**

Module Level: Basement  
 Module Type: Continuous Footing  
 Material Type: Concrete  
 Member Dimensions: 2 ft. wide X 10 in. tall  
 Section Adequacy: 27.05%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 0 Bars. Transversal: 6" O.C. Spacing

**Module Location: SpotFtg Hdr #1**

Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 2 ft. wide X 10 in. tall X 4 ft long  
 Section Adequacy: 15.8%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 3 Bars

**Module Location: SpotFtg Bm #1-1**

Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 4.5 ft. wide X 10 in. tall X 4.5 ft long  
 Section Adequacy: 15.13%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 5 Bars

**Module Location: SpotFtg Bm #1-2**

Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 7.5 ft. wide X 14 in. tall X 7.5 ft long  
 Section Adequacy: 8.04%  
 Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 12 Bars. Transversal: 12 Bars

**Module Location: SpotFtg Bm #2-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 6 ft. wide X 10 in. tall X 6 ft long

Section Adequacy: 6.69%

Controlling Factor: Moment X

Reinforcement: # 4 - Longitudinal: 8 Bars. Transversal: 8 Bars

**Module Location: SpotFtg Gdr #1-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 2.5 ft. wide X 10 in. tall X 5 ft long

Section Adequacy: 14.99%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 6 Bars. Transversal: 3 Bars

**Module Location: SpotFtg Gdr #2-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 2.5 ft. wide X 10 in. tall X 5 ft long

Section Adequacy: 14.99%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 6 Bars. Transversal: 3 Bars

**Module Location: SpotFtg Bm #5-1**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall X 2 ft long

Section Adequacy: 79.78%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 3 Bars

**Module Location: SpotFtg Bm #4-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 1.3334 ft. wide X 10 in. tall X 1.3 ft long

Section Adequacy: 77.16%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 2 Bars. Transversal: 2 Bars

**Module Location: SpotFtg Bm #3-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 1.3334 ft. wide X 10 in. tall X 1.3 ft long

Section Adequacy: 69.11%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 2 Bars. Transversal: 2 Bars

**Module Location: SpotFtg Bm #6-1**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall X 2 ft long

Section Adequacy: 39.86%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 3 Bars

**Module Location: SpotFtg Bm #6-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 2 ft. wide X 10 in. tall X 2 ft long

Section Adequacy: 39.86%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 3 Bars

**Module Location: SpotFtg Bm #7-1**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 4.5 ft. wide X 10 in. tall X 4.5 ft long

Section Adequacy: 8.99%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 5 Bars

**Module Location: SpotFtg Bm #7-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 3.5 ft. wide X 10 in. tall X 3.5 ft long

Section Adequacy: 13.4%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

**Module Location: SpotFtg Hdr #22-1**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 2.5 ft. wide X 10 in. tall X 2.5 ft long

Section Adequacy: 40.86%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 3 Bars

**Module Location: SpotFtg Hdr #22-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long

Section Adequacy: 33.36%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

**Module Location: SpotFtg Hdr #23-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 1.3334 ft. wide X 10 in. tall X 2 ft long

Section Adequacy: 13.94%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 2 Bars

**Module Location: SpotFtg Bm #10-1**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 5 ft. wide X 10 in. tall X 5 ft long

Section Adequacy: 6.92%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 6 Bars. Transversal: 6 Bars

**Module Location: SpotFtg Bm #10-2**

Module Level: Basement

Module Type: Isolated Footing

Material Type: Concrete

Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long

Section Adequacy: 14.7%

Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

**Module Location: SpotFtg Bm #8-1**

Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 5 ft. wide X 10 in. tall X 5 ft long  
 Section Adequacy: 15.88%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 6 Bars. Transversal: 6 Bars

Module Location: SpotFtg Bm #8-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 5 ft. wide X 10 in. tall X 5 ft long  
 Section Adequacy: 2.03%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 6 Bars. Transversal: 6 Bars

Module Location: SpotFtg Hdr #29-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 5 ft. wide X 10 in. tall X 5 ft long  
 Section Adequacy: 3.9%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 6 Bars. Transversal: 6 Bars

Module Location: SpotFtg Hdr #27-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 3 ft. wide X 10 in. tall X 4 ft long  
 Section Adequacy: 5.98%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 4 Bars

Module Location: SpotFtg Hdr #24  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 1.3334 ft. wide X 10 in. tall X 3 ft long  
 Section Adequacy: 13.25%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 2 Bars

Module Location: SpotFtg Bm #19-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 2 ft. wide X 10 in. tall X 2 ft long  
 Section Adequacy: 36.01%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 3 Bars

Module Location: SpotFtg Bm #12-1  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 2.5 ft. wide X 10 in. tall X 2.5 ft long  
 Section Adequacy: 32.93%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 3 Bars

Module Location: SpotFtg Bm #12-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 4 ft. wide X 10 in. tall X 4 ft long  
 Section Adequacy: 15.12%  
 Controlling Factor: Soil Bearing Pressure

Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 5 Bars

Module Location: SpotFtg Bm #12-3  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 2.5 ft. wide X 10 in. tall X 2.5 ft long  
 Section Adequacy: 32.93%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 3 Bars. Transversal: 3 Bars

Module Location: SpotFtg Bm #13-1  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 2 ft. wide X 10 in. tall X 3 ft long  
 Section Adequacy: 20.97%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 3 Bars

Module Location: SpotFtg Bm #13-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 2 ft. wide X 10 in. tall X 3 ft long  
 Section Adequacy: 20.97%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 3 Bars

Module Location: SpotFtg Bm #14-1  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long  
 Section Adequacy: 26.66%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

Module Location: SpotFtg Bm #14-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long  
 Section Adequacy: 26.66%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

Module Location: SpotFtg Bm #15-1  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long  
 Section Adequacy: 21.37%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

Module Location: SpotFtg Bm #16-1  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete  
 Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long  
 Section Adequacy: 23.53%  
 Controlling Factor: Soil Bearing Pressure  
 Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

Module Location: SpotFtg Bm #16-2  
 Module Level: Basement  
 Module Type: Isolated Footing  
 Material Type: Concrete

Member Dimensions: 4.5 ft. wide X 10 in. tall X 4.5 ft long  
Section Adequacy: 4.66%  
Controlling Factor: Soil Bearing Pressure  
Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 5 Bars

**Module Location: SpotFtg Bm #16-3**

Module Level: Basement  
Module Type: Isolated Footing  
Material Type: Concrete  
Member Dimensions: 4 ft. wide X 10 in. tall X 4 ft long  
Section Adequacy: 0.95%  
Controlling Factor: Soil Bearing Pressure  
Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 5 Bars

**Module Location: SpotFtg Bm #16-4**

Module Level: Basement  
Module Type: Isolated Footing  
Material Type: Concrete  
Member Dimensions: 3.5 ft. wide X 10 in. tall X 3.5 ft long  
Section Adequacy: 20.1%  
Controlling Factor: Soil Bearing Pressure  
Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

**Module Location: SpotFtg Bm #17-1**

Module Level: Basement  
Module Type: Isolated Footing  
Material Type: Concrete  
Member Dimensions: 4 ft. wide X 10 in. tall X 4 ft long  
Section Adequacy: 19.57%  
Controlling Factor: Soil Bearing Pressure  
Reinforcement: # 4 - Longitudinal: 5 Bars. Transversal: 5 Bars

**Module Location: SpotFtg Bm #14-1**

Module Level: Basement  
Module Type: Isolated Footing  
Material Type: Concrete  
Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long  
Section Adequacy: 91.94%  
Controlling Factor: Soil Bearing Pressure  
Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars

**Module Location: SpotFtg Bm #14-2**

Module Level: Basement  
Module Type: Isolated Footing  
Material Type: Concrete  
Member Dimensions: 3 ft. wide X 10 in. tall X 3 ft long  
Section Adequacy: 91.94%  
Controlling Factor: Soil Bearing Pressure  
Reinforcement: # 4 - Longitudinal: 4 Bars. Transversal: 4 Bars



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Outlookers	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 1.5 X 5.5	0 (in) O.C.	DRY
-------------------	-------	---------------	-------------	-----

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 4.5 Member Slope (in): 0/12 Actual Length (ft): 4.5 O.C. Spacing (in): 16

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
8.25	20.8	1.55	1.88	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1346	748	180	1485	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.3	1	1.1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1.15

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2	0	2	0				
2	2.5	0	2.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (51.8%)</b>	99.9	207.0	1.98	D+S	1.15
Bending Stress Y (psi)	<b>PASS (30.5%)</b>	1049.8	1510.5	2.025	D+S	1.15
Deflection Y (in)	<b>PASS (61.5%)</b>	0.096	0.250 (=L/240)	4.5	S	
Bearing Stress (psi)	<b>PASS (80.1%)</b>	132.5	667.6	2	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	-9	-112	-121
B	81	1012	1093
C	0	0	0

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	4.5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	4.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #1	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 11 Member Slope (in): 0/12 Actual Length (ft): 11 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

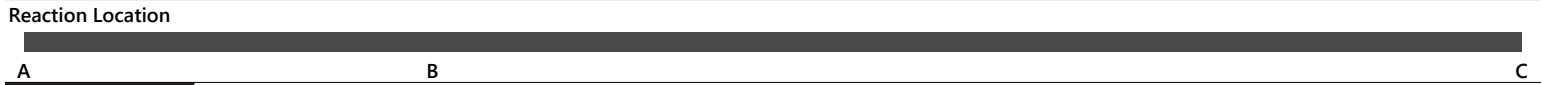
Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	8	0	8	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (93.7%)</b>	20.7	327.8	3.08	D+S	1.15
Bending Stress Y (psi)	<b>PASS (97.7%)</b>	65.6	2900.8	7.59	D+S	1.15
Deflection Y (in)	<b>PASS (99.3%)</b>	0.003	0.400 (=L/240)	7.26	S	
Bearing Stress (psi)	<b>PASS (89.4%)</b>	84.9	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	182	2269	2451
C	82	1031	1113



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	11	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	11	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #2	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 22 Member Slope (in): 0/12 Actual Length (ft): 22 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	16	0	16	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (88.8%)</b>	36.7	327.8	3.08	D+S	1.15
Bending Stress Y (psi)	<b>PASS (89.5%)</b>	305.5	2900.8	11	D+S	1.15
Deflection Y (in)	<b>PASS (90.3%)</b>	0.029	0.300 (=L/240)	22	S	
Bearing Stress (psi)	<b>PASS (84.6%)</b>	123.4	801.1	3	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	264	3300	3564
C	264	3300	3564
D	0	0	0

Units for V: lbf Units for M: lbf-ft

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	22	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	22	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #3	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 19 Member Slope (in): 0/12 Actual Length (ft): 19 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	16	0	16	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (88.4%)</b>	38.1	327.8	3.04	D+S	1.15
Bending Stress Y (psi)	<b>PASS (88.6%)</b>	330.9	2900.8	11.21	D+S	1.15
Deflection Y (in)	<b>PASS (89.4%)</b>	0.032	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (84.2%)</b>	126.6	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	271	3384	3655
C	185	2316	2501

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	19	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	19	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #4	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 22 Member Slope (in): 0/12 Actual Length (ft): 22 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	16	0	16	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (88.8%)</b>	36.7	327.8	3.08	D+S	1.15
Bending Stress Y (psi)	<b>PASS (89.5%)</b>	305.5	2900.8	11	D+S	1.15
Deflection Y (in)	<b>PASS (90.3%)</b>	0.029	0.300 (=L/240)	22	S	
Bearing Stress (psi)	<b>PASS (84.6%)</b>	123.4	801.1	3	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	264	3300	3564
C	264	3300	3564
D	0	0	0

Units for V: lbf Units for M: lbf-ft



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	22	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	22	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #5	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 30 Member Slope (in): 0/12 Actual Length (ft): 30 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	24	0	24	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (83.1%)</b>	55.5	327.8	27	D+S	1.15
Bending Stress Y (psi)	<b>PASS (74.2%)</b>	749.8	2900.8	15	D+S	1.15
Deflection Y (in)	<b>PASS (61.6%)</b>	0.115	0.300 (=L/240)	30	S	
Bearing Stress (psi)	<b>PASS (79.0%)</b>	168.3	801.1	27	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	360	4500	4860
C	360	4500	4860
D	0	0	0

Units for V: lbf Units for M: lbf-ft



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	30	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	30	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Rafters #1	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 1.5 X 7.25	16 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 8 Member Slope (in): 3/12 Actual Length (ft): 8.25 Roof Pitch (in): 3/12 O.C. Spacing (in): 16

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
10.88	47.63	2.04	2.48	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1242	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.2	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1.15

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0.75				
2	5	0	5	1.25				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (49.6%)</b>	104.3	207.0	3.04	D+S	1.15
Bending Stress Y (psi)	<b>PASS (30.4%)</b>	925.0	1328.1	3.04	D+S	1.15
Deflection Y (in)	<b>PASS (80.1%)</b>	0.082	0.412 (=L/180)	0	S	
Compressive Stress (psi)	<b>PASS (98.9%)</b>	17.4	1542.3	3.04	D+S	1.15
Tensile Stress (psi)	<b>PASS (98.1%)</b>	15.3	793.5	2.96	D+S	1.15
Bearing Stress (psi)	<b>PASS (61.5%)</b>	266.3	692.0	3	D+S	1.15
Bending-Compression (Unit)	<b>PASS (30.2%)</b>	0.70	1.00	3.04	D+S	1.15
Bending-Tension (Unit)	<b>PASS (33.1%)</b>	0.67	1.00	2.96	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	166	1319	1485
C	41	330	371

Reaction Location



**CONNECTORS**

(All connectors are Simpson Strong-Tie connectors)\*

	Model	Type	Adequacy (%)	Header Fastening (in)	Joist Nails (in)	Nailer Thickness (in)
Support C						
Primary	HU28	Hanger	63.24	(6) 0.162 x 3.5	(4) 0.148 x 3	N/A

Hanger at support C has seat sloped down 14 degrees, skewed 0 degrees.

Unless conditions come standard for hanger(s) at support C, add to spec : X SLD14

WSR = web stiffeners required

\*Capacity values are adjusted based on specific gravity when members use grades other than those specified in Simpson Strong-Tie's capacity tables.

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft <sup>2</sup> )	Uniform	150	150	0	8	Snow	Y
Uniform (lb/ft <sup>2</sup> )	Uniform	17	17	0	8	Dead	Y
Self Weight (lb/ft)	-	2.48	2.48	0	8	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #6	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 30 Member Slope (in): 0/12 Actual Length (ft): 30 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	24	0	24	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (83.1%)</b>	55.5	327.8	27	D+S	1.15
Bending Stress Y (psi)	<b>PASS (74.2%)</b>	749.8	2900.8	15	D+S	1.15
Deflection Y (in)	<b>PASS (61.6%)</b>	0.115	0.300 (=L/240)	30	S	
Bearing Stress (psi)	<b>PASS (79.0%)</b>	168.3	801.1	27	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	360	4500	4860
C	360	4500	4860
D	0	0	0



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	30	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	30	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #7	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 30 Member Slope (in): 0/12 Actual Length (ft): 30 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	24	0	24	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (83.1%)</b>	55.5	327.8	27	D+S	1.15
Bending Stress Y (psi)	<b>PASS (74.2%)</b>	749.8	2900.8	15	D+S	1.15
Deflection Y (in)	<b>PASS (61.6%)</b>	0.115	0.300 (=L/240)	30	S	
Bearing Stress (psi)	<b>PASS (79.0%)</b>	168.3	801.1	27	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	360	4500	4860
C	360	4500	4860
D	0	0	0

Reaction Location

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	30	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	30	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #8	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 8.25 Member Slope (in): 0/12 Actual Length (ft): 8.25 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	4.25	0	4.25	0				
2	4	0	4	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (94.4%)</b>	18.4	327.8	4.207	D+S	1.15
Bending Stress Y (psi)	<b>PASS (97.0%)</b>	87.1	2900.8	4.29	D+S	1.15
Deflection Y (in)	<b>PASS (98.8%)</b>	0.005	0.400 (=L/240)	8.25	S	
Bearing Stress (psi)	<b>PASS (88.8%)</b>	89.8	801.1	4.25	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	6	73	79
B	192	2402	2594
C	0	0	0



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	8.25	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	8.25	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #9	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 17 Member Slope (in): 0/12 Actual Length (ft): 17 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	11	0	11	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (92.3%)</b>	25.2	327.8	3.06	D+S	1.15
Bending Stress Y (psi)	<b>PASS (95.9%)</b>	118.0	2900.8	8.5	D+S	1.15
Deflection Y (in)	<b>PASS (98.0%)</b>	0.006	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (88.1%)</b>	95.4	801.1	3	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	204	2550	2754
C	204	2550	2754
D	0	0	0

Units for V: lbf Units for M: lbf-ft

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	17	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	17	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #10	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 9.5 Member Slope (in): 0/12 Actual Length (ft): 9.5 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	6.5	0	6.5	0				
2	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (94.5%)</b>	18.1	327.8	6.46	D+S	1.15
Bending Stress Y (psi)	<b>PASS (98.3%)</b>	48.2	2900.8	6.46	D+S	1.15
Deflection Y (in)	<b>PASS (99.7%)</b>	0.001	0.325 (=L/240)	2.85	S	
Bearing Stress (psi)	<b>PASS (90.3%)</b>	77.9	801.1	6.5	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	61	767	828
B	167	2083	2250
C	0	0	0

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	9.5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	9.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #11	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 20 Member Slope (in): 0/12 Actual Length (ft): 20 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	14	0	14	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (90.1%)</b>	32.4	327.8	17	D+S	1.15
Bending Stress Y (psi)	<b>PASS (92.3%)</b>	222.2	2900.8	10	D+S	1.15
Deflection Y (in)	<b>PASS (94.1%)</b>	0.018	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (86.0%)</b>	112.2	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	240	3000	3240
C	240	3000	3240
D	0	0	0

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	20	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	20	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Rafters #2	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 1.5 X 7.25	16 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 8.5 Member Slope (in): 3/12 Actual Length (ft): 8.76 Roof Pitch (in): 3/12 O.C. Spacing (in): 16

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
10.88	47.63	2.04	2.48	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1242	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.2	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1.15

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0.75				
2	5.5	0	5.5	1.375				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (47.4%)</b>	108.9	207.0	3.06	D+S	1.15
Bending Stress Y (psi)	<b>PASS (30.5%)</b>	908.7	1306.6	3.06	D+S	1.15
Deflection Y (in)	<b>PASS (83.5%)</b>	0.068	0.412 (=L/180)	0	S	
Compressive Stress (psi)	<b>PASS (98.8%)</b>	18.2	1520.8	3.06	D+S	1.15
Tensile Stress (psi)	<b>PASS (98.1%)</b>	15.4	793.5	2.975	D+S	1.15
Bearing Stress (psi)	<b>PASS (60.5%)</b>	273.3	692.0	3	D+S	1.15
Bending-Compression (Unit)	<b>PASS (30.2%)</b>	0.70	1.00	3.06	D+S	1.15
Bending-Tension (Unit)	<b>PASS (32.4%)</b>	0.68	1.00	2.975	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	170	1354	1524
C	50	398	448

Reaction Location



**CONNECTORS**

(All connectors are Simpson Strong-Tie connectors)\*

	Model	Type	Adequacy (%)	Header Fastening (in)	Joist Nails (in)	Nailer Thickness (in)
Support C						
Primary	HU28	Hanger	55.61	(6) 0.162 x 3.5	(4) 0.148 x 3	N/A

Hanger at support C has seat sloped down 14 degrees, skewed 0 degrees.

Unless conditions come standard for hanger(s) at support C, add to spec : X SLD14

WSR = web stiffeners required

\*Capacity values are adjusted based on specific gravity when members use grades other than those specified in Simpson Strong-Tie's capacity tables.

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft <sup>2</sup> )	Uniform	150	150	0	8.5	Snow	Y
Uniform (lb/ft <sup>2</sup> )	Uniform	17	17	0	8.5	Dead	Y
Self Weight (lb/ft)	-	2.48	2.48	0	8.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Rafters #3	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 1.5 X 7.25	16 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 3/12 Actual Length (ft): 10.31 Roof Pitch (in): 3/12 O.C. Spacing (in): 16

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
10.88	47.63	2.04	2.48	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1242	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.2	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1.15

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0.75				
2	7	0	7	1.75				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (39.3%)</b>	125.5	207.0	3.1	D+S	1.15
Bending Stress Y (psi)	<b>PASS (28.9%)</b>	867.0	1220.1	3.1	D+S	1.15
Deflection Y (in)	<b>PASS (82.3%)</b>	0.085	0.481 (=L/180)	6.8	S	
Compressive Stress (psi)	<b>PASS (98.5%)</b>	20.9	1435.4	3.1	D+S	1.15
Tensile Stress (psi)	<b>PASS (98.0%)</b>	15.5	793.5	3	D+S	1.15
Bearing Stress (psi)	<b>PASS (57.1%)</b>	297.2	692.0	3	D+S	1.15
Bending-Compression (Unit)	<b>PASS (28.5%)</b>	0.72	1.00	3.1	D+S	1.15
Bending-Tension (Unit)	<b>PASS (31.3%)</b>	0.69	1.00	3	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	185	1473	1658
C	74	589	663

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft <sup>2</sup> )	Uniform	150	150	0	10	Snow	Y
Uniform (lb/ft <sup>2</sup> )	Uniform	17	17	0	10	Dead	Y
Self Weight (lb/ft)	-	2.48	2.48	0	10	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #12	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 12 Member Slope (in): 0/12 Actual Length (ft): 12 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	9	0	9	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (93.1%)</b>	22.6	327.8	3.12	D+S	1.15
Bending Stress Y (psi)	<b>PASS (96.9%)</b>	88.9	2900.8	8.04	D+S	1.15
Deflection Y (in)	<b>PASS (99.0%)</b>	0.005	0.450 (=L/240)	7.68	S	
Bearing Stress (psi)	<b>PASS (88.8%)</b>	89.8	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	192	2400	2592
C	96	1200	1296



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	12	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	12	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #13	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis and is not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	7	0	7	0				

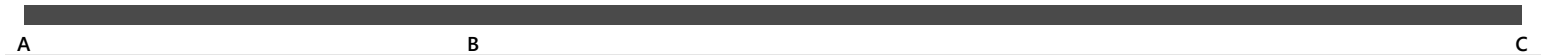
**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (94.3%)</b>	18.7	327.8	3.1	D+S	1.15
Bending Stress Y (psi)	<b>PASS (98.3%)</b>	50.0	2900.8	3	D+S	1.15
Deflection Y (in)	<b>PASS (99.6%)</b>	0.001	0.350 (=L/240)	6.8	S	
Bearing Stress (psi)	<b>PASS (90.0%)</b>	80.1	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	171	2143	2314
C	69	857	926

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	10	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	10	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #14	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	7	0	7	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (94.3%)</b>	18.7	327.8	3.1	D+S	1.15
Bending Stress Y (psi)	<b>PASS (98.3%)</b>	50.0	2900.8	3	D+S	1.15
Deflection Y (in)	<b>PASS (99.6%)</b>	0.001	0.350 (=L/240)	6.8	S	
Bearing Stress (psi)	<b>PASS (90.0%)</b>	80.1	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	171	2143	2314
C	69	857	926



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	10	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	10	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #15	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 12 Member Slope (in): 0/12 Actual Length (ft): 12 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis and is not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	9	0	9	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (93.1%)</b>	22.6	327.8	3.12	D+S	1.15
Bending Stress Y (psi)	<b>PASS (96.9%)</b>	88.9	2900.8	8.04	D+S	1.15
Deflection Y (in)	<b>PASS (99.0%)</b>	0.005	0.450 (=L/240)	7.68	S	
Bearing Stress (psi)	<b>PASS (88.8%)</b>	89.8	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	192	2400	2592
C	96	1200	1296

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	12	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	12	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #16	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 13 Member Slope (in): 0/12 Actual Length (ft): 13 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (93.9%)</b>	20.1	327.8	3.12	D+S	1.15
Bending Stress Y (psi)	<b>PASS (96.8%)</b>	93.7	2900.8	8.45	D+S	1.15
Deflection Y (in)	<b>PASS (98.6%)</b>	0.004	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (90.4%)</b>	77.3	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	203	2028	2231
C	109	1092	1201

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	120	120	0	13	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	13	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #17	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 19.5 Member Slope (in): 0/12 Actual Length (ft): 19.5 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	16.5	0	16.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (88.1%)</b>	38.9	327.8	3.12	D+S	1.15
Bending Stress Y (psi)	<b>PASS (87.8%)</b>	353.5	2900.8	11.505	D+S	1.15
Deflection Y (in)	<b>PASS (88.2%)</b>	0.035	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (83.9%)</b>	129.3	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	277	3457	3734
C	191	2393	2584

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	19.5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	19.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #18	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 5 Member Slope (in): 0/12 Actual Length (ft): 5 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis and is not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	2	0	2	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (95.5%)</b>	14.8	327.8	3.05	D+S	1.15
Bending Stress Y (psi)	<b>PASS (98.3%)</b>	50.0	2900.8	3	D+S	1.15
Deflection Y (in)	<b>PASS (99.6%)</b>	0.001	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (91.2%)</b>	70.1	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	150	1875	2025
C	-30	-375	-405

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #19	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 18 Member Slope (in): 0/12 Actual Length (ft): 18 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	15	0	15	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (89.1%)</b>	35.8	327.8	3.06	D+S	1.15
Bending Stress Y (psi)	<b>PASS (90.1%)</b>	287.9	2900.8	10.8	D+S	1.15
Deflection Y (in)	<b>PASS (91.5%)</b>	0.026	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (84.9%)</b>	121.2	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	259	3240	3499
C	173	2160	2333

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	18	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	18	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #20	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 21 Member Slope (in): 0/12 Actual Length (ft): 21 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	15	0	15	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (89.6%)</b>	34.0	327.8	17.85	D+S	1.15
Bending Stress Y (psi)	<b>PASS (91.0%)</b>	262.4	2900.8	10.5	D+S	1.15
Deflection Y (in)	<b>PASS (92.3%)</b>	0.023	0.300 (=L/240)	21	S	
Bearing Stress (psi)	<b>PASS (85.3%)</b>	117.8	801.1	18	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	252	3150	3402
C	252	3150	3402
D	0	0	0

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	21	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	21	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #21	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 19 Member Slope (in): 0/12 Actual Length (ft): 19 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	13	0	13	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (90.9%)</b>	29.9	327.8	3.04	D+S	1.15
Bending Stress Y (psi)	<b>PASS (93.6%)</b>	184.7	2900.8	9.5	D+S	1.15
Deflection Y (in)	<b>PASS (95.6%)</b>	0.013	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (86.7%)</b>	106.6	801.1	3	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	228	2850	3078
C	228	2850	3078
D	0	0	0

Units for V: lbf Units for M: lbf-ft

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	19	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	19	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #22	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 22.5 Member Slope (in): 0/12 Actual Length (ft): 22.5 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	19.5	0	19.5	0				
2	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (86.1%)</b>	45.5	327.8	19.35	D+S	1.15
Bending Stress Y (psi)	<b>PASS (82.7%)</b>	503.3	2900.8	9.45	D+S	1.15
Deflection Y (in)	<b>PASS (79.5%)</b>	0.061	0.300 (=L/240)	22.5	S	
Bearing Stress (psi)	<b>PASS (81.8%)</b>	145.7	801.1	19.5	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	228	2856	3084
B	312	3894	4206
C	0	0	0



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	22.5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	22.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #23	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 14 Member Slope (in): 0/12 Actual Length (ft): 14 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis and is not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	11	0	11	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (91.8%)</b>	27.0	327.8	3.08	D+S	1.15
Bending Stress Y (psi)	<b>PASS (95.0%)</b>	143.9	2900.8	8.96	D+S	1.15
Deflection Y (in)	<b>PASS (97.4%)</b>	0.008	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (87.5%)</b>	100.0	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	214	2673	2887
C	122	1527	1649

Reaction Location  
 A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	14	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	14	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #24	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C. DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 22.5 Member Slope (in): 0/12 Actual Length (ft): 22.5 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	19.5	0	19.5	0				
2	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (86.1%)</b>	45.5	327.8	19.35	D+S	1.15
Bending Stress Y (psi)	<b>PASS (82.7%)</b>	503.3	2900.8	9.45	D+S	1.15
Deflection Y (in)	<b>PASS (79.5%)</b>	0.061	0.300 (=L/240)	22.5	S	
Bearing Stress (psi)	<b>PASS (81.8%)</b>	145.7	801.1	19.5	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	228	2856	3084
B	312	3894	4206
C	0	0	0

Units for V: lbf Units for M: lbf-ft

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	22.5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	22.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #25	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 9.5 Member Slope (in): 0/12 Actual Length (ft): 9.5 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	6.5	0	6.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (94.5%)</b>	18.1	327.8	3.04	D+S	1.15
Bending Stress Y (psi)	<b>PASS (98.3%)</b>	48.2	2900.8	3.04	D+S	1.15
Deflection Y (in)	<b>PASS (99.7%)</b>	0.001	0.325 (=L/240)	6.65	S	
Bearing Stress (psi)	<b>PASS (90.3%)</b>	77.9	801.1	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	167	2083	2250
C	61	767	828

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	9.5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	9.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #1	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		
Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 6.75 X 27	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 23.5 Member Slope (in): 0/12 Actual Length (ft): 23.5

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
182.25	11071.69	691.98	41.57	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	23.5	0	23.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (31.5%)</b>	208.8	304.8	23.5	D+S	1.15
Bending Stress Y (psi)	<b>PASS (14.2%)</b>	2099.8	2448.2	11.75	D+S	1.15
Deflection Y (in)	<b>PASS (58.6%)</b>	0.648	1.567 (=L/180)	11.75	S	
Bearing Stress (psi)	<b>PASS (10.5%)</b>	501.1	560.0	23.5	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	2181	21152	23333
B	2331	23037	25368

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	41.57	41.57	0	23.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #2	C	131.9999	131.9999	0	6	Dead	Y
Uniform (lbf/ft)	Trusses #2	C	1650	1650	0	6	Snow	Y
Uniform (lbf/ft)	Trusses #3	C	92.625	92.625	6	22	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #3	C	1157.813	1157.813	6	22	Snow	Y
Uniform (lbf/ft)	Trusses #4	C	131.9999	131.9999	22	23.5	Dead	Y
Uniform (lbf/ft)	Trusses #4	C	1650	1650	22	23.5	Snow	Y
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	6	23.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	6	23.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Girder #1	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 18	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 27.5 Member Slope (in): 0/12 Actual Length (ft): 27.5

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	C <sub>fn</sub>	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
94.5	2551.5	24.12	27.56	3	7.35	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.95C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	24.5	0	24.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (52.4%)</b>	156.0	327.8	3.025	D+S	1.15
Bending Stress Y (psi)	<b>PASS (40.3%)</b>	1689.8	2829.5	12.925	D+S	1.15
Deflection Y (in)	<b>PASS (31.1%)</b>	0.276	0.400 (=L/180)	0	S	
Bearing Stress (psi)	<b>PASS (5.4%)</b>	785.2	830.4	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	1237	13192	14429
C	347	3730	4077

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	150	150	0	27.5	Snow	Y
Uniform (lbf/ft)	Uniform	17	17	0	27.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	15	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	15	Snow	Y
Point (lbf)	Beam #11	A	205.6315	-	0	-	Dead	Y
Point (lbf)	Beam #11	A	1406.25	-	0	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Girder #2	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 18	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 27.5 Member Slope (in): 0/12 Actual Length (ft): 27.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
94.5	2551.5	24.12	27.56	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.95C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	24.5	0	24.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (52.4%)</b>	156.0	327.8	3.025	D+S	1.15
Bending Stress Y (psi)	<b>PASS (40.3%)</b>	1689.8	2829.5	12.925	D+S	1.15
Deflection Y (in)	<b>PASS (31.1%)</b>	0.276	0.400 (=L/180)	0	S	
Bearing Stress (psi)	<b>PASS (5.4%)</b>	785.2	830.4	3	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	1237	13192	14429
C	347	3730	4077

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	150	150	0	27.5	Snow	Y
Uniform (lbf/ft)	Uniform	17	17	0	27.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	15	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	15	Snow	Y
Point (lbf)	Beam #11	B	205.6315	-	0	-	Dead	Y
Point (lbf)	Beam #11	B	1406.25	-	0	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #6	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 5.5 X 9.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 4.5 Member Slope (in): 0/12 Actual Length (ft): 4.5

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
52.25	392.96	131.71	11.92	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	4.5	0	4.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (54.1%)</b>	89.7	195.5	4.5	D+S	1.15
Bending Stress Y (psi)	<b>PASS (49.3%)</b>	510.0	1006.3	2.25	D+S	1.15
Deflection Y (in)	<b>PASS (92.3%)</b>	0.023	0.300 (=L/180)	2.25	S	
Bearing Stress (psi)	<b>PASS (83.5%)</b>	103.3	625.0	0	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft	
	DEAD	LIVE	SNOW	TOTAL
A	256	2	2869	3127
B	256	2	2869	3127

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	4.5	Live	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	4.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #9	C	102	102	0	4.5	Dead	Y
Uniform (lbf/ft)	Trusses #9	C	1275	1275	0	4.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Girder #3	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 18	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 15 Member Slope (in): 0/12 Actual Length (ft): 15

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
94.5	2551.5	24.12	27.56	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.95C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	15	0	15	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (47.0%)</b>	173.7	327.8	15	D+S	1.15
Bending Stress Y (psi)	<b>PASS (38.6%)</b>	1737.3	2829.5	7.5	D+S	1.15
Deflection Y (in)	<b>PASS (69.9%)</b>	0.301	1.000 (=L/180)	7.5	S	
Bearing Stress (psi)	<b>PASS (20.6%)</b>	595.6	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	845	10099	10944
B	845	10099	10944

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	150	150	0	15	Snow	Y
Uniform (lbf/ft)	Uniform	17	17	0	15	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #17	C	95.72727	95.72727	0	15	Dead	Y
Uniform (lbf/ft)	Trusses #17	C	1196.591	1196.591	0	15	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #8	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 5.5 X 18	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 20 Member Slope (in): 0/12 Actual Length (ft): 20

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
99	2673	249.56	22.58	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	20	0	20	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR	CD
Shear Stress Y (psi)	<b>PASS (31.9%)</b>	207.5	304.8	20	D+S		1.15
Bending Stress Y (psi)	<b>PASS (13.0%)</b>	2301.2	2644.6	14.4	D+S		1.15
Deflection Y (in)	<b>PASS (55.2%)</b>	0.597	1.333 (=L/180)	11.2	S		
Bearing Stress (psi)	<b>PASS (19.2%)</b>	452.7	560.0	20	D+S		1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	SNOW	TOTAL
A	2647	10	24901	27558
B	1249	10	12445	13704

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	20	Live	Y
Self Weight (lbf/ft)	-	22.58	22.58	0	20	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #19	C	86.39999	86.39999	14.5	20	Dead	Y
Uniform (lbf/ft)	Trusses #19	C	1080	1080	14.5	20	Snow	Y
Point (lbf)	Girder #3	B	845.4545	-	14.5	-	Dead	Y
Point (lbf)	Girder #3	B	10099.43	-	14.5	-	Snow	Y
Point (lbf)	Beam #9	A	2123.658	-	0	-	Dead	Y
Point (lbf)	Beam #9	A	21307.24	-	0	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #9	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		
Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 8.75 X 21	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 20 Member Slope (in): 0/12 Actual Length (ft): 20

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
183.75	6752.81	1172.36	41.91	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	20	0	20	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (37.2%)</b>	191.3	304.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (14.5%)</b>	2126.3	2486.0	9.8	D+S	1.15
Deflection Y (in)	<b>PASS (54.2%)</b>	0.611	1.333 (=L/180)	10	S	
Bearing Stress (psi)	<b>PASS (13.1%)</b>	486.9	560.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	2124	21307	23431
B	1978	19483	21461

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	41.91	41.91	0	20	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #22	A	114.2308	114.2308	0	12	Dead	Y
Uniform (lbf/ft)	Trusses #22	A	1427.885	1427.885	0	12	Snow	Y
Uniform (lbf/ft)	Trusses #23	C	61.09091	61.09091	0	12	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #23	C	763.6364	763.6364	0	12	Snow	Y
Uniform (lbf/ft)	Trusses #24	A	114.2308	114.2308	12	20	Dead	Y
Uniform (lbf/ft)	Trusses #24	A	1427.885	1427.885	12	20	Snow	Y
Uniform (lbf/ft)	Trusses #25	C	30.69231	30.69231	12	20	Dead	Y
Uniform (lbf/ft)	Trusses #25	C	383.6539	383.6539	12	20	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #26	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 20	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 25.5 Member Slope (in): 0/12 Actual Length (ft): 25.5 O.C. Spacing (in): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	3500	26.8	30.62	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.93 C<sub>r</sub> = 1.04 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	19.5	0	19.5	0				
3	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (86.3%)</b>	44.9	327.8	3.06	D+S	1.15
Bending Stress Y (psi)	<b>PASS (83.5%)</b>	478.0	2900.8	12.75	D+S	1.15
Deflection Y (in)	<b>PASS (80.6%)</b>	0.058	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (82.1%)</b>	143.1	801.1	22.5	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft
	DEAD	SNOW	TOTAL
A	0	0	0
B	306	3825	4131
C	306	3825	4131
D	0	0	0



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	25.5	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	25.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Rafters #4	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Alaska Cedar	Select Structural	(1) 1.5 X 11.25	12 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 15 Member Slope (in): 3/12 Actual Length (ft): 15.46 Roof Pitch (in): 3/12 O.C. Spacing (in): 12

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
16.88	177.98	3.16	3.63	1	0.47	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	1150	625	165	1000	525	1400	510
Adjusted Values	1322	625	165	1000	525	1400	510
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 0.86C<sub>r</sub> = 1.15

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12	0	12	3				
2	3	0	3	0.75				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (49.0%)</b>	96.7	189.8	12	D+S	1.15
Bending Stress Y (psi)	<b>PASS (30.6%)</b>	1055.1	1520.9	5.55	D+S	1.15
Deflection Y (in)	<b>PASS (59.3%)</b>	0.168	0.412 (=L/180)	15	S	
Compressive Stress (psi)	<b>PASS (98.6%)</b>	14.2	1016.1	0	D+S	1.15
Tensile Stress (psi)	<b>PASS (97.8%)</b>	16.1	718.8	12	D+S	1.15
Bearing Stress (psi)	<b>PASS (49.1%)</b>	295.6	581.3	12	D+S	1.15
Bending-Compression (Unit)	<b>PASS (30.6%)</b>	0.69	1.00	5.55	D+S	1.15
Bending-Tension (Unit)	<b>PASS (30.6%)</b>	0.69	1.00	5.7	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	120	870	990
B	199	1450	1649
C	0	0	0

Reaction Location



<b>CONNECTORS</b>		(All connectors are Simpson Strong-Tie connectors)*			Header	Joist Nails (in)	Nailer
Support A	Model	Type	Adequacy (%)	Fastening (in)		Thickness (in)	
Primary	U210	Hanger	32.75	(10) 0.162 x 3.5	(6) 0.148 x 3	N/A	

Hanger at support A has seat sloped down 14 degrees, skewed 0 degrees.

