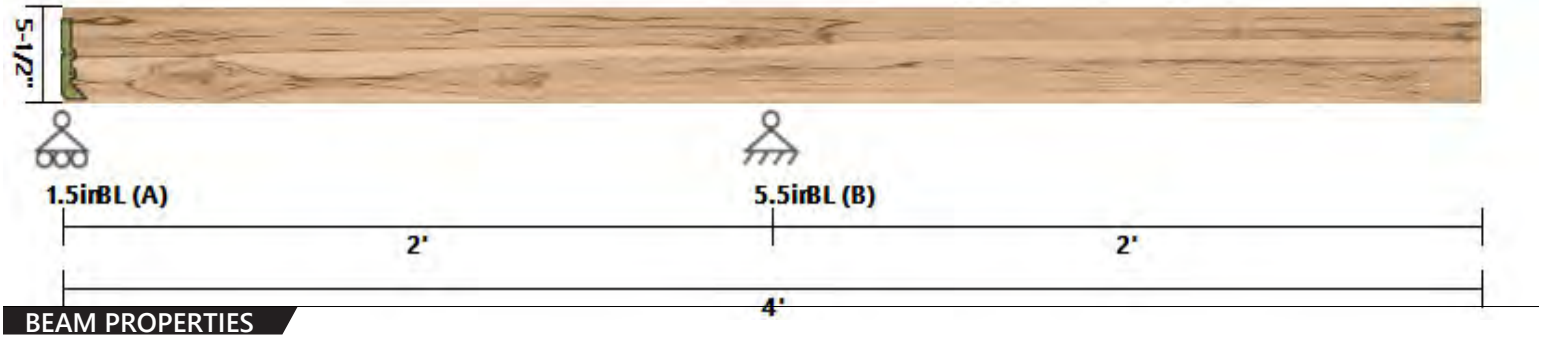
PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Outlookers	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(1) 1.5 X 5.5	24(in) O.C.	DRY	

Outlookers DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 4 Member Slope: 4/12 Actual Length (ft): 4.22 Roof Pitch: 4/12 O.C. Spacing(in): 24

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1346	748	180	1485	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.3	1.3	1	1.1	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1.15

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2	0	2	0.6666667				
2	2	0	2	0.6666667				

PASS-FAIL

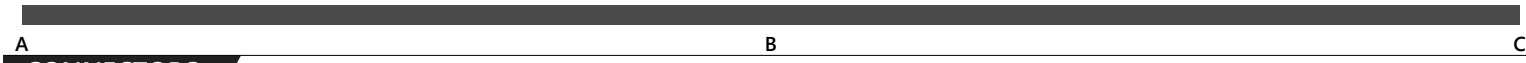
	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (44.0%)	116.0	207.0	2	D+S	1.15
Bending Stress Y (psi)	PASS (29.8%)	1066.7	1520.1	2	D+S	1.15
Deflection Y (in)	PASS (75.3%)	0.069 (=L/696)	0.281 (=L/171)	4	S	0
Compressive Stress (psi)	PASS (98.5%)	25.3	1683.5	2.04	D+S	1.15
Tensile Stress (psi)	PASS (97.0%)	25.8	859.6	2	D+S	1.15
Bearing Stress (psi)	PASS (78.0%)	146.7	667.6	2	D+S	1.15
Bending-Compression (Unit)	PASS (32.5%)	0.67	1.00	2.04	D+S	1.15
Bending-Tension (Unit)	PASS (28.1%)	0.72	1.00	2	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	80	1265	1345
C	0	0	0

Reaction Location



CONNECTORS

(All connectors are Simpson Strong-Tie connectors)*

Support A	Model	Type	Adequacy (%)	Header Fastening (in)	Joist Nails (in)	Nailer Thickness (in)
Primary	LU26	Hanger	100	(6) 0.162 x 3.5	(4) 0.148 x 3	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.

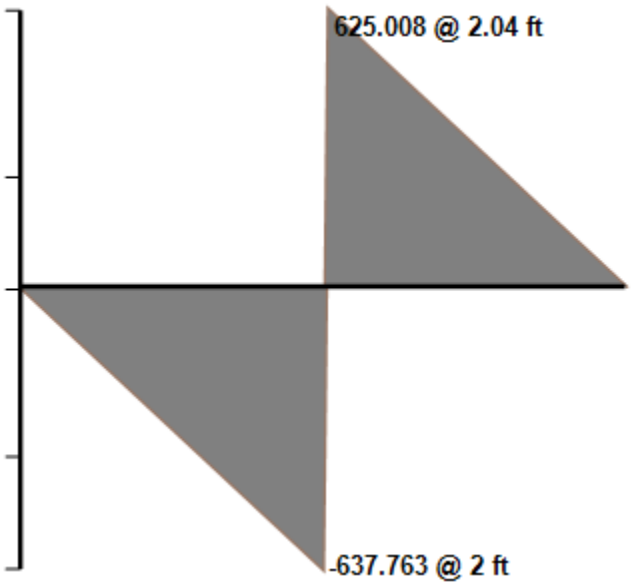
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft^2)	Uniform	150	150	0	4	Snow	Y
Uniform (lbf/ft)	Uniform	17	17	0	4	Dead	Y
Self Weight (lbf/ft)	-	1.88	1.88	0	4	Dead	Y

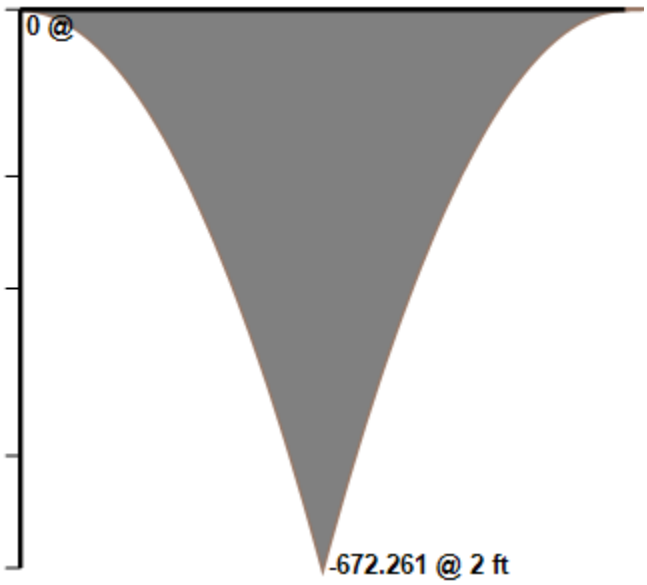
VMD DIAGRAMS

Load Combination: ASD

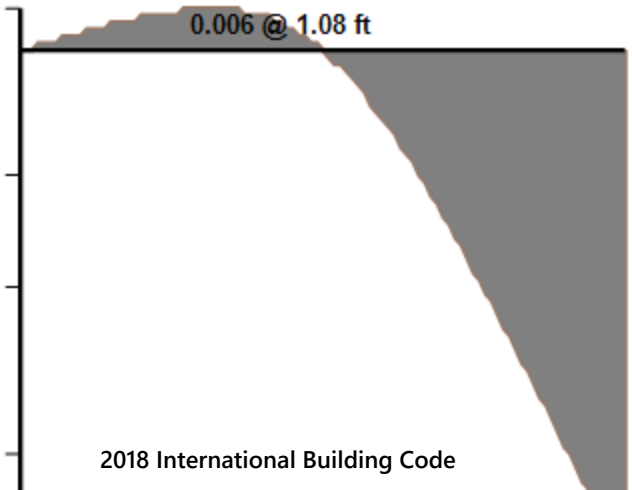
Y - Shear



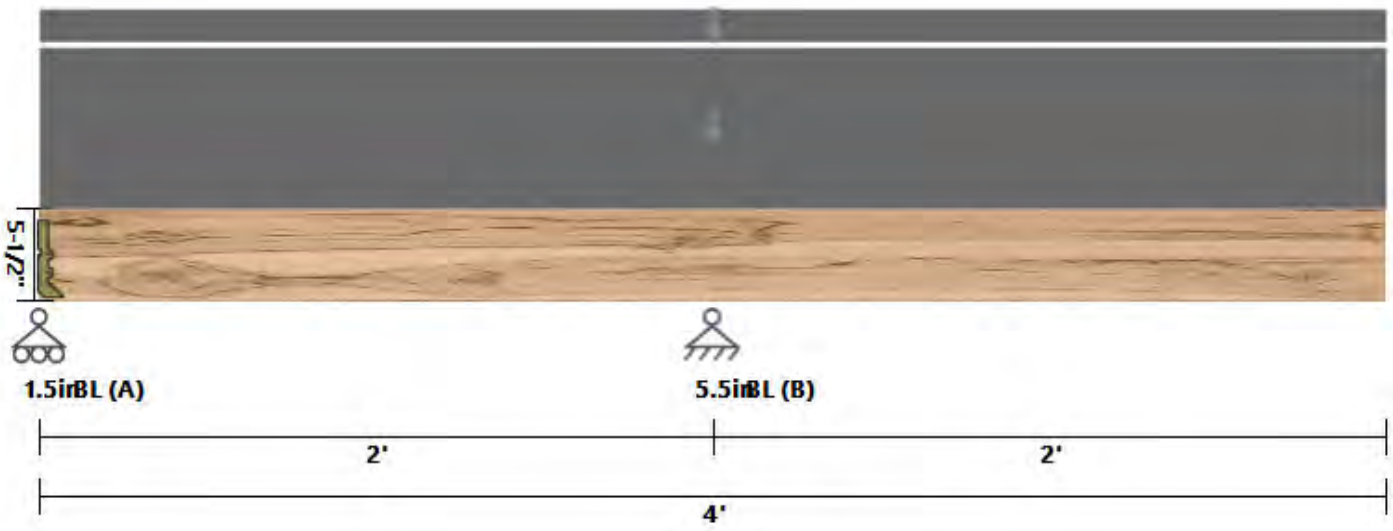
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

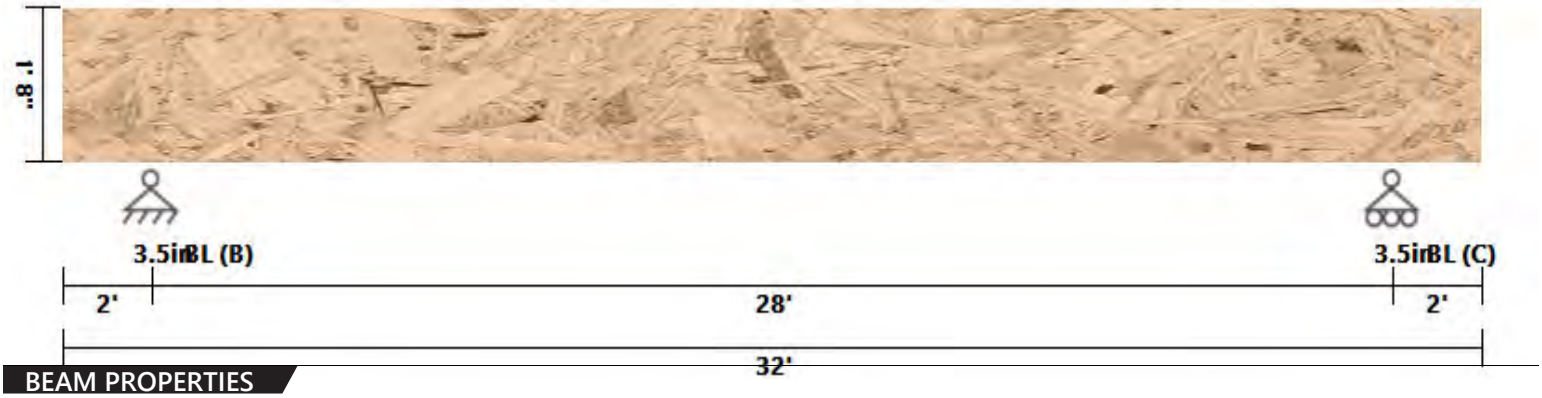


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #1	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 20	24(in) O.C.	DRY	

Trusses #1 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 32 Member Slope: 0/12 Actual Length (ft): 32 Roof Pitch: 0/12 O.C. Spacing(in): 24

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
70	2333.33	17.86	20.42	2	7.35	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 0.93C_r = 1.04 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2	0	2	0				
2	28	0	28	0				
3	2	0	2	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (68.1%)	104.5	327.8	2.24	D+S	1.15
Bending Stress Y (psi)	PASS (39.7%)	1749.8	2900.8	16	D+S	1.15
Deflection Y (in)	PASS (26.2%)	0.197 (=L/1949)	0.267 (=L/1438)	0	S	0
Bearing Stress (psi)	PASS (44.3%)	462.9	830.4	30	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	871	560	4800	6231
C	871	560	4800	6231
D	0	0	0	0

Reaction Location

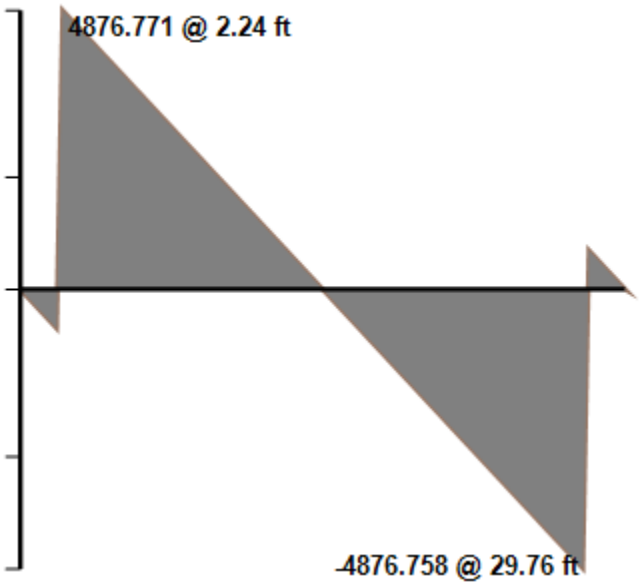
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	32	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	32	Dead	Y
Uniform (lbf/ft²)	Uniform	40	40	9	23	Live	Y
Self Weight (lbf/ft)	-	20.42	20.42	0	32	Dead	Y