Unless conditions come standard for hanger(s) at support A, add to spec : X SLD14

WSR = web stiffeners required

\*Capacity values are adjusted based on specific gravity when members use grades other than those specified in Simpson Strong-Tie's capacity tables.



<b>LOAD LIST</b>							
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft <sup>2</sup> )	Uniform	150	150	0	15	Snow	Y
Uniform (lb/ft <sup>2</sup> )	Uniform	17	17	0	15	Dead	Y
Self Weight (lb/ft)	-	3.63	3.63	0	15	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design	
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis	
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis	
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7	
LEVEL:	Roof	LOADING:	ASD	
MEMBER NAME:	Rafters #5	CODE:	2018 International Building Code	
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS	
MATERIAL:	Solid Sawn			
Alaska Cedar	Select Structural	(1) 1.5 X 11.25	12 (in) O.C.	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 15 Member Slope (in): 3/12 Actual Length (ft): 15.46 Roof Pitch (in): 3/12 O.C. Spacing (in): 12

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
16.88	177.98	3.16	3.63	1	0.47	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	1150	625	165	1000	525	1400	510
Adjusted Values	1322	625	165	1000	525	1400	510
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 0.86C<sub>r</sub> = 1.15

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12	0	12	3				
2	3	0	3	0.75				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (49.0%)</b>	96.7	189.8	12	D+S	1.15
Bending Stress Y (psi)	<b>PASS (30.6%)</b>	1055.1	1520.9	5.55	D+S	1.15
Deflection Y (in)	<b>PASS (59.3%)</b>	0.168	0.412 (=L/180)	15	S	
Compressive Stress (psi)	<b>PASS (98.6%)</b>	14.2	1016.1	0	D+S	1.15
Tensile Stress (psi)	<b>PASS (97.8%)</b>	16.1	718.8	12	D+S	1.15
Bearing Stress (psi)	<b>PASS (49.1%)</b>	295.6	581.3	12	D+S	1.15
Bending-Compression (Unit)	<b>PASS (30.6%)</b>	0.69	1.00	5.55	D+S	1.15
Bending-Tension (Unit)	<b>PASS (30.6%)</b>	0.69	1.00	5.7	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	120	870	990
B	199	1450	1649
C	0	0	0

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft <sup>2</sup> )	Uniform	150	150	0	15	Snow	Y
Uniform (lb/ft <sup>2</sup> )	Uniform	17	17	0	15	Dead	Y
Self Weight (lb/ft)	-	3.63	3.63	0	15	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #11	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 7.25	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 12.5 Member Slope (in): 0/12 Actual Length (ft): 12.5

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	C <sub>fn</sub>	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	6.48	7.4	2	7.35	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.07 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12.5	0	12.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (70.9%)</b>	95.3	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (38.4%)</b>	1971.4	3202.2	6.25	D+S	1.15
Deflection Y (in)	<b>PASS (33.3%)</b>	0.556	0.833 (=L/180)	6.25	S	
Bearing Stress (psi)	<b>PASS (88.8%)</b>	83.7	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	206	1406	1612
B	206	1406	1612

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	225	225	0	12.5	Snow	Y
Uniform (lbf/ft)	Uniform	25.5	25.5	0	12.5	Dead	Y
Self Weight (lbf/ft)	-	7.4	7.4	0	12.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #12	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 6.75 X 13.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 26 Member Slope (in): 0/12 Actual Length (ft): 26

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
91.12	1383.96	345.99	20.78	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	13	0	13	0				
2	13	0	13	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (50.2%)</b>	151.8	304.8	13	D+S	1.15
Bending Stress Y (psi)	<b>PASS (29.9%)</b>	1402.6	2002.2	13	D+S	1.15
Deflection Y (in)	<b>PASS (87.7%)</b>	0.106	0.867 (=L/180)	5.46	S	
Bearing Stress (psi)	<b>PASS (17.0%)</b>	496.7	598.2	13	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	708	4824	5532
B	2359	16079	18438
C	708	4824	5532

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	20.78	20.78	0	26	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #1	B	124.4201	124.4201	0	26	Dead	Y
Uniform (lbf/ft)	Rafters #1	B	989.5454	989.5454	0	26	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #13	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 5.125 X 15.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 11 Member Slope (in): 0/12 Actual Length (ft): 11

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
79.44	1590.41	173.87	18.12	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	11	0	11	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (60.4%)</b>	120.6	304.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (62.8%)</b>	1027.2	2760.0	5.5	D+S	1.15
Deflection Y (in)	<b>PASS (84.1%)</b>	0.117	0.733 (=L/180)	5.5	S	
Bearing Stress (psi)	<b>PASS (59.5%)</b>	226.6	560.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	SNOW	TOTAL
A	802	6	5586	6394
B	802	6	5586	6394

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	11	Live	Y
Self Weight (lbf/ft)	-	18.12	18.12	0	11	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #2	B	127.6897	127.6897	0	11	Dead	Y
Uniform (lbf/ft)	Rafters #2	B	1015.549	1015.549	0	11	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #14	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 5.125 X 13.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 14 Member Slope (in): 0/12 Actual Length (ft): 14

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
69.19	1050.79	151.44	15.78	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>L</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2.5	0	2.5	0				
2	9	0	9	0				
3	2.5	0	2.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (59.9%)</b>	122.3	304.8	2.52	D+S	1.15
Bending Stress Y (psi)	<b>PASS (75.4%)</b>	679.4	2760.0	7	D+S	1.15
Deflection Y (in)	<b>PASS (89.1%)</b>	0.036	0.333 (=L/180)	0	S	
Bearing Stress (psi)	<b>PASS (47.7%)</b>	312.7	598.2	11.5	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	1082	7731	8813
C	1082	7731	8813
D	0	0	0

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	15.78	15.78	0	14	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #3	B	138.8617	138.8617	0	14	Dead	Y
Uniform (lbf/ft)	Rafters #3	B	1104.403	1104.403	0	14	Snow	Y

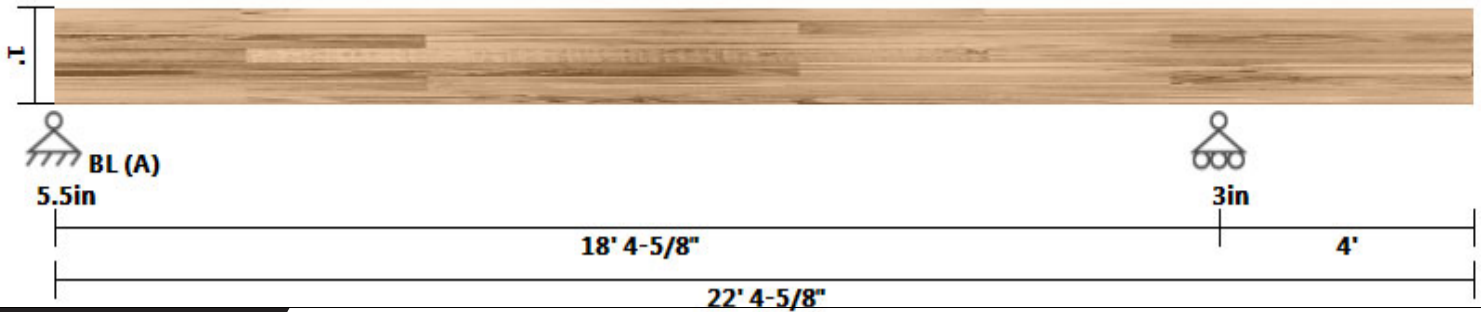


**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #15	CODE:	2018 International Building Code
MEMBER TYPE:	HIP BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 8.75 X 12	DRY		
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**Beam #15 DIAGRAM**



**BEAM PROPERTIES**

Start (ft): 0 End (ft): 22.385 Member Slope (in): 1.79/12 Actual Length (ft): 22.631

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
105	1260	669.92	23.95	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc⊥	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	18.385	0	18.385	-2.734959				
2	4	0	4	-0.5950413				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (55.8%)</b>	134.6	304.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (27.1%)</b>	1893.1	2596.7	7.611	D+S	1.15
Deflection Y (in)	<b>PASS (14.4%)</b>	0.462	0.539 (=L/180)	22.385	S	
Compressive Stress (psi)	<b>PASS (99.6%)</b>	7.0	1567.1	18.356	D+S	1.15
Tensile Stress (psi)	<b>PASS (98.9%)</b>	13.4	1265.0	0	D+S	1.15
Bearing Stress (psi)	<b>PASS (57.8%)</b>	265.7	630.0	18.385	D+S	1.15
Bending-Compression (Unit)	<b>PASS (27.1%)</b>	0.73	1.00	7.835	D+S	1.15
Bending-Tension (Unit)	<b>PASS (31.4%)</b>	0.69	1.00	7.611	D+S	1.15

<b>REACTIONS</b>			
Y axis	DEAD	SNOW	TOTAL
A	1160	8367	9527
B	1022	6106	7128
C	0	0	0

Units for V: lbf      Units for M: lbf-ft

Reaction Location



<b>LOAD LIST</b>							
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Trapezoidal (lbf/ft)	Trapezoidal	78.13	0	0	18.385	Dead	Y
Trapezoidal (lbf/ft)	Trapezoidal	689.42	0	0	18.385	Snow	Y
Trapezoidal (lbf/ft)	Trapezoidal	78.13	0	0	18.385	Dead	Y
Trapezoidal (lbf/ft)	Trapezoidal	689.42	0	0	18.385	Snow	Y
Trapezoidal (lbf/ft)	Trapezoidal	900	0	18.385	22.385	Snow	Y
Trapezoidal (lbf/ft)	Trapezoidal	102	0	18.385	22.385	Dead	Y
Self Weight (lbf/ft)	-	23.95	23.95	0	22.385	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #16	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 6.75 X 15	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 42 Member Slope (in): 0/12 Actual Length (ft): 42

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
101.25	1898.44	384.43	23.09	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>L</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	14	0	14	0				
2	14	0	14	0				
3	14	0	14	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (32.2%)</b>	206.5	304.8	13.86	D+S	1.15
Bending Stress Y (psi)	<b>PASS (18.2%)</b>	1544.8	1888.5	13.86	D+S	1.15
Deflection Y (in)	<b>PASS (80.2%)</b>	0.185	0.933 (=L/180)	6.3	S	
Bearing Stress (psi)	<b>PASS (6.5%)</b>	523.7	560.0	14	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	1225	8010	9235
B	3547	22966	26513
C	2757	19082	21839
D	556	3910	4466

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Trapezoidal (lbf/ft)	Trapezoidal	1425	450	28.5	42	Snow	Y
Trapezoidal (lbf/ft)	Trapezoidal	161.5	51	28.5	42	Dead	Y
Self Weight (lbf/ft)	-	23.09	23.09	0	42	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #4	B	199.331	199.331	0	28.5	Dead	Y
Uniform (lbf/ft)	Rafters #4	B	1449.53	1449.53	0	28.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #17	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 6.75 X 15	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 20.5 Member Slope (in): 0/12 Actual Length (ft): 20.5

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
101.25	1898.44	384.43	23.09	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2.5	0	2.5	0				
2	18	0	18	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (37.2%)</b>	191.3	304.8	2.665	D+S	1.15
Bending Stress Y (psi)	<b>PASS (13.8%)</b>	2268.7	2632.1	10.865	D+S	1.15
Deflection Y (in)	<b>PASS (7.6%)</b>	0.308	0.333 (=L/180)	0	S	
Bearing Stress (psi)	<b>PASS (21.8%)</b>	467.9	598.2	2.5	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	2218	15152	17370
C	1085	7651	8736

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Trapezoidal (lbf/ft)	Trapezoidal	1425	450	7	20.5	Snow	Y
Trapezoidal (lbf/ft)	Trapezoidal	161.5	51	7	20.5	Dead	Y
Self Weight (lbf/ft)	-	23.09	23.09	0	20.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #5	B	199.331	199.331	0	7	Dead	Y
Uniform (lbf/ft)	Rafters #5	B	1449.53	1449.53	0	7	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Rafters #1 - Calc	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Alaska Cedar	Select Structural	(1) 1.5 X 7.25	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 8 Member Slope (in): 0/12 Actual Length (ft): 8 O.C. Spacing (in): 16

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
10.88	47.63	2.04	2.34	1	0.47	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	1150	625	165	1000	525	1400	510
Adjusted Values	1587	750	165	1050	525	1400	510
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.2	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 0.86C<sub>r</sub> = 1.15

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				
2	5	0	5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (47.2%)</b>	100.1	189.8	3.04	D+S	1.15
Bending Stress Y (psi)	<b>PASS (43.9%)</b>	861.0	1535.3	3.04	D+S	1.15
Deflection Y (in)	<b>PASS (70.6%)</b>	0.088	0.300 (=L/240)	0	S	
Bearing Stress (psi)	<b>PASS (70.1%)</b>	167.6	560.8	3	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	102	1280	1382
C	26	320	346

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	150	150	0	8	Snow	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	8	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #20	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 9.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 7 Member Slope (in): 0/12 Actual Length (ft): 7

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
49.88	375.1	12.73	14.55	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.03 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	7	0	7	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (33.2%)</b>	219.0	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (37.3%)</b>	1936.0	3086.6	3.5	D+S	1.15
Deflection Y (in)	<b>PASS (70.5%)</b>	0.138	0.467 (=L/180)	3.5	S	
Bearing Stress (psi)	<b>PASS (66.4%)</b>	252.1	750.0	0	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft	
	DEAD	LIVE	SNOW	TOTAL
A	586	4	6694	7284
B	586	4	6694	7284

Reaction Location

A	B
---	---

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	7	Live	Y
Self Weight (lbf/ft)	-	14.55	14.55	0	7	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #26	C	153	153	0	7	Dead	Y
Uniform (lbf/ft)	Trusses #26	C	1912.502	1912.502	0	7	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #8	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 9.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 6 Member Slope (in): 0/12 Actual Length (ft): 6

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
48.56	346.26	12.39	14.16	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.04 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	6	0	6	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (30.9%)</b>	226.5	327.8	6	D+S	1.15
Bending Stress Y (psi)	<b>PASS (43.1%)</b>	1762.9	3097.8	3	D+S	1.15
Deflection Y (in)	<b>PASS (76.3%)</b>	0.095	0.400 (=L/180)	3	S	
Bearing Stress (psi)	<b>PASS (37.9%)</b>	465.6	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	582	3	6750	7335
B	582	3	6750	7335

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	6	RoofLive	Y
Self Weight (lbf/ft)	-	14.16	14.16	0	6	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #6	B	180.0002	180.0002	0	6	Dead	Y
Uniform (lbf/ft)	Trusses #6	B	2249.993	2249.993	0	6	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #13	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 7.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 4 Member Slope (in): 0/12 Actual Length (ft): 4

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	25.9	5.79	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	4	0	4	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (52.8%)</b>	97.6	207.0	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (52.0%)</b>	646.5	1345.5	2	D+S	1.15
Deflection Y (in)	<b>PASS (90.8%)</b>	0.025	0.267 (=L/180)	2	S	
Bearing Stress (psi)	<b>PASS (49.7%)</b>	314.6	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	133	2	1519	1654
B	133	2	1519	1654

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	4	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	4	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	4	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	4	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #15	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 9.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 2 Member Slope (in): 0/12 Actual Length (ft): 2

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
48.56	346.26	12.39	14.16	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.04 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2	0	2	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (34.0%)</b>	216.3	327.8	2	D+S	1.15
Bending Stress Y (psi)	<b>PASS (68.3%)</b>	981.2	3097.8	1	D+S	1.15
Deflection Y (in)	<b>PASS (96.4%)</b>	0.005	0.133 (=L/180)	1	S	
Bearing Stress (psi)	<b>PASS (44.6%)</b>	415.2	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	515	1	6024	6540
B	549	1	6455	7005

Units for V: lbf Units for M: lbf-ft  
Reaction Location

A B

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	2	RoofLive	Y
Self Weight (lbf/ft)	-	14.16	14.16	0	2	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #19	B	129.5999	129.5999	1	2	Dead	Y
Uniform (lbf/ft)	Trusses #19	B	1620	1620	1	2	Snow	Y
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	1	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	1	Snow	Y
Point (lbf)	Girder #3	A	845.4546	-	1	-	Dead	Y
Point (lbf)	Girder #3	A	10099.43	-	1	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #16	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 9.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 6.5 Member Slope (in): 0/12 Actual Length (ft): 6.5

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
32.38	230.84	33.05	7.38	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1080	632	180	1350	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.2	1.1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	6.5	0	6.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (39.8%)</b>	124.6	207.0	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (15.4%)</b>	1050.7	1242.0	3.25	D+S	1.15
Deflection Y (in)	<b>PASS (80.9%)</b>	0.083	0.433 (=L/180)	3.25	S	
Bearing Stress (psi)	<b>PASS (18.0%)</b>	512.3	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	221	3	2468	2692
B	221	3	2468	2692

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	6.5	RoofLive	Y
Self Weight (lbf/ft)	-	7.38	7.38	0	6.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	6.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	6.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #18	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 9.5	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 6.75 Member Slope (in): 0/12 Actual Length (ft): 6.75

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
33.25	250.07	8.49	9.7	2	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.03 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	6.75	0	6.75	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (28.1%)</b>	235.8	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (34.9%)</b>	2010.5	3086.6	3.375	D+S	1.15
Deflection Y (in)	<b>PASS (70.4%)</b>	0.133	0.450 (=L/180)	3.375	S	
Bearing Stress (psi)	<b>PASS (33.6%)</b>	497.8	750.0	0	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft	
	DEAD	LIVE ROOF	SNOW	TOTAL
A	417	3	4809	5229
B	417	3	4809	5229

Reaction Location

A	B
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**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	6.75	RoofLive	Y
Self Weight (lbf/ft)	-	9.7	9.7	0	6.75	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #21	B	113.9999	113.9999	0	6.75	Dead	Y
Uniform (lbf/ft)	Trusses #21	B	1425	1425	0	6.75	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #19	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 7.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 3 Member Slope (in): 0/12 Actual Length (ft): 3

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	25.9	5.79	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (26.9%)</b>	151.3	207.0	3	D+S	1.15
Bending Stress Y (psi)	<b>PASS (44.1%)</b>	751.5	1345.5	1.5	D+S	1.15
Deflection Y (in)	<b>PASS (91.9%)</b>	0.016	0.200 (=L/180)	1.5	S	
Bearing Stress (psi)	<b>PASS (22.0%)</b>	487.7	625.0	0	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft	
	DEAD	LIVE ROOF	SNOW	TOTAL
A	198	2	2363	2563
B	198	2	2363	2563

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	3	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	3	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #20	C	125.9999	125.9999	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #20	C	1575.001	1575.001	0	3	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #20	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 7.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 2 Member Slope (in): 0/12 Actual Length (ft): 2

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	25.9	5.79	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2	0	2	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (46.5%)</b>	110.7	207.0	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (72.8%)</b>	366.4	1345.5	1	D+S	1.15
Deflection Y (in)	<b>PASS (97.4%)</b>	0.004	0.133 (=L/180)	1	S	
Bearing Stress (psi)	<b>PASS (42.9%)</b>	356.7	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	144	1	1728	1873
B	144	1	1728	1873

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	2	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	2	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #17	B	138.2727	138.2727	0	2	Dead	Y
Uniform (lbf/ft)	Trusses #17	B	1728.407	1728.407	0	2	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #21	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		
Douglas Fir-Larch	Select Structural	(1) 5.5 X 9.5	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 5.5 Member Slope (in): 0/12 Actual Length (ft): 5.5

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
52.25	392.96	131.71	11.92	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	1600	950	170	1100	625	1600	580
Adjusted Values	1600	950	170	1100	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 0.86C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	5.5	0	5.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (16.1%)</b>	164.0	195.5	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (38.1%)</b>	1139.4	1840.0	2.75	D+S	1.15
Deflection Y (in)	<b>PASS (82.9%)</b>	0.063	0.367 (=L/180)	2.75	S	
Bearing Stress (psi)	<b>PASS (44.6%)</b>	346.2	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	454	3	5259	5716
B	454	3	5259	5716

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	5.5	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	5.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #26	B	152.9996	152.9996	0	5.5	Dead	Y
Uniform (lbf/ft)	Trusses #26	B	1912.502	1912.502	0	5.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #25	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		
Douglas Fir-Larch	No. 2	(1) 5.5 X 9.5	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 6.5 Member Slope (in): 0/12 Actual Length (ft): 6.5

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
52.25	392.96	131.71	11.92	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	6.5	0	6.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (60.3%)</b>	77.6	195.5	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (36.7%)</b>	637.4	1006.3	3.25	D+S	1.15
Deflection Y (in)	<b>PASS (86.2%)</b>	0.060	0.433 (=L/180)	3.25	S	
Bearing Stress (psi)	<b>PASS (47.6%)</b>	327.8	625.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	236	3	2468	2707
B	236	3	2468	2707

Reaction Location

A

B

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	6.5	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	6.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	6.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	6.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 2nd Level	LOADING:	ASD
MEMBER NAME:	Header #28	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 11.875	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
62.34	732.62	15.91	18.18	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (22.1%)</b>	255.2	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (13.9%)</b>	2578.5	2994.3	5	D+S	1.15
Deflection Y (in)	<b>PASS (55.2%)</b>	0.299	0.667 (=L/180)	5	S	
Bearing Stress (psi)	<b>PASS (10.2%)</b>	673.4	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	870	5	9736	10611
B	870	5	9736	10611

Reaction Location

A	B
---	---

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	10	RoofLive	Y
Self Weight (lbf/ft)	-	18.18	18.18	0	10	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #22	B	155.7698	155.7698	0	10	Dead	Y
Uniform (lbf/ft)	Trusses #22	B	1947.121	1947.121	0	10	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design	
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis	
CUSTOMER:		REVIEWED BY:	Stephen Curtis	
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7	
	--			
LEVEL:	Floor - 2nd Level	LOADING:	ASD	
MEMBER NAME:	Joist #1	CODE:	2018 International Building Code	
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS	
MATERIAL:	I-Joists			
Weyerhaeuser	TJI 560D	(1) 18	0 (in) O.C.	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 24 Member Slope (in): 0/12 Actual Length (ft): 24 O.C. Spacing (in): 24

El x 10 <sup>6</sup>	BSW	Lams	K x 10 <sup>6</sup>	Mcap	Vcap	End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
(lbf-in <sup>2</sup> )	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	1.75 NS	3.5 NS	1.75 WS	3.5 WS	3.5 NS	5.25 NS	3.5 WS	5.25 WS
1661	5	1	5.3	14785	3080	1400	1885	2030	2515	3350	3965	3980	4600

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	24	0	24	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR	CD
Shear Force (lbf)	<b>PASS (57.5%)</b>	1308.0	3080.0	24	D+L	1	
Bending Moment (lbf-ft)	<b>PASS (46.9%)</b>	7848.0	14785.0	12	D+L	1	
Deflection Y (in)	<b>PASS (55.1%)</b>	0.360	0.800 (=L/360)	12	L		
Bearing Load (lbf)	<b>PASS (30.6%)</b>	1308.0	1885.0	0	D+L	1	

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	348	960	1308
B	348	960	1308

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A B  
NSR NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	24	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	24	Dead	Y
Self Weight (lbf/ft)	-	5	5	0	24	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Joist #2	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		
Weyerhaeuser	TJI 560D	(1) 18	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 12.5 Member Slope (in): 0/12 Actual Length (ft): 12.5 O.C. Spacing (in): 24

El x 10 <sup>6</sup>	BSW	Lams	K x 10 <sup>6</sup>	Mcap	Vcap	End Rcap 1.75 NS	End Rcap 3.5 NS	End Rcap 1.75 WS	End Rcap 3.5 WS	Int Rcap 3.5 NS	Int Rcap 5.25 NS	Int Rcap 3.5 WS	Int Rcap 5.25 WS
(lbf-in <sup>2</sup> )	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)
1661	5	1	5.3	14785	3080	1400	1885	2030	2515	3350	3965	3980	4600

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	12.5	0	12.5	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR	CD
Shear Force (lbf)	<b>PASS (77.9%)</b>	681.3	3080.0	0	D+L	1	
Bending Moment (lbf-ft)	<b>PASS (85.6%)</b>	2128.9	14785.0	6.25	D+L	1	
Deflection Y (in)	<b>PASS (93.7%)</b>	0.027	0.417 (=L/360)	6.25	L		
Bearing Load (lbf)	<b>PASS (63.9%)</b>	681.3	1885.0	0	D+L	1	

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	181	500	681
B	181	500	681

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A B  
NSR NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	12.5	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	12.5	Dead	Y
Self Weight (lbf/ft)	-	5	5	0	12.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Joist #3	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		
Weyerhaeuser	TJI 560D	(1) 18	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 8 Member Slope (in): 0/12 Actual Length (ft): 8 O.C. Spacing (in): 24

El x 10 <sup>6</sup>	BSW	Lams	K x 10 <sup>6</sup>	Mcap	Vcap	End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
(lbf-in <sup>2</sup> )	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	1.75 NS	3.5 NS	1.75 WS	3.5 WS	3.5 NS	5.25 NS	3.5 WS	5.25 WS
1661	5	1	5.3	14785	3080	1400	1885	2030	2515	3350	3965	3980	4600

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	8	0	8	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	<b>PASS (85.8%)</b>	436.0	3080.0	0	D+L	1
Bending Moment (lbf-ft)	<b>PASS (94.1%)</b>	872.0	14785.0	4	D+L	1
Deflection Y (in)	<b>PASS (98.3%)</b>	0.004	0.267 (=L/360)	4	L	
Bearing Load (lbf)	<b>PASS (76.9%)</b>	436.0	1885.0	0	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	116	320	436
B	116	320	436

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A B  
NSR NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	8	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	8	Dead	Y
Self Weight (lbf/ft)	-	5	5	0	8	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design	
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis	
CUSTOMER:		REVIEWED BY:	Stephen Curtis	
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7	
	--			
LEVEL:	Floor - 2nd Level	LOADING:	ASD	
MEMBER NAME:	Joist #4	CODE:	2018 International Building Code	
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS	
MATERIAL:	I-Joists			
Weyerhaeuser	TJI 560D	(1) 18	0 (in) O.C.	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 7 Member Slope (in): 0/12 Actual Length (ft): 7 O.C. Spacing (in): 24

El x 10 <sup>6</sup>	BSW	Lams	K x 10 <sup>6</sup>	Mcap	Vcap	End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
(lbf-in <sup>2</sup> )	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	1.75 NS	3.5 NS	1.75 WS	3.5 WS	3.5 NS	5.25 NS	3.5 WS	5.25 WS
1661	5	1	5.3	14785	3080	1400	1885	2030	2515	3350	3965	3980	4600

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	7	0	7	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR	CD
Shear Force (lbf)	<b>PASS (87.6%)</b>	381.5	3080.0	0	D+L	1	
Bending Moment (lbf-ft)	<b>PASS (95.5%)</b>	667.6	14785.0	3.5	D+L	1	
Deflection Y (in)	<b>PASS (98.9%)</b>	0.003	0.233 (=L/360)	3.5	L		
Bearing Load (lbf)	<b>PASS (79.8%)</b>	381.5	1885.0	0	D+L	1	

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	102	280	382
B	102	280	382

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	7	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	7	Dead	Y
Self Weight (lbf/ft)	-	5	5	0	7	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Joist #5	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		
Weyerhaeuser	TJI 560D	(1) 18	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 37.5 Member Slope (in): 0/12 Actual Length (ft): 37.5 O.C. Spacing (in): 19.2

El x 10 <sup>6</sup>	BSW	Lams	K x 10 <sup>6</sup>	Mcap	Vcap	End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
(lbf-in <sup>2</sup> )	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	1.75 NS	3.5 NS	1.75 WS	3.5 WS	3.5 NS	5.25 NS	3.5 WS	5.25 WS
1661	5	1	5.3	14785	3080	1400	1885	2030	2515	3350	3965	3980	4600

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	22.5	0	22.5	0
2	15	0	15	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	<b>PASS (61.5%)</b>	1185.1	3080.0	22.5	D+L	1
Bending Moment (lbf-ft)	<b>PASS (70.6%)</b>	4340.0	14785.0	22.5	D+L	1
Deflection Y (in)	<b>PASS (84.0%)</b>	0.120	0.750 (=L/360)	10.125	L	
Bearing Load (lbf)	<b>PASS (36.2%)</b>	2136.0	3350.0	22.5	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	219	580	799
B	586	1550	2136
C	102	270	372

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A		B	C
NSR		NSR	NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	37.5	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	37.5	Dead	Y
Self Weight (lbf/ft)	-	5	5	0	37.5	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Joist #6	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		
Weyerhaeuser	TJI 560D	(1) 18	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 19 Member Slope (in): 0/12 Actual Length (ft): 19 O.C. Spacing (in): 19.2

El x 10 <sup>6</sup>	BSW	Lams	K x 10 <sup>6</sup>	Mcap	Vcap	End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
(lbf-in <sup>2</sup> )	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	1.75 NS	3.5 NS	1.75 WS	3.5 WS	3.5 NS	5.25 NS	3.5 WS	5.25 WS
1661	5	1	5.3	14785	3080	1400	1885	2030	2515	3350	3965	3980	4600

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	19	0	19	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR	CD
Shear Force (lbf)	<b>PASS (72.8%)</b>	837.9	3080.0	0	D+L	1	
Bending Moment (lbf-ft)	<b>PASS (73.1%)</b>	3980.0	14785.0	9.5	D+L	1	
Deflection Y (in)	<b>PASS (82.2%)</b>	0.113	0.633 (=L/360)	9.5	L		
Bearing Load (lbf)	<b>PASS (55.5%)</b>	837.9	1885.0	0	D+L	1	

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	230	608	838
B	230	608	838

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A B

NSR NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	19	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	19	Dead	Y
Self Weight (lbf/ft)	-	5	5	0	19	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Beam #2	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 8.75 X 36	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 28.5 Member Slope (in): 0/12 Actual Length (ft): 28.5

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
315	34020	2009.77	71.84	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	28.5	0	28.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (33.1%)</b>	203.8	304.8	28.5	D+S	1.15
Bending Stress Y (psi)	<b>PASS (13.6%)</b>	1965.1	2273.5	14.25	D+S	1.15
Deflection Y (in)	<b>PASS (66.7%)</b>	0.633	1.900 (=L/180)	14.25	S	
Bearing Stress (psi)	<b>PASS (8.1%)</b>	514.8	560.0	28.5	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	SNOW	TOTAL
A	6464	6829	36246	49539
B	6414	6362	36377	49153

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	71.84	71.84	0	28.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #5	C	180.001	180.001	0	8.5	Dead	Y
Uniform (lbf/ft)	Trusses #5	C	2250.004	2250.004	0	8.5	Snow	Y
Uniform (lbf/ft)	Trusses #6	C	180.001	180.001	8.5	20.5	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #6	C	2250.004	2250.004	8.5	20.5	Snow	Y
Uniform (lbf/ft)	Trusses #7	C	180.001	180.001	20.5	28.5	Dead	Y
Uniform (lbf/ft)	Trusses #7	C	2250.004	2250.004	20.5	28.5	Snow	Y
Uniform (lbf/ft)	Trusses #8	A	2.911758	2.911758	0	28.5	Dead	Y
Uniform (lbf/ft)	Trusses #8	A	36.39697	36.39697	0	28.5	Snow	Y
Uniform (lbf/ft)	Joist #1	B	174	174	0	25	Dead	Y
Uniform (lbf/ft)	Joist #1	B	480	480	0	25	Live	Y
Uniform (lbf/ft)	Joist #2	B	90.625	90.625	25	28.5	Dead	Y
Uniform (lbf/ft)	Joist #2	B	250	250	25	28.5	Live	Y
Point (lbf)	Girder #1	C	347.3207	-	8.5	-	Dead	Y
Point (lbf)	Girder #1	C	3729.911	-	8.5	-	Snow	Y
Point (lbf)	Girder #2	C	347.3207	-	20.5	-	Dead	Y
Point (lbf)	Girder #2	C	3729.911	-	20.5	-	Snow	Y
Point (lbf)	Beam #5	B	255.8029	-	25	-	Dead	Y
Point (lbf)	Beam #5	B	316.3899	-	25	-	Live	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Beam #3	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(1) 1.75 X 11.25	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 3.5 Member Slope (in): 0/12 Actual Length (ft): 3.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
19.69	207.64	5.02	5.74	1	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.01 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis and is not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3.5	0	3.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (83.7%)</b>	46.3	285.0	0	D+L	1
Bending Stress Y (psi)	<b>PASS (93.4%)</b>	172.9	2622.9	1.75	D+L	1
Deflection Y (in)	<b>PASS (98.8%)</b>	0.003	0.233 (=L/180)	1.75	D+L	
Bearing Stress (psi)	<b>PASS (91.6%)</b>	63.2	750.0	0	D+L	1

**REACTIONS**

Y axis	DEAD	LIVE	TOTAL
A	169	439	608
B	169	439	608

Reaction Location



**CONNECTORS**

Support A	Model	Type	Adequacy (%)	Header Fastening (in)	Joist Nails (in)	Nailer Thickness (in)
Primary	U14	Hanger	69.83	(14) 0.162 x 3.5	(6) 0.148 x 1.5	N/A

Hanger at support A has seat sloped 0 degrees, skewed 0 degrees.

WSR = web stiffeners required

\*Capacity values are adjusted based on specific gravity when members use grades other than those specified in Simpson Strong-Tie's capacity tables.



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft)	Uniform	1	1	0	3.5	Live	Y
Self Weight (lb/ft)	-	5.74	5.74	0	3.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft)	Joist #2	A	90.625	90.625	0	3.5	Dead	Y
Uniform (lb/ft)	Joist #2	A	250	250	0	3.5	Live	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Beam #4	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(1) 1.75 X 11.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 3.5 Member Slope (in): 0/12 Actual Length (ft): 3.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
19.69	207.64	5.02	5.74	1	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.01 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3.5	0	3.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR	CD
Shear Stress Y (psi)	<b>PASS (89.5%)</b>	30.0	285.0	0	D+L		1
Bending Stress Y (psi)	<b>PASS (95.7%)</b>	111.9	2622.9	1.75	D+L		1
Deflection Y (in)	<b>PASS (99.2%)</b>	0.002	0.233 (=L/180)	1.75	D+L		
Bearing Stress (psi)	<b>PASS (94.6%)</b>	40.9	750.0	0	D+L		1

**REACTIONS**

Y axis	DEAD	LIVE	TOTAL
A	112	282	394
B	112	282	394

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	3.5	Live	Y
Self Weight (lbf/ft)	-	5.74	5.74	0	3.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Joist #3	B	58	58	0	3.5	Dead	Y
Uniform (lbf/ft)	Joist #3	B	160	160	0	3.5	Live	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Beam #5	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 11.25	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 24 Member Slope (in): 0/12 Actual Length (ft): 24

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
39.38	415.28	10.05	11.48	2	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.01 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	24	0	24	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (90.3%)</b>	27.8	285.0	0	D+L	1
Bending Stress Y (psi)	<b>PASS (61.8%)</b>	1002.7	2622.9	11.52	D+L	1
Deflection Y (in)	<b>PASS (57.7%)</b>	0.677	1.600 (=L/180)	11.52	D+L	
Bearing Stress (psi)	<b>PASS (95.0%)</b>	37.9	750.0	0	D+L	1

**REACTIONS**

Y axis	DEAD	LIVE	TOTAL
A	300	429	729
B	256	316	572

Reaction Location



**CONNECTORS**

Support B	Model	Type	Adequacy (%)	Header Fastening (in)	Joist Nails (in)	Nailer Thickness (in)
Primary	U410	Hanger	71.6	(14) 0.162 x 3.5	(6) 0.148 x 3	N/A

Hanger at support B has seat sloped 0 degrees, skewed 0 degrees.

WSR = web stiffeners required

\*Capacity values are adjusted based on specific gravity when members use grades other than those specified in Simpson Strong-Tie's capacity tables.



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	24	Live	Y
Self Weight (lbf/ft)	-	11.48	11.48	0	24	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #3	A	168.6426	-	11.5	-	Dead	Y
Point (lbf)	Beam #3	A	439.25	-	11.5	-	Live	Y
Point (lbf)	Beam #4	A	111.5488	-	8	-	Dead	Y
Point (lbf)	Beam #4	A	281.75	-	8	-	Live	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Beam #7	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 6.75 X 13.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 15 Member Slope (in): 0/12 Actual Length (ft): 15

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
91.12	1383.96	345.99	20.78	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	5	0	5	0				
2	6.5	0	6.5	0				
3	3.5	0	3.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (30.3%)</b>	212.5	304.8	5.1	D+S	1.15
Bending Stress Y (psi)	<b>PASS (39.6%)</b>	1276.8	2115.5	4.95	D+S	1.15
Deflection Y (in)	<b>PASS (76.0%)</b>	0.160	0.667 (=L/180)	0	S	
Bearing Stress (psi)	<b>PASS (11.1%)</b>	497.7	560.0	5	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	SNOW	TOTAL
A	0	0	0	0
B	2105	9	23093	25207
C	1180	6	13252	14438
D	0	0	0	0

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	15	Live	Y
Self Weight (lbf/ft)	-	20.78	20.78	0	15	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #13	C	34.28571	34.28571	0	5	Dead	Y
Uniform (lbf/ft)	Trusses #13	C	428.5714	428.5714	0	5	Snow	Y
Uniform (lbf/ft)	Trusses #14	C	34.28571	34.28571	5	15	Dead	Y
Uniform (lbf/ft)	Trusses #14	C	428.5714	428.5714	5	15	Snow	Y
Uniform (lbf/ft)	Trusses #19	B	129.5999	129.5999	6	11	Dead	Y
Uniform (lbf/ft)	Trusses #19	B	1620	1620	6	11	Snow	Y
Uniform (lbf/ft)	Trusses #20	B	126	126	11	15	Dead	Y
Uniform (lbf/ft)	Trusses #20	B	1575.001	1575.001	11	15	Snow	Y
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	4	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	4	Snow	Y
Point (lbf)	Header #15	A	514.8538	-	4	-	Dead	Y
Point (lbf)	Header #15	B	549.2789	-	6	-	Dead	Y
Point (lbf)	Header #15	A	6024.248	-	4	-	Snow	Y
Point (lbf)	Header #15	B	6454.561	-	6	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Beam #10	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Glulams		

Stress Class Rated 24F-1.8E	24F-V4 DF/DF	(1) 5.5 X 10.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
57.75	530.58	145.58	13.17	1	0.5	1

**STRENGTH PROPERTIES**

	Fbx+	Fbx-	Fby	Ft	Fvx	Fvy	Fc	Fc <sub>⊥</sub>	Ex	Exmin	Ey	Eymin
	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Base Values	2400	1850	1450	1100	265	230	1650	650	1800000	950000	1600000	850000
Adjusted Values	2400	1850	1472	1100	265	230	1650	650	1800000	950000	1600000	850000
C <sub>M</sub>	1	1	1	1	1	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>vr</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (11.1%)</b>	270.9	304.8	10	D+S	1.15
Bending Stress Y (psi)	<b>PASS (15.8%)</b>	2323.2	2760.0	2.5	D+S	1.15
Deflection Y (in)	<b>PASS (46.6%)</b>	0.356	0.667 (=L/180)	4.9	S	
Bearing Stress (psi)	<b>PASS (38.4%)</b>	344.7	560.0	10	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	SNOW	TOTAL
A	862	5	9563	10430
B	865	5	9562	10432

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	10	Live	Y
Self Weight (lbf/ft)	-	13.17	13.17	0	10	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #21	A	453.5197	-	2.5	-	Dead	Y
Point (lbf)	Header #21	B	453.5197	-	8	-	Dead	Y
Point (lbf)	Header #21	A	5259.38	-	2.5	-	Snow	Y
Point (lbf)	Header #21	B	5259.381	-	8	-	Snow	Y
Uniform (lbf/ft)	Trusses #26	B	152.9996	152.9996	0	2.5	Dead	Y
Uniform (lbf/ft)	Trusses #26	C	153	153	8	10	Dead	Y
Uniform (lbf/ft)	Trusses #26	B	1912.502	1912.502	0	2.5	Snow	Y
Uniform (lbf/ft)	Trusses #26	C	1912.502	1912.502	8	10	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 2nd Level	LOADING:	ASD
MEMBER NAME:	Beam #19	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 11.875	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 12.5 Member Slope (in): 0/12 Actual Length (ft): 12.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
41.56	488.41	10.61	12.12	2	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1 C<sub>r</sub> = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12.5	0	12.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (57.5%)</b>	121.1	285.0	0	D+L	1
Bending Stress Y (psi)	<b>PASS (41.3%)</b>	1529.5	2603.7	6.25	D+L	1
Deflection Y (in)	<b>PASS (63.8%)</b>	0.302	0.833 (=L/180)	6.25	D+L	
Bearing Stress (psi)	<b>PASS (76.8%)</b>	174.3	750.0	0	D+L	1

**REACTIONS**

Y axis	DEAD	LIVE	TOTAL
A	974	2381	3355
B	974	2381	3355

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	12.5	Live	Y
Self Weight (lbf/ft)	-	12.12	12.12	0	12.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Joist #6	A	143.6875	143.6875	0	12.5	Dead	Y
Uniform (lbf/ft)	Joist #6	A	380	380	0	12.5	Live	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #1	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 9.25	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 8 Member Slope (in): 0/12 Actual Length (ft): 8

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
48.56	346.26	12.39	14.16	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.04 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	8	0	8	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (13.9%)</b>	282.2	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (10.0%)</b>	2789.5	3097.8	3.84	D+S	1.15
Deflection Y (in)	<b>PASS (51.0%)</b>	0.262	0.533 (=L/180)	3.92	S	
Bearing Stress (psi)	<b>PASS (22.6%)</b>	580.2	750.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	SNOW	TOTAL
A	729	8408	9137
B	526	5870	6396

Reaction Location

A	B
---	---

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	14.16	14.16	0	8	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	C	41.25	41.25	0	8	Dead	Y
Uniform (lbf/ft)	Trusses #1	C	515.625	515.625	0	8	Snow	Y
Uniform (lbf/ft)	Trusses #3	B	135.3751	135.3751	0	6	Dead	Y
Uniform (lbf/ft)	Trusses #3	B	1692.19	1692.19	0	6	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #2	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 7.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 2.5 Member Slope (in): 0/12 Actual Length (ft): 2.5

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	25.9	5.79	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2.5	0	2.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (36.2%)</b>	132.1	207.0	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (59.4%)</b>	546.6	1345.5	1.25	D+S	1.15
Deflection Y (in)	<b>PASS (95.1%)</b>	0.008	0.167 (=L/180)	1.25	S	
Bearing Stress (psi)	<b>PASS (31.9%)</b>	425.7	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	172	1	2063	2236
B	172	1	2063	2236

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	2.5	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	2.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #2	B	131.9999	131.9999	0	2.5	Dead	Y
Uniform (lbf/ft)	Trusses #2	B	1650.001	1650.001	0	2.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #3	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 5.5 X 9.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 6 Member Slope (in): 0/12 Actual Length (ft): 6

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
52.25	392.96	131.71	11.92	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	6	0	6	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (63.3%)</b>	71.7	195.5	6	D+S	1.15
Bending Stress Y (psi)	<b>PASS (46.0%)</b>	543.1	1006.3	3	D+S	1.15
Deflection Y (in)	<b>PASS (89.2%)</b>	0.043	0.400 (=L/180)	3	S	
Bearing Stress (psi)	<b>PASS (51.6%)</b>	302.6	625.0	0	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft	
	DEAD	LIVE ROOF	SNOW	TOTAL
A	218	3	2278	2499
B	218	3	2278	2499

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	6	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	6	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	6	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	6	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #4	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 7.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 2.5 Member Slope (in): 0/12 Actual Length (ft): 2.5

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	25.9	5.79	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2.5	0	2.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (36.2%)</b>	132.1	207.0	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (59.4%)</b>	546.6	1345.5	1.25	D+S	1.15
Deflection Y (in)	<b>PASS (95.1%)</b>	0.008	0.167 (=L/180)	1.25	S	
Bearing Stress (psi)	<b>PASS (31.9%)</b>	425.7	625.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	172	1	2063	2236
B	172	1	2063	2236

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	2.5	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	2.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #4	B	131.9999	131.9999	0	2.5	Dead	Y
Uniform (lbf/ft)	Trusses #4	B	1650.001	1650.001	0	2.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #5	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 11.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 12 Member Slope (in): 0/12 Actual Length (ft): 12

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
59.06	622.92	15.07	17.23	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.01 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12	0	12	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (61.1%)</b>	127.6	327.8	12	D+S	1.15
Bending Stress Y (psi)	<b>PASS (45.9%)</b>	1633.2	3016.4	6	D+S	1.15
Deflection Y (in)	<b>PASS (64.5%)</b>	0.284	0.800 (=L/180)	6	S	
Bearing Stress (psi)	<b>PASS (14.9%)</b>	638.0	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	468	4556	5024
B	468	4556	5024

Units for V: lbf Units for M: lbf-ft  
 Reaction Location  
 A \_\_\_\_\_ B

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	17.23	17.23	0	12	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	12	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	12	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #6	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		
Douglas Fir-Larch	No. 2	(1) 5.5 X 9.5	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 2.5 Member Slope (in): 0/12 Actual Length (ft): 2.5

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
52.25	392.96	131.71	11.92	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2.5	0	2.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (46.9%)</b>	103.9	195.5	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (67.4%)</b>	328.0	1006.3	1.25	D+S	1.15
Deflection Y (in)	<b>PASS (97.4%)</b>	0.004	0.167 (=L/180)	1.25	S	
Bearing Stress (psi)	<b>PASS (29.8%)</b>	438.5	625.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	TOTAL
A	496	600	1	3122	4219
B	496	600	1	3122	4219

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	2.5	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	2.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #5	B	180.0002	180.0002	0	2.5	Dead	Y
Uniform (lbf/ft)	Trusses #5	B	2249.993	2249.993	0	2.5	Snow	Y
Uniform (lbf/ft)	Rafters #1	C	31.10501	31.10501	0	2.5	Dead	Y
Uniform (lbf/ft)	Rafters #1	C	247.3861	247.3861	0	2.5	Snow	Y
Uniform (lbf/ft)	Joist #1	A	174	174	0	2.5	Dead	Y
Uniform (lbf/ft)	Joist #1	A	480	480	0	2.5	Live	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #7	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 9.25	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 2.5 Member Slope (in): 0/12 Actual Length (ft): 2.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
48.56	346.26	12.39	14.16	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.04 C<sub>r</sub> = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2.5	0	2.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (22.9%)</b>	252.5	327.8	2.5	D+S	1.15
Bending Stress Y (psi)	<b>PASS (78.6%)</b>	663.7	3097.8	1.75	D+S	1.15
Deflection Y (in)	<b>PASS (96.4%)</b>	0.006	0.167 (=L/180)	1.325	S	
Bearing Stress (psi)	<b>PASS (19.6%)</b>	603.0	750.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	389	1	4359	4749
B	667	1	7509	8177

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	2.5	RoofLive	Y
Self Weight (lbf/ft)	-	14.16	14.16	0	2.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #1	C	31.10501	31.10501	0	2.5	Dead	Y
Uniform (lbf/ft)	Rafters #1	C	247.3861	247.3861	0	2.5	Snow	Y
Uniform (lbf/ft)	Trusses #6	B	180.0002	180.0002	0	2	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #6	B	2249.993	2249.993	0	2	Snow	Y
Point (lbf)	Header #8	A	582.4928	-	2	-	Dead	Y
Point (lbf)	Header #8	A	6749.979	-	2	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #9	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 9.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 2.5 Member Slope (in): 0/12 Actual Length (ft): 2.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
48.56	346.26	12.39	14.16	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.04 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2.5	0	2.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (20.9%)</b>	259.3	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (78.0%)</b>	682.2	3097.8	0.775	D+S	1.15
Deflection Y (in)	<b>PASS (96.4%)</b>	0.006	0.167 (=L/180)	1.175	S	
Bearing Stress (psi)	<b>PASS (28.9%)</b>	532.9	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	TOTAL
A	884	600	1	7509	8994
B	607	600	1	4359	5567

Units for V: lbf Units for M: lbf-ft  
Reaction Location

A B

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	2.5	RoofLive	Y
Self Weight (lbf/ft)	-	14.16	14.16	0	2.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #1	C	31.10501	31.10501	0	2.5	Dead	Y
Uniform (lbf/ft)	Rafters #1	C	247.3861	247.3861	0	2.5	Snow	Y
Uniform (lbf/ft)	Trusses #6	B	180.0002	180.0002	0.5	2.5	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #6	B	2249.993	2249.993	0.5	2.5	Snow	Y
Uniform (lbf/ft)	Joist #1	A	174	174	0	2.5	Dead	Y
Uniform (lbf/ft)	Joist #1	A	480	480	0	2.5	Live	Y
Point (lbf)	Header #8	B	582.4928	-	0.5	-	Dead	Y
Point (lbf)	Header #8	B	6749.979	-	0.5	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #10	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 5.5 X 9.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 3 Member Slope (in): 0/12 Actual Length (ft): 3

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
52.25	392.96	131.71	11.92	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (36.2%)</b>	124.6	195.5	3	D+S	1.15
Bending Stress Y (psi)	<b>PASS (53.1%)</b>	472.3	1006.3	1.5	D+S	1.15
Deflection Y (in)	<b>PASS (95.5%)</b>	0.009	0.200 (=L/180)	1.5	S	
Bearing Stress (psi)	<b>PASS (15.8%)</b>	526.3	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	TOTAL
A	596	720	2	3746	5064
B	596	720	2	3746	5064

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	3	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	3	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #1	C	31.10501	31.10501	0	3	Dead	Y
Uniform (lbf/ft)	Rafters #1	C	247.3861	247.3861	0	3	Snow	Y
Uniform (lbf/ft)	Trusses #7	B	180.0002	180.0002	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #7	B	2249.993	2249.993	0	3	Snow	Y
Uniform (lbf/ft)	Joist #1	A	174	174	0	3	Dead	Y
Uniform (lbf/ft)	Joist #1	A	480	480	0	3	Live	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #11	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 11.25	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
59.06	622.92	15.07	17.23	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.01 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (49.1%)</b>	166.9	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (41.0%)</b>	1780.4	3016.4	5	D+S	1.15
Deflection Y (in)	<b>PASS (67.5%)</b>	0.217	0.667 (=L/180)	5	S	
Bearing Stress (psi)	<b>PASS (44.4%)</b>	417.3	750.0	0	D+S	1.15

**REACTIONS**

Y axis	Units for V: lbf		Units for M: lbf-ft	
	DEAD	LIVE ROOF	SNOW	TOTAL
A	567	5	6006	6578
B	567	5	6006	6578

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	10	RoofLive	Y
Self Weight (lbf/ft)	-	17.23	17.23	0	10	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #8	B	96.08823	96.08823	0	10	Dead	Y
Uniform (lbf/ft)	Trusses #8	B	1201.103	1201.103	0	10	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #12	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 7.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 3 Member Slope (in): 0/12 Actual Length (ft): 3

Area	Ix	Iy	BSW	Lams	G	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	25.9	5.79	1	0.5	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (30.4%)</b>	144.2	207.0	3	D+S	1.15
Bending Stress Y (psi)	<b>PASS (46.8%)</b>	715.8	1345.5	1.5	D+S	1.15
Deflection Y (in)	<b>PASS (92.3%)</b>	0.015	0.200 (=L/180)	1.5	S	
Bearing Stress (psi)	<b>PASS (25.7%)</b>	464.5	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	189	2	2250	2441
B	189	2	2250	2441

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	3	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	3	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #11	C	120.0001	120.0001	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #11	C	1500	1500	0	3	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #14	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 9.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
48.56	346.26	12.39	14.16	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.04 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (41.3%)</b>	192.4	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (40.9%)</b>	1831.5	3097.8	4.1	D+S	1.15
Deflection Y (in)	<b>PASS (58.9%)</b>	0.274	0.667 (=L/180)	4.8	S	
Bearing Stress (psi)	<b>PASS (47.3%)</b>	395.5	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	535	5	5693	6233
B	356	5	3534	3895

Units for V: lbf Units for M: lbf-ft  
 Reaction Location  
 A \_\_\_\_\_ B

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	10	RoofLive	Y
Self Weight (lbf/ft)	-	14.16	14.16	0	10	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #12	C	48	48	0	10	Dead	Y
Uniform (lbf/ft)	Trusses #12	C	600	600	0	10	Snow	Y
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	2.25	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	2.25	Snow	Y
Point (lbf)	Header #13	A	133.0746	-	2.25	-	Dead	Y
Point (lbf)	Header #13	A	1518.75	-	2.25	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #17	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 9.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
33.25	250.07	8.49	9.7	2	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.03 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (38.3%)</b>	202.3	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (24.5%)</b>	2329.5	3086.6	3.5	D+S	1.15
Deflection Y (in)	<b>PASS (62.3%)</b>	0.251	0.667 (=L/180)	4.5	S	
Bearing Stress (psi)	<b>PASS (43.1%)</b>	427.0	750.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	TOTAL
A	687	844	5	3797	5333
B	482	844	5	1329	2660

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	10	RoofLive	Y
Self Weight (lbf/ft)	-	9.7	9.7	0	10	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	3.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	3.5	Snow	Y
Uniform (lbf/ft)	Joist #5	C	63.82099	63.82099	0	10	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Joist #5	C	168.7828	168.7828	0	10	Live	Y
Point (lbf)	Header #16	A	221.4348	-	3.5	-	Dead	Y
Point (lbf)	Header #16	A	2467.968	-	3.5	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #22	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 11.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 8.5 Member Slope (in): 0/12 Actual Length (ft): 8.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
39.38	415.28	10.05	11.48	2	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.01 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	8.5	0	8.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (44.3%)</b>	182.4	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (45.2%)</b>	1654.2	3016.4	4.25	D+S	1.15
Deflection Y (in)	<b>PASS (74.7%)</b>	0.143	0.567 (=L/180)	4.25	S	
Bearing Stress (psi)	<b>PASS (39.2%)</b>	456.1	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	SNOW	TOTAL
A	480	4310	4790
B	480	4310	4790

Reaction Location



**CONNECTORS**

Support B	Model	Type	Adequacy (%)	Header Fastening (in)	Joist Nails (in)	Nailer Thickness (in)
Primary	HUCQ412-SDS	Hanger	5.07	(14) 1/4 x 2.5 SDS	(6) 1/4 x 2.5 SDS	N/A

Hanger at support B has seat sloped 0 degrees, skewed 0 degrees.

WSR = web stiffeners required

\*Capacity values are adjusted based on specific gravity when members use grades other than those specified in Simpson Strong-Tie's capacity tables.



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	11.48	11.48	0	8.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #16	B	101.4	101.4	0	8.5	Dead	Y
Uniform (lbf/ft)	Trusses #16	B	1014	1014	0	8.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #23	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 5.5 X 9.5	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 7.5 Member Slope (in): 0/12 Actual Length (ft): 7.5

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
52.25	392.96	131.71	11.92	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	7.5	0	7.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (54.2%)</b>	89.6	195.5	7.5	D+S	1.15
Bending Stress Y (psi)	<b>PASS (15.7%)</b>	848.6	1006.3	3.75	D+S	1.15
Deflection Y (in)	<b>PASS (78.8%)</b>	0.106	0.500 (=L/180)	3.75	S	
Bearing Stress (psi)	<b>PASS (39.5%)</b>	378.2	625.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	272	4	2848	3124
B	272	4	2848	3124

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	7.5	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	7.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	0	7.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	0	7.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #24	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 9.5	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 6.5 Member Slope (in): 0/12 Actual Length (ft): 6.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
33.25	250.07	8.49	9.7	2	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.03 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	6.5	0	6.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (35.0%)</b>	213.0	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (43.3%)</b>	1749.1	3086.6	3.25	D+S	1.15
Deflection Y (in)	<b>PASS (75.2%)</b>	0.107	0.433 (=L/180)	3.25	S	
Bearing Stress (psi)	<b>PASS (40.0%)</b>	449.7	750.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	379	3	4343	4725
B	379	3	4343	4725

Reaction Location

A	B
---	---

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	6.5	RoofLive	Y
Self Weight (lbf/ft)	-	9.7	9.7	0	6.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #23	B	106.9091	106.9091	0	6.5	Dead	Y
Uniform (lbf/ft)	Trusses #23	B	1336.363	1336.363	0	6.5	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #26	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 9.5	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10.5 Member Slope (in): 0/12 Actual Length (ft): 10.5

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
33.25	250.07	8.49	9.7	2	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 1.03 C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10.5	0	10.5	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (41.7%)</b>	191.1	327.8	10.5	D+S	1.15
Bending Stress Y (psi)	<b>PASS (30.8%)</b>	2137.3	3086.6	7.245	D+S	1.15
Deflection Y (in)	<b>PASS (60.9%)</b>	0.274	0.700 (=L/180)	5.775	S	
Bearing Stress (psi)	<b>PASS (50.0%)</b>	375.2	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	385	5	3555	3945
B	386	5	3849	4240

Reaction Location

A	B
---	---

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	10.5	RoofLive	Y
Self Weight (lbf/ft)	-	9.7	9.7	0	10.5	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	60.75	60.75	7.25	10.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	759.3749	759.3749	7.25	10.5	Snow	Y
Point (lbf)	Header #25	A	236.1667	-	0.25	-	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #25	B	236.1667	-	7.25	-	Dead	Y
Point (lbf)	Header #25	A	2467.968	-	0.25	-	Snow	Y
Point (lbf)	Header #25	B	2467.968	-	7.25	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #27	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 14	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lb/ft)			Creep Factor
73.5	1200.5	18.76	21.44	3	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.98C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (3.2%)</b>	317.4	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (7.2%)</b>	2717.4	2927.9	5	D+S	1.15
Deflection Y (in)	<b>PASS (60.5%)</b>	0.263	0.667 (=L/180)	5	S	
Bearing Stress (psi)	<b>PASS (12.2%)</b>	658.3	750.0	0	D+S	1.15

**REACTIONS**

Y axis	DEAD	LIVE ROOF	SNOW	TOTAL
A	1483	5	14069	15557
B	1477	5	13996	15478

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft)	Uniform	1	1	0	10	RoofLive	Y
Self Weight (lb/ft)	-	21.44	21.44	0	10	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lb/ft)	Trusses #24	B	155.7698	155.7698	0	7	Dead	Y
Uniform (lb/ft)	Trusses #24	B	1947.121	1947.121	0	7	Snow	Y
Uniform (lb/ft)	Trusses #26	C	153	153	7	10	Dead	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #26	C	1912.502	1912.502	7	10	Snow	Y
Uniform (lbf/ft)	Rafters #4	A	119.5985	119.5985	0	10	Dead	Y
Uniform (lbf/ft)	Rafters #4	A	869.7175	869.7175	0	10	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #29	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		
Weyerhaeuser	2.0E Microlam LVL	(4) 1.75 X 14	DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 10 Member Slope (in): 0/12 Actual Length (ft): 10

Area	Ix	Iy	BSW	Lams	Cfn	Kcr
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lb/ft)			Creep Factor
98	1600.67	25.01	28.58	4	7.35	1

**STRENGTH PROPERTIES**

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc <sub>⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	Emin (psi) x10 <sup>3</sup>
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1

Bending Adjustment Factors C<sub>V</sub> = 0.98C<sub>r</sub> = 1 Volume factor is applied on a load combination basis And is Not reflected in the adjusted values

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10	0	10	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (18.4%)</b>	267.3	327.8	0	D+S	1.15
Bending Stress Y (psi)	<b>PASS (64.0%)</b>	1054.1	2927.9	5	D+S	1.15
Deflection Y (in)	<b>PASS (85.7%)</b>	0.096	0.667 (=L/180)	5	S	
Bearing Stress (psi)	<b>PASS (26.1%)</b>	554.4	750.0	0	D+S	1.15

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	TOTAL
A	2407	1900	5	15058	19370
B	2407	1900	5	15058	19370

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	10	RoofLive	Y
Self Weight (lbf/ft)	-	28.58	28.58	0	10	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #22	B	155.7698	155.7698	0	0.5	Dead	Y
Uniform (lbf/ft)	Trusses #22	B	155.7698	155.7698	9.5	10	Dead	Y
Uniform (lbf/ft)	Trusses #22	B	1947.121	1947.121	0	0.5	Snow	Y

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #22	B	1947.121	1947.121	9.5	10	Snow	Y
Uniform (lbf/ft)	Joist #6	B	143.6875	143.6875	0	10	Dead	Y
Uniform (lbf/ft)	Joist #6	B	380	380	0	10	Live	Y
Uniform (lbf/ft)	Rafters #4	A	119.5985	119.5985	0	10	Dead	Y
Uniform (lbf/ft)	Rafters #4	A	869.7175	869.7175	0	10	Snow	Y
Point (lbf)	Header #28	A	869.767	-	0.5	-	Dead	Y
Point (lbf)	Header #28	B	869.767	-	9.5	-	Dead	Y
Point (lbf)	Header #28	A	9735.605	-	0.5	-	Snow	Y
Point (lbf)	Header #28	B	9735.605	-	9.5	-	Snow	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #30	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 3.5 X 7.25	DRY		
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 3 Member Slope (in): 0/12 Actual Length (ft): 3

Area	I <sub>x</sub>	I <sub>y</sub>	BSW	Lams	G	K <sub>cr</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>4</sup> )	(lbf/ft)			Creep Factor
25.38	111.15	25.9	5.79	1	0.5	1

**STRENGTH PROPERTIES**

	F <sub>b</sub> (psi)	F <sub>t</sub> (psi)	F <sub>v</sub> (psi)	F <sub>c</sub> (psi)	F <sub>c⊥</sub> (psi)	E (psi) x10 <sup>3</sup>	E <sub>min</sub> (psi) x10 <sup>3</sup>
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C <sub>M</sub>	1	1	1	1	1	1	1
C <sub>T</sub>	1	1	1	1	1	1	1
C <sub>i</sub>	1	1	1	1	1	1	1
C <sub>F</sub>	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors C<sub>fu</sub> = 1 C<sub>r</sub> = 1

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End				
		Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	3	0	3	0				

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	<b>PASS (34.0%)</b>	118.9	180.0	3	D+L	1
Bending Stress Y (psi)	<b>PASS (49.5%)</b>	590.3	1170.0	1.5	D+L	1
Deflection Y (in)	<b>PASS (93.1%)</b>	0.014	0.200 (=L/180)	1.5	D+L	
Bearing Stress (psi)	<b>PASS (38.7%)</b>	383.1	625.0	0	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	558	1453	2011
B	558	1453	2011

Reaction Location



**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Self Weight (lbf/ft)	-	5.79	5.79	0	3	Dead	Y

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Joist #5	B	366.2879	366.2879	0	3	Dead	Y
Uniform (lbf/ft)	Joist #5	B	968.6953	968.6953	0	3	Live	Y





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #8	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		
Weyerhaeuser	TJI 110	(1) 9.5	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 54 Member Slope (in): 0/12 Actual Length (ft): 54 O.C. Spacing (in): 19.2

El x 10 <sup>6</sup> (lbf-in <sup>2</sup> )	BSW (lbf/ft)	Lams	K x 10 <sup>6</sup> (lbf)	Mcap (lbf-ft)	Vcap (lbf)	End Rcap 1.75 NS (lbf)	End Rcap 3.5 NS (lbf)	End Rcap 1.75 WS (lbf)	End Rcap 3.5 WS (lbf)	Int Rcap 3.5 NS (lbf)	Int Rcap 5.25 NS (lbf)	Int Rcap 3.5 WS (lbf)	Int Rcap 5.25 WS (lbf)
157	2.3	1	4.5	2500	1220	910	1220	910	1220	1935	2350	1935	2350

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	4	0	4	0
2	11	0	11	0
3	7	0	7	0
4	9	0	9	0
5	12	0	12	0
6	11	0	11	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR	CD
Shear Force (lbf)	<b>PASS (53.9%)</b>	562.5	1220.0	43.2	D+L	1	
Bending Moment (lbf-ft)	<b>PASS (56.5%)</b>	1088.7	2500.0	43.2	D+L	1	
Deflection Y (in)	<b>PASS (83.4%)</b>	0.061	0.367 (=L/360)	49.14	L		
Bearing Load (lbf)	<b>PASS (38.2%)</b>	1123.1	1816.4	43	D+L	1	

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	-3	-10	-13
B	208	620	828
C	206	615	821
D	144	429	573
E	232	692	924
F	282	841	1123
G	91	270	361

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D	E	F	G
NSR	NSR	NSR	NSR	NSR	NSR	NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	54	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	54	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	54	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #9	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		
Weyerhaeuser	TJI 110	(1) 9.5	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 23 Member Slope (in): 0/12 Actual Length (ft): 23 O.C. Spacing (in): 19.2

El x 10 <sup>6</sup> (lbf-in <sup>2</sup> )	BSW (lbf/ft)	Lams	K x 10 <sup>6</sup> (lbf)	Mcap (lbf-ft)	Vcap (lbf)	End Rcap 1.75 NS (lbf)	End Rcap 3.5 NS (lbf)	End Rcap 1.75 WS (lbf)	End Rcap 3.5 WS (lbf)	Int Rcap 3.5 NS (lbf)	Int Rcap 5.25 NS (lbf)	Int Rcap 3.5 WS (lbf)	Int Rcap 5.25 WS (lbf)
157	2.3	1	4.5	2500	1220	910	1220	910	1220	1935	2350	1935	2350

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	12	0	12	0
2	11	0	11	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	<b>PASS (48.5%)</b>	628.0	1220.0	11.96	D+L	1
Bending Moment (lbf-ft)	<b>PASS (44.2%)</b>	1395.9	2500.0	11.96	D+L	1
Deflection Y (in)	<b>PASS (78.2%)</b>	0.087	0.400 (=L/360)	5.29	L	
Bearing Load (lbf)	<b>PASS (36.4%)</b>	1230.9	1935.0	12	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	99	295	394
B	310	921	1231
C	86	255	341

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A		B		C
NSR		NSR		NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	23	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	23	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	23	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #10	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		

Weyerhaeuser	TJI 110	(1) 9.5	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 38 Member Slope (in): 0/12 Actual Length (ft): 38 O.C. Spacing (in): 19.2

El x 10 <sup>6</sup> (lbf-in <sup>2</sup> )	BSW (lbf/ft)	Lams	K x 10 <sup>6</sup> (lbf)	Mcap (lbf-ft)	Vcap (lbf)	End Rcap 1.75 NS (lbf)	End Rcap 3.5 NS (lbf)	End Rcap 1.75 WS (lbf)	End Rcap 3.5 WS (lbf)	Int Rcap 3.5 NS (lbf)	Int Rcap 5.25 NS (lbf)	Int Rcap 3.5 WS (lbf)	Int Rcap 5.25 WS (lbf)
157	2.3	1	4.5	2500	1220	910	1220	910	1220	1935	2350	1935	2350

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	11	0	11	0
2	11.5	0	11.5	0
3	8.5	0	8.5	0
4	7	0	7	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	<b>PASS (55.2%)</b>	546.2	1220.0	10.64	D+L	1
Bending Moment (lbf-ft)	<b>PASS (53.4%)</b>	1163.9	2500.0	11.02	D+L	1
Deflection Y (in)	<b>PASS (82.9%)</b>	0.063	0.367 (=L/360)	4.94	L	
Bearing Load (lbf)	<b>PASS (42.7%)</b>	1109.6	1935.0	11	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	91	272	363
B	279	831	1110
C	212	630	842
D	176	525	701
E	58	174	232

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D	E
NSR	NSR	NSR	NSR	NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	38	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	38	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	38	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #11	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		

Weyerhaeuser	TJI 110	(1) 9.5	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 30 Member Slope (in): 0/12 Actual Length (ft): 30 O.C. Spacing (in): 19.2