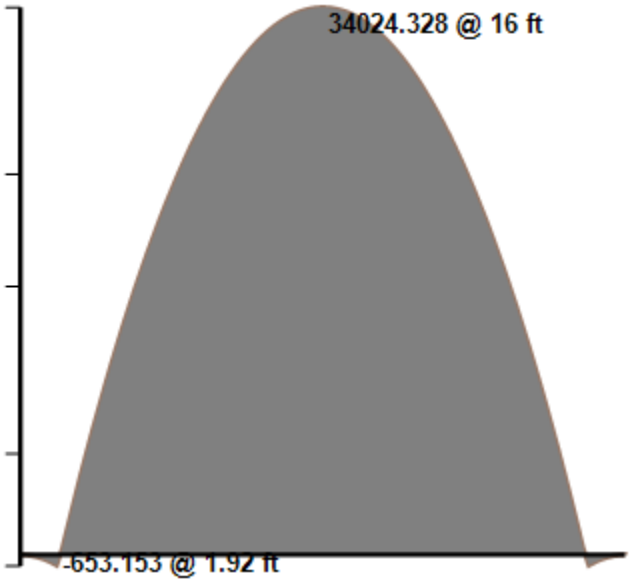
VMD DIAGRAMS

Load Combination: ASD

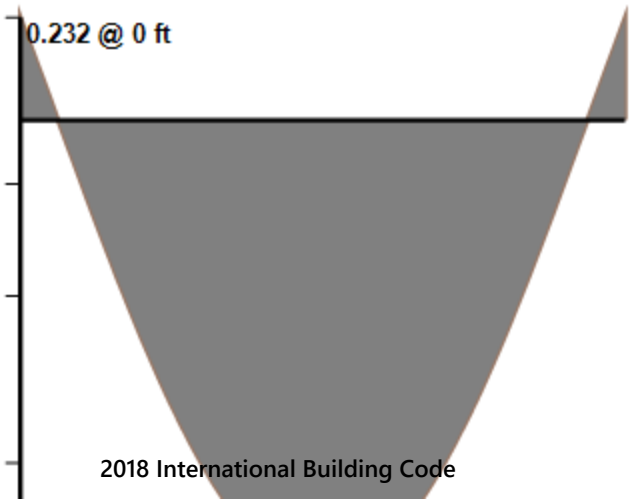
Y - Shear



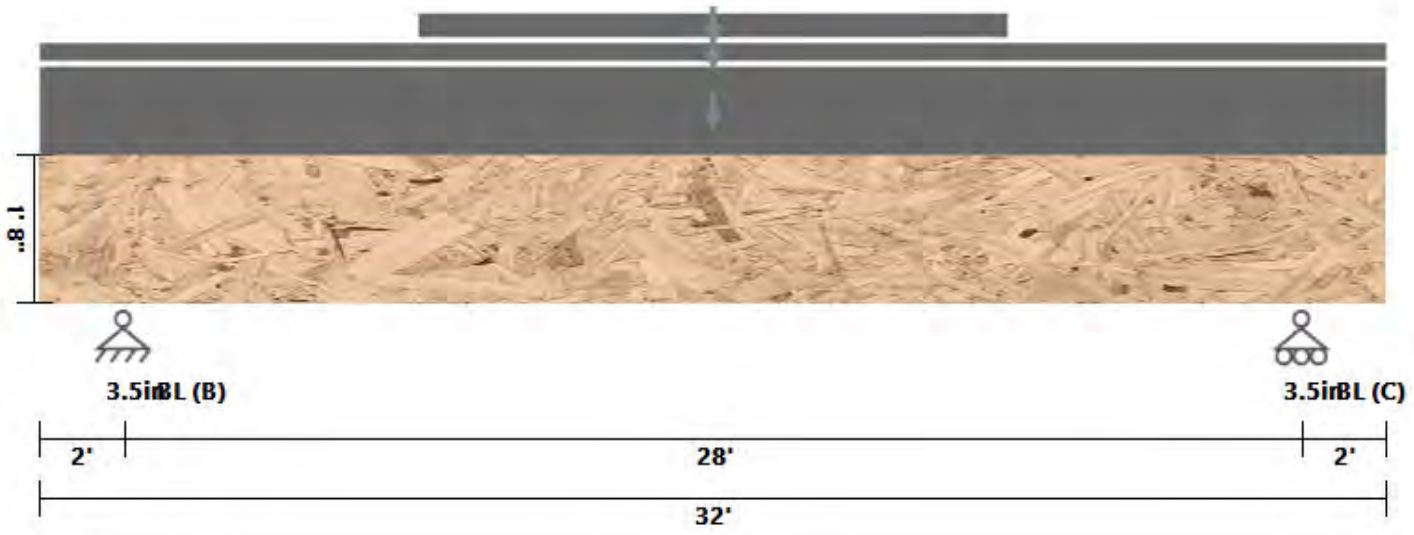
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

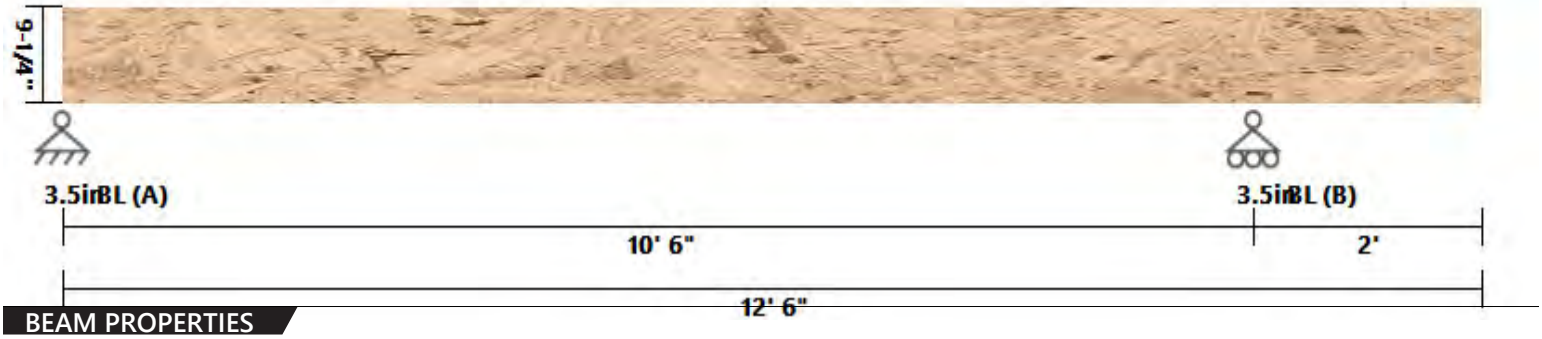


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #2	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(1) 1.75 X 9.25	24(in) O.C.	DRY	

Trusses #2 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 12.5 Member Slope: 0/12 Actual Length (ft): 12.5 Roof Pitch: 0/12 O.C. Spacing(in): 24

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
16.19	115.42	4.13	4.72	1	7.35	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.04 C_r = 1.04 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	10.5	0	10.5	0				
2	2	0	2	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (47.9%)	170.8	327.8	10.5	D+S	1.15
Bending Stress Y (psi)	PASS (35.3%)	2084.4	3221.7	5	D+S	1.15
Deflection Y (in)	PASS (32.2%)	0.181 (=L/829)	0.267 (=L/562)	12.5	S	0
Bearing Stress (psi)	PASS (50.4%)	411.5	830.4	10.5	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	196	1518	1714
B	288	2232	2520
C	0	0	0

Reaction Location

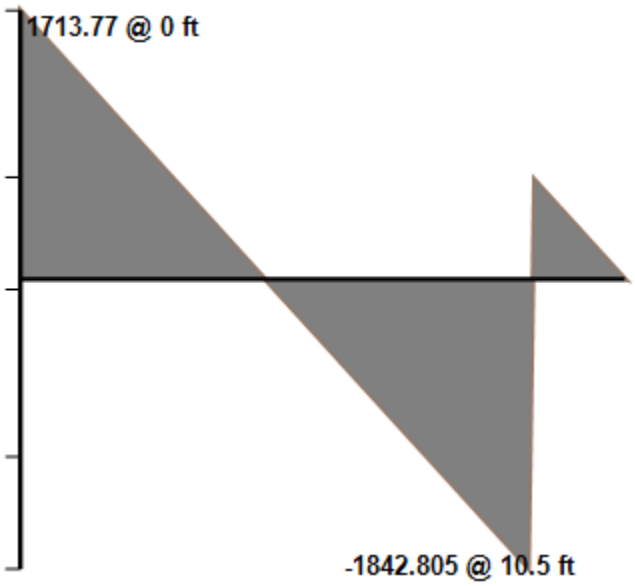
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	12.5	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	12.5	Dead	Y
Self Weight (lbf/ft)	-	4.72	4.72	0	12.5	Dead	Y

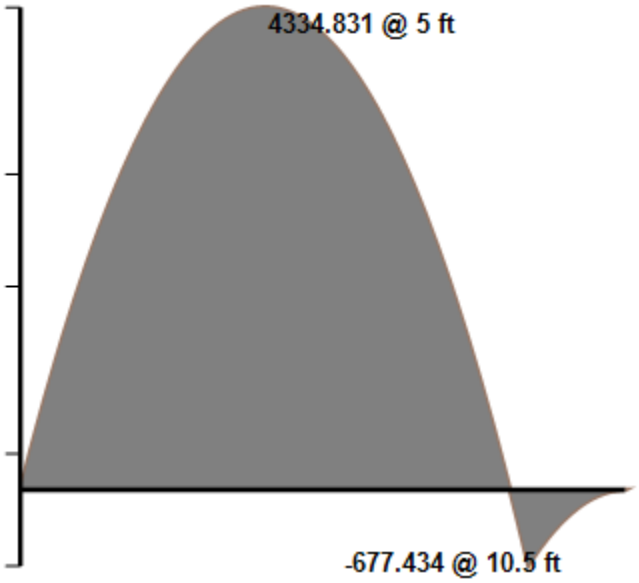
VMD DIAGRAMS

Load Combination: ASD

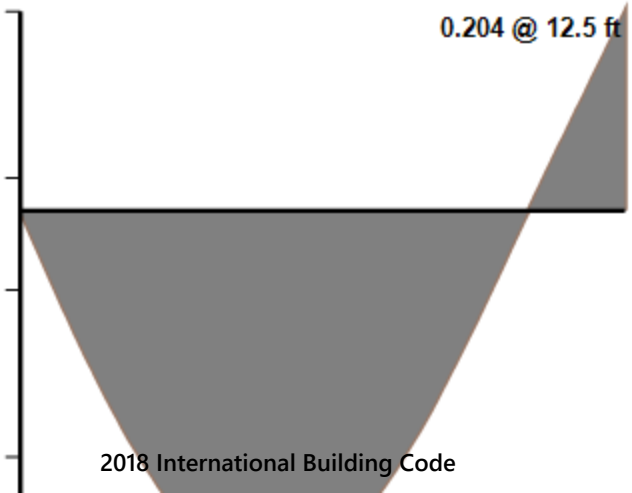
Y - Shear



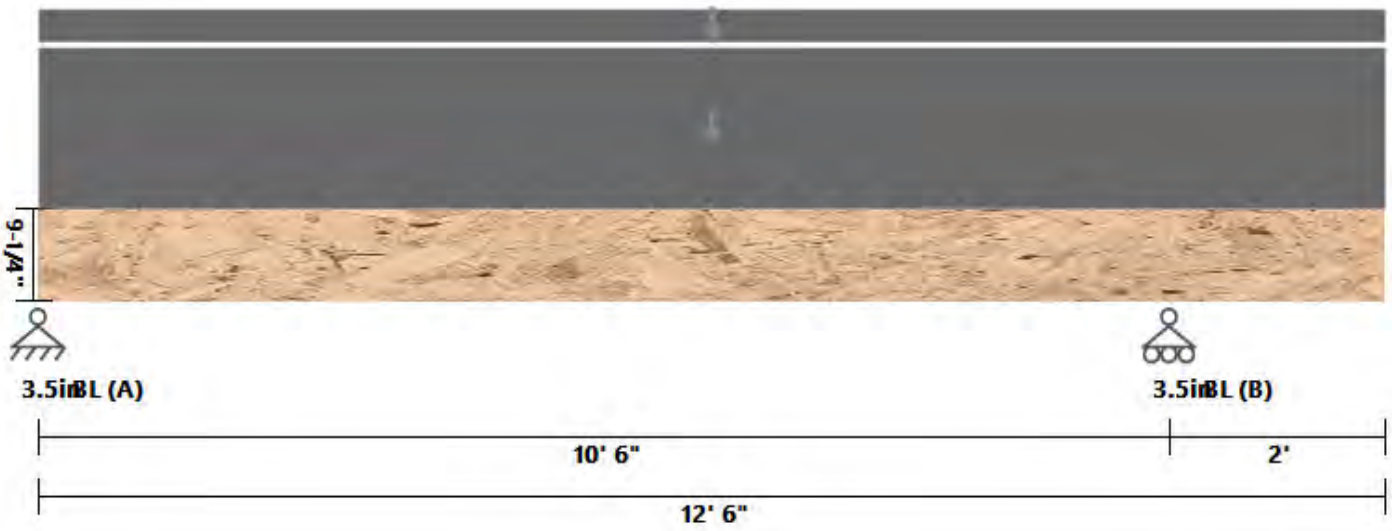
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

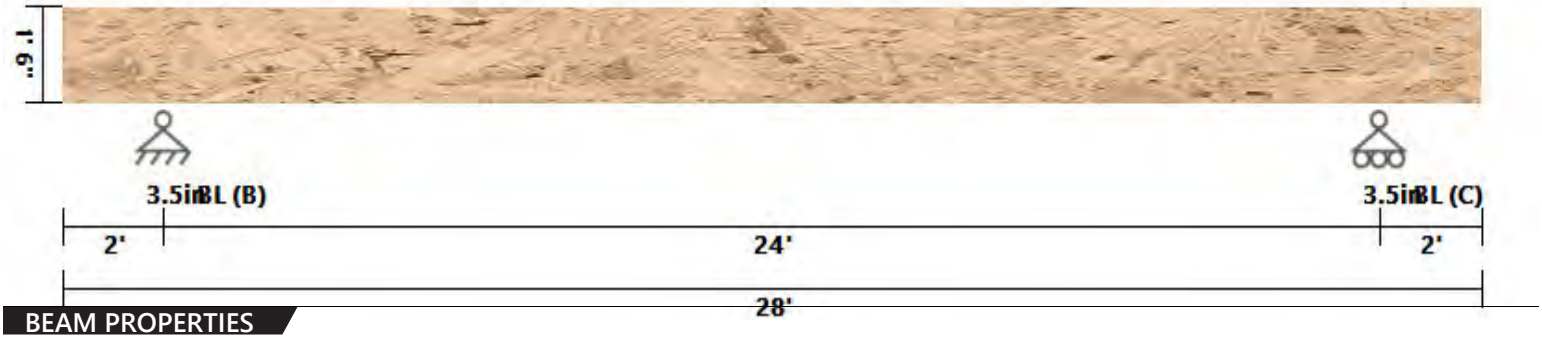


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #3	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 18	24(in) O.C.	DRY	

Trusses #3 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 28 Member Slope: 0/12 Actual Length (ft): 28 Roof Pitch: 0/12 O.C. Spacing(in): 24

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 0.95C_r = 1.04 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

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

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (79.4%)	67.5	327.8	25.76	D+S	1.15
Bending Stress Y (psi)	PASS (63.6%)	1071.3	2942.7	14	D+S	1.15
Deflection Y (in)	PASS (58.0%)	0.112 (=L/3000)	0.267 (=L/1258)	0	S	0
Bearing Stress (psi)	PASS (66.8%)	275.5	830.4	2	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	862	4200	5062
C	862	4200	5062
D	0	0	0

Reaction Location

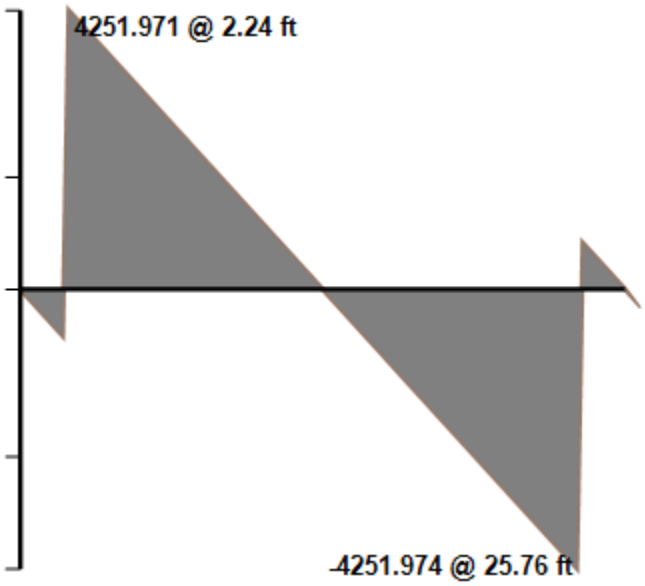
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	28	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	28	Dead	Y
Self Weight (lbf/ft)	-	27.56	27.56	0	28	Dead	Y