El x 10 <sup>6</sup> (lbf-in <sup>2</sup> )	BSW (lbf/ft)	Lams	K x 10 <sup>6</sup> (lbf)	Mcap (lbf-ft)	Vcap (lbf)	End Rcap 1.75 NS (lbf)	End Rcap 3.5 NS (lbf)	End Rcap 1.75 WS (lbf)	End Rcap 3.5 WS (lbf)	Int Rcap 3.5 NS (lbf)	Int Rcap 5.25 NS (lbf)	Int Rcap 3.5 WS (lbf)	Int Rcap 5.25 WS (lbf)
157	2.3	1	4.5	2500	1220	910	1220	910	1220	1935	2350	1935	2350

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	11	0	11	0
2	8	0	8	0
3	11	0	11	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	<b>PASS (56.5%)</b>	531.0	1220.0	10.8	D+L	1
Bending Moment (lbf-ft)	<b>PASS (64.0%)</b>	900.1	2500.0	4.5	D+L	1
Deflection Y (in)	<b>PASS (77.7%)</b>	0.082	0.367 (=L/360)	5.1	L	
Bearing Load (lbf)	<b>PASS (51.0%)</b>	890.1	1816.4	19	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	99	294	393
B	224	666	890
C	224	666	890
D	99	294	393

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D
NSR	NSR	NSR	NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	30	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	30	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	30	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #12	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		

Weyerhaeuser	TJI 110	(1) 9.5	0 (in) O.C.	DRY
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**BEAM PROPERTIES**

Start (ft): 0 End (ft): 25 Member Slope (in): 0/12 Actual Length (ft): 25 O.C. Spacing (in): 19.2

El x 10 <sup>6</sup> (lbf-in <sup>2</sup> )	BSW (lbf/ft)	Lams	K x 10 <sup>6</sup> (lbf)	Mcap (lbf-ft)	Vcap (lbf)	End Rcap 1.75 NS (lbf)	End Rcap 3.5 NS (lbf)	End Rcap 1.75 WS (lbf)	End Rcap 3.5 WS (lbf)	Int Rcap 3.5 NS (lbf)	Int Rcap 5.25 NS (lbf)	Int Rcap 3.5 WS (lbf)	Int Rcap 5.25 WS (lbf)
157	2.3	1	4.5	2500	1220	910	1220	910	1220	1935	2350	1935	2350

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	6	0	6	0
2	8	0	8	0
3	11	0	11	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	<b>PASS (55.9%)</b>	537.8	1220.0	14.25	D+L	1
Bending Moment (lbf-ft)	<b>PASS (60.9%)</b>	978.3	2500.0	14	D+L	1
Deflection Y (in)	<b>PASS (79.7%)</b>	0.074	0.367 (=L/360)	20	L	
Bearing Load (lbf)	<b>PASS (45.6%)</b>	988.9	1816.4	14	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	53	158	211
B	140	417	557
C	249	740	989
D	96	285	381

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D
NSR	NSR	NSR	NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	25	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	25	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	25	Dead	Y



**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #13	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	I-Joists		
Weyerhaeuser	TJI 110	(1) 9.5	0 (in) O.C.
			DRY

**BEAM PROPERTIES**

Start (ft): 0 End (ft): 19 Member Slope (in): 0/12 Actual Length (ft): 19 O.C. Spacing (in): 19.2

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
El x 10 <sup>6</sup>	BSW	Lams	K x 10 <sup>6</sup>	Mcap	Vcap	1.75 NS	3.5 NS	1.75 WS	3.5 WS	3.5 NS	5.25 NS	3.5 WS	5.25 WS
(lbf-in <sup>2</sup> )	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)
157	2.3	1	4.5	2500	1220	910	1220	910	1220	1935	2350	1935	2350

**BEAM DATA**

Span	Length (ft)	Unbraced Length (ft)		Beam End
		Top	Bottom	Elev. Diff (ft)
1	8	0	8	0
2	11	0	11	0

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	<b>PASS (54.9%)</b>	549.9	1220.0	8.17	D+L	1
Bending Moment (lbf-ft)	<b>PASS (58.9%)</b>	1027.0	2500.0	7.98	D+L	1
Deflection Y (in)	<b>PASS (80.7%)</b>	0.071	0.367 (=L/360)	14.06	L	
Bearing Load (lbf)	<b>PASS (46.5%)</b>	1036.0	1935.0	8	D+L	1

**REACTIONS**

Units for V: lbf Units for M: lbf-ft

Y axis	DEAD	LIVE	TOTAL
A	53	159	212
B	261	776	1037
C	95	281	376

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C
NSR	NSR	NSR

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft <sup>2</sup> )	Uniform	40	40	0	19	Live	Y
Uniform (lbf/ft <sup>2</sup> )	Uniform	12	12	0	19	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	19	Dead	Y





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #1	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

<b>FOOTING</b>				
Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)	
2	10	241.6667	193.3333	
<b>CONCRETE</b>				
fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)	
3000	3122019	145	0.75	
<b>STEM WALL</b>				
Width (in)	Height (in)	Material	Stemwall Offset(in)	
8	24	Concrete	0	
<b>SOIL</b>				
Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0
<b>REBAR</b>				
Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)	
4	6	60000	2.9E+07	
<b>COVER</b>				
Top Cover (in)	Bottom Cover (in)	Side Cover (in)		
3	3	3		

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (26.1%)</b>	1108.5	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (96.6%)</b>	539.5	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (97.2%)</b>	311.0	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

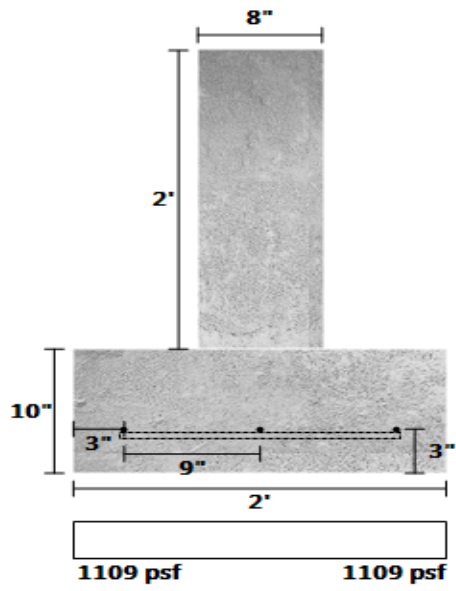
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #2	B	131.9999	131.9999	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #2	B	1650.001	1650.001	0	1	Snow	Z

**Footing #1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #2	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (7.5%)</b>	1386.9	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (95.5%)</b>	708.0	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (96.4%)</b>	408.2	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

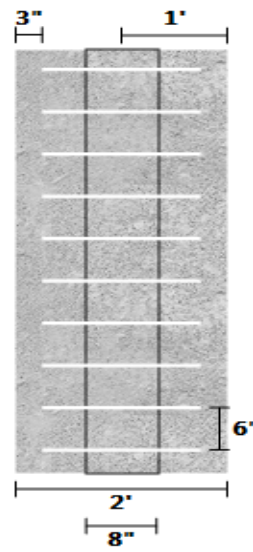
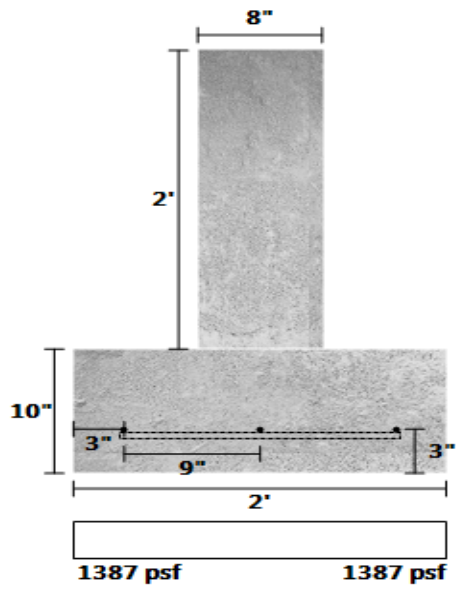
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	C	41.25	41.25	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #1	C	515.625	515.625	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #2	B	131.9999	131.9999	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #2	B	1650.001	1650.001	0	1	Snow	Z

**Footing #2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #3	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

<b>FOOTING</b>				
Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)	
2	10	241.6667	193.3333	
<b>CONCRETE</b>				
fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)	
3000	3122019	145	0.75	
<b>STEM WALL</b>				
Width (in)	Height (in)	Material	Stemwall Offset(in)	
8	24	Concrete	0	
<b>SOIL</b>				
Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0
<b>REBAR</b>				
Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)	
4	6	60000	2.9E+07	
<b>COVER</b>				
Top Cover (in)	Bottom Cover (in)	Side Cover (in)		
3	3	3		

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (26.1%)</b>	1108.5	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (96.6%)</b>	539.5	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (97.2%)</b>	311.0	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

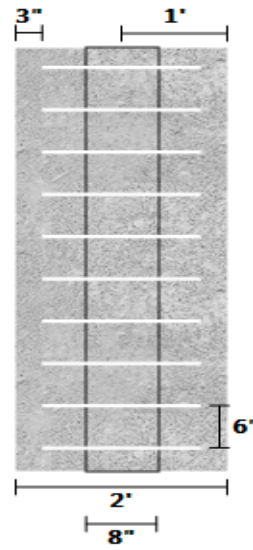
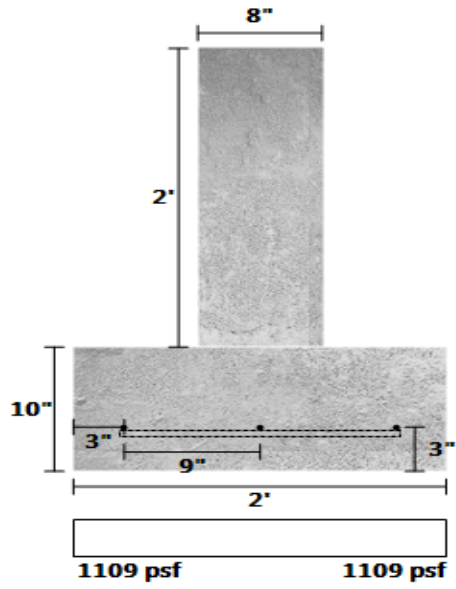
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #4	B	131.9999	131.9999	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #4	B	1650.001	1650.001	0	1	Snow	Z

**Footing #3 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #4	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (26.1%)</b>	1108.5	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (96.6%)</b>	539.5	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (97.2%)</b>	311.0	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

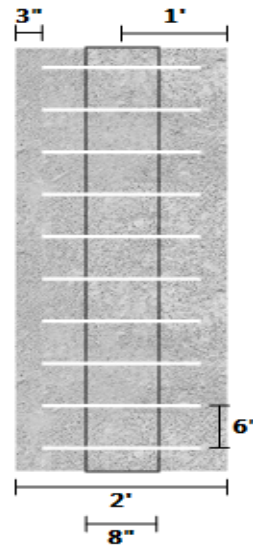
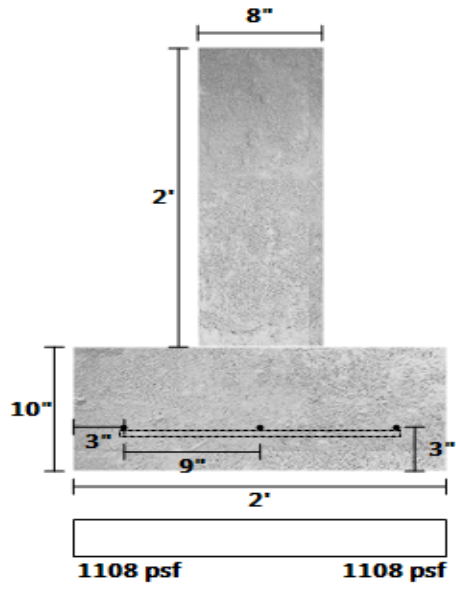
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #2	C	131.9999	131.9999	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #2	C	1650	1650	0	1	Snow	Z

**Footing #4 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #5	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

<b>FOOTING</b>				
Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)	
2	10	241.6667	193.3333	
<b>CONCRETE</b>				
fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)	
3000	3122019	145	0.75	
<b>STEM WALL</b>				
Width (in)	Height (in)	Material	Stemwall Offset(in)	
8	24	Concrete	0	
<b>SOIL</b>				
Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0
<b>REBAR</b>				
Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)	
4	6	60000	2.9E+07	
<b>COVER</b>				
Top Cover (in)	Bottom Cover (in)	Side Cover (in)		
3	3	3		

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (26.1%)</b>	1108.5	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (96.6%)</b>	539.5	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (97.2%)</b>	311.0	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

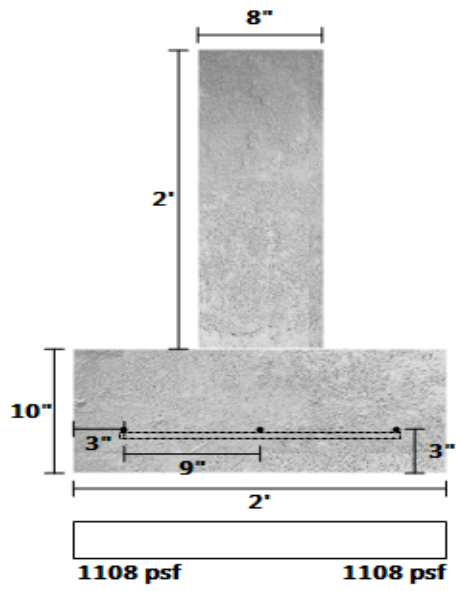
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #4	C	131.9999	131.9999	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #4	C	1650	1650	0	1	Snow	Z

**Footing #5 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #6	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.5 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(4) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2.5	10	302.0833	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (10.4%)</b>	1343.4	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (93.7%)</b>	1248.7	19718.0	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (92.7%)</b>	825.6	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.5	2.5	D	LRFD

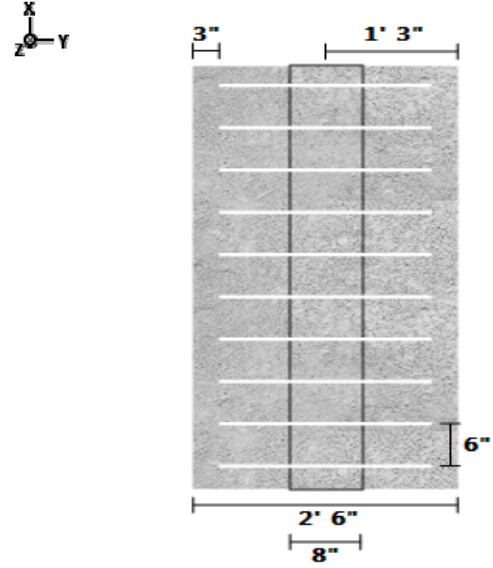
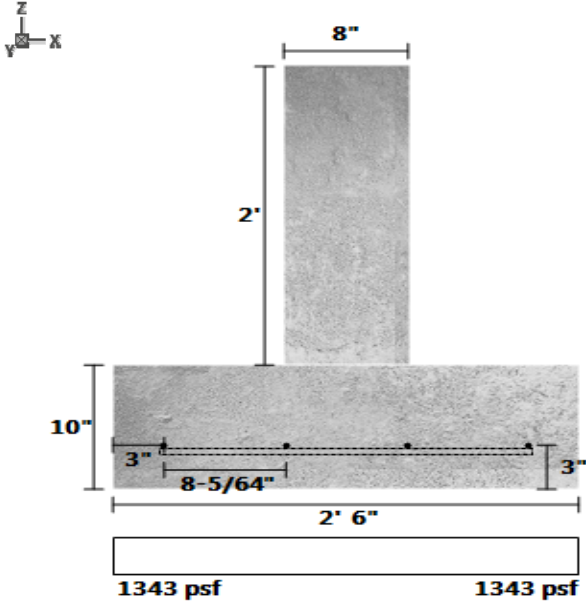
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #5	B	180.0002	180.0002	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #5	B	2249.993	2249.993	0	1	Snow	Z
Uniform (lbf/ft)	Joist #1	A	174	174	0	1	Dead	Z
Uniform (lbf/ft)	Joist #1	A	480	480	0	1	Live	Z
Uniform (lbf/ft)	Rafters #1 - Calc	C	19.2	19.2	0	1	Dead	Z
Uniform (lbf/ft)	Rafters #1 - Calc	C	239.9999	239.9999	0	1	Snow	Z

**Footing #6 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #7	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

<b>FOOTING</b>				
Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)	
1.333	10	161.0708	193.3333	
<b>CONCRETE</b>				
fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)	
3000	3122019	145	0.75	
<b>STEM WALL</b>				
Width (in)	Height (in)	Material	Stemwall Offset(in)	
8	24	Concrete	0	
<b>SOIL</b>				
Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0
<b>REBAR</b>				
Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)	
4	6	60000	2.9E+07	
<b>COVER</b>				
Top Cover (in)	Bottom Cover (in)	Side Cover (in)		
3	3	3		

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (17.4%)</b>	1239.0	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.2%)</b>	79.4	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.2%)</b>	84.9	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

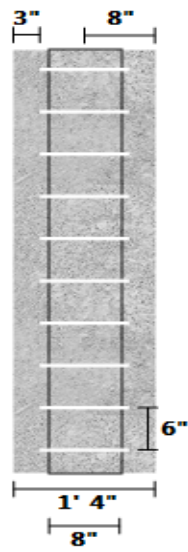
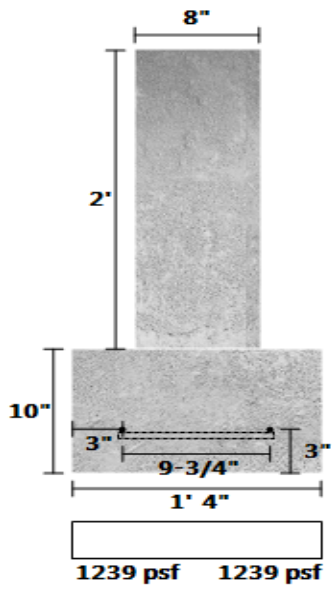
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #8	B	96.08823	96.08823	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #8	B	1201.103	1201.103	0	1	Snow	Z

**Footing #7 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #8	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (13.4%)</b>	1298.9	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.2%)</b>	84.3	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.2%)</b>	90.1	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

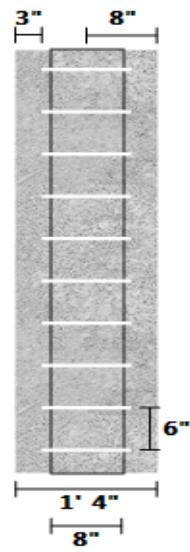
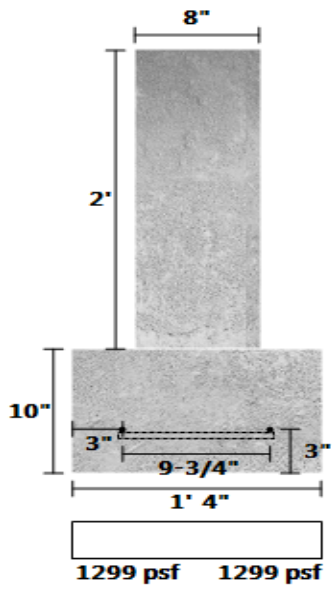
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #9	B	102	102	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #9	B	1275	1275	0	1	Snow	Z

**Footing #8 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing - WD-#9	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	84.58334

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
3.5	24	Wood	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (27.7%)</b>	1084.2	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (94.5%)</b>	863.7	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (94.2%)</b>	647.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

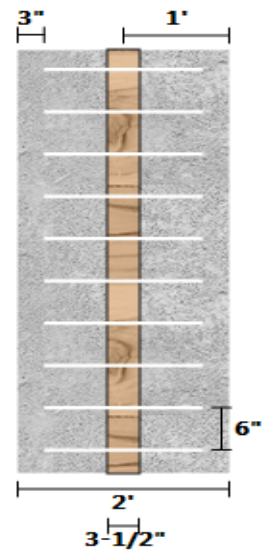
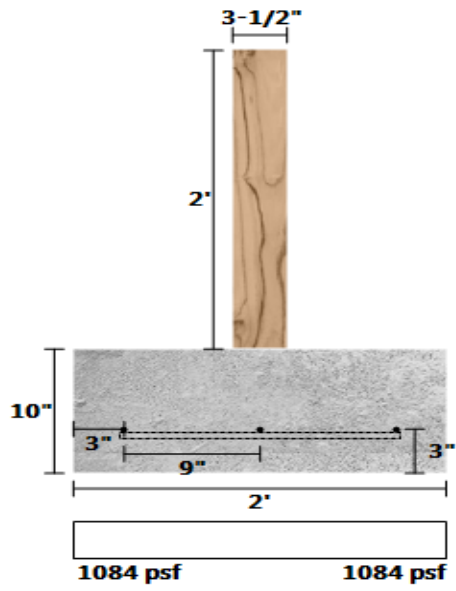
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #9	C	102	102	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #9	C	1275	1275	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #10	A	30.69231	30.69231	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #10	A	383.6538	383.6538	0	1	Snow	Z
Uniform (lbf/ft)	Joist #4	B	50.75	50.75	0	1	Dead	Z
Uniform (lbf/ft)	Joist #4	B	140	140	0	1	Live	Z

**Footing - WD-#9 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #10	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (31.5%)</b>	1027.5	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (96.9%)</b>	490.4	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (97.5%)</b>	282.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

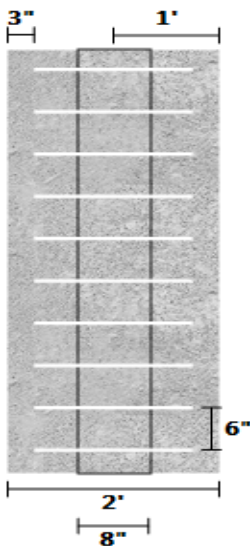
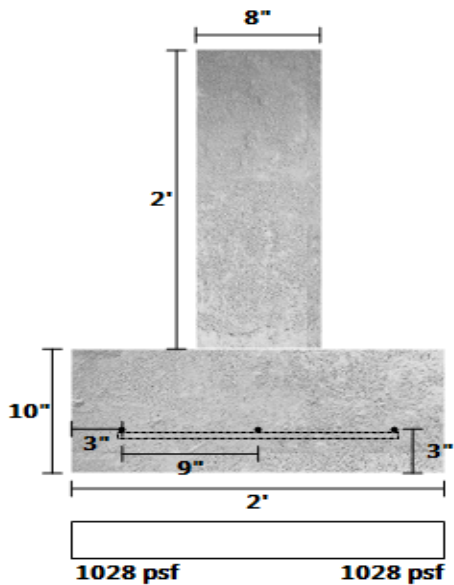
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #11	C	120.0001	120.0001	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #11	C	1500	1500	0	1	Snow	Z

**Footing #10 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #11	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (31.5%)</b>	1027.5	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (96.9%)</b>	490.4	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (97.5%)</b>	282.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

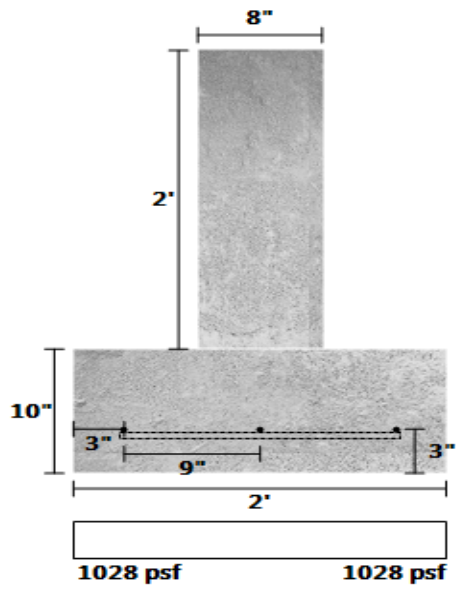
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #11	B	120.0001	120.0001	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #11	B	1500	1500	0	1	Snow	Z

**Footing #11 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #12	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (17.5%)</b>	1238.1	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.2%)</b>	79.3	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.2%)</b>	84.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

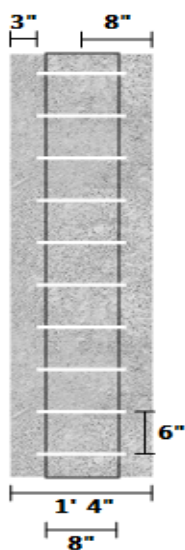
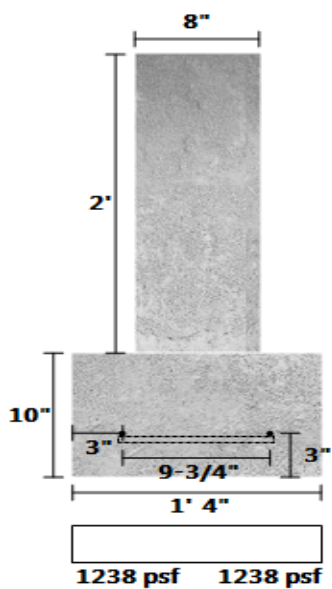
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #12	B	96.00001	96.00001	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #12	B	1200	1200	0	1	Snow	Z

**Footing #12 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing - WD-#13	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

<b>FOOTING</b>				
Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)	
1.333	10	161.0708	84.58334	
<b>CONCRETE</b>				
fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)	
3000	3122019	145	0.75	
<b>STEM WALL</b>				
Width (in)	Height (in)	Material	Stemwall Offset(in)	
3.5	24	Wood	0	
<b>SOIL</b>				
Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0
<b>REBAR</b>				
Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)	
4	6	60000	2.9E+07	
<b>COVER</b>				
Top Cover (in)	Bottom Cover (in)	Side Cover (in)		
3	3	3		

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (14.3%)</b>	1285.7	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (96.1%)</b>	414.3	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (97.3%)</b>	304.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

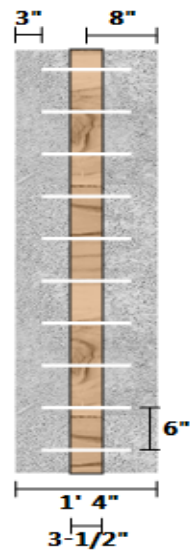
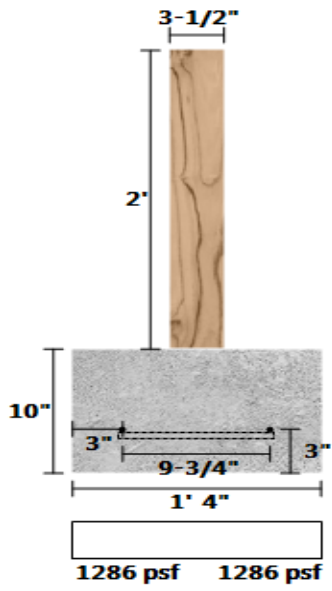
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers Calcs	B	60.75001	60.75001	0	1	Dead	Z
Uniform (lbf/ft)	Outlookers Calcs	B	759.3751	759.3751	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #12	C	48	48	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #12	C	600	600	0	1	Snow	Z

**Footing - WD-#13 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #14	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

FOOTING				
Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)	
1.333	10	161.0708	193.3333	
CONCRETE				
fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)	
3000	3122019	145	0.75	
STEM WALL				
Width (in)	Height (in)	Material	Stemwall Offset(in)	
8	24	Concrete	0	
SOIL				
Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0
REBAR				
Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)	
4	6	60000	2.9E+07	
COVER				
Top Cover (in)	Bottom Cover (in)	Side Cover (in)		
3	3	3		

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (17.5%)</b>	1238.1	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.2%)</b>	79.3	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.2%)</b>	84.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

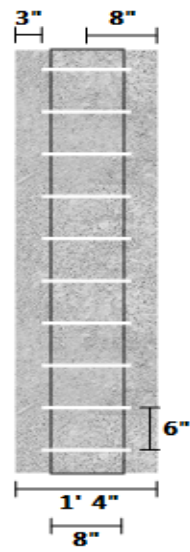
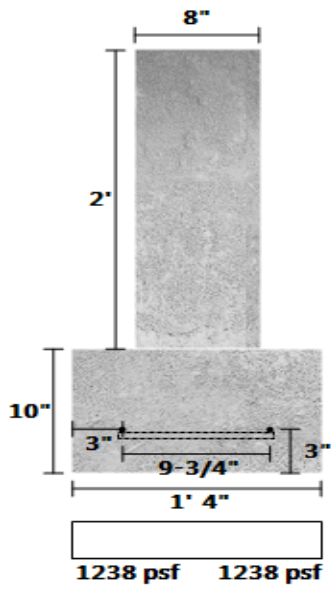
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #15	B	96.00001	96.00001	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #15	B	1200	1200	0	1	Snow	Z

**Footing #14 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #15	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

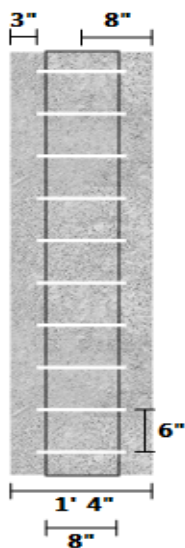
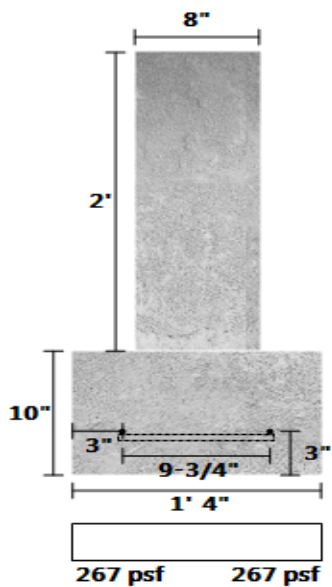
**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (82.2%)</b>	266.6	1500.0	D+L	ASD
One-Way Shear (lbf)	<b>PASS (100.0%)</b>	0.1	10513.6	1.2D+1.6L+0.5Lr	LRFD
Moment (lbf-ft)	<b>PASS (100.0%)</b>	0.1	11245.8	1.2D+1.6L+0.5Lr	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Footing #15 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #16	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (23.3%)</b>	1150.5	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.3%)</b>	78.4	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.3%)</b>	83.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

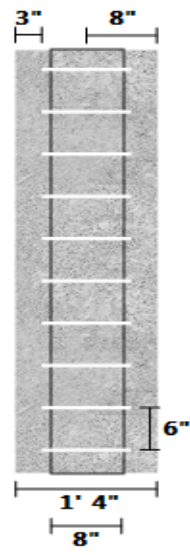
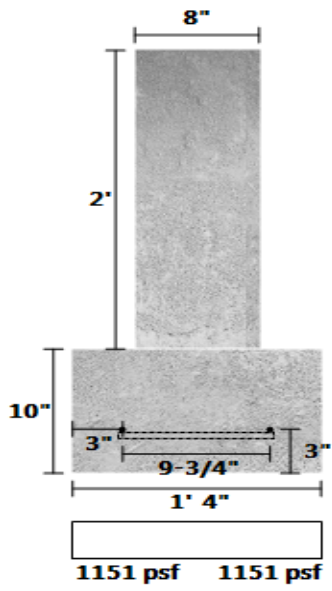
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #16	B	101.4	101.4	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #16	B	1014	1014	0	1	Snow	Z
Uniform (lbf/ft)	Joists #14	A	63.82814	63.82814	0	1	Dead	Z
Uniform (lbf/ft)	Joists #14	A	190	190	0	1	Live	Z

**Footing #16 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #17	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

<b>FOOTING</b>				
Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)	
1.333	10	161.0708	193.3333	
<b>CONCRETE</b>				
fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)	
3000	3122019	145	0.75	
<b>STEM WALL</b>				
Width (in)	Height (in)	Material	Stemwall Offset(in)	
8	24	Concrete	0	
<b>SOIL</b>				
Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0
<b>REBAR</b>				
Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)	
4	6	60000	2.9E+07	
<b>COVER</b>				
Top Cover (in)	Bottom Cover (in)	Side Cover (in)		
3	3	3		

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (48.7%)</b>	769.4	1500.0	D+0.75L+0.75S	ASD
One-Way Shear (lbf)	<b>PASS (99.6%)</b>	47.0	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.6%)</b>	50.2	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

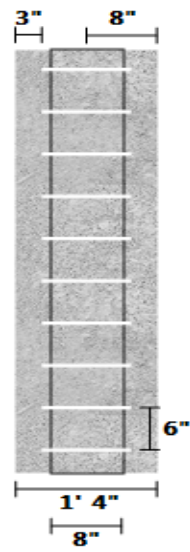
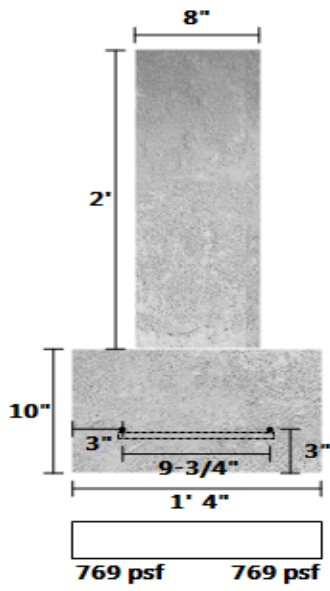
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #16	C	54.6	54.6	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #16	C	546	546	0	1	Snow	Z
Uniform (lbf/ft)	Joists #14	B	63.82812	63.82812	0	1	Dead	Z
Uniform (lbf/ft)	Joists #14	B	190	190	0	1	Live	Z

**Footing #17 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #18	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (6.3%)</b>	1406.2	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (94.9%)</b>	808.2	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (95.9%)</b>	466.0	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

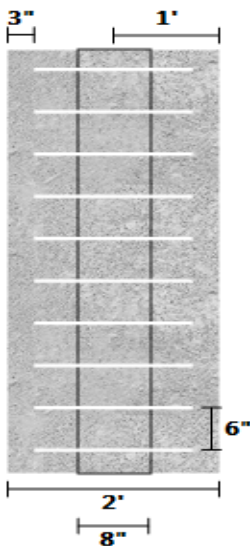
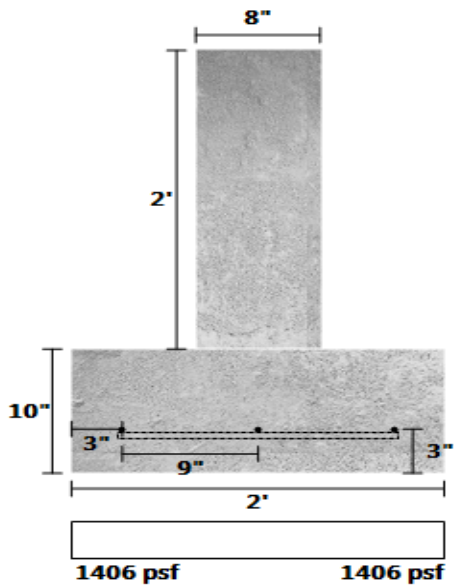
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #2 - Calc	C	26.77538	26.77538	0	1	Dead	Z
Uniform (lbf/ft)	Rafters #2 - Calc	C	289.7727	289.7727	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #17	B	138.2727	138.2727	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #17	B	1728.407	1728.407	0	1	Snow	Z
Uniform (lbf/ft)	Joist #5	A	137.0786	137.0786	0	1	Dead	Z
Uniform (lbf/ft)	Joist #5	A	362.5219	362.5219	0	1	Live	Z
Uniform (lbf/ft)	Joists #10	A	57.12525	57.12525	0	1	Dead	Z
Uniform (lbf/ft)	Joists #10	A	170.0473	170.0473	0	1	Live	Z

**Footing #18 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #19	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (5.3%)</b>	1420.4	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.1%)</b>	94.2	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.1%)</b>	100.7	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

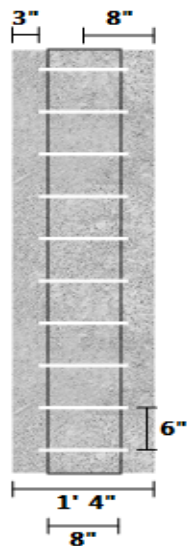
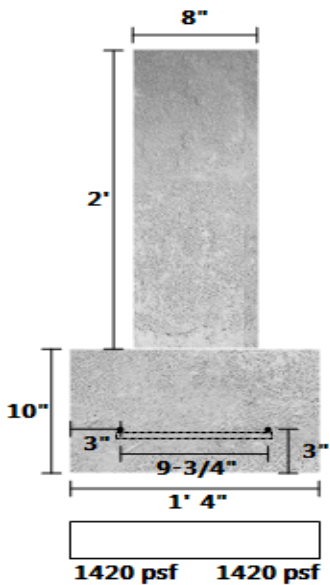
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #21	C	114	114	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #21	C	1425	1425	0	1	Snow	Z

**Footing #19 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #20	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (35.3%)</b>	970.7	1500.0	D+0.75L+0.75S	ASD
One-Way Shear (lbf)	<b>PASS (99.4%)</b>	65.7	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.4%)</b>	70.2	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

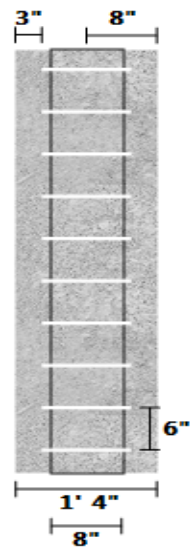
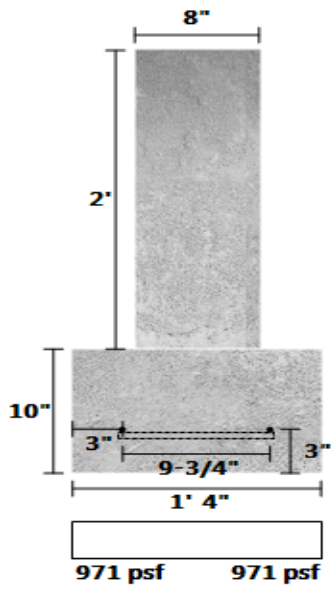
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers Calcs	B	60.75001	60.75001	0	1	Dead	Z
Uniform (lbf/ft)	Outlookers Calcs	B	759.3751	759.3751	0	1	Snow	Z
Uniform (lbf/ft)	Joist #5	C	63.82099	63.82099	0	1	Dead	Z
Uniform (lbf/ft)	Joist #5	C	168.7828	168.7828	0	1	Live	Z
Uniform (lbf/ft)	Joists #10	E	36.5487	36.5487	0	1	Dead	Z
Uniform (lbf/ft)	Joists #10	E	108.7961	108.7961	0	1	Live	Z

**Footing #20 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #21	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (12.6%)</b>	1311.0	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (95.8%)</b>	662.0	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (96.6%)</b>	381.7	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

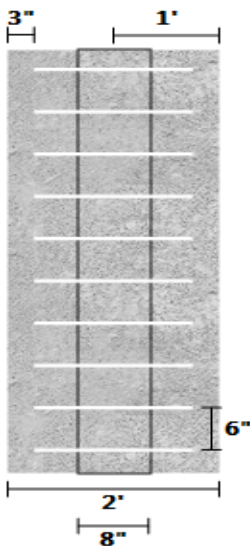
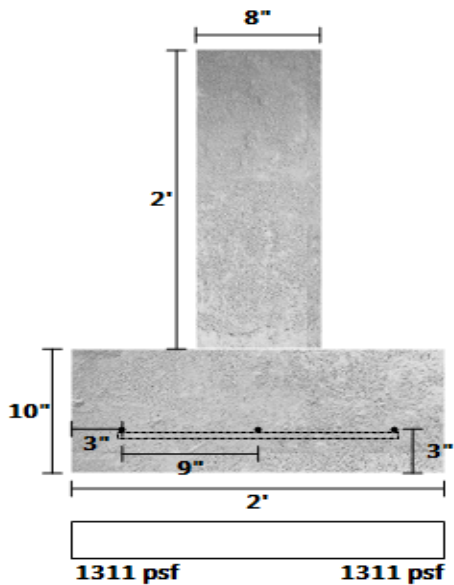
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #15	C	48	48	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #15	C	600	600	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #21	B	113.9999	113.9999	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #21	B	1425	1425	0	1	Snow	Z

**Footing #21 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #22	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(4) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
3	10	362.5	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (15.6%)</b>	1265.7	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (93.1%)</b>	1644.0	23661.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (88.8%)</b>	1263.6	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	3.0	3.0	D	LRFD

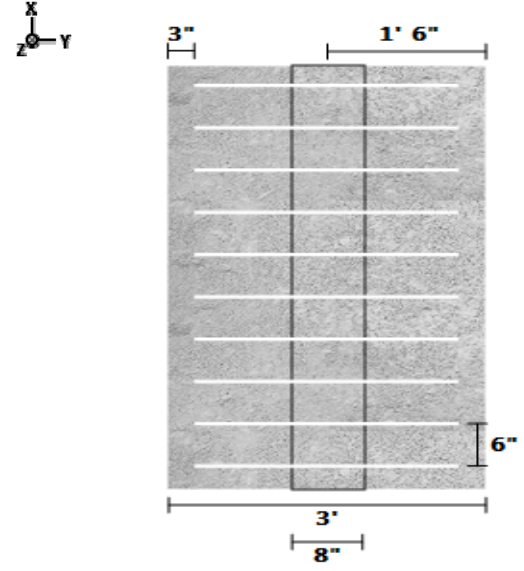
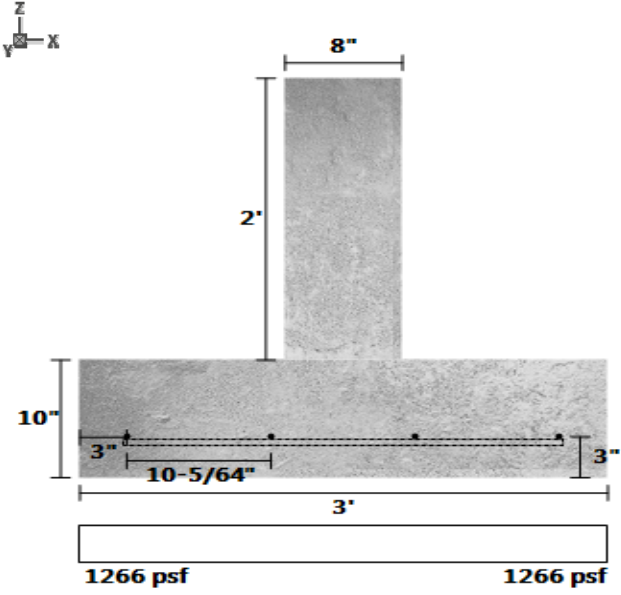
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #4 - Calc	A	89.14884	89.14884	0	1	Dead	Z
Uniform (lbf/ft)	Rafters #4 - Calc	A	843.7501	843.7501	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #22	B	155.7698	155.7698	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #22	B	1947.121	1947.121	0	1	Snow	Z
Uniform (lbf/ft)	Joist #6	B	143.6875	143.6875	0	1	Dead	Z
Uniform (lbf/ft)	Joist #6	B	380	380	0	1	Live	Z
Uniform (lbf/ft)	Joists #11	D	61.67188	61.67188	0	1	Dead	Z
Uniform (lbf/ft)	Joists #11	D	183.5814	183.5814	0	1	Live	Z

**Footing #22 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #23	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (7.0%)</b>	1394.9	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.1%)</b>	98.3	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.1%)</b>	105.1	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

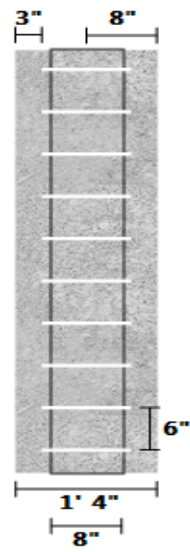
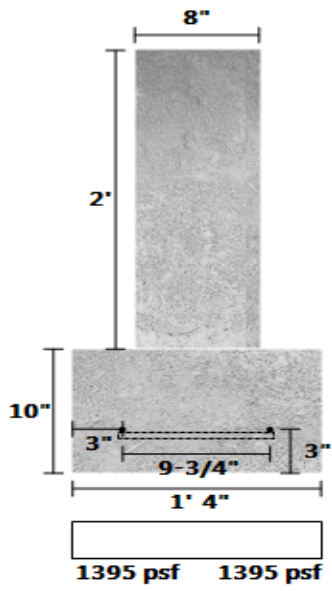
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #23	B	106.9091	106.9091	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #23	B	1336.363	1336.363	0	1	Snow	Z
Uniform (lbf/ft)	Joists #11	A	61.67188	61.67188	0	1	Dead	Z
Uniform (lbf/ft)	Joists #11	A	183.5814	183.5814	0	1	Live	Z

**Footing #23 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #24	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.333 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(2) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
1.333	10	161.0708	193.3333

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
8	24	Concrete	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (0.7%)</b>	1489.9	1500.0	D+S	ASD
One-Way Shear (lbf)	<b>PASS (99.0%)</b>	103.0	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	<b>PASS (99.0%)</b>	110.1	11245.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.3	1.3	D	LRFD

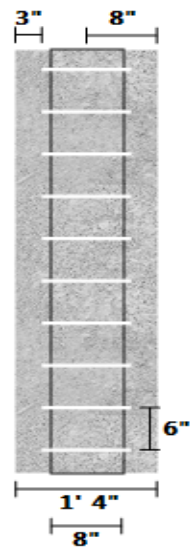
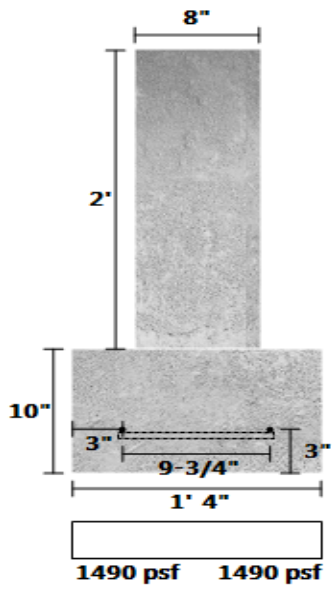
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #3 - Calc	C	45.28196	45.28196	0	1	Dead	Z
Uniform (lbf/ft)	Rafters #3 - Calc	C	428.5714	428.5714	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #25	B	83.30769	83.30769	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #25	B	1041.346	1041.346	0	1	Snow	Z
Uniform (lbf/ft)	Joists #12	A	33.07496	33.07496	0	1	Dead	Z
Uniform (lbf/ft)	Joists #12	A	98.45569	98.45569	0	1	Live	Z

**Footing #24 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing - WD-#25	CODE:	2018 International Building Code
MEMBER TYPE:	CONTINUOUS FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2 (ft) Wide X 10 (in) Deep		Soil Depth TOF : 0 (ft)	Long.(3) #4 Bars, Transv:#4 @6(in) O.C.

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Depth (in)	Footing Weight (lbf/ft)	Stemwall Weight (lbf/ft)
2	10	241.6667	84.58334

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia. (in)
3000	3122019	145	0.75

**STEM WALL**

Width (in)	Height (in)	Material	Stemwall Offset(in)
3.5	24	Wood	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	Bottom Bar Spacing(in)	fy (psi)	Es (psi)
4	6	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (27.1%)</b>	1094.2	1500.0	D+L	ASD
One-Way Shear (lbf)	<b>PASS (95.0%)</b>	796.4	15774.4	1.2D+1.6L+0.5Lr	LRFD
Moment (lbf-ft)	<b>PASS (94.7%)</b>	597.4	11245.8	1.2D+1.6L+0.5Lr	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.0	2.0	D	LRFD

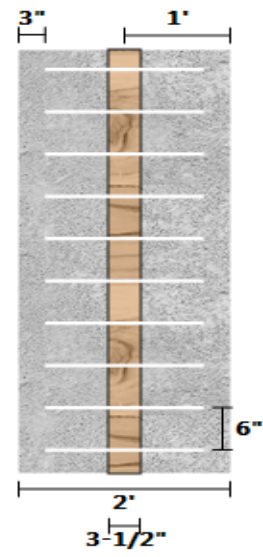
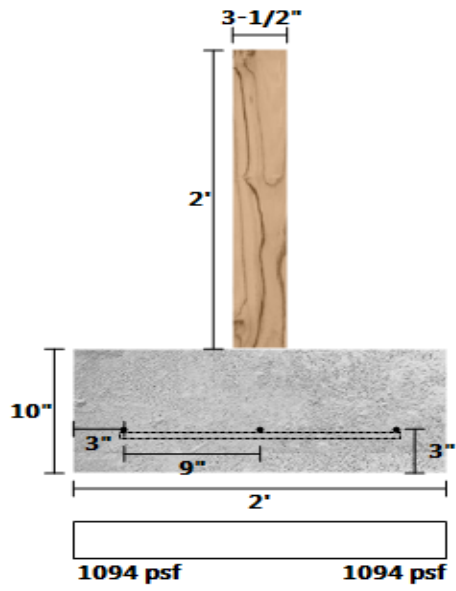
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Joist #5	B	366.2879	366.2879	0	1	Dead	Z
Uniform (lbf/ft)	Joist #5	B	968.6953	968.6953	0	1	Live	Z
Uniform (lbf/ft)	Joists #10	C	132.3304	132.3304	0	1	Dead	Z
Uniform (lbf/ft)	Joists #10	C	393.9138	393.9138	0	1	Live	Z

**Footing - WD-#25 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Hdr #1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.00 (ft) X 4.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
2	4	10	6.67	966.67

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (15.8%)</b>	1263.0	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (91.2%)</b>	2761.4	31548.8	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (82.5%)</b>	2761.4	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (85.0%)</b>	11623.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (70.9%)</b>	4975.5	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (94.5%)</b>	1592.2	28754.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (93.2%)</b>	14329.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	8.0	8.0	D	LRFD

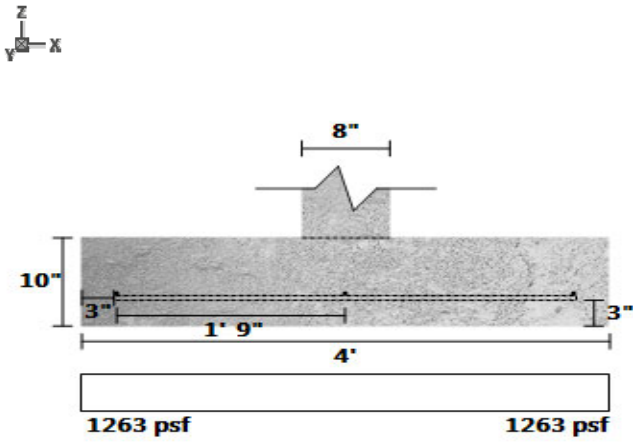
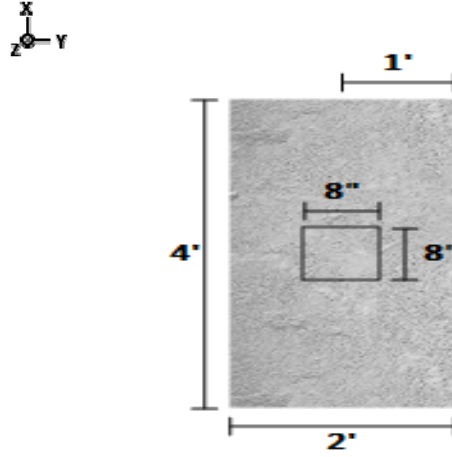
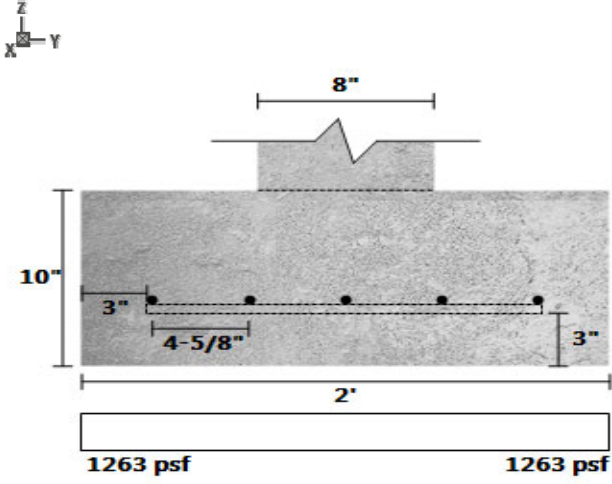
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #1	A	729.3131	-	0	-	Dead	Z
Point (lbf)	Header #1	A	8408.215	-	0	-	Snow	Z

SpotFtg Hdr #1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #1-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

4.50 (ft) X 4.50 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (5) #4 Short
---------------------------------	-------------------------	-------------------------------

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
4.5	4.5	10	16.88	2446.88

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (15.1%)</b>	1273.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (62.7%)</b>	13250.9	35492.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (62.7%)</b>	13250.9	35492.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (56.5%)</b>	33740.6	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (48.5%)</b>	14882.6	28872.8	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (48.5%)</b>	14882.6	28872.8	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (82.8%)</b>	36461.0	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	20.3	20.3	D	LRFD

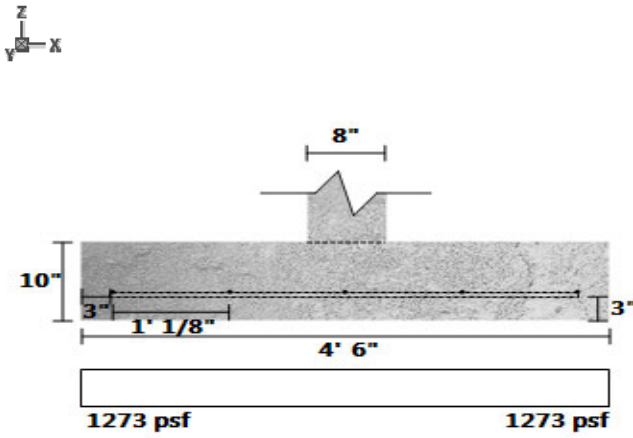
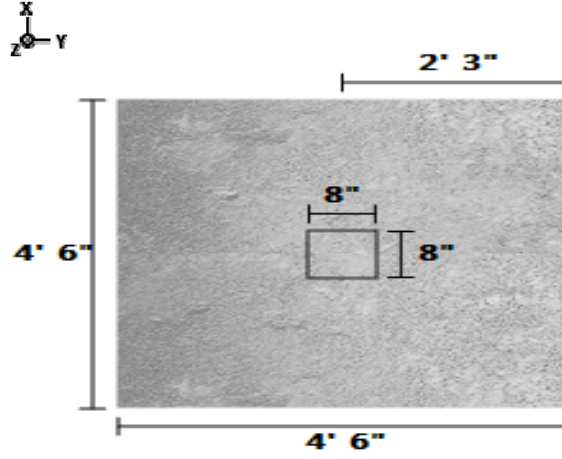
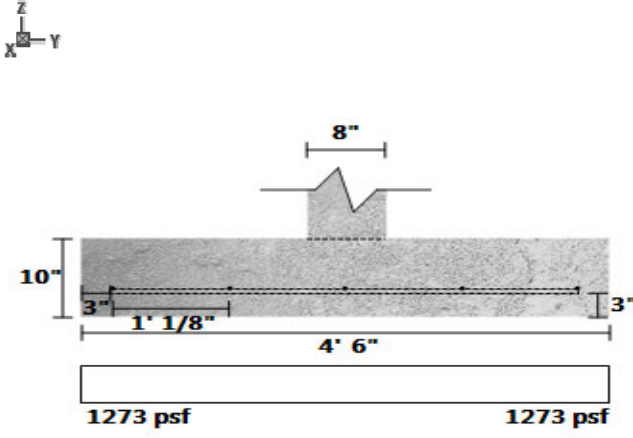
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #1	A	2180.563	-	0	-	Dead	Z
Point (lbf)	Beam #1	A	21152.05	-	0	-	Snow	Z

**SpotFtg Bm #1-1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #1-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
7.50 (ft) X 7.50 (ft) X 14 (in)		Soil Depth TOF : 0 (ft)	Bot.(12) #4 Long, (12) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
7.5	7.5	14	65.62	9515.62

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
16	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (8.0%)</b>	1379.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (52.4%)</b>	39439.1	82815.7	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (52.4%)</b>	39439.1	82815.7	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (37.1%)</b>	105287.8	167471.7	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (21.1%)</b>	87348.0	110705.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (35.7%)</b>	71135.8	110705.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (73.5%)</b>	112237.7	424320.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	56.3	56.3	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

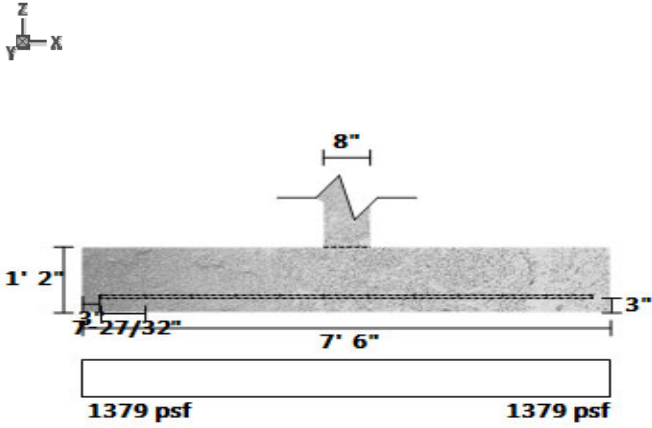
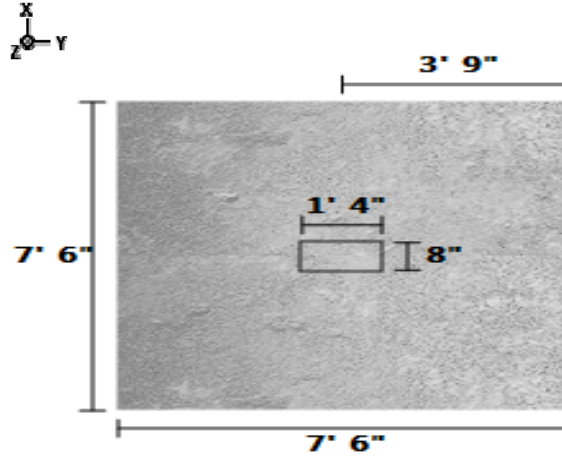
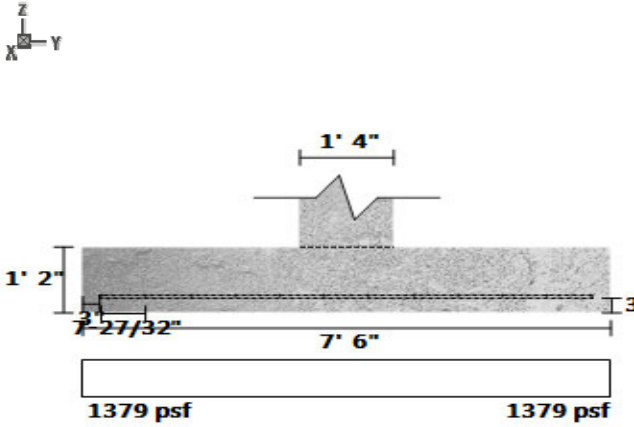
**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #1	B	2331.331	-	0	-	Dead	Z
Point (lbf)	Beam #1	B	23037.03	-	0	-	Snow	Z
Point (lbf)	Beam #2	A	6464.474	-	0	-	Dead	Z
Point (lbf)	Beam #2	A	6829.418	-	0	-	Live	Z

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #2	A	36245.66	-	0	-	Snow	Z

**SpotFtg Bm #1-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #2-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
6.00 (ft) X 6.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(8) #4 Long, (8) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
6	6	10	30	4350

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (12.7%)</b>	1309.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (39.3%)</b>	28729.1	47323.2	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (39.3%)</b>	28729.1	47323.2	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (10.7%)</b>	69229.2	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (6.7%)</b>	42821.8	45893.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (6.7%)</b>	42821.8	45893.2	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (65.9%)</b>	72261.9	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	36.0	36.0	D	LRFD

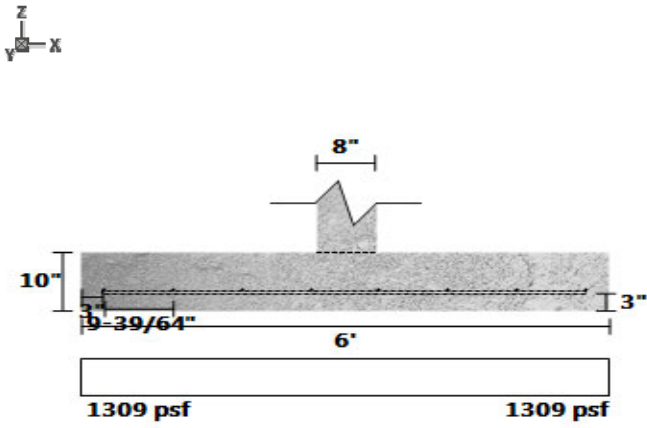
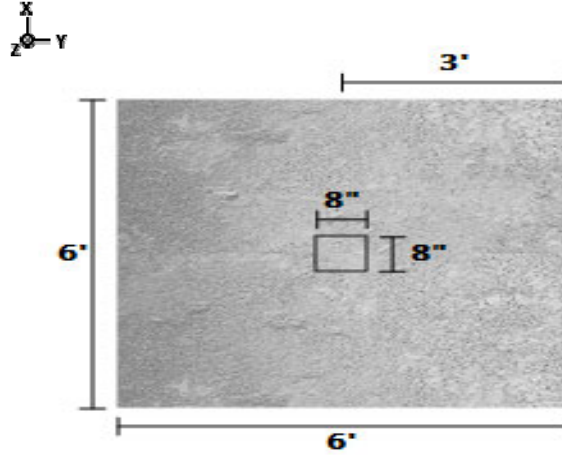
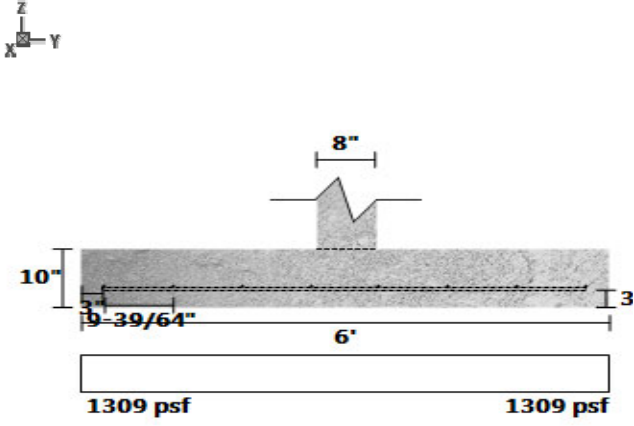
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #2	B	6413.634	-	0	-	Dead	Z
Point (lbf)	Beam #2	B	6361.969	-	0	-	Live	Z
Point (lbf)	Beam #2	B	36376.58	-	0	-	Snow	Z

SpotFtg Bm #2-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Gdr #1-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

2.50 (ft) X 5.00 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(6) #4 Long, (3) #4 Short
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**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
2.5	5	10	10.42	1510.42

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (15.0%)</b>	1275.2	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (85.4%)</b>	5742.3	39436.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (70.9%)</b>	5742.3	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (74.4%)</b>	19861.9	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (38.6%)</b>	10606.0	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (89.0%)</b>	3796.8	34556.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (89.4%)</b>	22592.6	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	12.5	12.5	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Girder #1	B	1237.058	-	0	-	Dead	Z
Point (lbf)	Girder #1	B	13191.97	-	0	-	Snow	Z





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Gdr #2-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.50 (ft) X 5.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(6) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
2.5	5	10	10.42	1510.42

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (15.0%)</b>	1275.2	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (85.4%)</b>	5742.3	39436.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (70.9%)</b>	5742.3	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (74.4%)</b>	19861.9	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (38.6%)</b>	10606.0	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (89.0%)</b>	3796.8	34556.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (89.4%)</b>	22592.6	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	12.5	12.5	D	LRFD

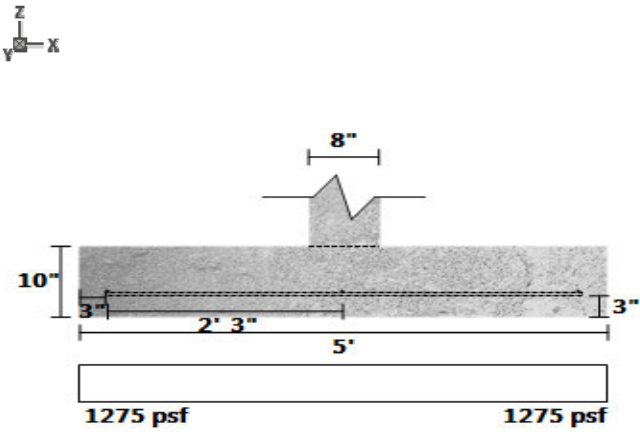
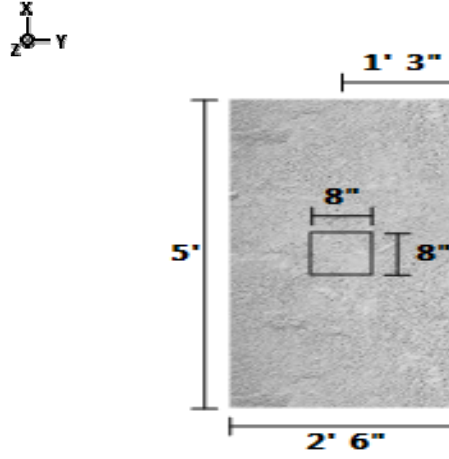
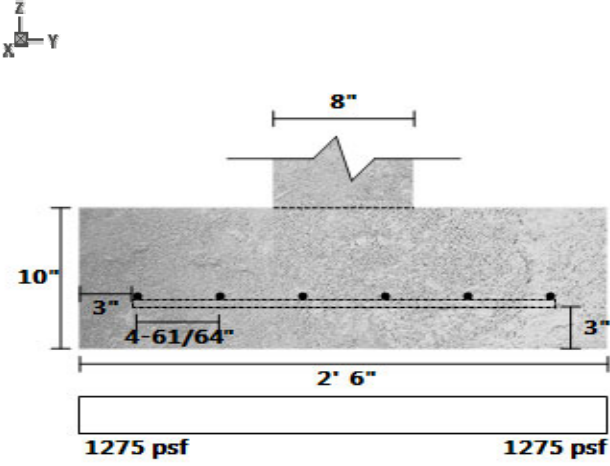
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Girder #2	B	1237.058	-	0	-	Dead	Z
Point (lbf)	Girder #2	B	13191.97	-	0	-	Snow	Z

SpotFtg Gdr #2-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #5-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.00 (ft) X 2.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
2	2	10	3.33	483.33

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (79.8%)</b>	303.2	1500.0	D+L	ASD
One-Way Shear X (lbf)	<b>PASS (98.7%)</b>	201.8	15774.4	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	<b>PASS (98.7%)</b>	201.8	15774.4	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (99.2%)</b>	651.8	77557.5	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	<b>PASS (99.3%)</b>	116.4	17124.7	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	<b>PASS (99.3%)</b>	116.4	17124.7	1.2D+1.6L+0.5Lr	LRFD
Crushing (psi)	<b>PASS (99.5%)</b>	1047.4	212160.0	1.2D+1.6L+0.5Lr	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	4.0	4.0	D	LRFD

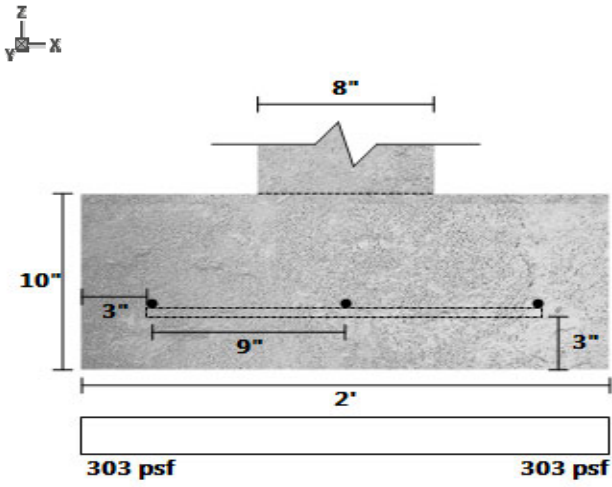
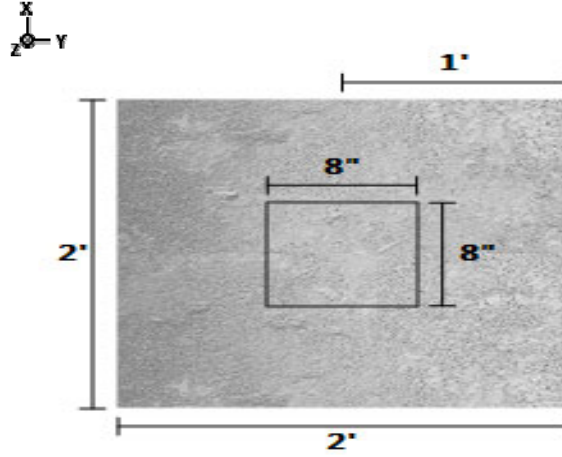
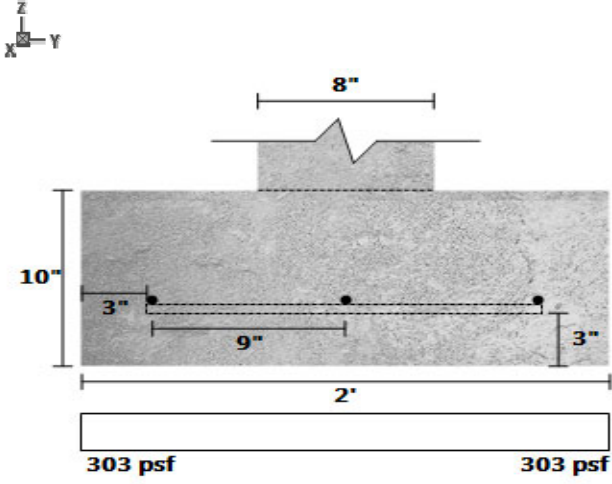
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #5	A	300.0117	-	0	-	Dead	Z
Point (lbf)	Beam #5	A	428.6068	-	0	-	Live	Z

**SpotFtg Bm #5-1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #4-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.33 (ft) X 1.33 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(2) #4 Long, (2) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
1.3334	1.3334	10	1.48	214.84

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (77.2%)</b>	342.6	1500.0	D+L	ASD
One-Way Shear X (lbf)	<b>PASS (99.8%)</b>	22.9	10516.8	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	<b>PASS (99.8%)</b>	22.9	10516.8	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (99.9%)</b>	88.1	77557.5	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	<b>PASS (99.8%)</b>	24.4	11416.5	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	<b>PASS (99.8%)</b>	24.4	11416.5	1.2D+1.6L+0.5Lr	LRFD
Crushing (psi)	<b>PASS (99.7%)</b>	586.3	212160.0	1.2D+1.6L+0.5Lr	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	1.8	1.8	D	LRFD