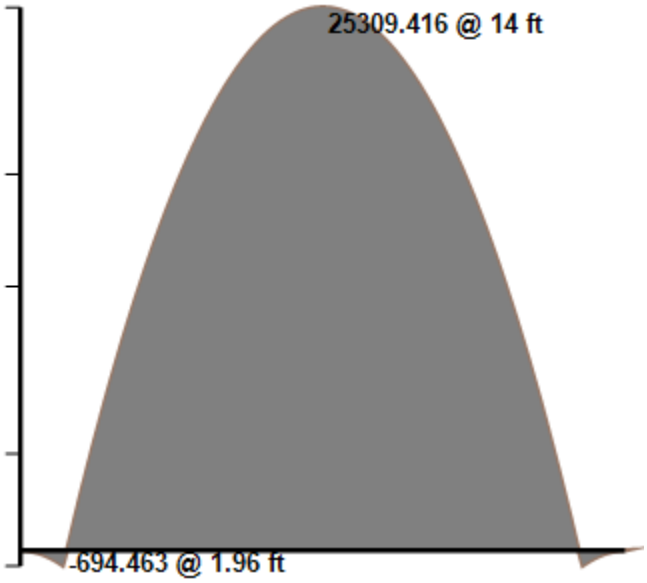
VMD DIAGRAMS

Load Combination: ASD

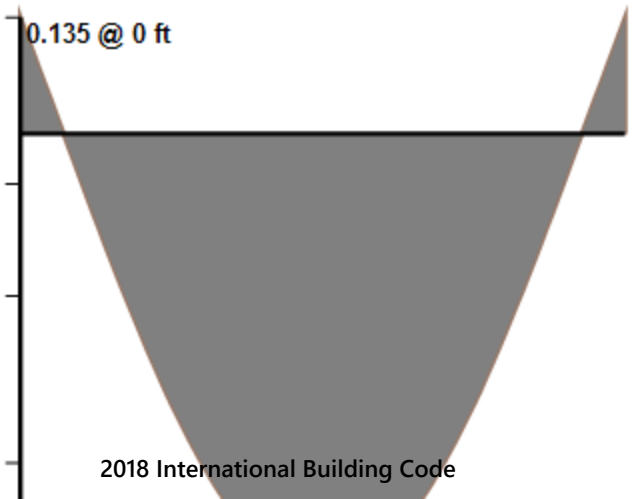
Y - Shear



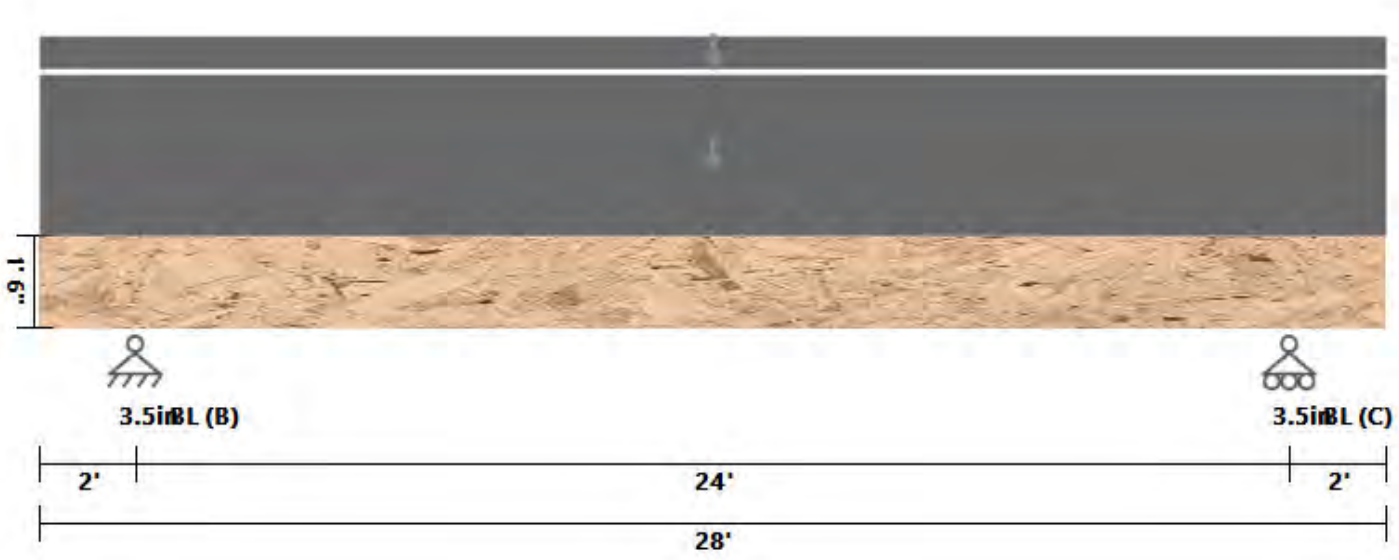
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

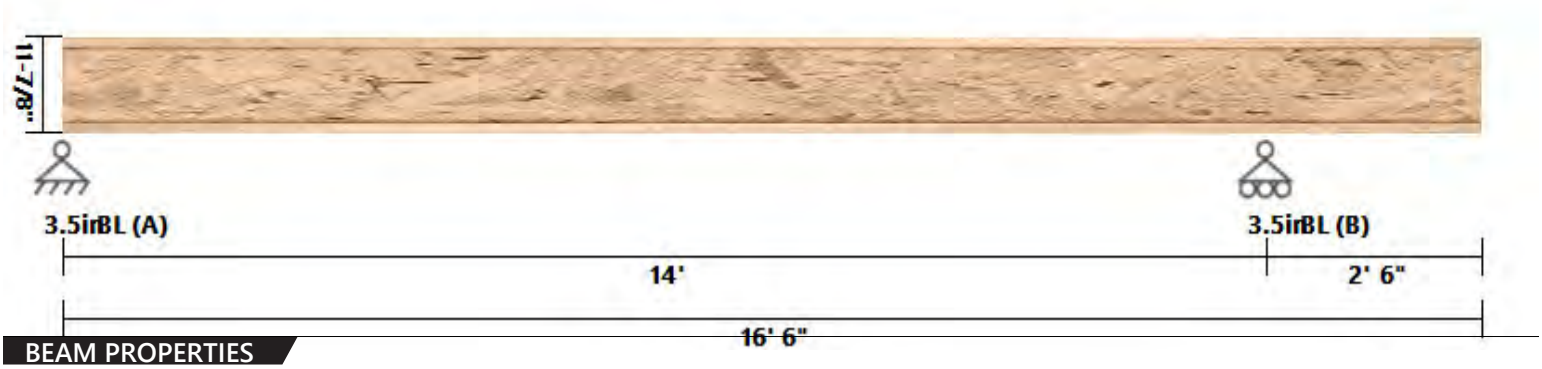


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Rafters #1	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	I-Joists		

Weyerhaeuser	TJI 360	(1) 11.875	16(in) O.C.	DRY	

Rafters #1 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 16.5 Member Slope: 0/12 Actual Length (ft): 16.5 Roof Pitch: 0/12 O.C. Spacing(in): 16

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
EI x10^6	BSW	Lams	K x10^6	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^2)	(lbf/ft)		(lbf)	(lbf-ft)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)	(lbf)
419	3	1	4.5	6180	1705	1080	1505	1440	1705	2460	3000	2815	3360

BEAM DATA

		Unbraced Length (ft)		Beam End
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)
1	14	0	14	0
2	2.5	0	2.5	0

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	PASS (18.5%)	1598.4	1960.8	13.86	D+S	1.15
Bending Moment (lbf-ft)	PASS (27.1%)	5181.8	7107.0	6.765	D+S	1.15
Deflection Y (in)	PASS (39.5%)	0.202 (=L/980)	0.333 (=L/595)	16.5	S	0
Bearing Load (lbf)	PASS (11.6%)	1529.3	1730.8	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	174	1355	1529
B	250	1945	2195
C	0	0	0

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C
NSR	NSR	NSR

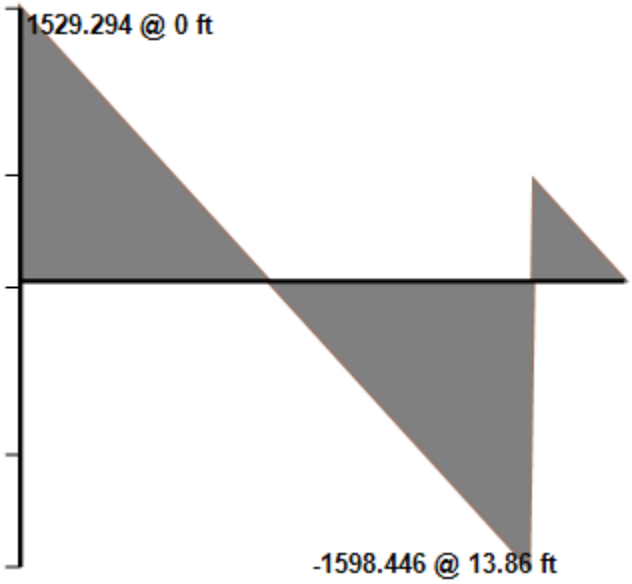
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	16.5	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	16.5	Dead	Y
Self Weight (lbf/ft)	-	3	3	0	16.5	Dead	Y

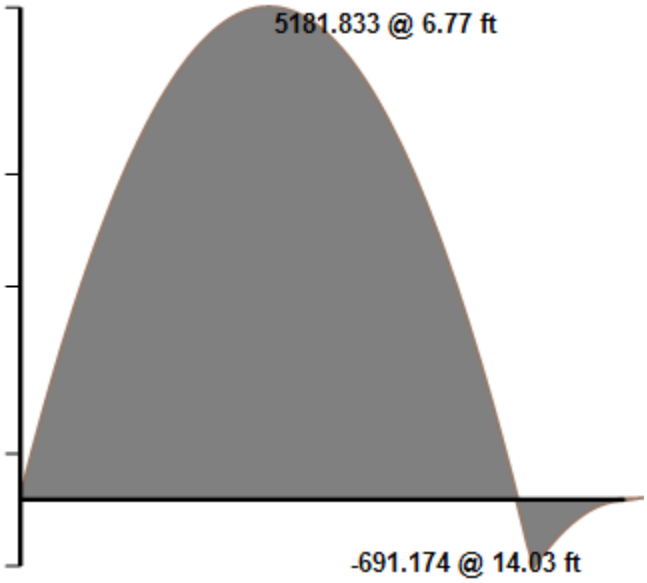
VMD DIAGRAMS

Load Combination: ASD

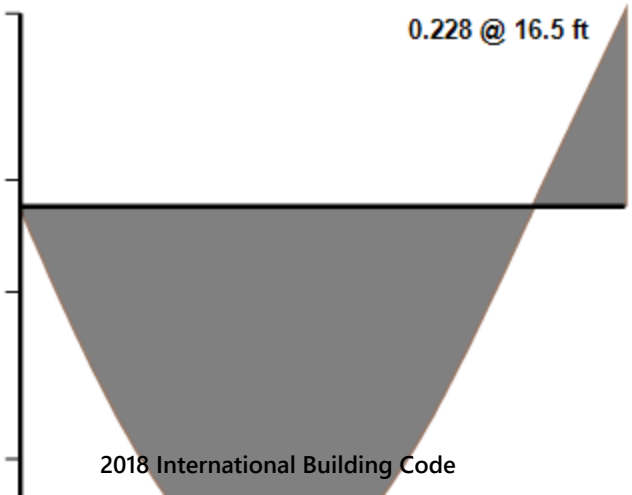
Y - Shear



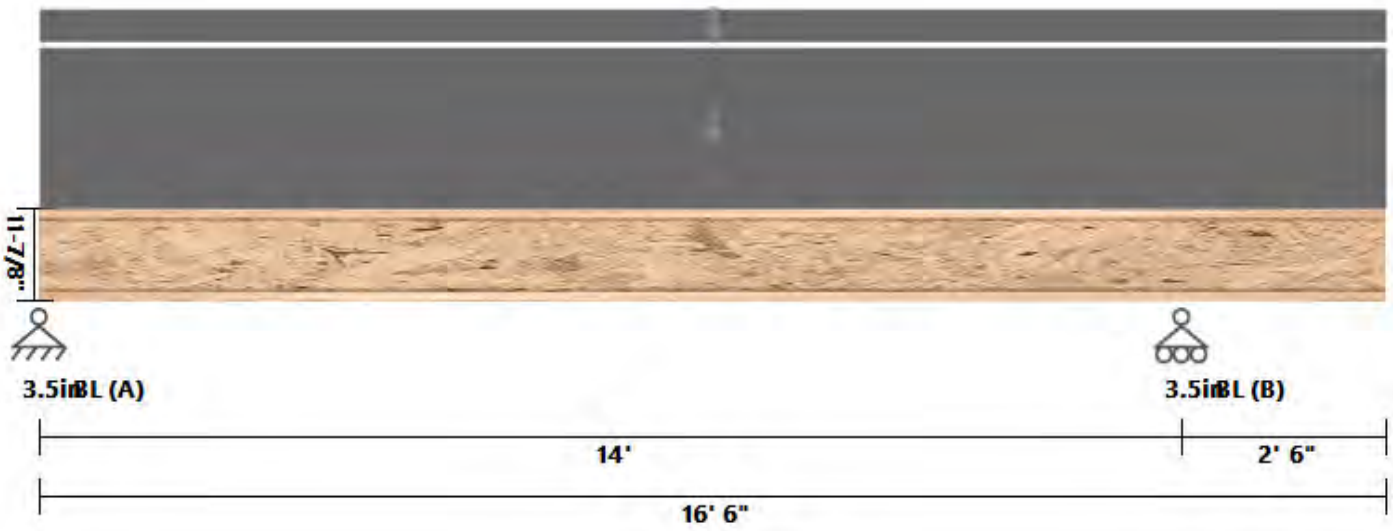
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

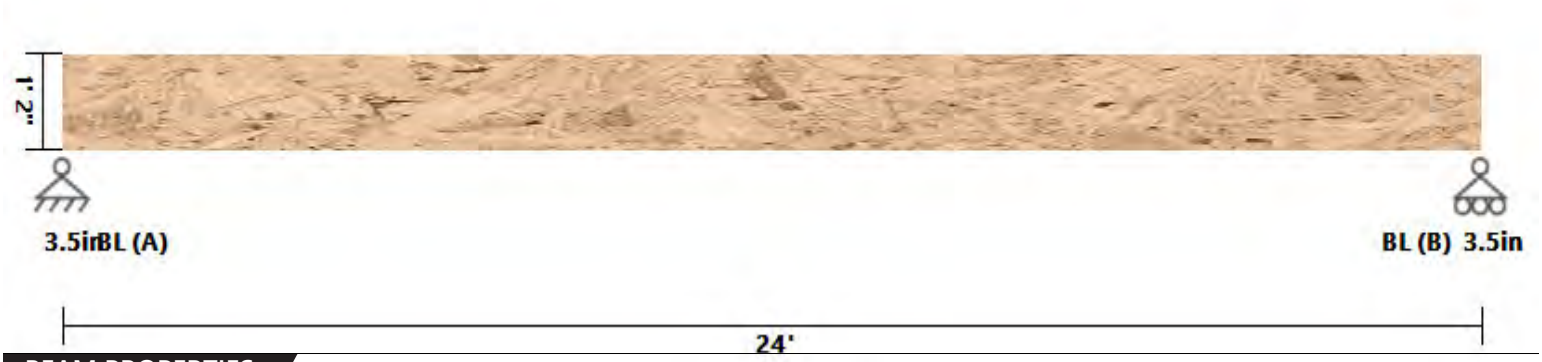


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #4	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 14	24(in) O.C.	DRY	

Trusses #4 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
49	800.33	12.51	14.29	2	7.35	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 0.98C_r = 1.04 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (61.0%)	127.9	327.8	24	D+S	1.15
Bending Stress Y (psi)	PASS (13.6%)	2632.0	3045.1	12	D+S	1.15
Deflection Y (in)	PASS (12.6%)	1.399 (=L/206)	1.600 (=L/180)	12	S	0
Bearing Stress (psi)	PASS (54.5%)	341.2	750.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	580	3600	4180
B	580	3600	4180

Reaction Location

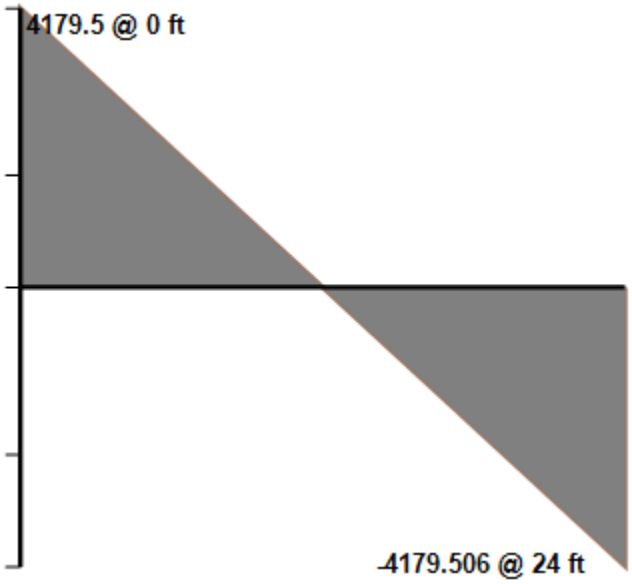
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	24	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	24	Dead	Y
Self Weight (lbf/ft)	-	14.29	14.29	0	24	Dead	Y