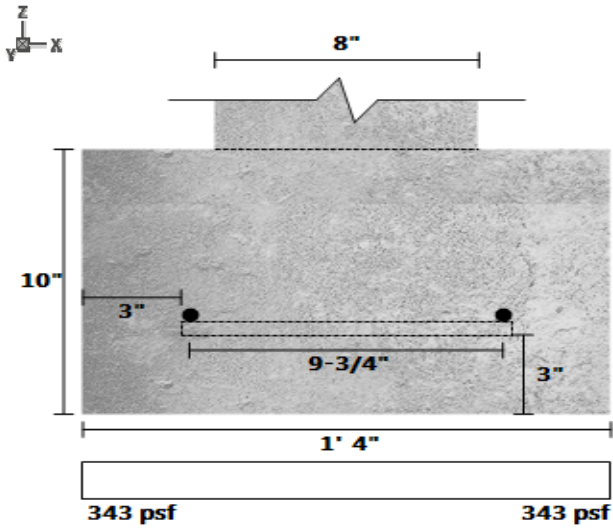
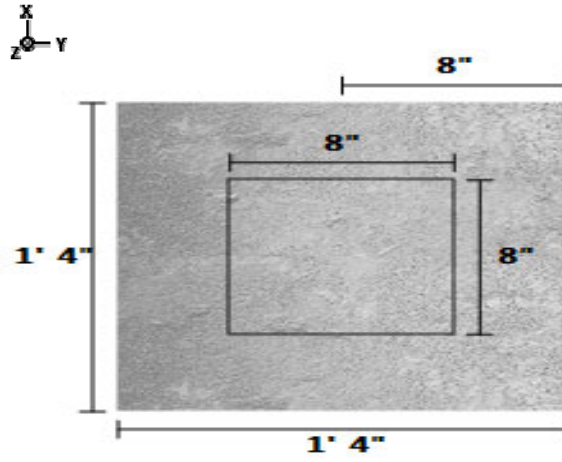
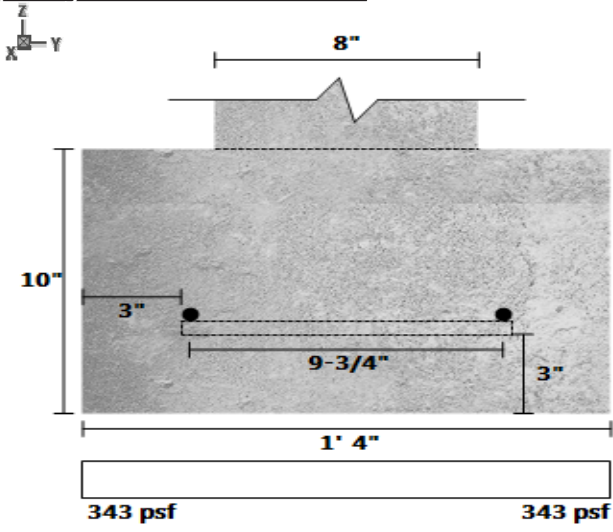
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #4	B	111.5488	-	0	-	Dead	Z
Point (lbf)	Beam #4	B	281.75	-	0	-	Live	Z

SpotFtg Bm #4-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #3-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.33 (ft) X 1.33 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(2) #4 Long, (2) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
1.3334	1.3334	10	1.48	214.84

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (69.1%)</b>	463.3	1500.0	D+L	ASD
One-Way Shear X (lbf)	<b>PASS (99.7%)</b>	35.4	10516.8	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	<b>PASS (99.7%)</b>	35.4	10516.8	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (99.8%)</b>	136.2	77557.5	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	<b>PASS (99.7%)</b>	37.8	11416.5	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	<b>PASS (99.7%)</b>	37.8	11416.5	1.2D+1.6L+0.5Lr	LRFD
Crushing (psi)	<b>PASS (99.6%)</b>	906.8	212160.0	1.2D+1.6L+0.5Lr	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	1.8	1.8	D	LRFD

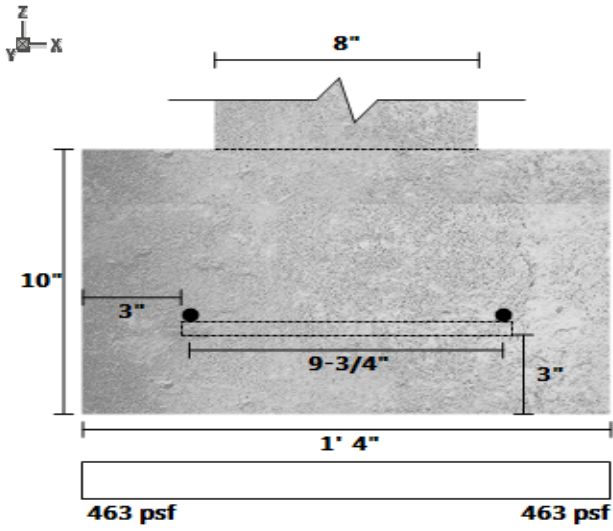
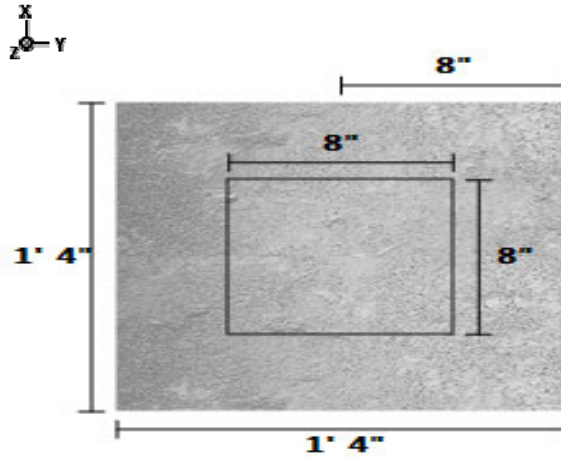
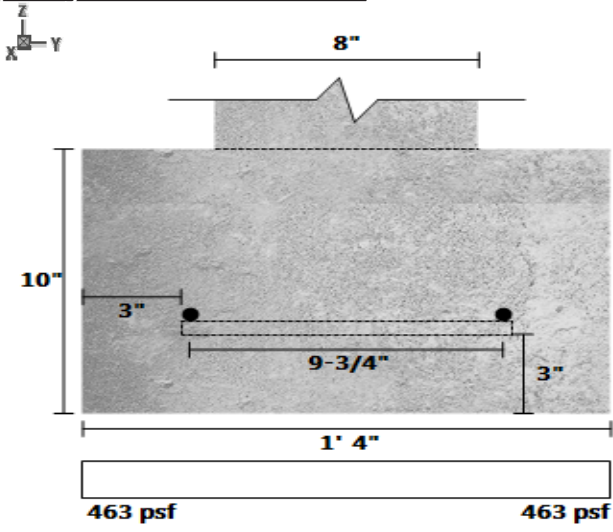
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #3	B	168.6426	-	0	-	Dead	Z
Point (lbf)	Beam #3	B	439.25	-	0	-	Live	Z

SpotFtg Bm #3-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #6-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

2.00 (ft) X 2.00 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (3) #4 Short
---------------------------------	-------------------------	-------------------------------

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
2	2	10	3.33	483.33

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
5.5	5.5	Wood	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (39.9%)</b>	902.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (92.4%)</b>	1199.1	15774.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (92.4%)</b>	1199.1	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (94.4%)</b>	3622.4	64412.2	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (94.4%)</b>	960.1	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (94.4%)</b>	960.1	17124.7	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (95.1%)</b>	4898.6	100278.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	4.0	4.0	D	LRFD

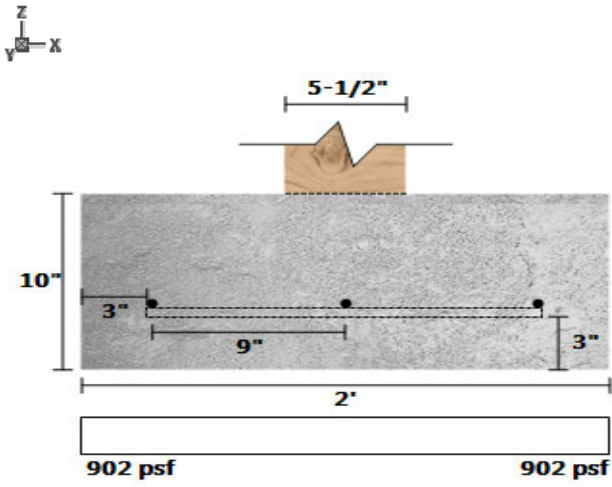
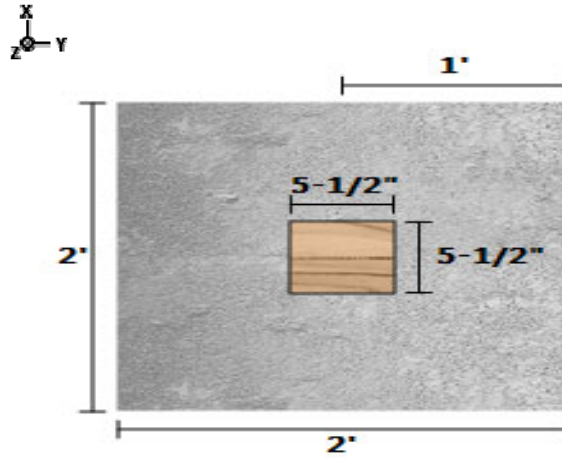
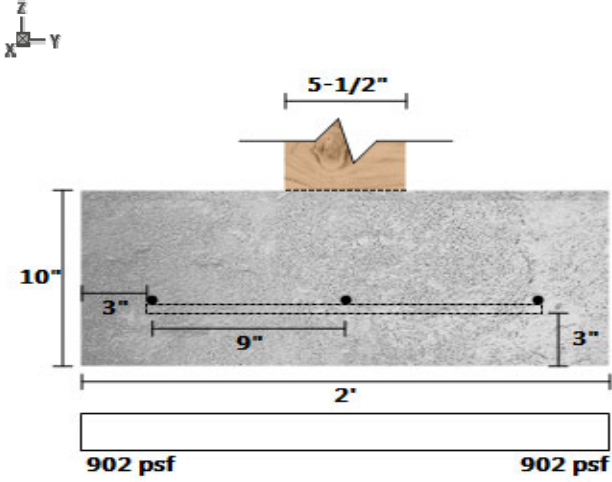
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #6	A	256.3125	-	0	-	Dead	Z
Point (lbf)	Beam #6	A	2868.75	-	0	-	Snow	Z

SpotFtg Bm #6-1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #6-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.00 (ft) X 2.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
2	2	10	3.33	483.33

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
5.5	5.5	Wood	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (39.9%)</b>	902.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (92.4%)</b>	1199.1	15774.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (92.4%)</b>	1199.1	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (94.4%)</b>	3622.4	64412.2	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (94.4%)</b>	960.1	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (94.4%)</b>	960.1	17124.7	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (95.1%)</b>	4898.6	100278.8	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	4.0	4.0	D	LRFD

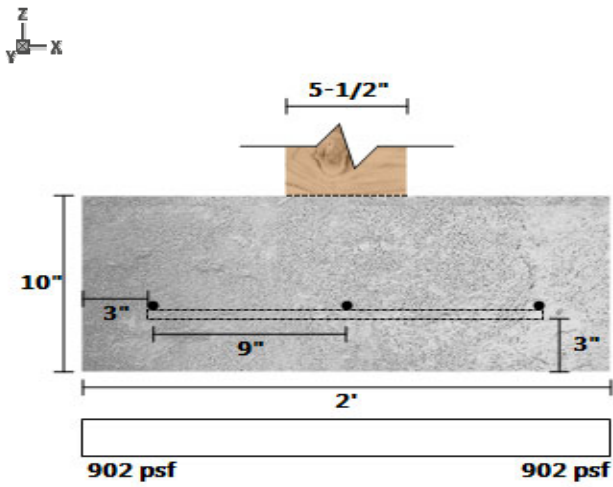
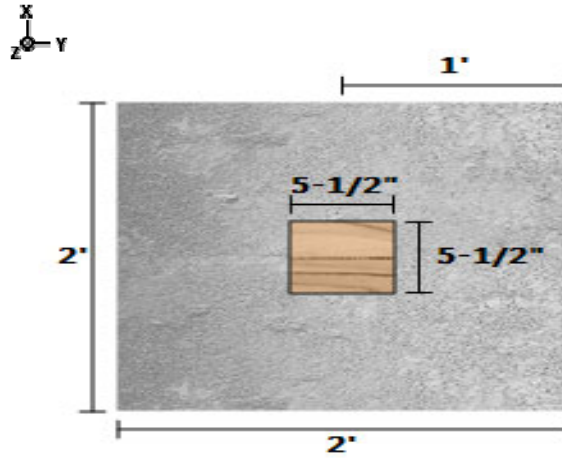
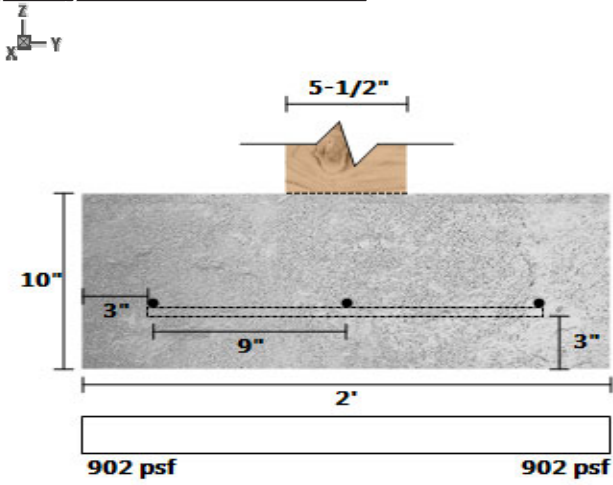
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #6	B	256.3125	-	0	-	Dead	Z
Point (lbf)	Beam #6	B	2868.75	-	0	-	Snow	Z

SpotFtg Bm #6-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #7-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
4.50 (ft) X 4.50 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (5) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
4.5	4.5	10	16.88	2446.88

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
5.5	5.5	Wood	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (9.0%)</b>	1365.2	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (57.0%)</b>	15263.7	35492.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (57.0%)</b>	15263.7	35492.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (41.9%)</b>	37452.7	64412.2	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (30.7%)</b>	20005.6	28872.8	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (30.7%)</b>	20005.6	28872.8	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (60.6%)</b>	39484.6	100278.8	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	20.3	20.3	D	LRFD

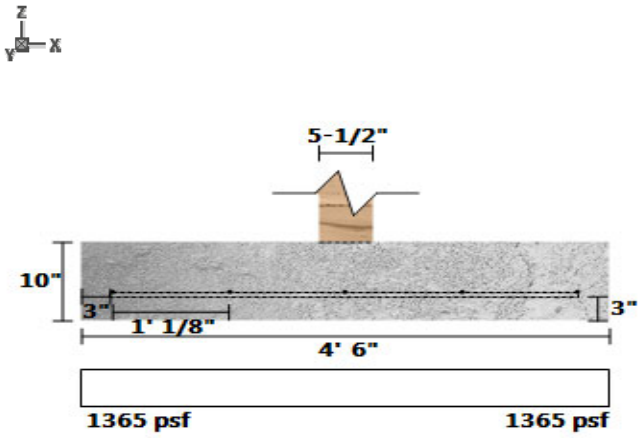
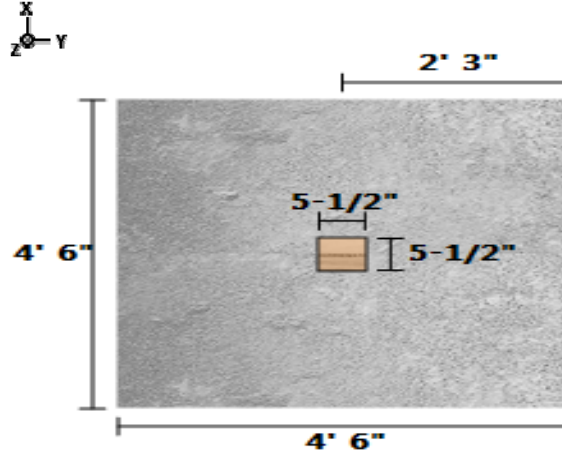
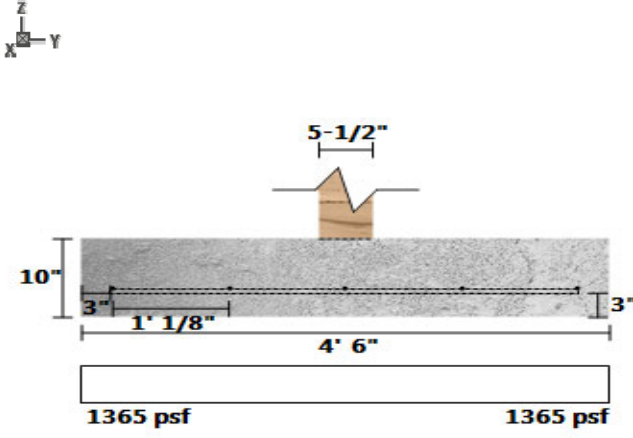
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #7	B	2105.085	-	0	-	Dead	Z
Point (lbf)	Beam #7	B	9.230789	-	0	-	Live	Z
Point (lbf)	Beam #7	B	23092.69	-	0	-	Snow	Z

SpotFtg Bm #7-1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #7-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

3.50 (ft) X 3.50 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short
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**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
3.5	3.5	10	10.21	1480.21

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
5.5	5.5	Wood	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (13.4%)</b>	1299.0	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (71.0%)</b>	8013.5	27605.2	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (71.0%)</b>	8013.5	27605.2	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (67.9%)</b>	20701.5	64412.2	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (62.5%)</b>	8645.2	23076.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (62.5%)</b>	8645.2	23076.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (77.4%)</b>	22626.4	100278.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	12.3	12.3	D	LRFD

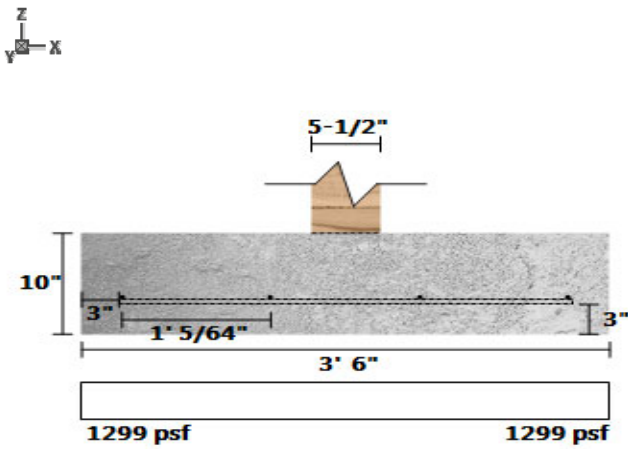
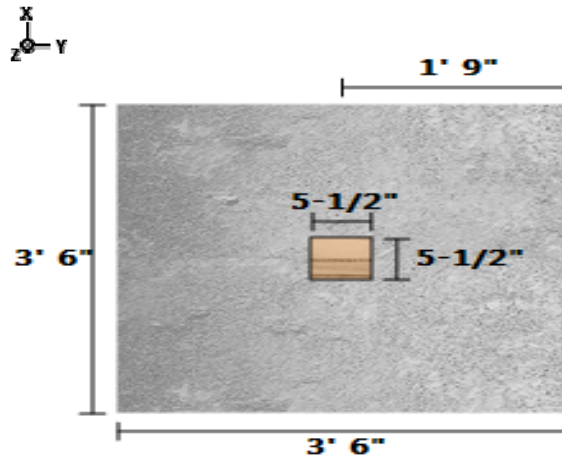
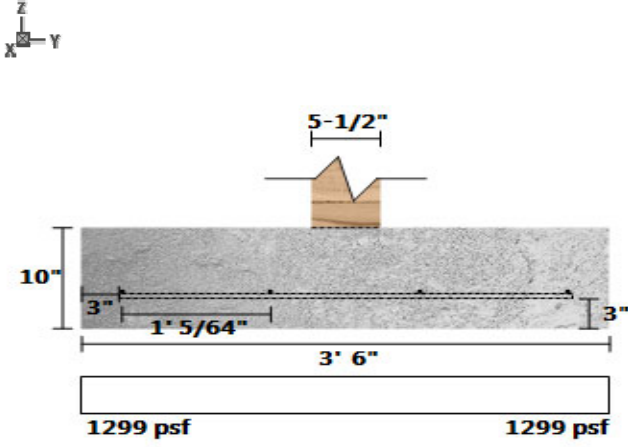
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #7	C	1180.076	-	0	-	Dead	Z
Point (lbf)	Beam #7	C	5.769156	-	0	-	Live	Z
Point (lbf)	Beam #7	C	13252.18	-	0	-	Snow	Z

**SpotFtg Bm #7-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Hdr #22-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.50 (ft) X 2.50 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
2.5	2.5	10	5.21	755.21

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (40.9%)</b>	887.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (90.4%)</b>	1899.1	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (90.4%)</b>	1899.1	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (92.7%)</b>	5665.7	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (92.7%)</b>	1255.7	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (92.7%)</b>	1255.7	17278.2	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (96.5%)</b>	7471.9	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	6.3	6.3	D	LRFD

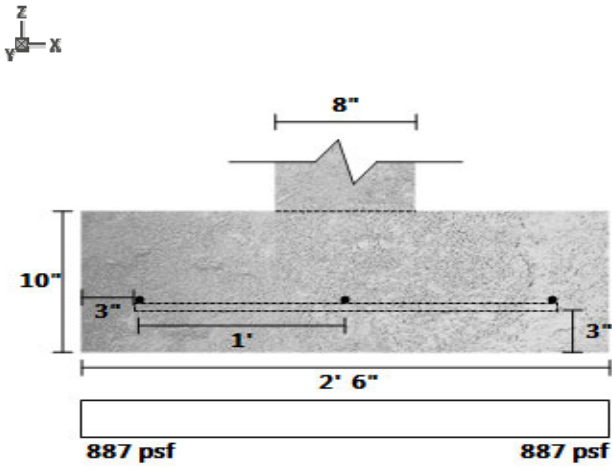
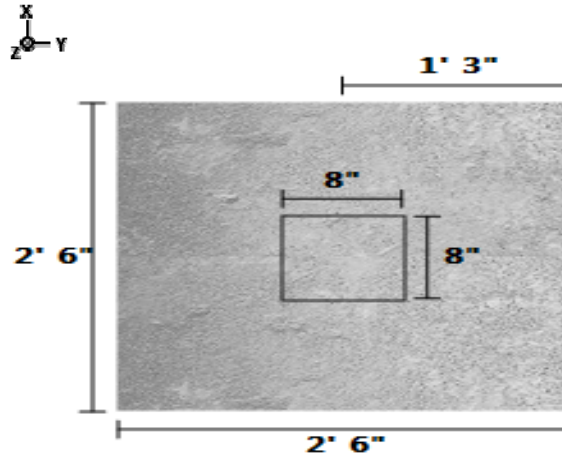
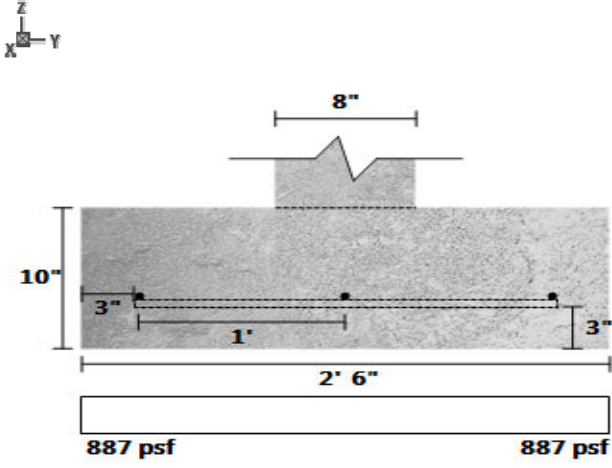
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #22	A	479.7586	-	0	-	Dead	Z
Point (lbf)	Header #22	A	4309.5	-	0	-	Snow	Z

SpotFtg Hdr #22-1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Hdr #22-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

3.00 (ft) X 3.00 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short
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**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (33.4%)</b>	999.7	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (84.6%)</b>	3646.5	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (84.6%)</b>	3646.5	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (86.7%)</b>	10281.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (87.8%)</b>	2802.8	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (87.8%)</b>	2802.8	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (94.2%)</b>	12355.2	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

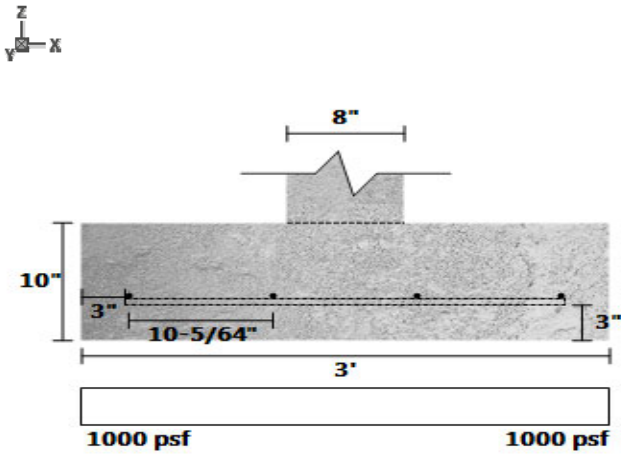
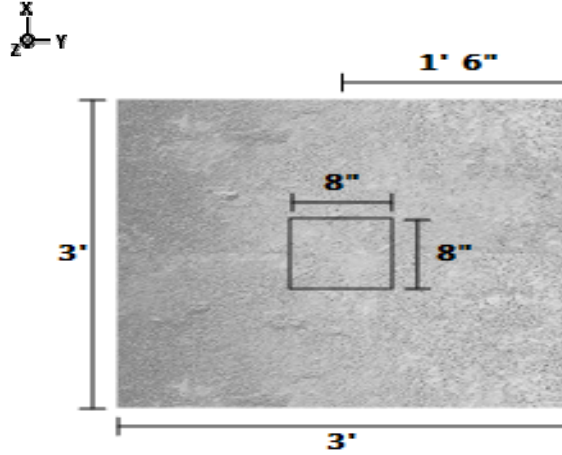
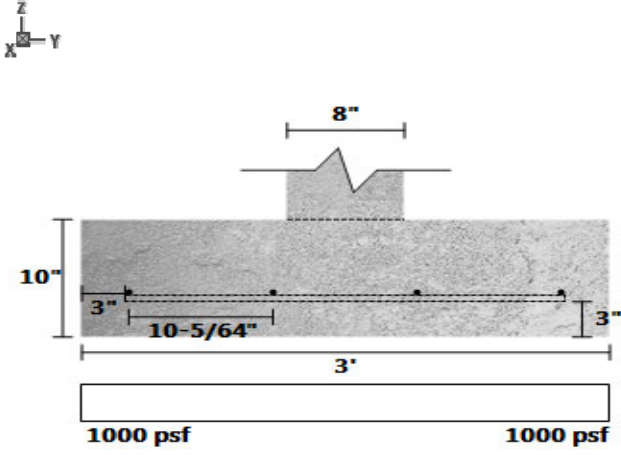
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #22	B	479.7586	-	0	-	Dead	Z
Point (lbf)	Header #22	B	4309.5	-	0	-	Snow	Z
Point (lbf)	Header #23	A	272.5	-	0	-	Dead	Z
Point (lbf)	Header #23	A	2847.656	-	0	-	Snow	Z

SpotFtg Hdr #22-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Hdr #23-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

1.33 (ft) X 2.00 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (2) #4 Short
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**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
1.3334	2	10	2.22	322.24

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (13.9%)</b>	1290.8	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (98.8%)</b>	190.9	15774.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (98.2%)</b>	190.9	10516.8	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (97.3%)</b>	2117.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (95.2%)</b>	542.7	11416.5	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (98.8%)</b>	203.5	17124.7	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (97.7%)</b>	4884.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	2.7	2.7	D	LRFD

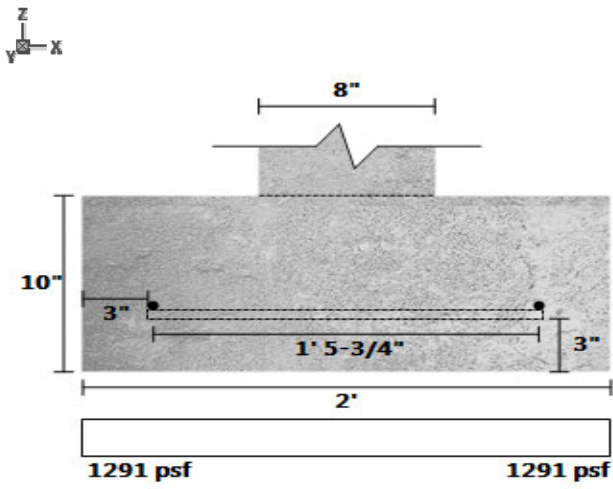
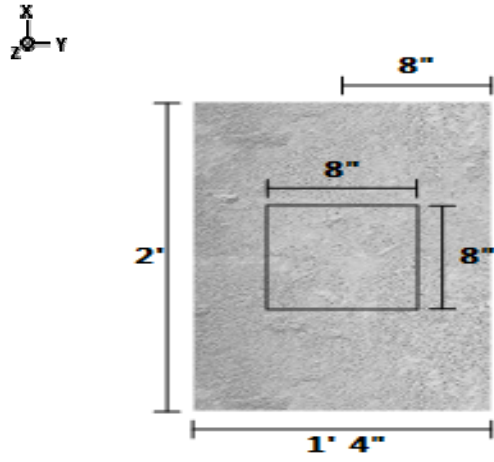
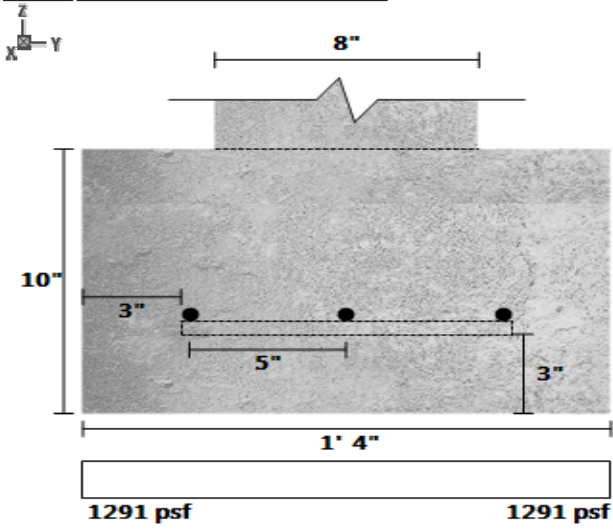
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #23	B	272.5	-	0	-	Dead	Z
Point (lbf)	Header #23	B	2847.656	-	0	-	Snow	Z

**SpotFtg Hdr #23-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #10-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
5.00 (ft) X 5.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(6) #4 Long, (6) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
5	5	10	20.83	3020.83

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
5.5	5.5	Wood	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (6.9%)</b>	1396.3	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (49.7%)</b>	19850.9	39436.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (49.7%)</b>	19850.9	39436.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (25.8%)</b>	47807.5	64412.2	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (17.9%)</b>	28386.8	34556.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (17.9%)</b>	28386.8	34556.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (50.3%)</b>	49887.0	100278.8	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	25.0	25.0	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

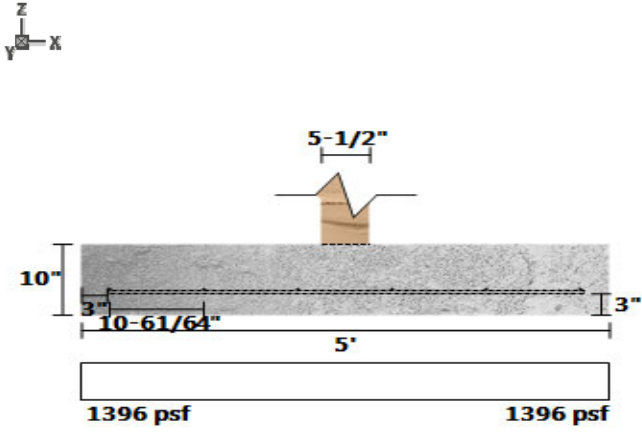
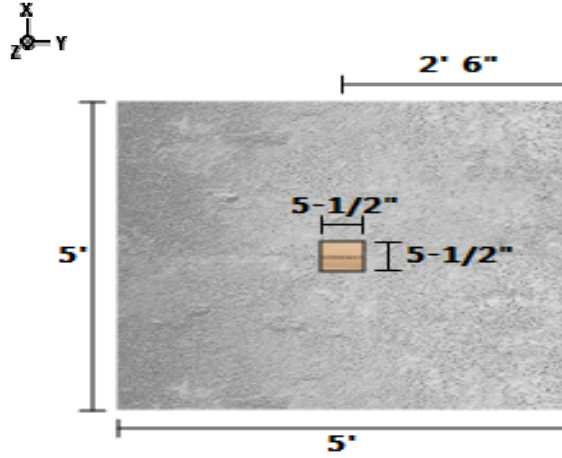
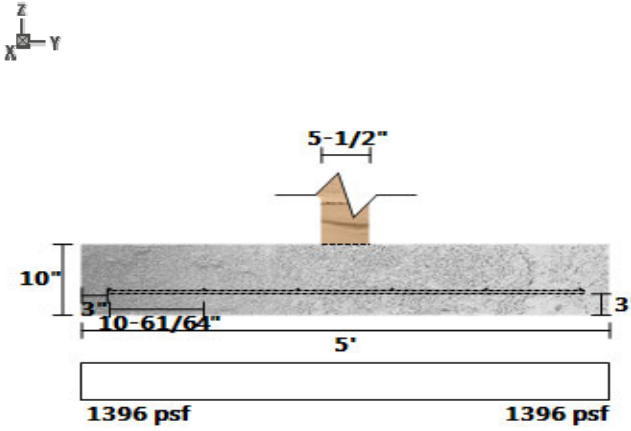
**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #9	B	1977.744	-	0	-	Dead	Z
Point (lbf)	Beam #9	B	19483.32	-	0	-	Snow	Z
Point (lbf)	Beam #10	A	861.9855	-	0	-	Dead	Z
Point (lbf)	Beam #10	A	5.000002	-	0	-	Live	Z

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #10	A	9562.518	-	0	-	Snow	Z

**SpotFtg Bm #10-1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #10-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

3.00 (ft) X 3.00 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short
---------------------------------	-------------------------	-------------------------------

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (14.7%)</b>	1279.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (79.6%)</b>	4823.8	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (79.6%)</b>	4823.8	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (82.5%)</b>	13600.6	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (83.8%)</b>	3707.7	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (83.8%)</b>	3707.7	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (92.3%)</b>	16344.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

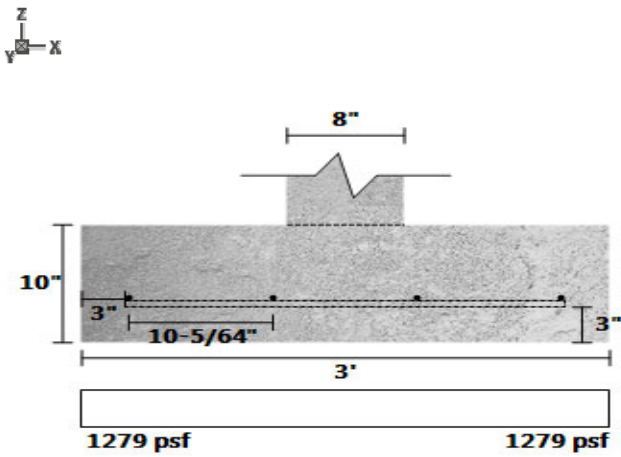
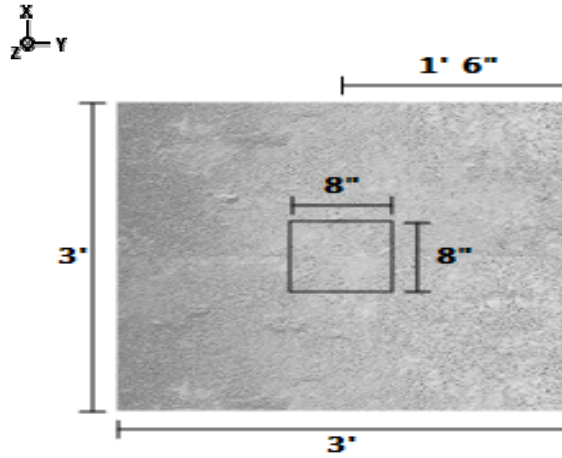
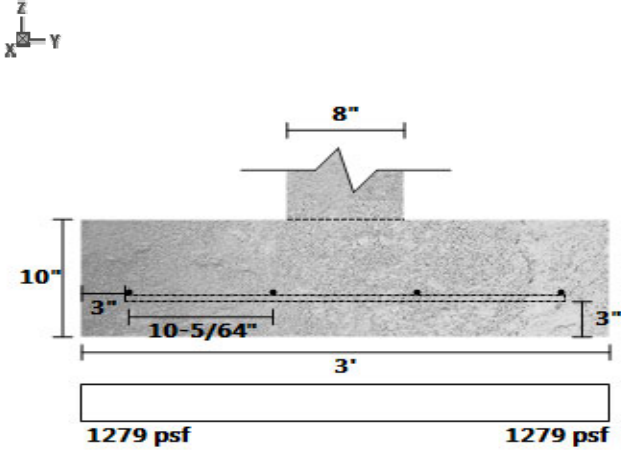
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #10	B	865.2609	-	0	-	Dead	Z
Point (lbf)	Beam #10	B	5.000008	-	0	-	Live	Z
Point (lbf)	Beam #10	B	9562.494	-	0	-	Snow	Z

**SpotFtg Bm #10-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #8-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
5.00 (ft) X 5.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(6) #4 Long, (6) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
5	5	10	20.83	3020.83

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
5.5	5.5	Wood	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (15.9%)</b>	1261.7	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (53.0%)</b>	18534.8	39436.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (53.0%)</b>	18534.8	39436.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (30.7%)</b>	44638.1	64412.2	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (23.3%)</b>	26504.8	34556.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (23.3%)</b>	26504.8	34556.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (53.5%)</b>	46579.7	100278.8	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	25.0	25.0	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

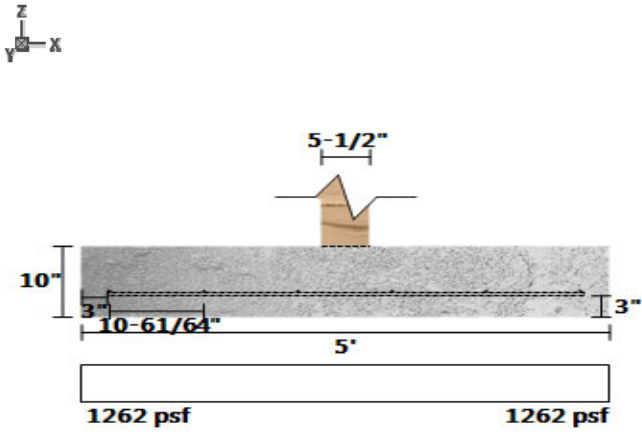
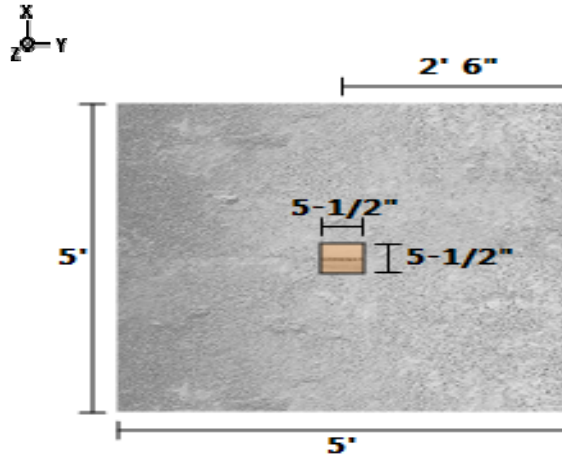
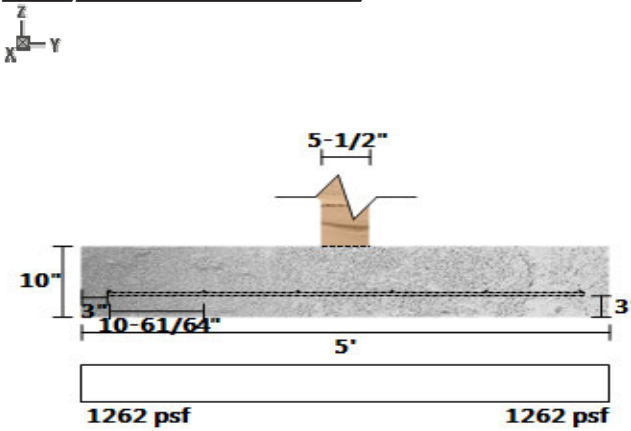
**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #8	A	2647.287	-	0	-	Dead	Z
Point (lbf)	Beam #8	A	9.999996	-	0	-	Live	Z
Point (lbf)	Beam #8	A	24901.33	-	0	-	Snow	Z
Point (lbf)	Beam #19	A	973.8118	-	0	-	Dead	Z

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #19	A	2381.25	-	0	-	Live	Z

**SpotFtg Bm #8-1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #8-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
5.00 (ft) X 5.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(6) #4 Long, (6) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
5	5	10	20.83	3020.83

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (2.0%)</b>	1469.6	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (48.1%)</b>	20483.4	39436.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (48.1%)</b>	20483.4	39436.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (34.2%)</b>	51037.7	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (26.2%)</b>	25500.5	34556.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (26.2%)</b>	25500.5	34556.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (74.4%)</b>	54320.5	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	25.0	25.0	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

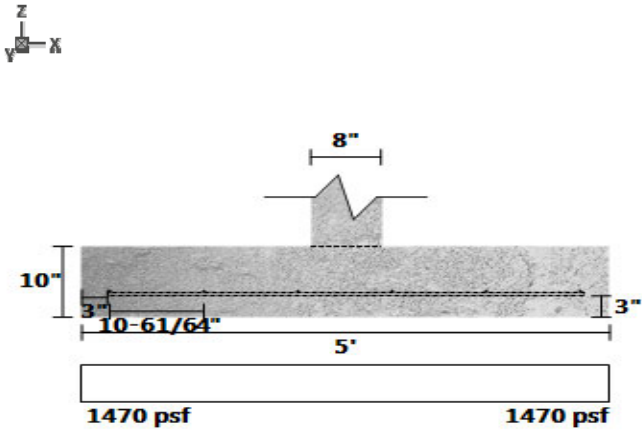
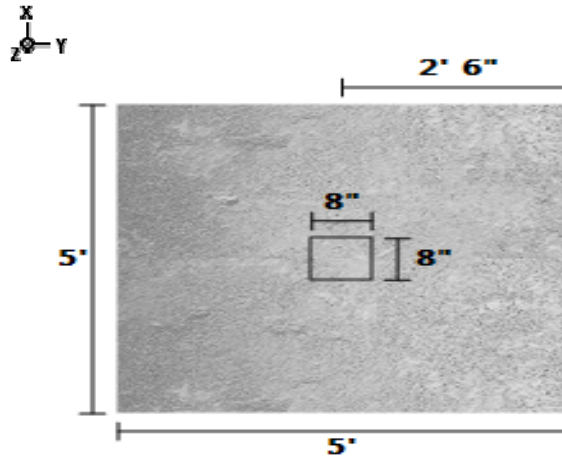
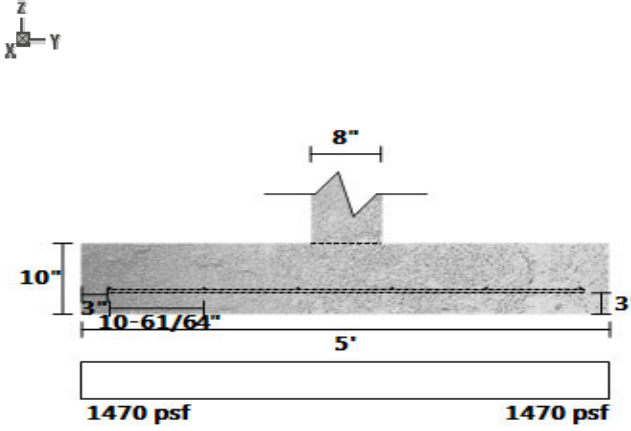
**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #8	B	1248.603	-	0	-	Dead	Z
Point (lbf)	Beam #8	B	10.00001	-	0	-	Live	Z
Point (lbf)	Beam #8	B	12445.34	-	0	-	Snow	Z
Point (lbf)	Header #19	A	197.6808	-	0	-	Dead	Z

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #19	A	2362.501	-	0	-	Snow	Z
Point (lbf)	Header #29	A	2407.003	-	0	-	Dead	Z
Point (lbf)	Header #29	A	1900.062	-	0	-	Live	Z
Point (lbf)	Header #29	A	15058.08	-	0	-	Snow	Z

**SpotFtg Bm #8-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Hdr #29-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
5.00 (ft) X 5.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(6) #4 Long, (6) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
5	5	10	20.83	3020.83

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
18	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (3.9%)</b>	1441.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (60.4%)</b>	15619.1	39436.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (60.4%)</b>	15619.1	39436.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (51.3%)</b>	47779.4	98078.9	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (27.8%)</b>	24961.0	34556.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (52.9%)</b>	16283.7	34556.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (88.9%)</b>	53171.3	477360.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	25.0	25.0	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

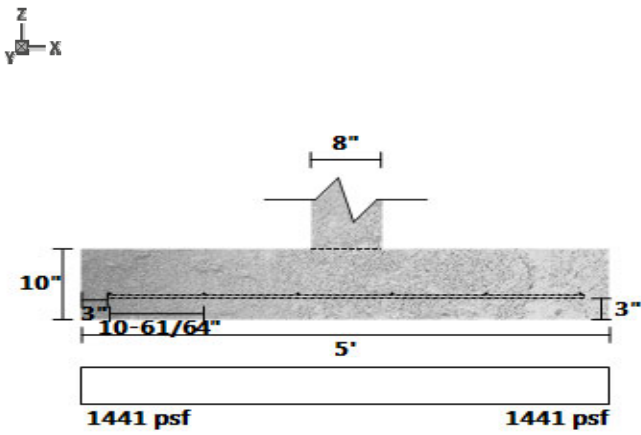
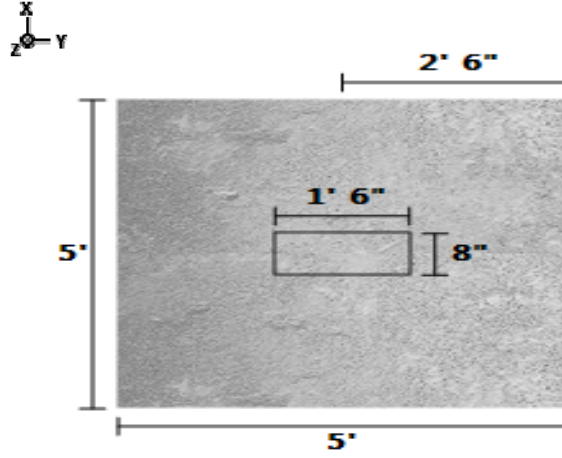
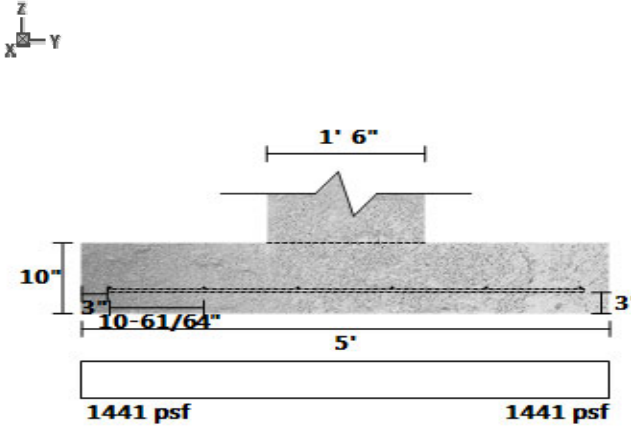
**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #27	A	1482.782	-	0	-	Dead	Z
Point (lbf)	Header #27	A	14068.61	-	0	-	Snow	Z
Point (lbf)	Header #29	B	2407.003	-	0	-	Dead	Z
Point (lbf)	Header #29	B	1900	-	0	-	Live	Z

**Linked Load List CONT.**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #29	B	15057.96	-	0	-	Snow	Z
Point (lbf)	Header #29	B	5.000122	-	0	-	RoofLive	Z

**SpotFtg Hdr #29-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Hdr #27-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.00 (ft) X 4.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
3	4	10	10	1450

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (6.0%)</b>	1410.2	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (77.4%)</b>	7132.6	31548.8	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (69.9%)</b>	7132.6	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (72.8%)</b>	21124.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (63.4%)</b>	8391.3	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (80.9%)</b>	5482.3	28754.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (88.6%)</b>	24166.8	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	12.0	12.0	D	LRFD

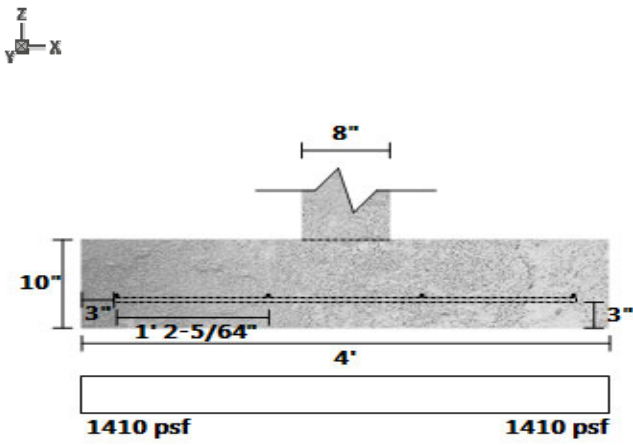
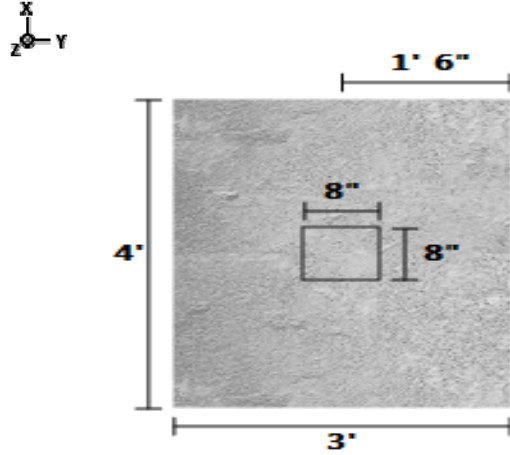
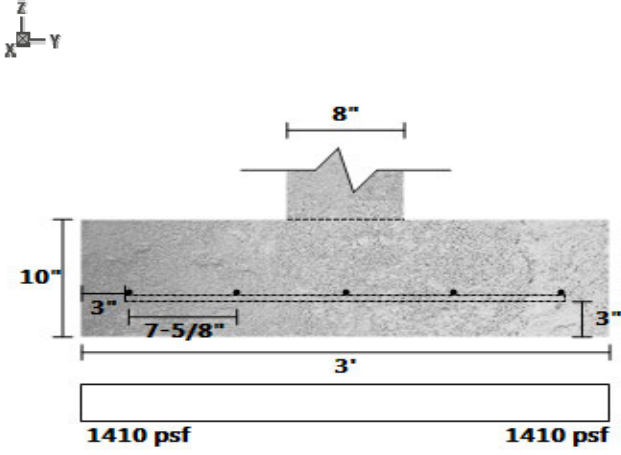
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #27	B	1476.967	-	0	-	Dead	Z
Point (lbf)	Header #27	B	13995.92	-	0	-	Snow	Z
Point (lbf)	Header #27	B	5.000002	-	0	-	RoofLive	Z

**SpotFtg Hdr #27-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Hdr #24	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
1.33 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (2) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
1.3334	3	10	3.33	483.36

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (13.2%)</b>	1301.3	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (98.8%)</b>	289.4	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (97.2%)</b>	289.4	10516.8	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (94.1%)</b>	4608.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (85.3%)</b>	1679.8	11416.5	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (98.7%)</b>	308.6	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (96.5%)</b>	7404.9	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	4.0	4.0	D	LRFD

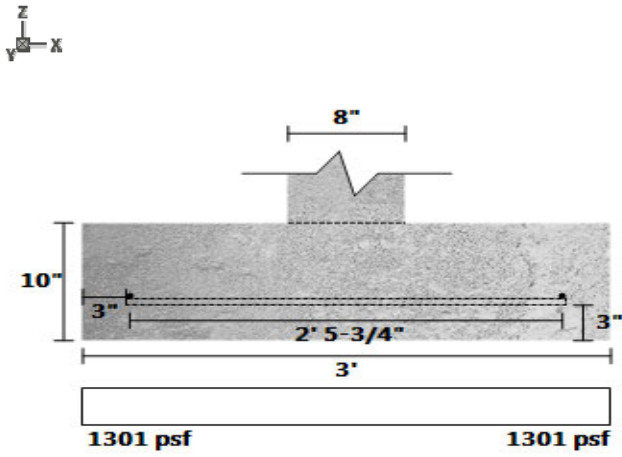
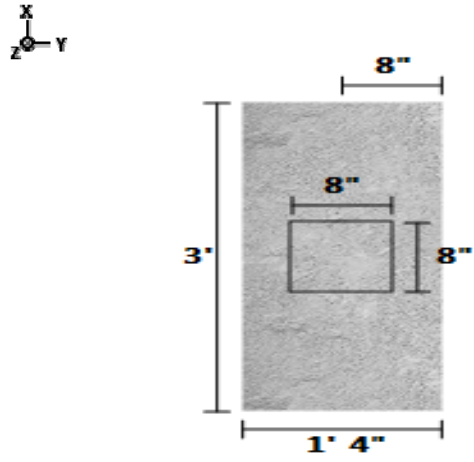
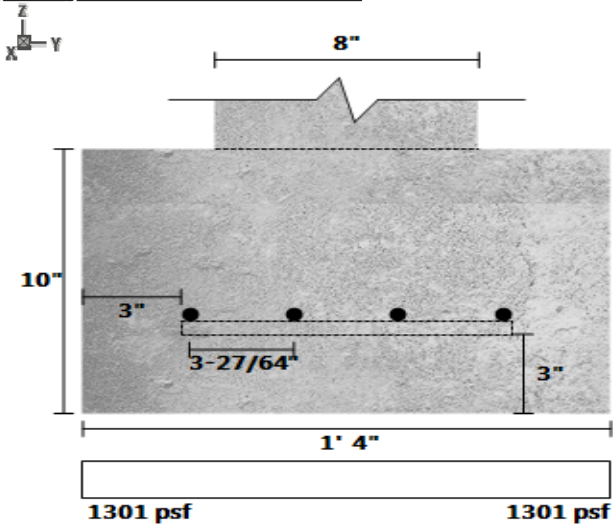
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Header #24	A	378.9728	-	0	-	Dead	Z
Point (lbf)	Header #24	A	4343.18	-	0	-	Snow	Z

**SpotFtg Hdr #24 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #19-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.00 (ft) X 2.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
2	2	10	3.33	483.33

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
5.5	5.5	Wood	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (36.0%)</b>	959.9	1500.0	D+L	ASD
One-Way Shear X (lbf)	<b>PASS (92.3%)</b>	1219.1	15774.4	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	<b>PASS (92.3%)</b>	1219.1	15774.4	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (94.3%)</b>	3682.7	64412.2	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	<b>PASS (94.3%)</b>	976.1	17124.7	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	<b>PASS (94.3%)</b>	976.1	17124.7	1.2D+1.6L+0.5Lr	LRFD
Crushing (psi)	<b>PASS (95.0%)</b>	4980.2	100278.8	1.2D+1.6L+0.5Lr	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	4.0	4.0	D	LRFD

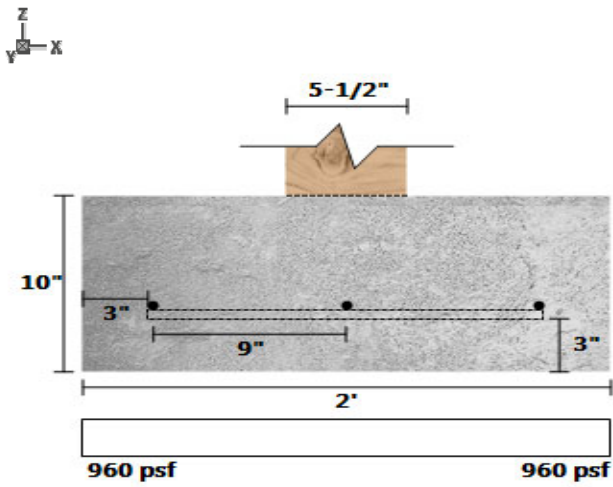
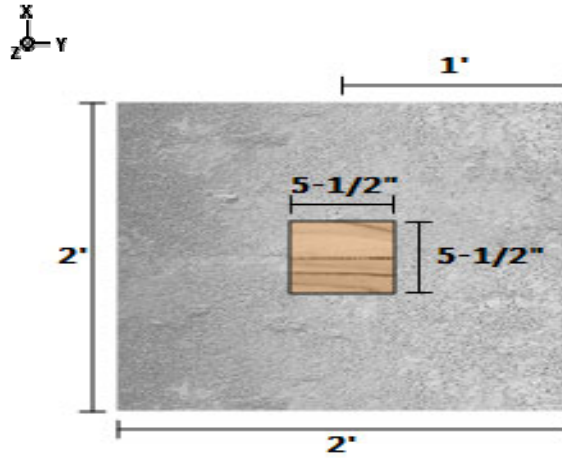
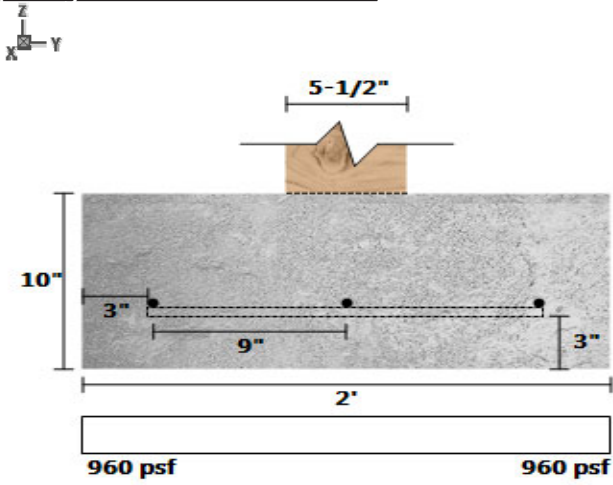
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #19	B	973.8118	-	0	-	Dead	Z
Point (lbf)	Beam #19	B	2381.25	-	0	-	Live	Z

**SpotFtg Bm #19-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #12-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

2.50 (ft) X 2.50 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (3) #4 Short
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**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
2.5	2.5	10	5.21	755.21

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (32.9%)</b>	1006.0	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (89.0%)</b>	2178.1	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (89.0%)</b>	2178.1	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (91.6%)</b>	6498.0	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (91.7%)</b>	1440.2	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (91.7%)</b>	1440.2	17278.2	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (96.0%)</b>	8569.6	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	6.3	6.3	D	LRFD

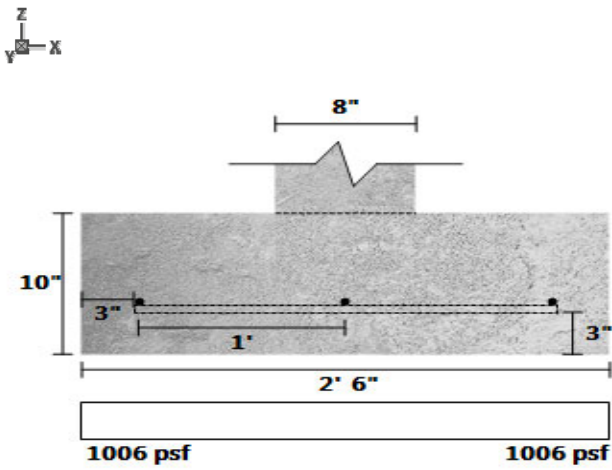
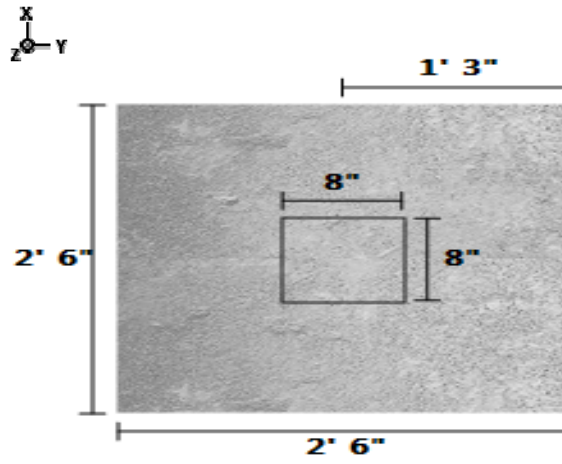
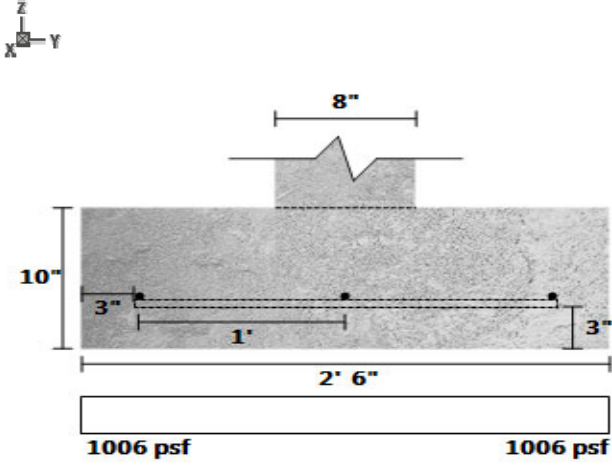
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #12	A	707.9236	-	0	-	Dead	Z
Point (lbf)	Beam #12	A	4824.436	-	0	-	Snow	Z

SpotFtg Bm #12-1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		

LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #12-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

4.00 (ft) X 4.00 (ft) X 10 (in)	Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (5) #4 Short
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**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
4	4	10	13.33	1933.33

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (15.1%)</b>	1273.3	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (68.6%)</b>	9891.6	31548.8	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (68.6%)</b>	9891.6	31548.8	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (66.7%)</b>	25862.4	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (65.5%)</b>	9916.4	28754.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (65.5%)</b>	9916.4	28754.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (86.5%)</b>	28559.2	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	16.0	16.0	D	LRFD

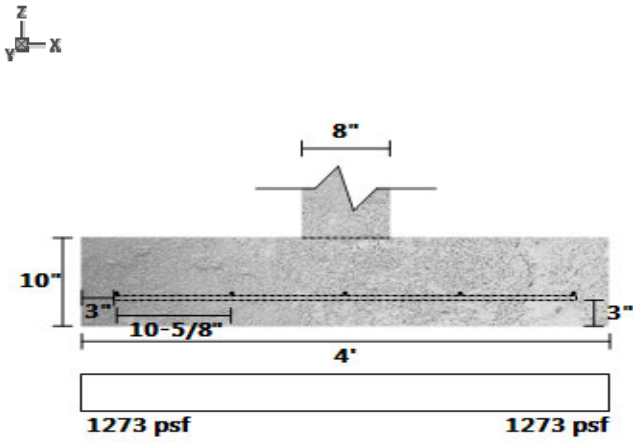
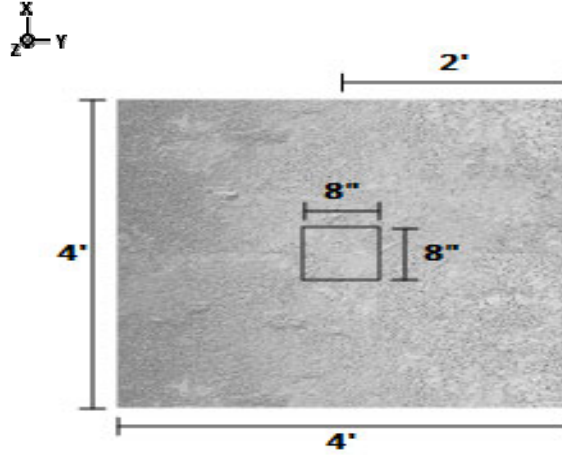
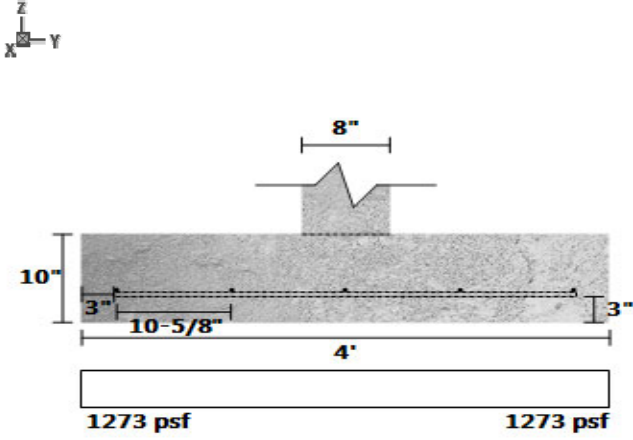
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #12	B	2359.431	-	0	-	Dead	Z
Point (lbf)	Beam #12	B	16079.31	-	0	-	Snow	Z

SpotFtg Bm #12-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #12-3	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.50 (ft) X 2.50 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(3) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
2.5	2.5	10	5.21	755.21

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (32.9%)</b>	1006.0	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (89.0%)</b>	2178.1	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (89.0%)</b>	2178.1	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (91.6%)</b>	6498.0	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (91.7%)</b>	1440.2	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (91.7%)</b>	1440.2	17278.2	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (96.0%)</b>	8569.6	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	6.3	6.3	D	LRFD

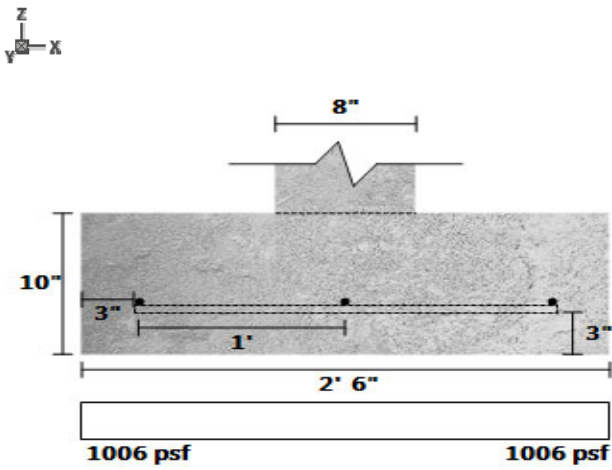
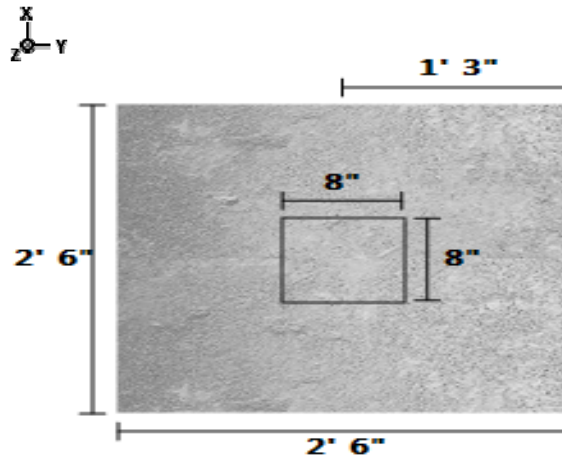
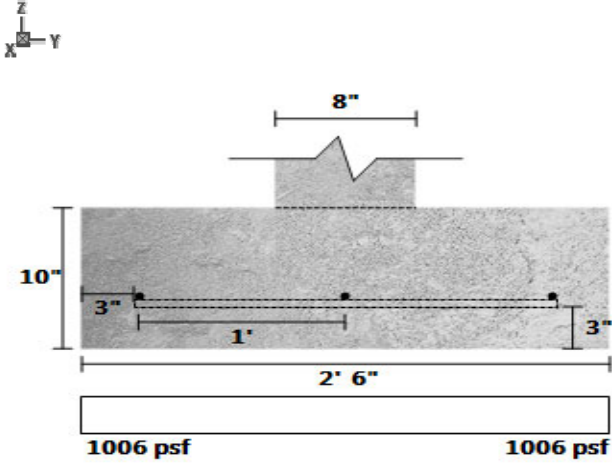
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #12	C	707.9236	-	0	-	Dead	Z
Point (lbf)	Beam #12	C	4824.436	-	0	-	Snow	Z

**SpotFtg Bm #12-3 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #13-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
2	3	10	5	725

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (21.0%)</b>	1185.4	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (91.9%)</b>	1908.9	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (87.9%)</b>	1908.9	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (90.4%)</b>	7411.3	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (86.9%)</b>	2247.1	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (95.2%)</b>	1100.6	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (95.3%)</b>	9905.7	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	6.0	6.0	D	LRFD

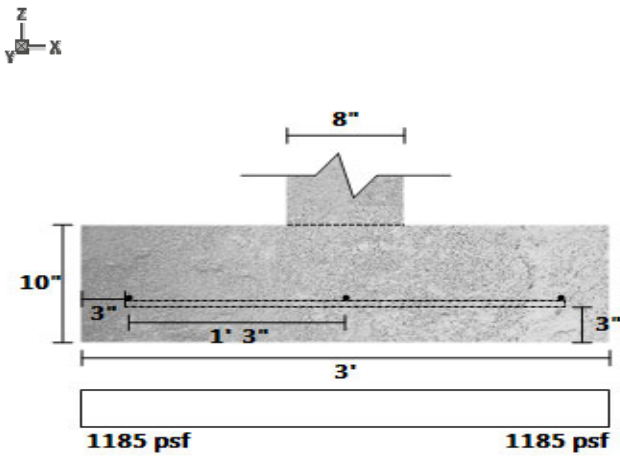
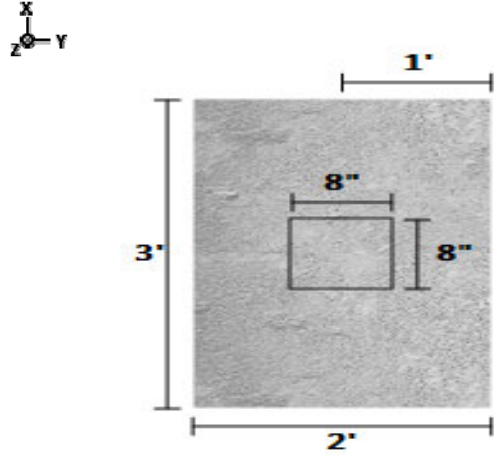
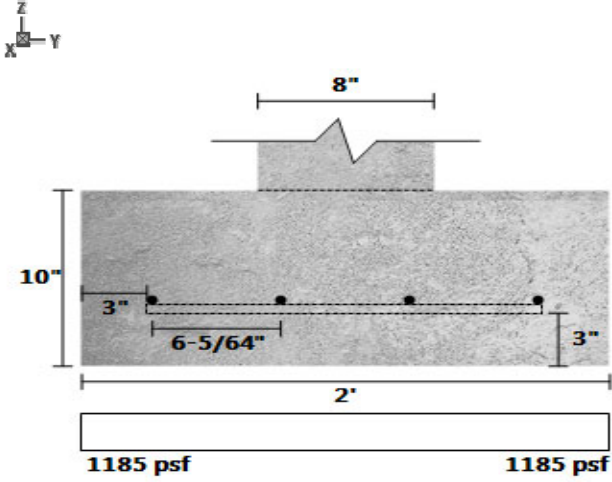
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #13	A	801.9386	-	0	-	Dead	Z
Point (lbf)	Beam #13	A	5.5	-	0	-	Live	Z
Point (lbf)	Beam #13	A	5585.52	-	0	-	Snow	Z