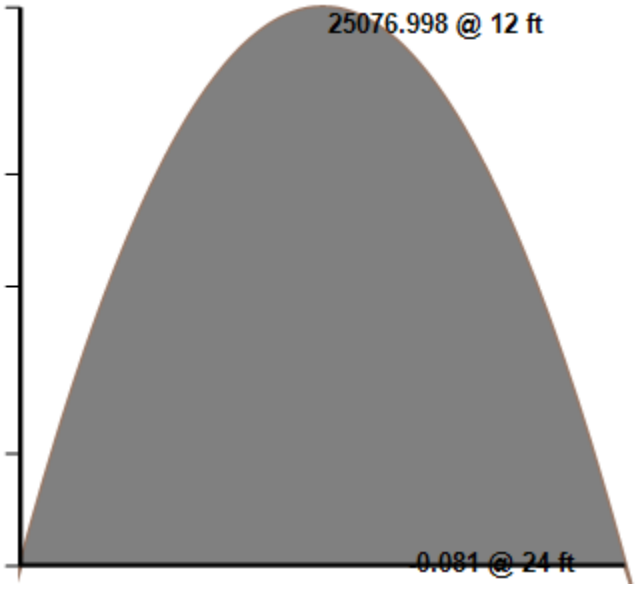
VMD DIAGRAMS

Load Combination: ASD

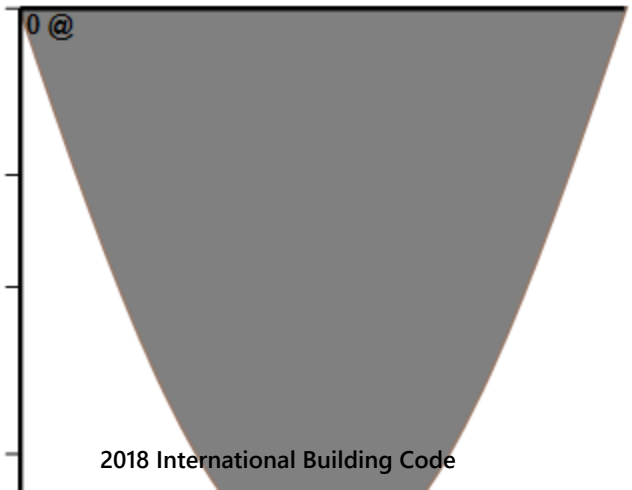
Y - Shear



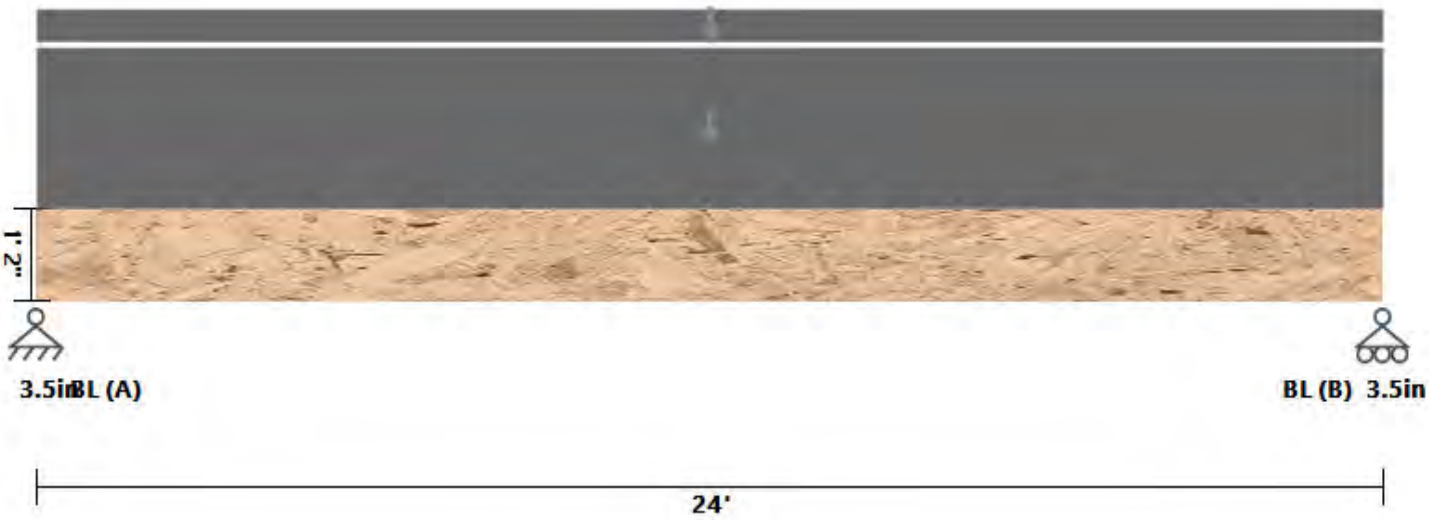
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

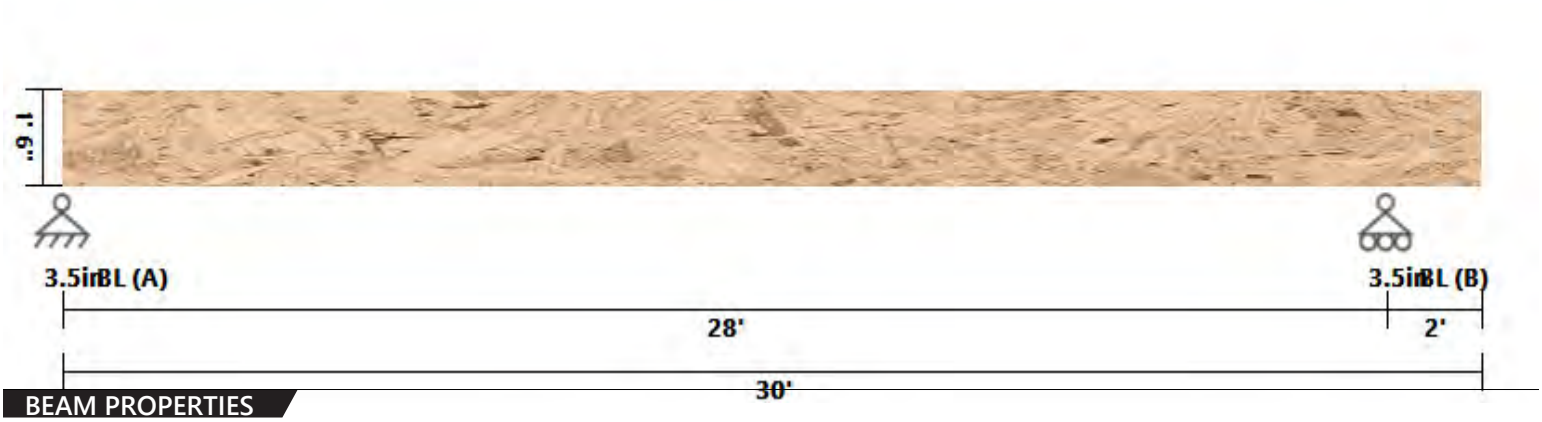


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #5	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 18	24(in) O.C.	DRY	

Trusses #5 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors $C_V = 0.95C_r = 1.04$ Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	28	0	28	0				
2	2	0	2	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (75.5%)	80.2	327.8	27.9	D+S	1.15
Bending Stress Y (psi)	PASS (49.6%)	1484.4	2942.7	13.8	D+S	1.15
Deflection Y (in)	PASS (31.8%)	0.182 (=L/1978)	0.267 (=L/1348)	30	S	0
Bearing Stress (psi)	PASS (61.9%)	316.2	830.4	28	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	857	4179	5036
B	989	4821	5810
C	0	0	0

Reaction Location

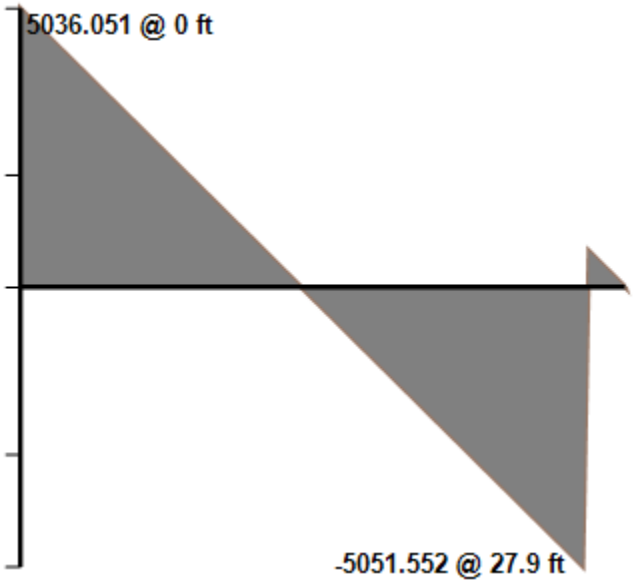
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	30	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	30	Dead	Y
Self Weight (lbf/ft)	-	27.56	27.56	0	30	Dead	Y

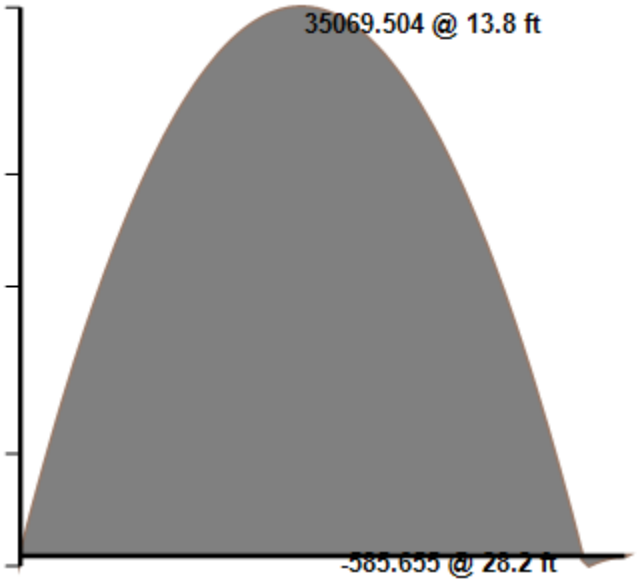
VMD DIAGRAMS

Load Combination: ASD

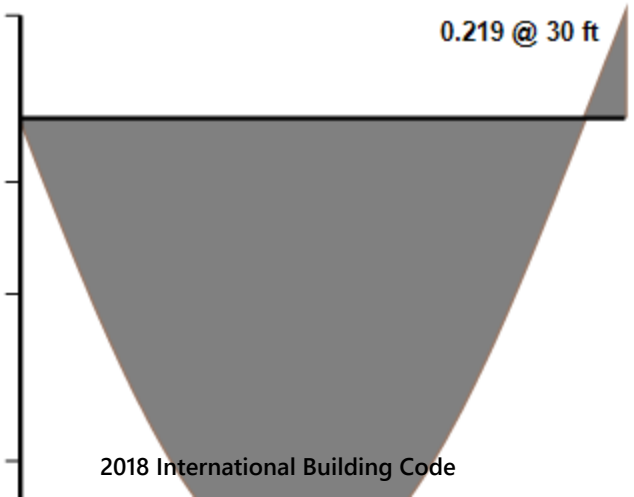
Y - Shear



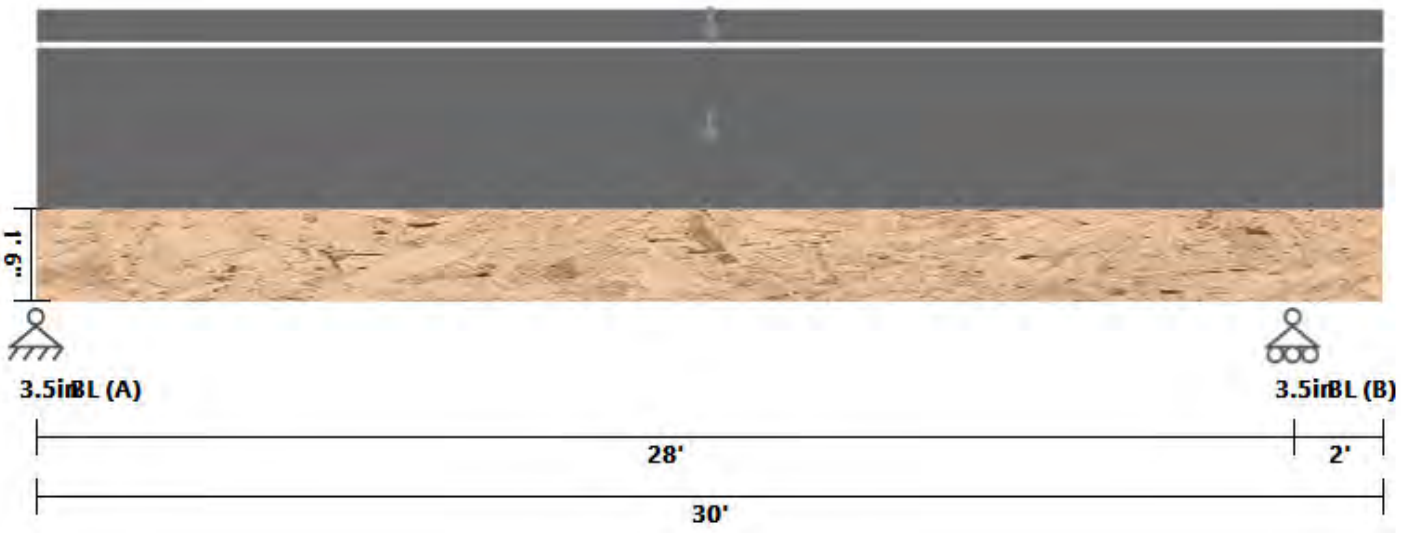
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

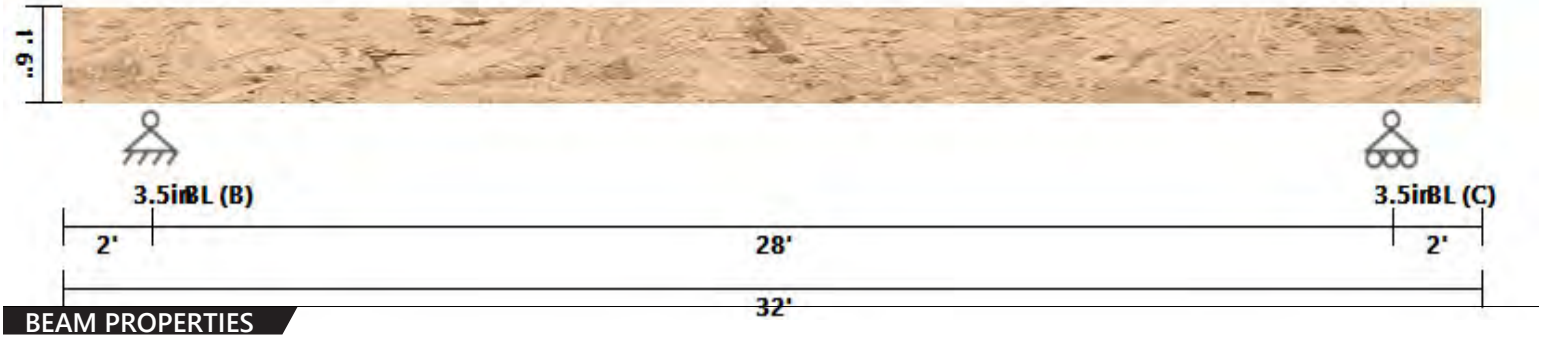


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #6	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(3) 1.75 X 18	24(in) O.C.	DRY	

Trusses #6 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 32 Member Slope: 0/12 Actual Length (ft): 32 Roof Pitch: 0/12 O.C. Spacing(in): 24

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors $C_V = 0.95C_r = 1.04$ Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2	0	2	0				
2	28	0	28	0				
3	2	0	2	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (75.9%)	79.0	327.8	2.24	D+S	1.15
Bending Stress Y (psi)	PASS (50.1%)	1469.2	2942.7	16	D+S	1.15
Deflection Y (in)	PASS (32.5%)	0.180 (=L/2133)	0.267 (=L/1438)	0	S	0
Bearing Stress (psi)	PASS (62.1%)	314.8	830.4	30	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	985	4800	5785
C	985	4800	5785
D	0	0	0