**SpotFtg Bm #13-1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #13-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
2.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (3) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
2	3	10	5	725

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (21.0%)</b>	1185.4	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (91.9%)</b>	1908.9	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (87.9%)</b>	1908.9	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (90.4%)</b>	7411.3	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (86.9%)</b>	2247.1	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (95.2%)</b>	1100.6	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (95.3%)</b>	9905.7	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	6.0	6.0	D	LRFD

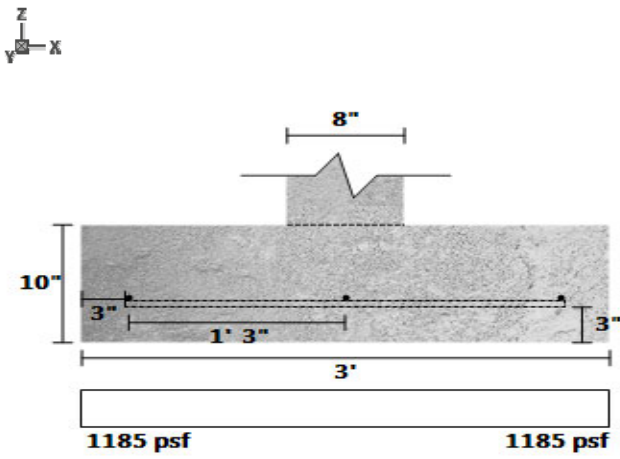
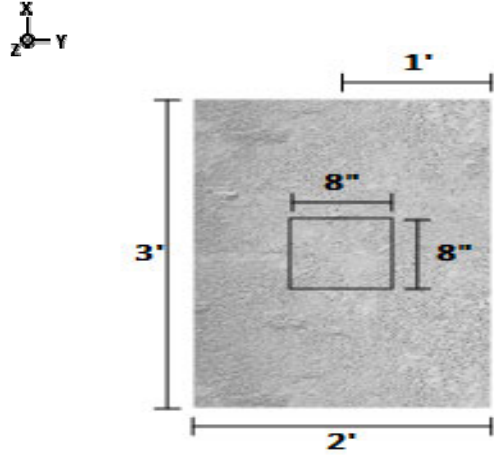
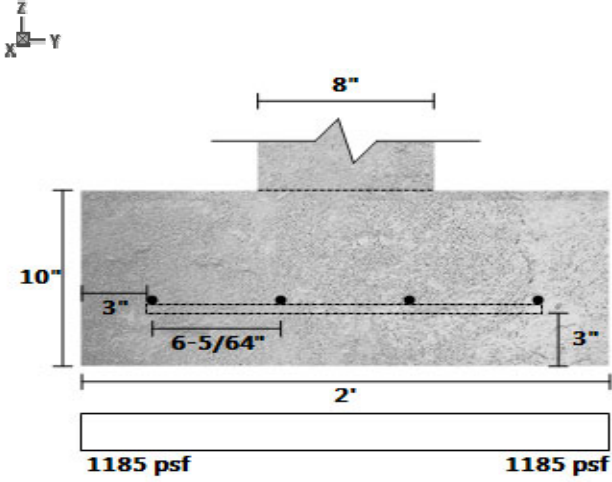
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #13	B	801.9386	-	0	-	Dead	Z
Point (lbf)	Beam #13	B	5.5	-	0	-	Live	Z
Point (lbf)	Beam #13	B	5585.52	-	0	-	Snow	Z

**SpotFtg Bm #13-2 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #14-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (26.7%)</b>	1100.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (82.9%)</b>	4034.3	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (82.9%)</b>	4034.3	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (85.3%)</b>	11374.6	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (86.5%)</b>	3100.9	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (86.5%)</b>	3100.9	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (93.6%)</b>	13669.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

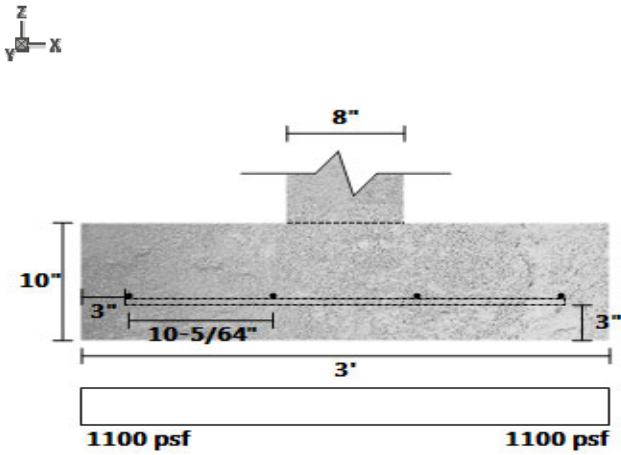
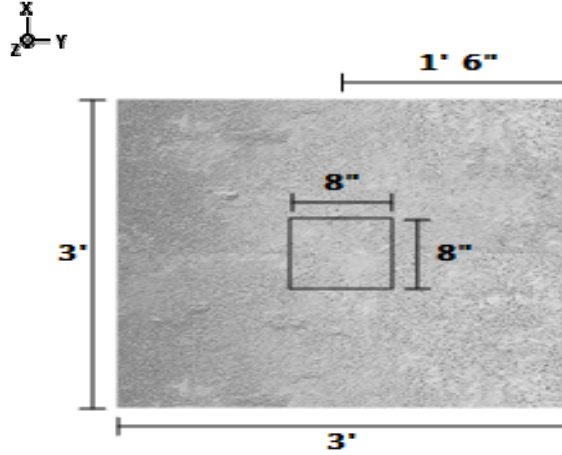
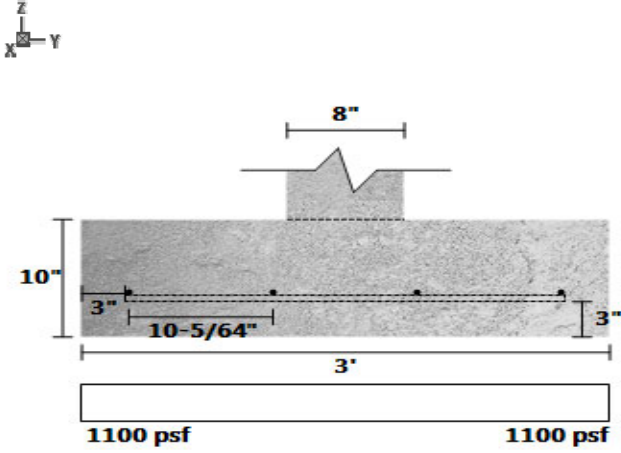
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #14	B	1082.49	-	0	-	Dead	Z
Point (lbf)	Beam #14	B	7730.822	-	0	-	Snow	Z

**SpotFtg Bm #14-1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #14-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (26.7%)</b>	1100.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (82.9%)</b>	4034.3	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (82.9%)</b>	4034.3	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (85.3%)</b>	11374.6	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (86.5%)</b>	3100.9	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (86.5%)</b>	3100.9	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (93.6%)</b>	13669.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

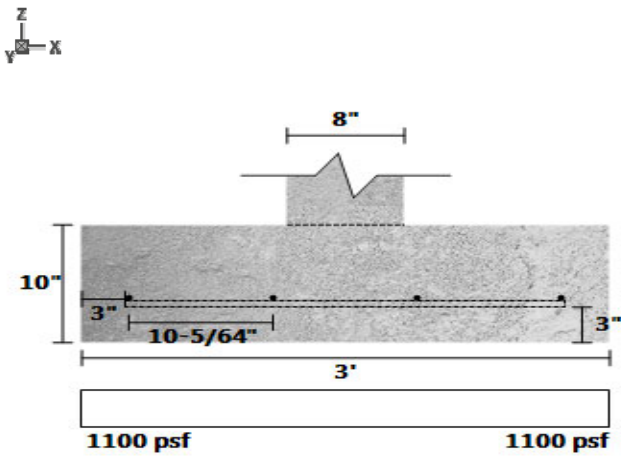
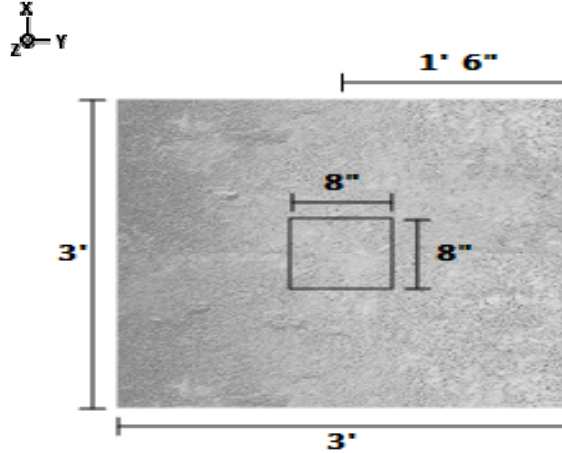
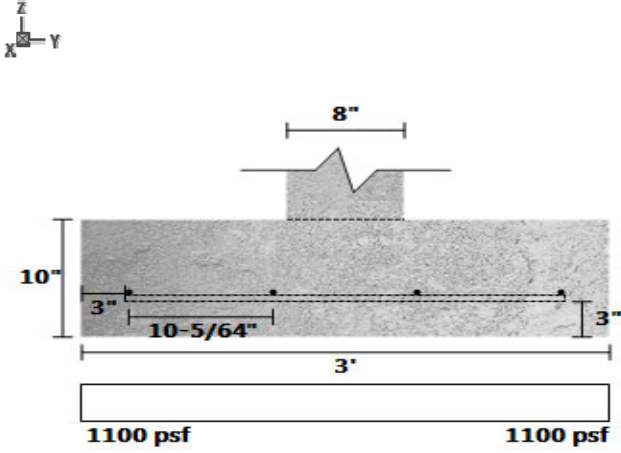
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #14	C	1082.489	-	0	-	Dead	Z
Point (lbf)	Beam #14	C	7730.821	-	0	-	Snow	Z

SpotFtg Bm #14-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #15-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (21.4%)</b>	1179.4	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (81.6%)</b>	4362.2	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (81.6%)</b>	4362.2	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (84.1%)</b>	12299.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (85.4%)</b>	3352.9	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (85.4%)</b>	3352.9	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (93.0%)</b>	14780.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

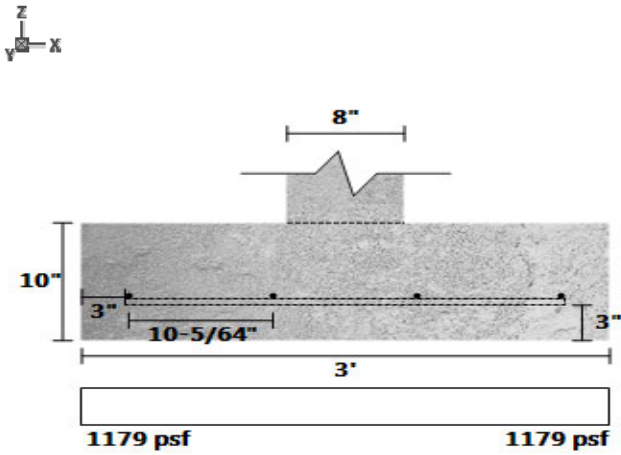
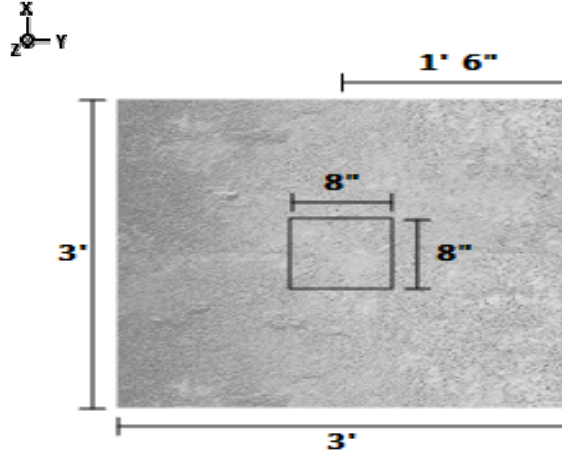
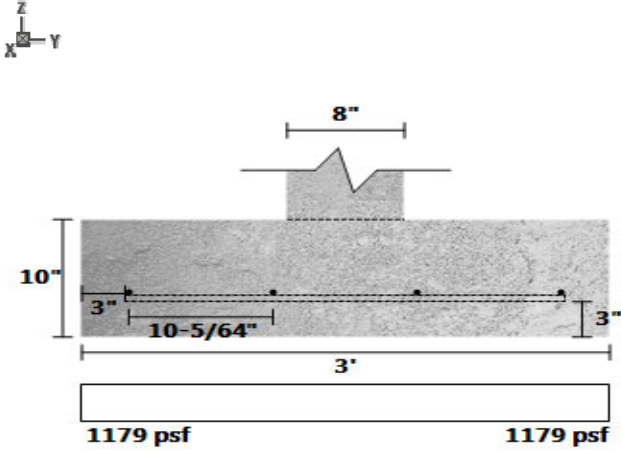
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #15	A	1160.219	-	0	-	Dead	Z
Point (lbf)	Beam #15	A	8366.896	-	0	-	Snow	Z

SpotFtg Bm #15-1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #16-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (23.5%)</b>	1147.0	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (82.2%)</b>	4216.9	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (82.2%)</b>	4216.9	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (84.7%)</b>	11889.4	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (85.9%)</b>	3241.2	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (85.9%)</b>	3241.2	22946.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (93.3%)</b>	14287.9	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

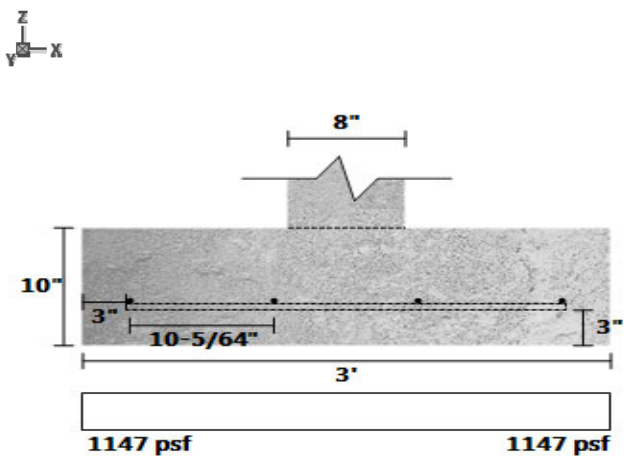
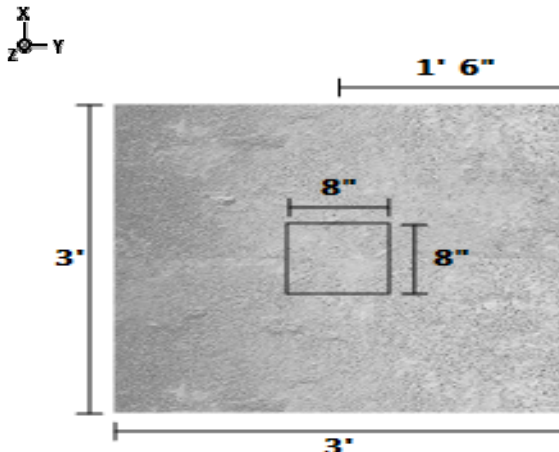
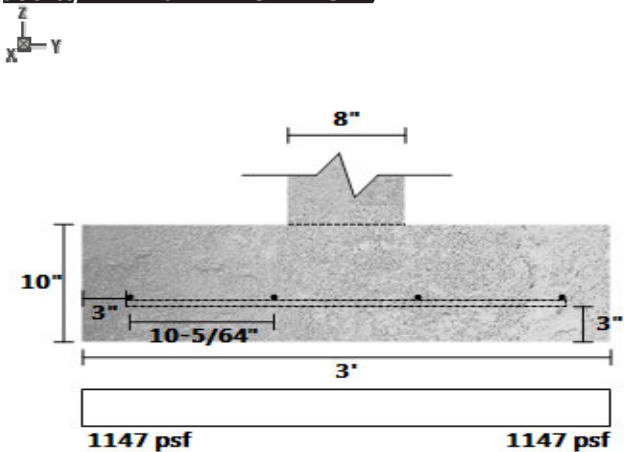
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #16	A	1225.317	-	0	-	Dead	Z
Point (lbf)	Beam #16	A	8010.327	-	0	-	Snow	Z

SpotFtg Bm #16-1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #16-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
4.50 (ft) X 4.50 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (5) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
4.5	4.5	10	16.88	2446.88

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (4.7%)</b>	1430.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (58.0%)</b>	14901.8	35492.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (58.0%)</b>	14901.8	35492.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (51.1%)</b>	37944.3	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (42.0%)</b>	16736.8	28872.8	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (42.0%)</b>	16736.8	28872.8	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (80.7%)</b>	41003.6	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	20.3	20.3	D	LRFD

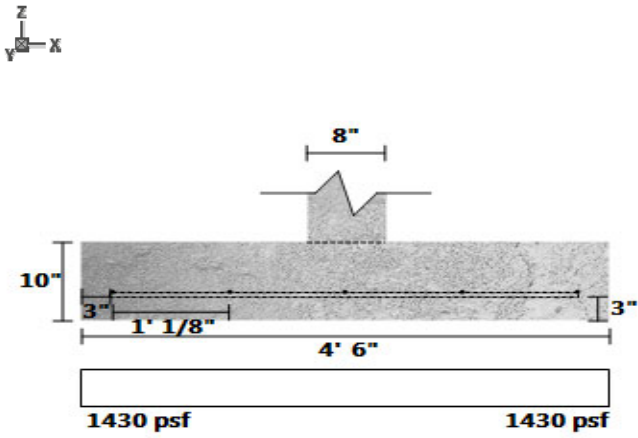
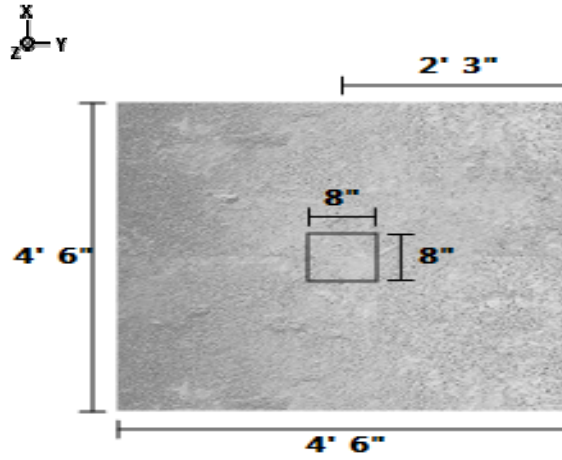
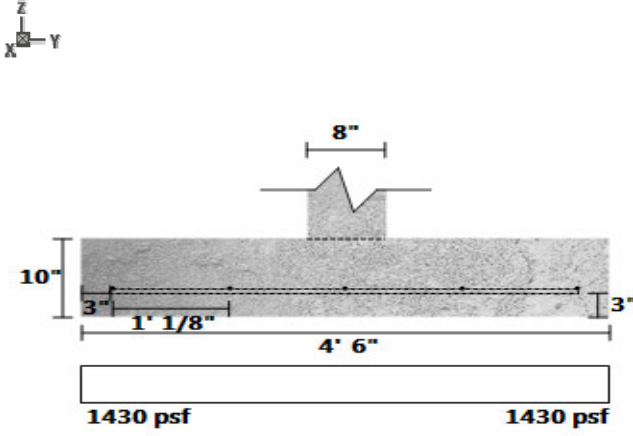
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #16	B	3547.045	-	0	-	Dead	Z
Point (lbf)	Beam #16	B	22966.34	-	0	-	Snow	Z

SpotFtg Bm #16-2 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #16-3	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
4.00 (ft) X 4.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (5) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
4	4	10	13.33	1933.33

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (1.0%)</b>	1485.7	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (62.8%)</b>	11720.5	31548.8	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (62.8%)</b>	11720.5	31548.8	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (60.5%)</b>	30644.2	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (59.1%)</b>	11749.9	28754.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (59.1%)</b>	11749.9	28754.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (84.0%)</b>	33839.6	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	16.0	16.0	D	LRFD

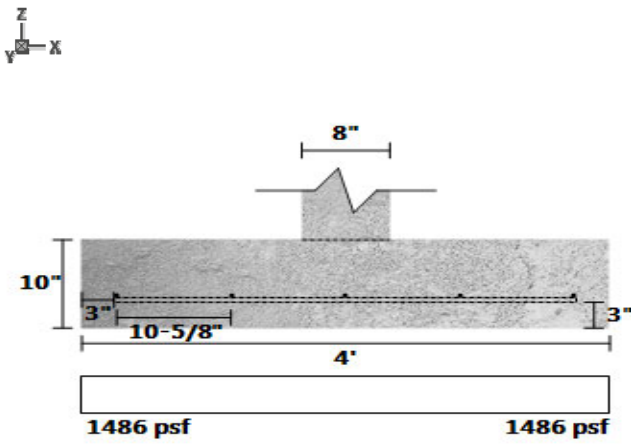
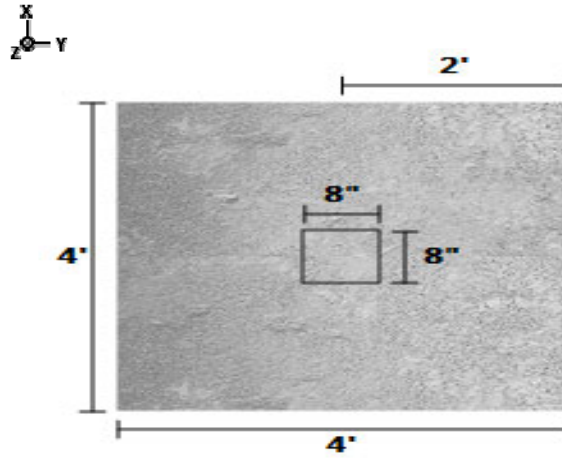
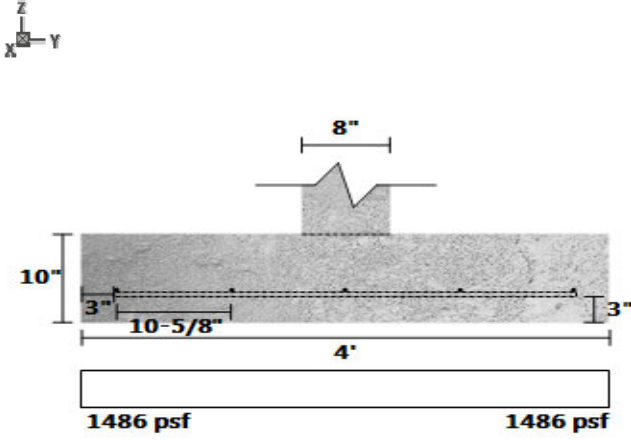
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #16	C	2756.63	-	0	-	Dead	Z
Point (lbf)	Beam #16	C	19081.66	-	0	-	Snow	Z

**SpotFtg Bm #16-3 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #16-4	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.50 (ft) X 3.50 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft³)	Footing Weight (lbf/ft)
3.5	3.5	10	10.21	1480.21

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft³)	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft²)	Density (lbf/ft³)	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft²)	<b>PASS (20.1%)</b>	1198.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (75.9%)</b>	6639.6	27605.2	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (75.9%)</b>	6639.6	27605.2	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (76.9%)</b>	17942.8	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (74.6%)</b>	5868.1	23076.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (74.6%)</b>	5868.1	23076.6	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (90.4%)</b>	20467.1	212160.0	1.2D+1.6S+L	LRFD
Compression (ft²)	<b>PASS (100.0%)</b>	12.3	12.3	D	LRFD

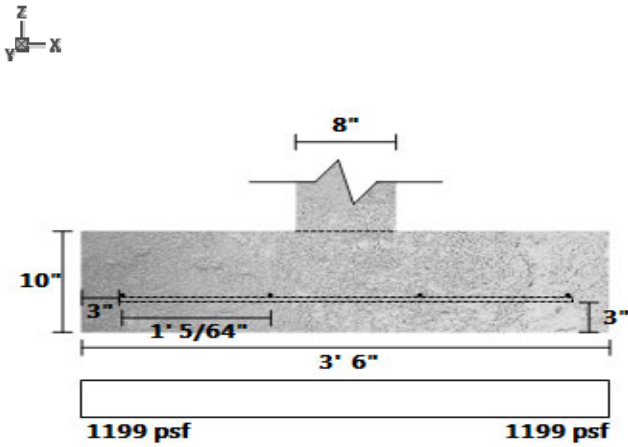
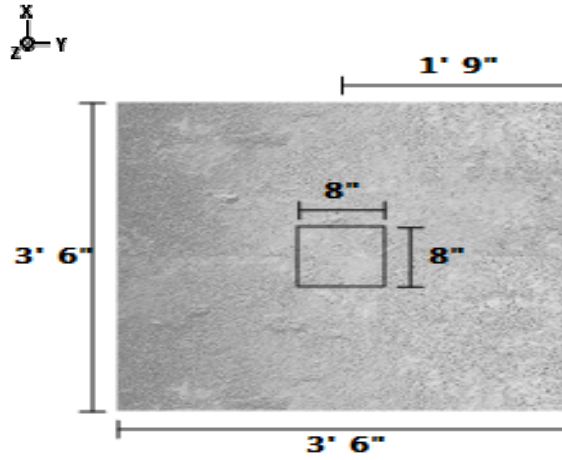
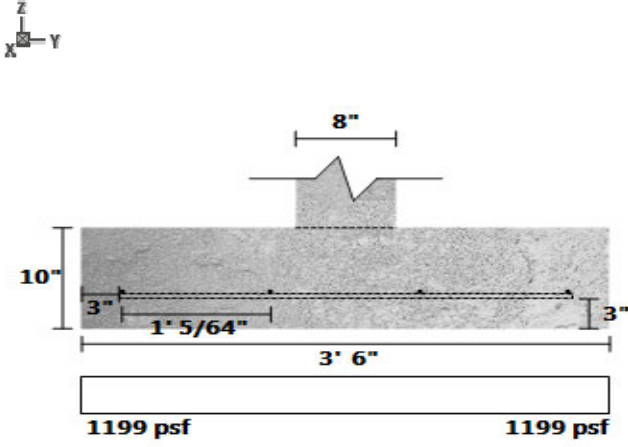
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #16	D	556.1861	-	0	-	Dead	Z
Point (lbf)	Beam #16	D	3909.531	-	0	-	Snow	Z
Point (lbf)	Beam #17	C	1084.589	-	0	-	Dead	Z
Point (lbf)	Beam #17	C	7651.217	-	0	-	Snow	Z

**SpotFtg Bm #16-4 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #17-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
4.00 (ft) X 4.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(5) #4 Long, (5) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
4	4	10	13.33	1933.33

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (19.6%)</b>	1206.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	<b>PASS (70.5%)</b>	9319.0	31548.8	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	<b>PASS (70.5%)</b>	9319.0	31548.8	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (68.6%)</b>	24365.3	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	<b>PASS (67.5%)</b>	9342.4	28754.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	<b>PASS (67.5%)</b>	9342.4	28754.4	1.2D+1.6S+L	LRFD
Crushing (psi)	<b>PASS (87.3%)</b>	26906.0	212160.0	1.2D+1.6S+L	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	16.0	16.0	D	LRFD

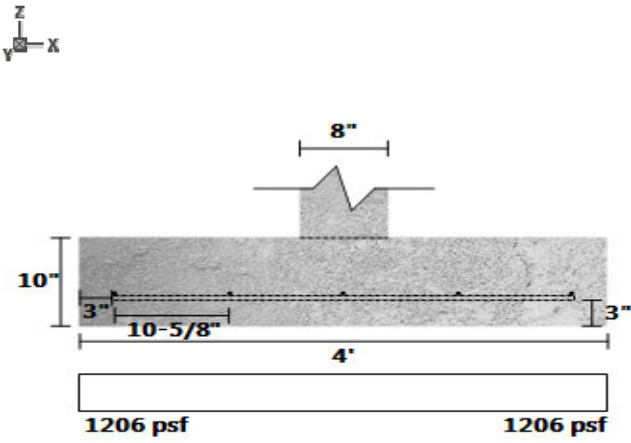
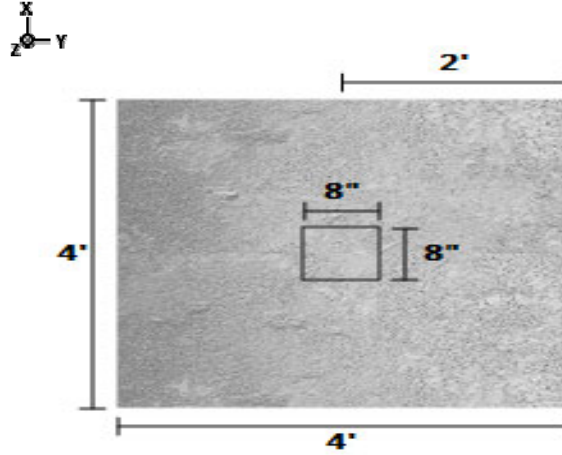
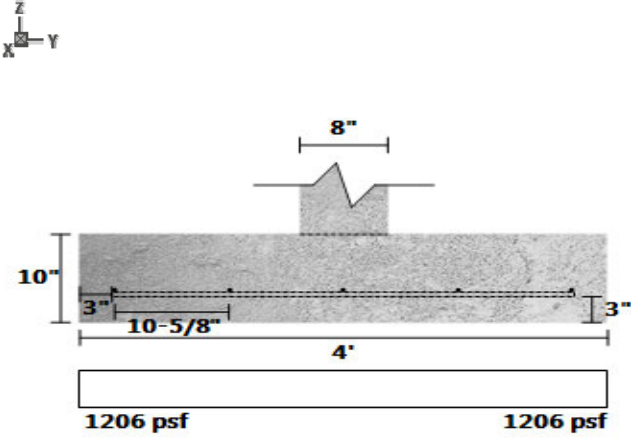
**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

**Linked Load List**

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #17	B	2218.486	-	0	-	Dead	Z
Point (lbf)	Beam #17	B	15151.76	-	0	-	Snow	Z

**SpotFtg Bm #17-1 DIAGRAMS**





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #14-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

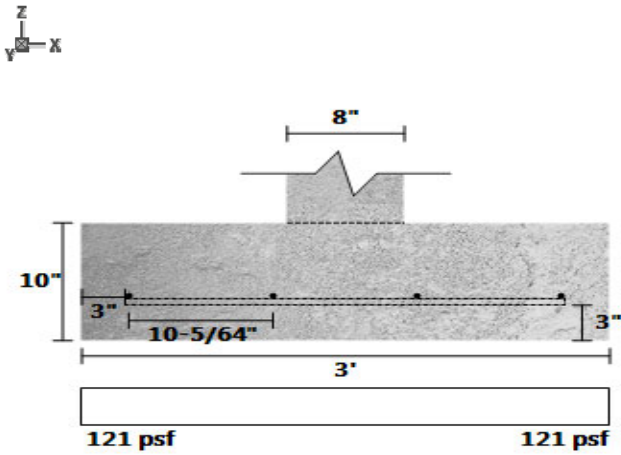
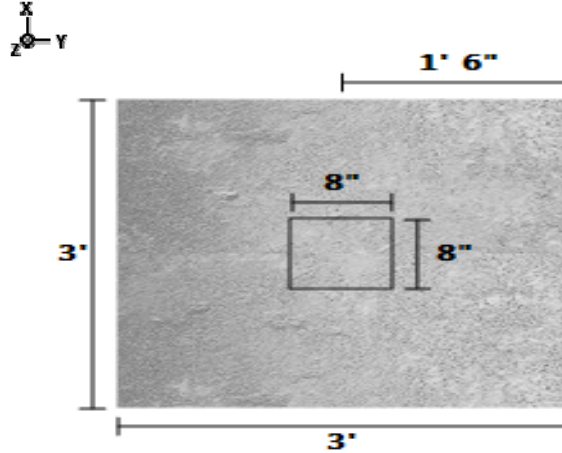
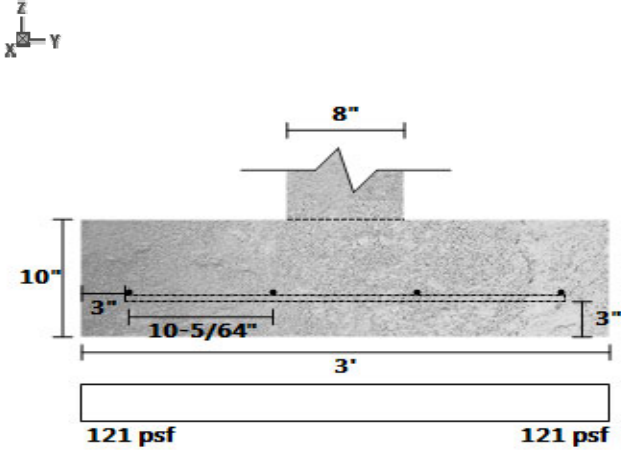
**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (91.9%)</b>	120.9	1500.0	D+L	ASD
One-Way Shear X (lbf)	<b>PASS (100.0%)</b>	0.5	23661.6	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	<b>PASS (100.0%)</b>	0.5	23661.6	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (100.0%)</b>	1.3	77557.5	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	<b>PASS (100.0%)</b>	0.4	22946.6	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	<b>PASS (100.0%)</b>	0.4	22946.6	1.2D+1.6L+0.5Lr	LRFD
Crushing (psi)	<b>PASS (100.0%)</b>	1.6	212160.0	1.2D+1.6L+0.5Lr	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

SpotFtg Bm #14-1 DIAGRAMS





**PASS**

DATE:	10/1/2025	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:	--	REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	25-002 River Fork Ranch - Lot 7
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #14-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		
3.00 (ft) X 3.00 (ft) X 10 (in)		Soil Depth TOF : 0 (ft)	Bot.(4) #4 Long, (4) #4 Short

**MATERIAL PROPERTIES**

**FOOTING**

Width (ft)	Length (ft)	Depth (in)	Volume (ft <sup>3</sup> )	Footing Weight (lbf/ft)
3	3	10	7.5	1087.5

**CONCRETE**

fc' (psi)	Ec (psi)	Density (lbf/ft <sup>3</sup> )	Agg. Dia.(in)
3000	0	145	0.75

**CALCULATION VARIABLES**

Bo (in)	Rankine Coefficient(Kp)
0	3

**COLUMN**

Width (in)	length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

**SOIL**

Bearing Strength(lbf/ft <sup>2</sup> )	Density (lbf/ft <sup>3</sup> )	Cohesion	Friction Angle	Depth (ft)
1500	140	0	30	0

**REBAR**

Bottom Bar Size #	fy (psi)	Es (psi)
4	60000	2.9E+07

**COVER**

Top Cover (in)	Bottom Cover (in)	Side Cover (in)
3	3	3

**PASS-FAIL**

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft <sup>2</sup> )	<b>PASS (91.9%)</b>	120.9	1500.0	D+L	ASD
One-Way Shear X (lbf)	<b>PASS (100.0%)</b>	0.5	23661.6	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	<b>PASS (100.0%)</b>	0.5	23661.6	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf-ft)	<b>PASS (100.0%)</b>	1.3	77557.5	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	<b>PASS (100.0%)</b>	0.4	22946.6	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	<b>PASS (100.0%)</b>	0.4	22946.6	1.2D+1.6L+0.5Lr	LRFD
Crushing (psi)	<b>PASS (100.0%)</b>	1.6	212160.0	1.2D+1.6L+0.5Lr	LRFD
Compression (ft <sup>2</sup> )	<b>PASS (100.0%)</b>	9.0	9.0	D	LRFD

**LOAD LIST**

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

SpotFtg Bm #14-2 DIAGRAMS