Reaction Location

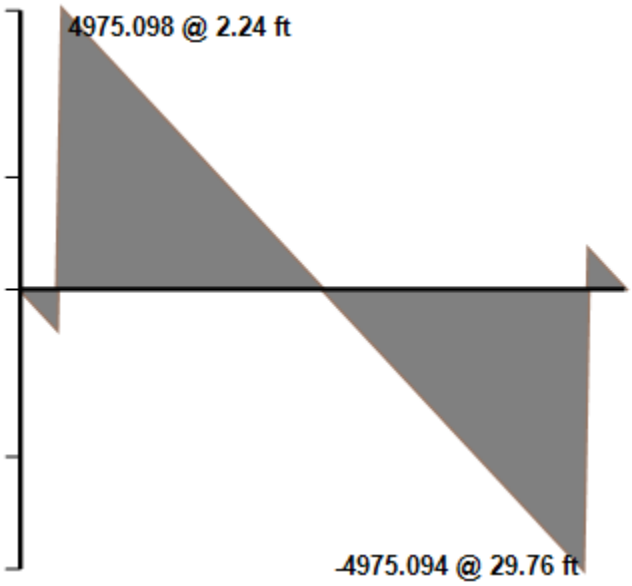
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	32	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	32	Dead	Y
Self Weight (lbf/ft)	-	27.56	27.56	0	32	Dead	Y

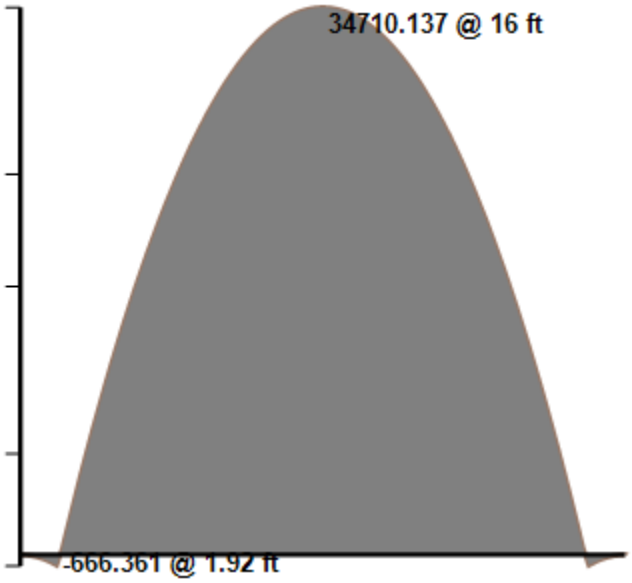
VMD DIAGRAMS

Load Combination: ASD

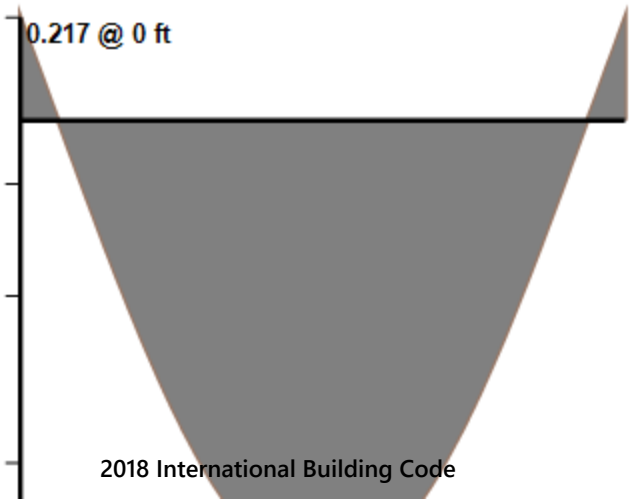
Y - Shear



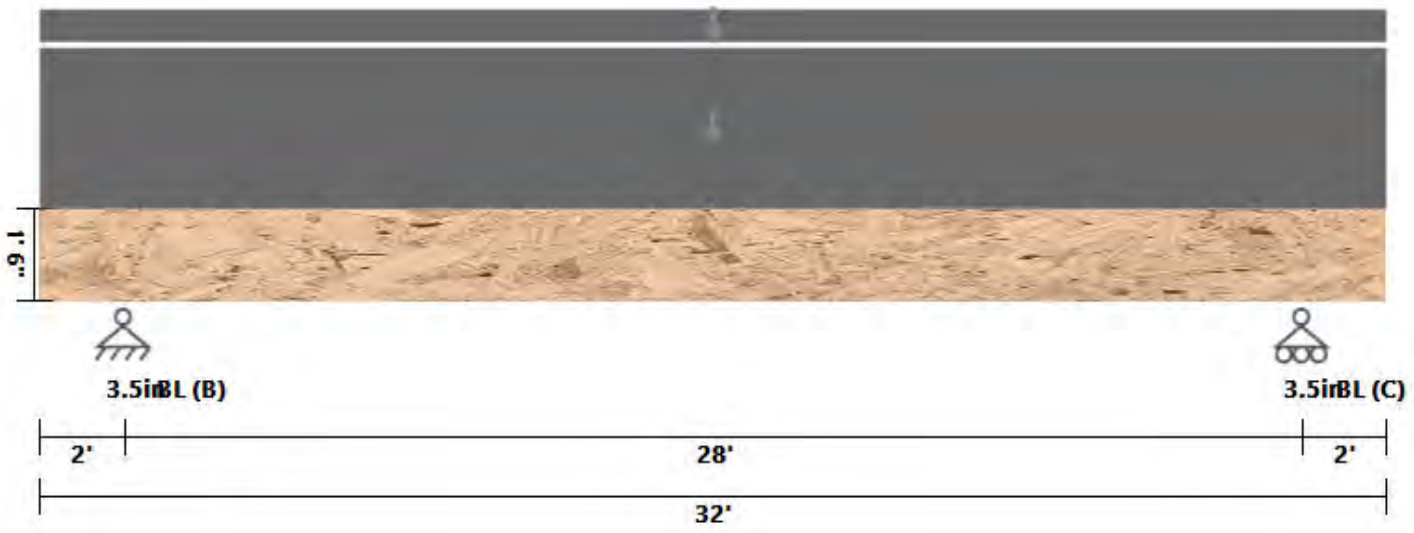
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

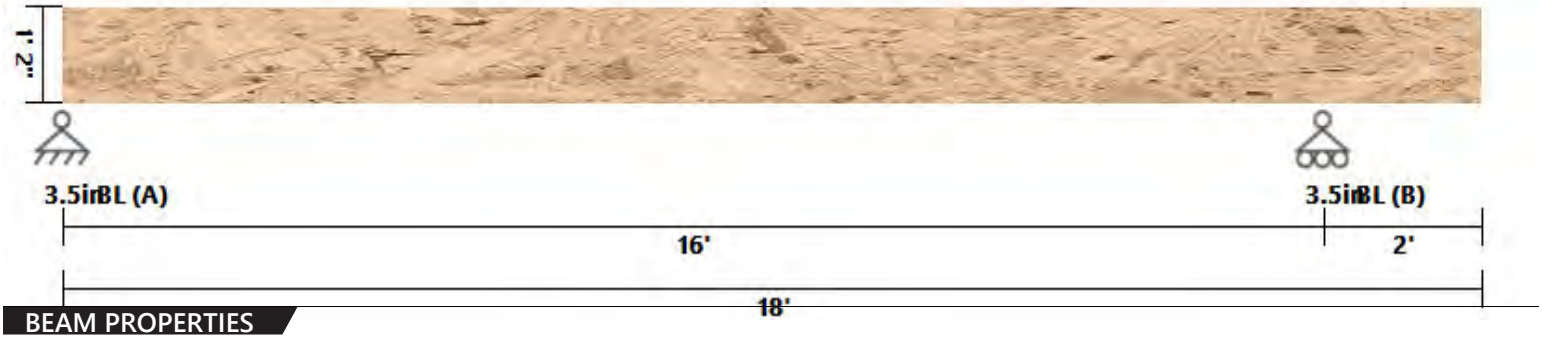


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #7	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(1) 1.75 X 14	24(in) O.C.	DRY	

Trusses #7 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
24.5	400.17	6.25	7.15	1	7.35	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 0.98C_r = 1.04 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

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

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (49.2%)	166.4	327.8	15.84	D+S	1.15
Bending Stress Y (psi)	PASS (27.1%)	2220.4	3045.1	7.92	D+S	1.15
Deflection Y (in)	PASS (22.8%)	0.206 (=L/1049)	0.267 (=L/809)	18	S	0
Bearing Stress (psi)	PASS (32.1%)	563.9	830.4	16	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	324	2363	2687
B	417	3038	3455
C	0	0	0

Reaction Location

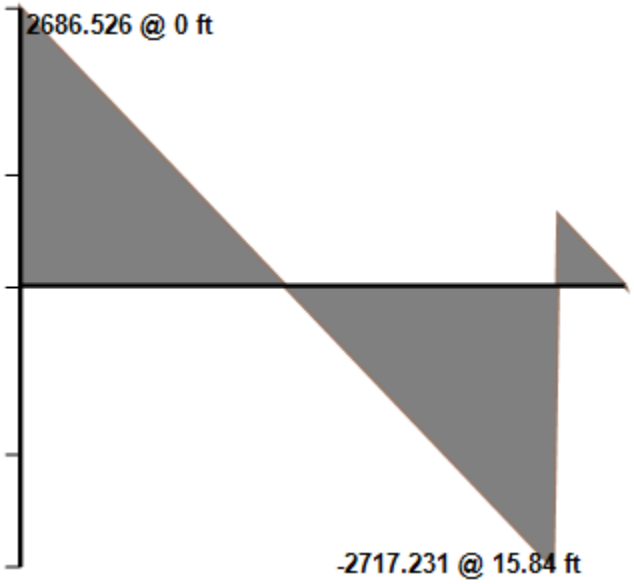
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	18	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	18	Dead	Y
Self Weight (lbf/ft)	-	7.15	7.15	0	18	Dead	Y

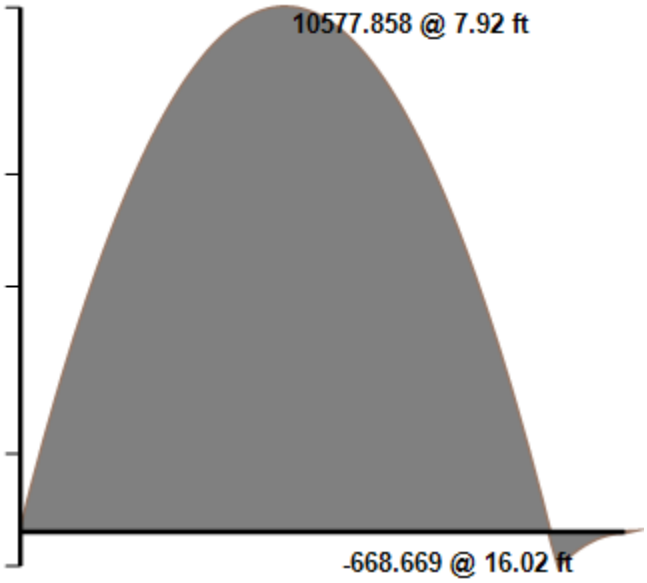
VMD DIAGRAMS

Load Combination: ASD

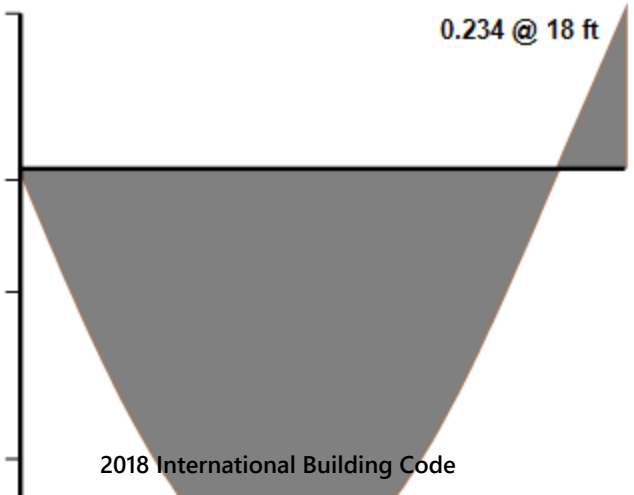
Y - Shear



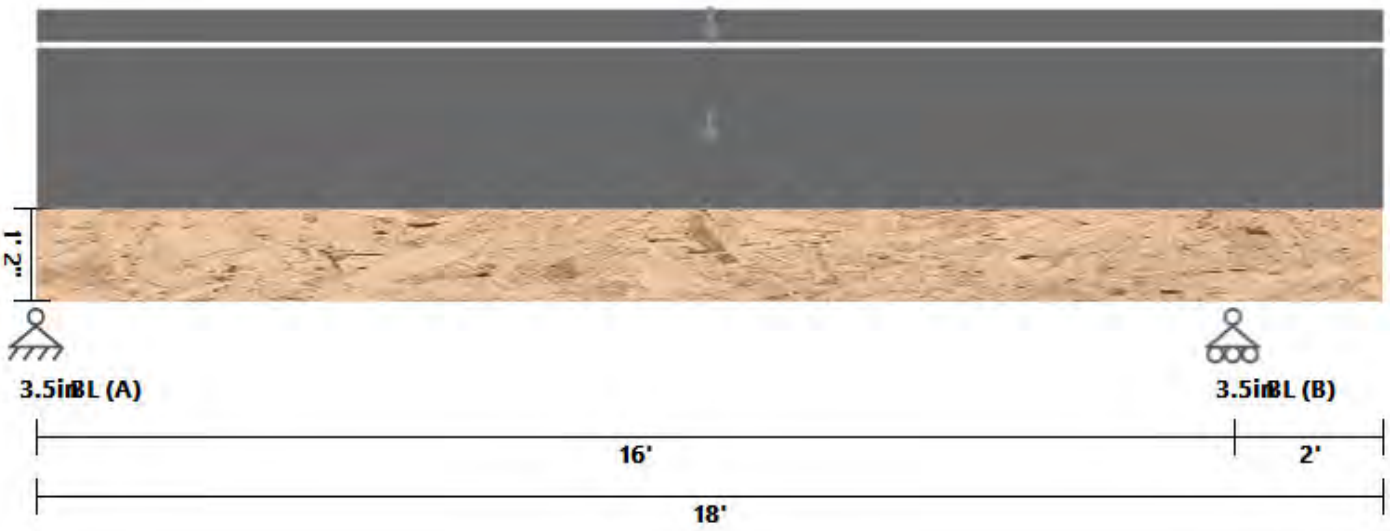
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

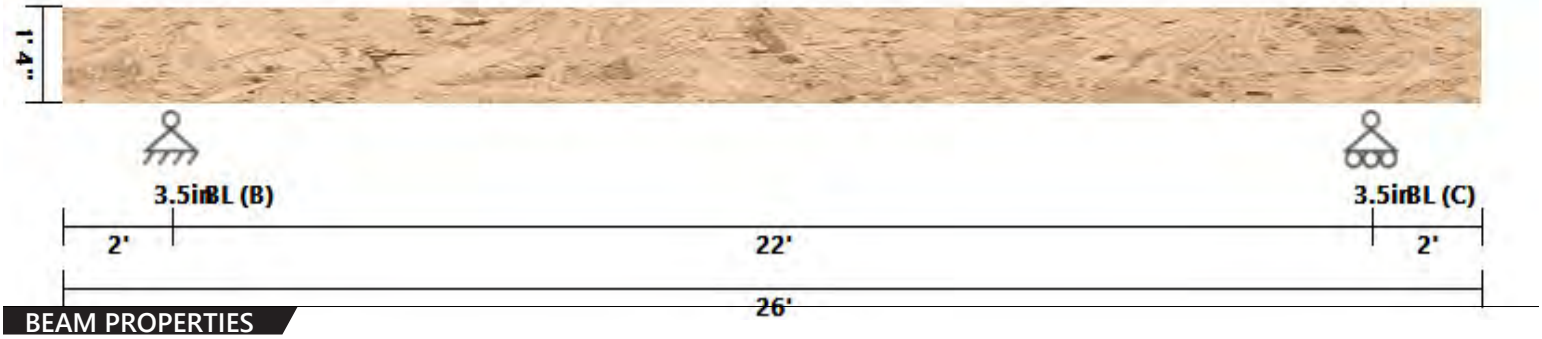


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #8	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(2) 1.75 X 16	24(in) O.C.	DRY	

Trusses #8 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 26 Member Slope: 0/12 Actual Length (ft): 26 Roof Pitch: 0/12 O.C. Spacing(in): 24

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
56	1194.67	14.29	16.33	2	7.35	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors $C_V = 0.96 C_r = 1.04$ Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	2	0	2	0				
2	22	0	22	0				
3	2	0	2	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (68.7%)	102.5	327.8	2.08	D+S	1.15
Bending Stress Y (psi)	PASS (44.9%)	1646.9	2990.2	13	D+S	1.15
Deflection Y (in)	PASS (31.5%)	0.183 (=L/1705)	0.267 (=L/1169)	0	S	0
Bearing Stress (psi)	PASS (55.2%)	371.8	830.4	2	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	0	0	0
B	654	3900	4554
C	654	3900	4554
D	0	0	0

Reaction Location

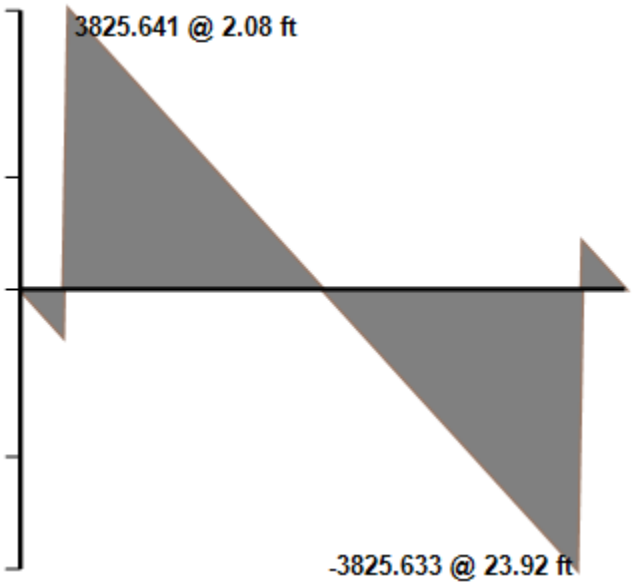
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	26	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	26	Dead	Y
Self Weight (lbf/ft)	-	16.33	16.33	0	26	Dead	Y

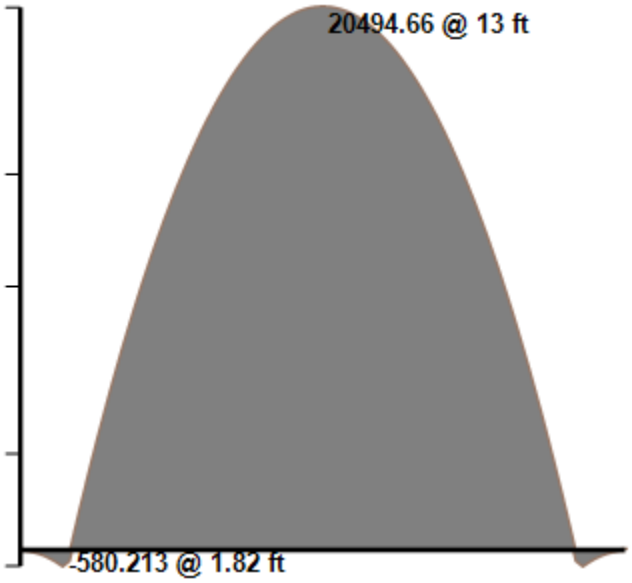
VMD DIAGRAMS

Load Combination: ASD

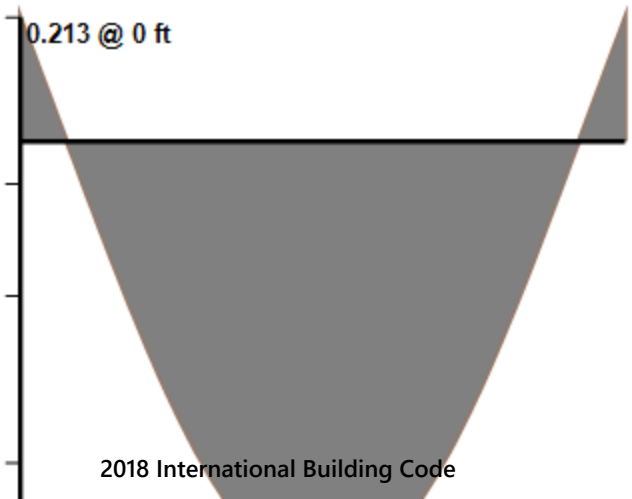
Y - Shear



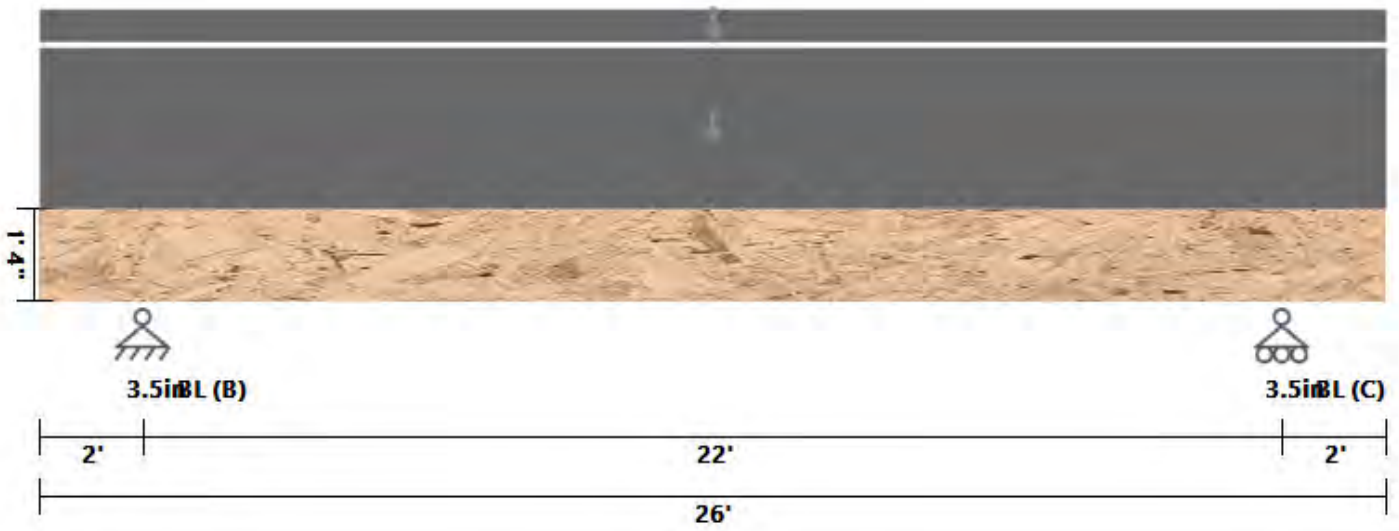
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

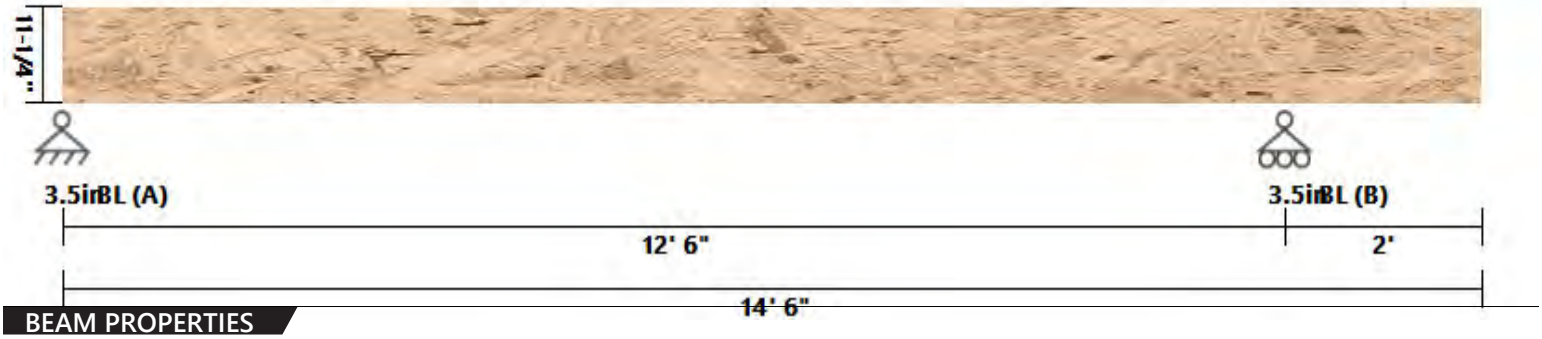


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Trusses #9	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF RAFTER	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Weyerhaeuser	2.0E Microlam LVL	(1) 1.75 X 11.25	24(in) O.C.	DRY	

Trusses #9 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 14.5 Member Slope: 0/12 Actual Length (ft): 14.5 Roof Pitch: 0/12 O.C. Spacing(in): 24

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2704	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.01 C_r = 1.04 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12.5	0	12.5	0				
2	2	0	2	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (49.6%)	165.1	327.8	12.47	D+S	1.15
Bending Stress Y (psi)	PASS (34.7%)	2048.1	3137.0	6.09	D+S	1.15
Deflection Y (in)	PASS (32.5%)	0.180 (=L/967)	0.267 (=L/652)	14.5	S	0
Bearing Stress (psi)	PASS (43.8%)	466.5	830.4	12.5	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	242	1827	2069
B	334	2523	2857
C	0	0	0

Reaction Location

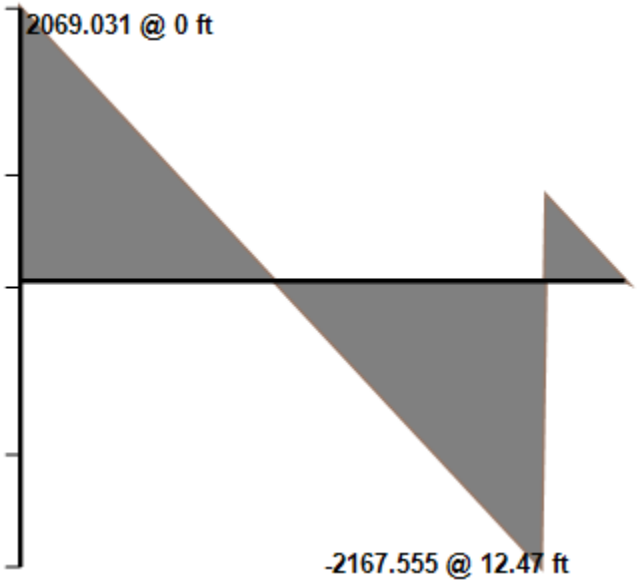
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	14.5	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	14.5	Dead	Y
Self Weight (lbf/ft)	-	5.74	5.74	0	14.5	Dead	Y

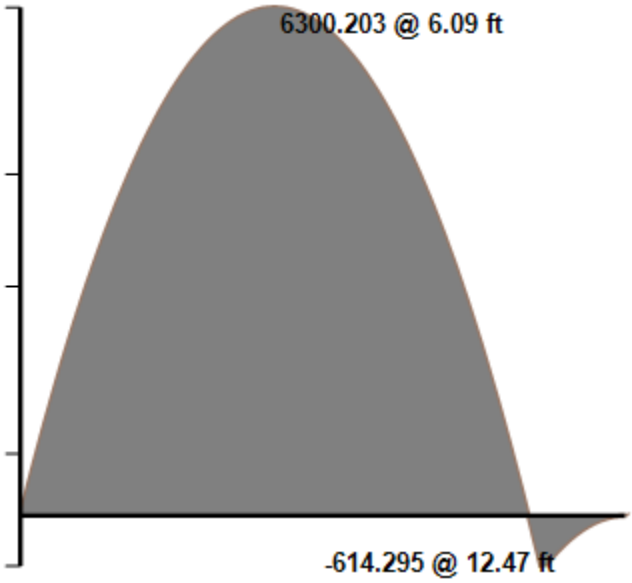
VMD DIAGRAMS

Load Combination: ASD

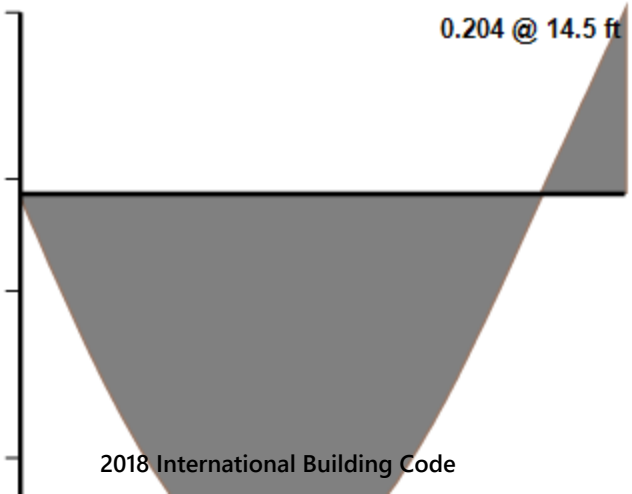
Y - Shear



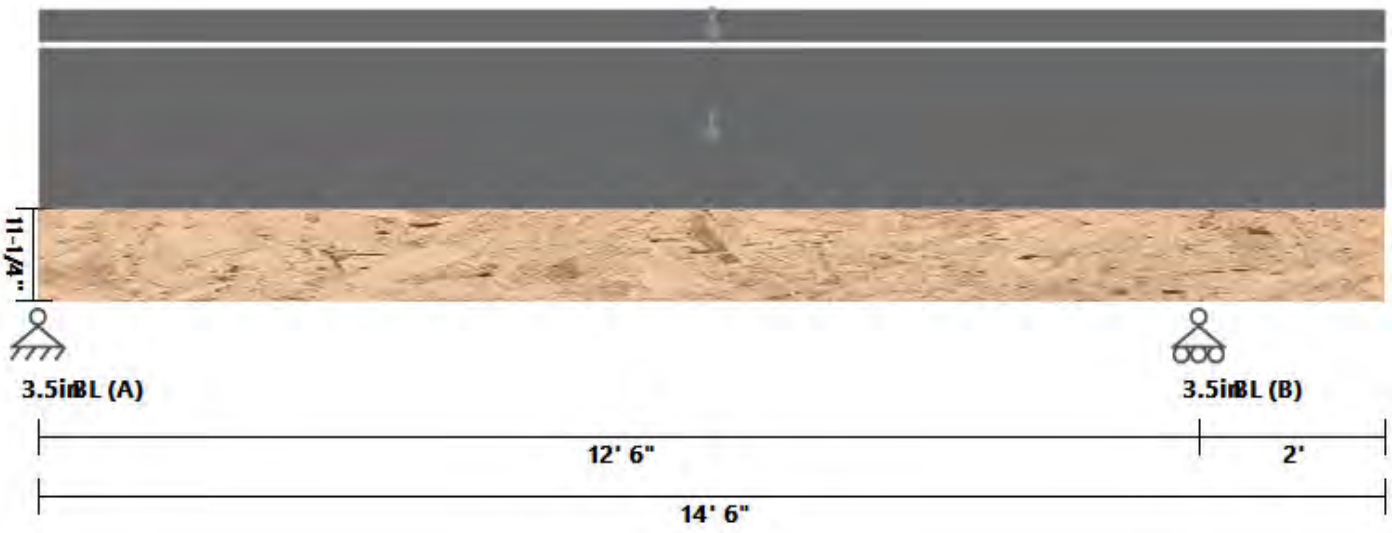
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

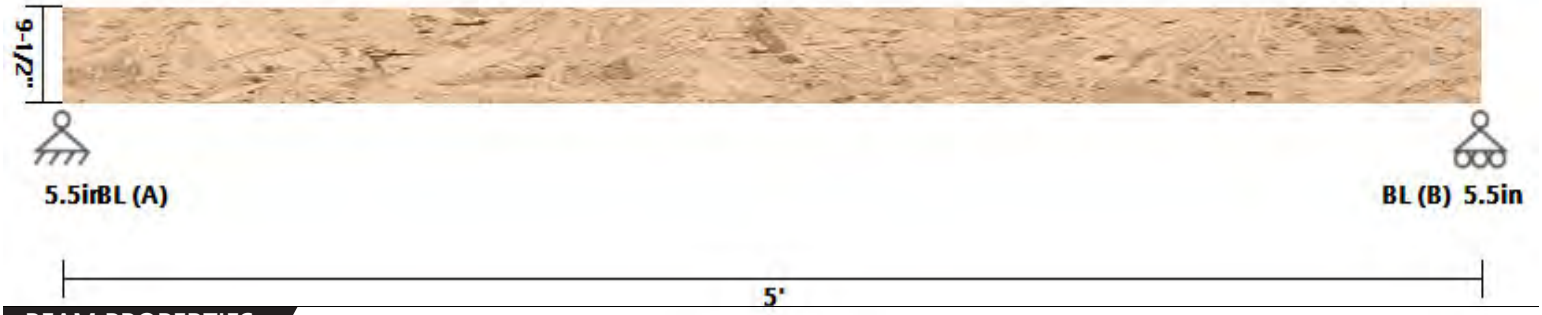


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #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 9.5	DRY		

Beam #1 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 5 Member Slope: 0/12 Actual Length (ft): 5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.03 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

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

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (15.0%)	278.7	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (43.0%)	1760.3	3086.6	2.5	D+S	1.15
Deflection Y (in)	PASS (82.2%)	0.059 (=L/1017)	0.333 (=L/180)	2.5	S	0
Bearing Stress (psi)	PASS (57.2%)	320.9	750.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	1370	702	7897	9969
B	1370	702	7897	9969

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	5	Live	Y
Self Weight (lbf/ft)	-	14.55	14.55	0	5	Dead	Y

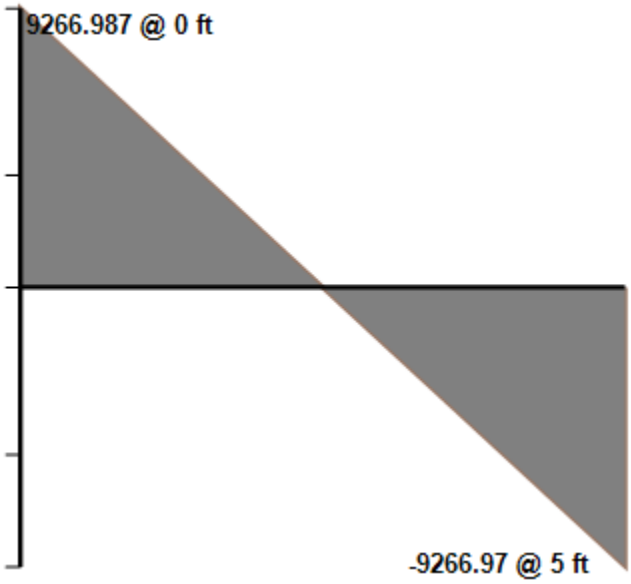
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	C	435.332	435.332	0	5	Dead	Y
Uniform (lbf/ft)	Trusses #1	C	280	280	0	5	Live	Y
Uniform (lbf/ft)	Trusses #1	C	2400.031	2400.031	0	5	Snow	Y
Uniform (lbf/ft)	Trusses #2	A	97.956	97.956	0	5	Dead	Y
Uniform (lbf/ft)	Trusses #2	A	758.929	758.929	0	5	Snow	Y

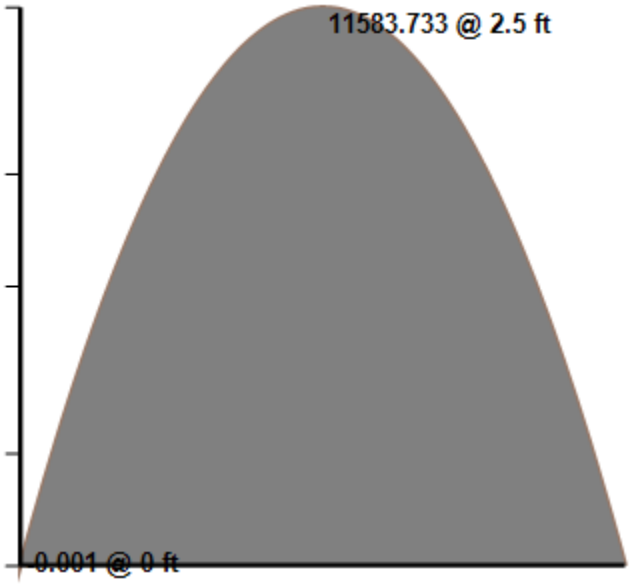
VMD DIAGRAMS

Load Combination: ASD

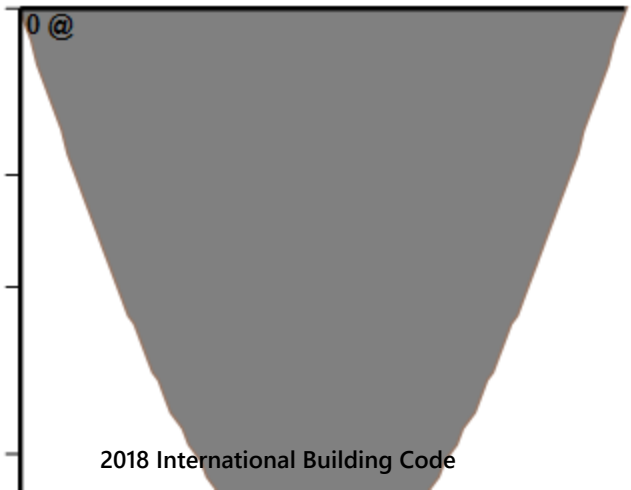
Y - Shear



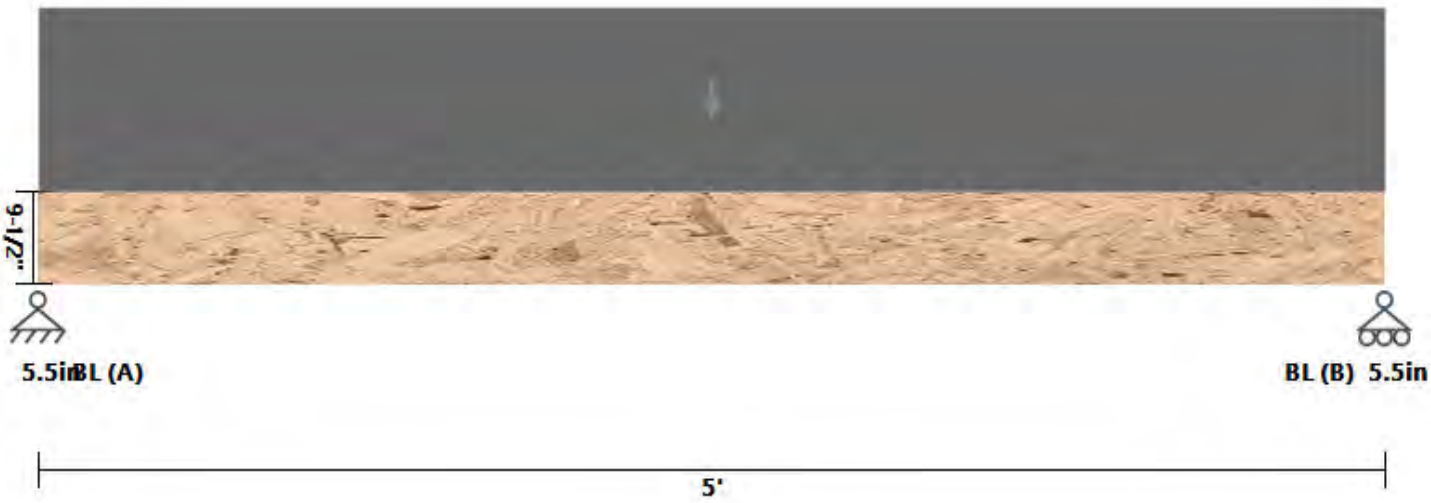
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM



PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	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) 5.125 X 10.5	DRY		

Beam #2 DIAGRAM

BEAM PROPERTIES

Start (ft): 0 End (ft): 8.5 Member Slope: 0/12 Actual Length (ft): 8.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr Creep Factor
53.81	494.4	117.79	12.27	1	0.5	1

STRENGTH PROPERTIES

	Fbx+ (psi)	Fbx- (psi)	Fby (psi)	Ft (psi)	Fvx (psi)	Fvy (psi)	Fc (psi)	Fc⊥ (psi)	Ex (psi)	Exmin (psi)	Ey (psi)	Eymin (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_M	1	1	1	1	1	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C_{vr} = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (50.5%)	150.7	304.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (46.9%)	1464.3	2760.0	4.25	D+S	1.15
Deflection Y (in)	PASS (74.0%)	0.147 (=L/694)	0.567 (=L/180)	4.25	S	0
Bearing Stress (psi)	PASS (65.7%)	191.8	560.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	664	4	4743	5411
B	664	4	4743	5411

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	8.5	Live	Y
Self Weight (lbf/ft)	-	12.27	12.27	0	8.5	Dead	Y

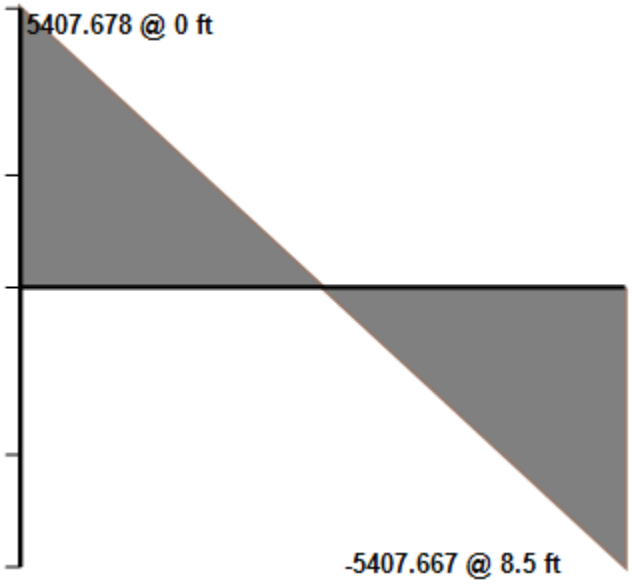
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #2	B	144.053	144.053	0	8.5	Dead	Y
Uniform (lbf/ft)	Trusses #2	B	1116.069	1116.069	0	8.5	Snow	Y

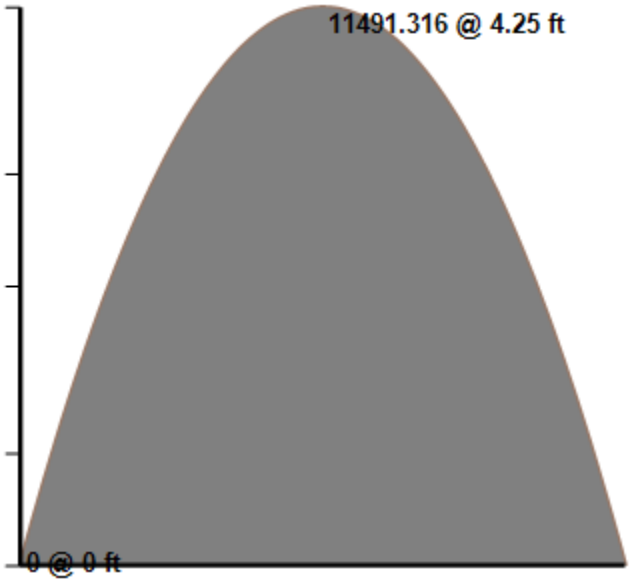
VMD DIAGRAMS

Load Combination: ASD

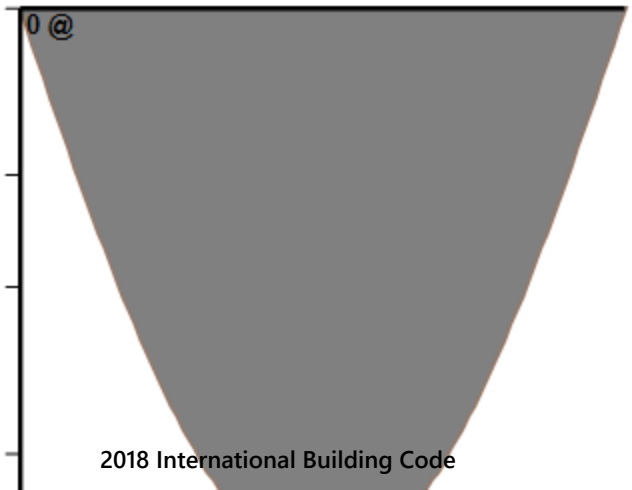
Y - Shear



Y - Moment



Y - Deflection



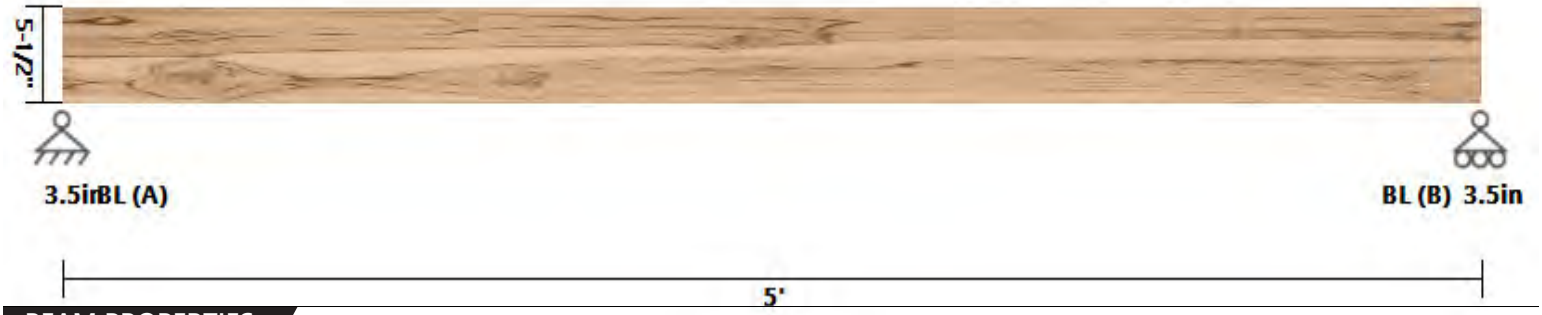
Roof Beam LOAD DIAGRAM

PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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	Select Structural	(1) 1.5 X 5.5	24(in) O.C.	DRY	

Rafters #2 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	1500	1000	180	1700	625	1900	690
Adjusted Values	2242	1300	180	1870	625	1900	690
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.3	1.3	1	1.1	1	1	1

Bending Adjustment Factors $C_{fu} = 0.86C_r = 1.15$

BEAM DATA

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

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (26.2%)	152.7	207.0	0	D+S	1.15
Bending Stress Y (psi)	PASS (35.4%)	1665.5	2578.9	2.5	D+S	1.15
Deflection Y (in)	PASS (68.0%)	0.107 (=L/561)	0.333 (=L/180)	2.5	S	0
Bearing Stress (psi)	PASS (74.4%)	159.9	625.0	5	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	90	750	840
B	90	750	840

Reaction Location

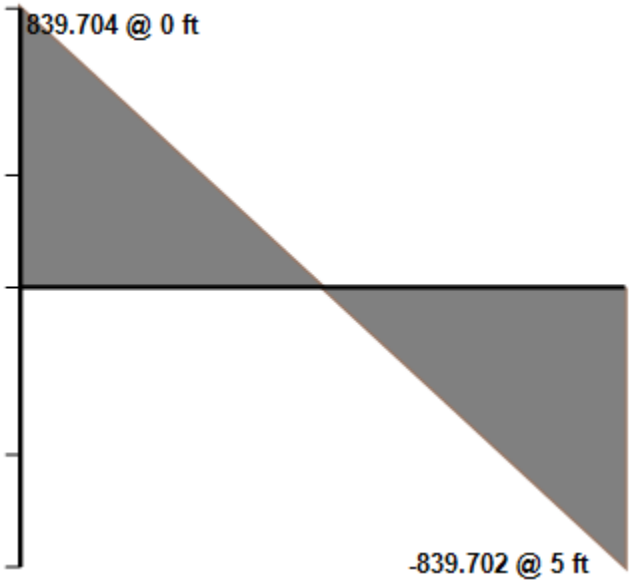
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	150	150	0	5	Snow	Y
Uniform (lbf/ft²)	Uniform	17	17	0	5	Dead	Y
Self Weight (lbf/ft)	-	1.88	1.88	0	5	Dead	Y

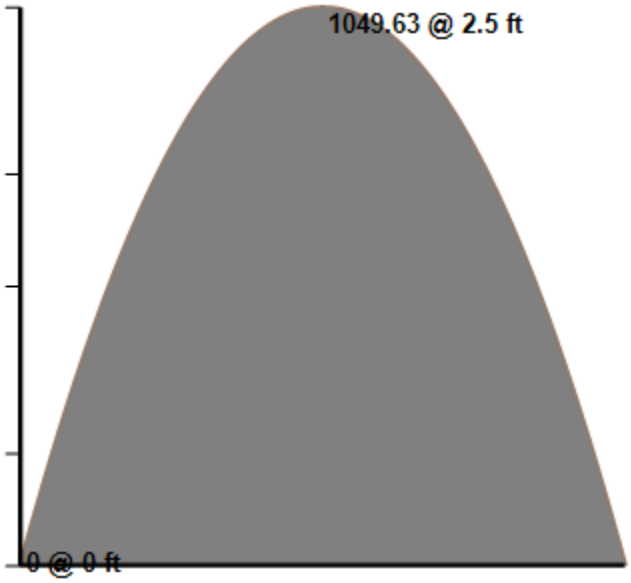
VMD DIAGRAMS

Load Combination: ASD

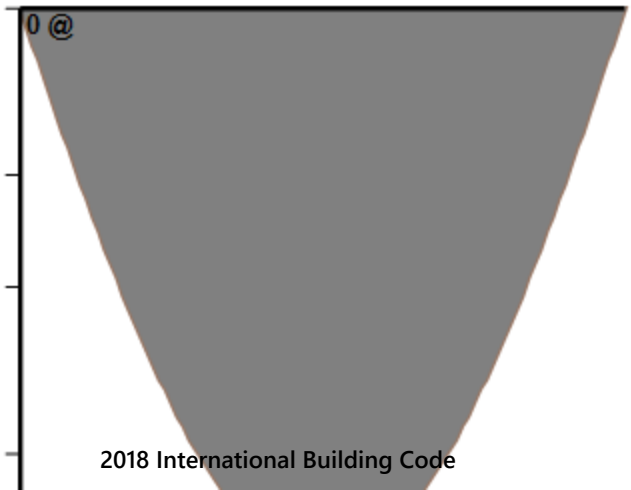
Y - Shear



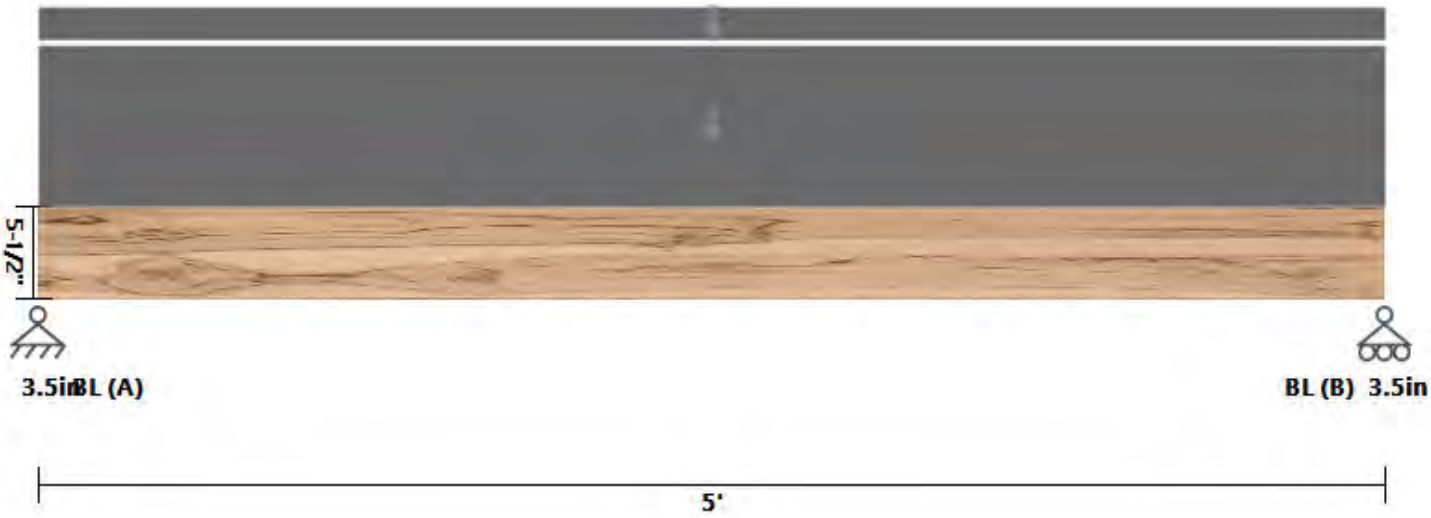
Y - Moment



Y - Deflection



Roof Rafter LOAD DIAGRAM

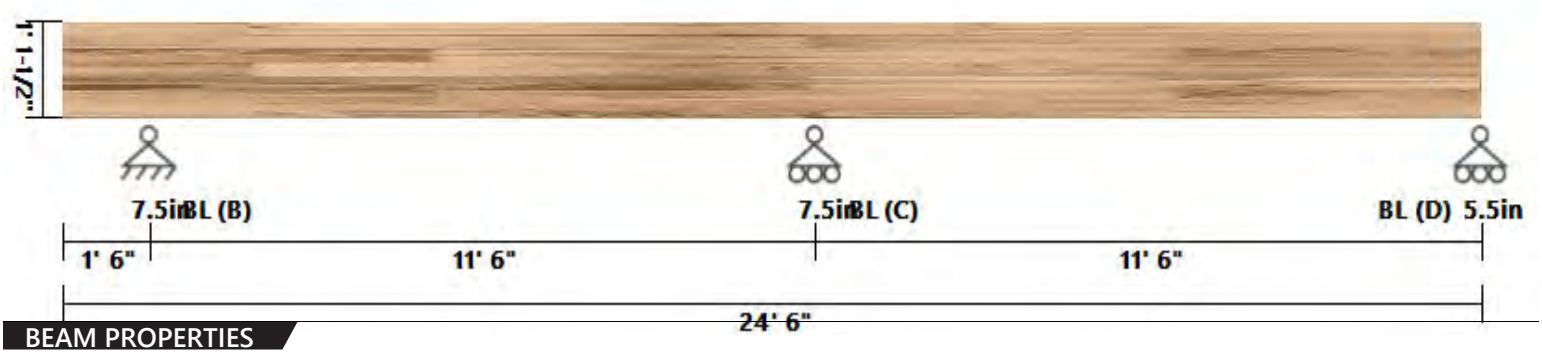


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #3	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		

Beam #3 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 24.5 Member Slope: 0/12 Actual Length (ft): 24.5

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

STRENGTH PROPERTIES

	Fbx+ (psi)	Fbx- (psi)	Fby (psi)	Ft (psi)	Fvx (psi)	Fvy (psi)	Fc (psi)	Fc⊥ (psi)	Ex (psi)	Exmin (psi)	Ey (psi)	Eymin (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_M	1	1	1	1	1	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C_{vr} = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	1.5	0	1.5	0				
2	11.5	0	11.5	0				
3	11.5	0	11.5	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (36.5%)	193.4	304.8	12.985	D+S	1.15
Bending Stress Y (psi)	PASS (21.8%)	1574.2	2014.2	12.985	D+S	1.15
Deflection Y (in)	PASS (79.1%)	0.042 (=L/7000)	0.200 (=L/1470)	0	S	0
Bearing Stress (psi)	PASS (16.4%)	468.3	560.0	13	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	1234	6	8656	9896
C	2959	14	20751	23724
D	902	4	6326	7232

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	24.5	Live	Y
Self Weight (lbf/ft)	-	20.78	20.78	0	24.5	Dead	Y

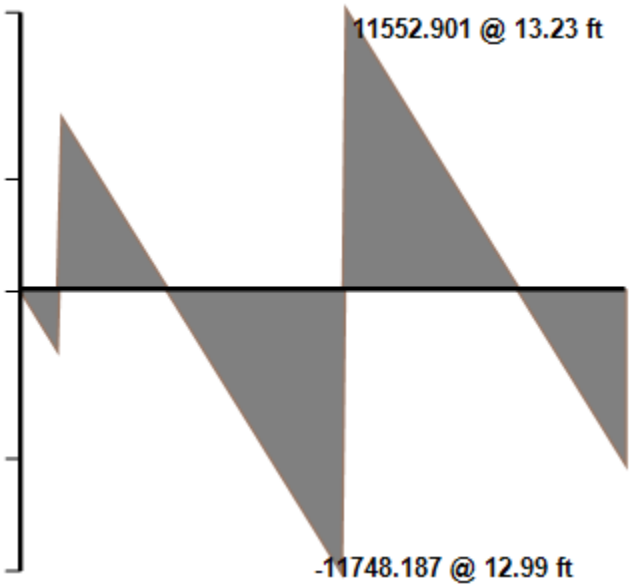
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Rafters #1	B	187.172	187.172	0	24.5	Dead	Y
Uniform (lbf/ft)	Rafters #1	B	1458.482	1458.482	0	24.5	Snow	Y

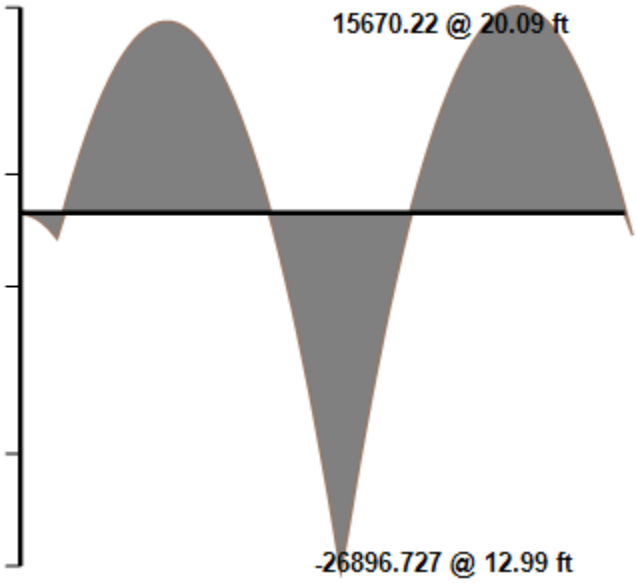
VMD DIAGRAMS

Load Combination: ASD

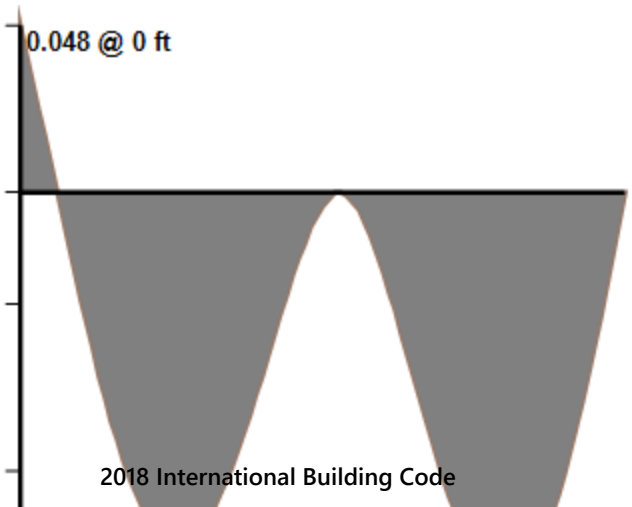
Y - Shear



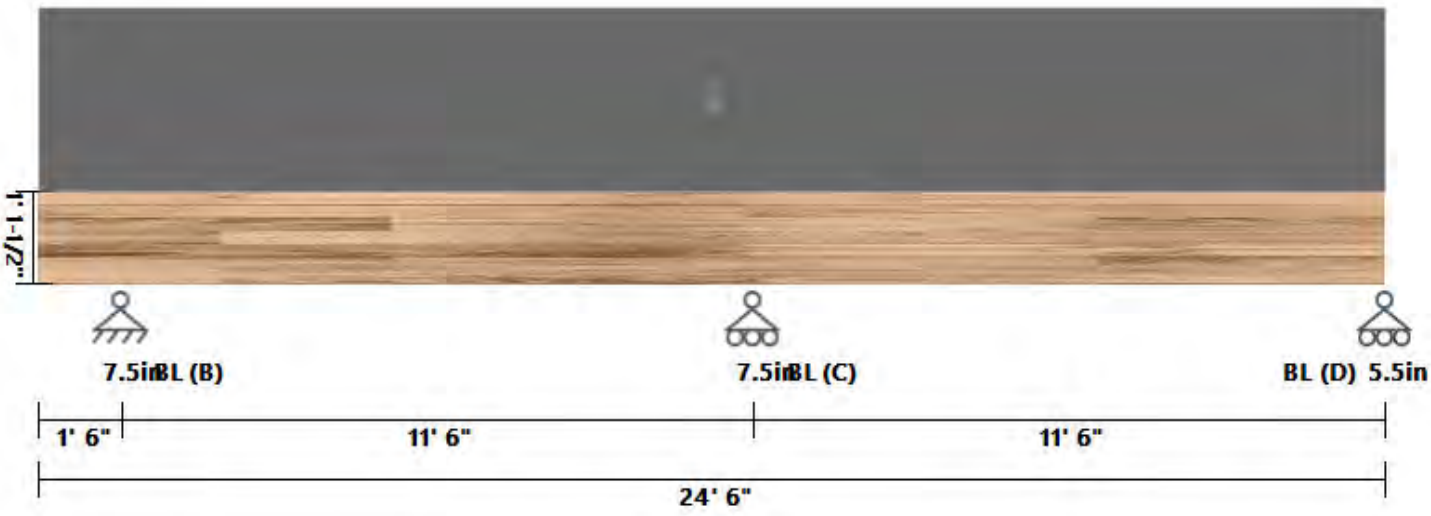
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

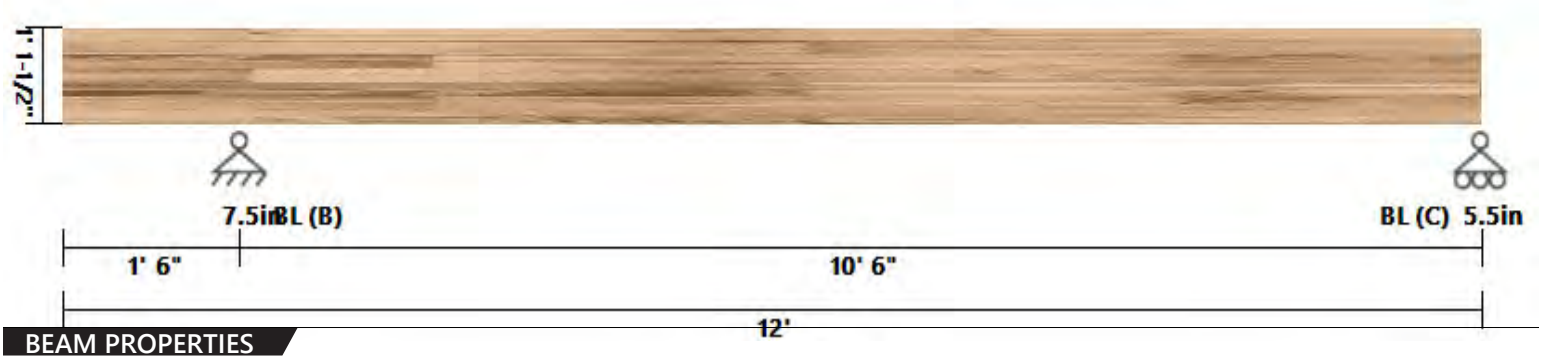


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #4	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		

Beam #4 DIAGRAM



BEAM PROPERTIES

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

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

STRENGTH PROPERTIES

	Fbx+ (psi)	Fbx- (psi)	Fby (psi)	Ft (psi)	Fvx (psi)	Fvy (psi)	Fc (psi)	Fc⊥ (psi)	Ex (psi)	Exmin (psi)	Ey (psi)	Eymin (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_M	1	1	1	1	1	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C_{vr} = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	1.5	0	1.5	0				
2	10.5	0	10.5	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (34.3%)	200.2	304.8	1.56	D+S	1.15
Bending Stress Y (psi)	PASS (35.6%)	1776.6	2760.0	6.84	D+S	1.15
Deflection Y (in)	PASS (54.3%)	0.091 (=L/1582)	0.200 (=L/720)	0	S	0
Bearing Stress (psi)	PASS (43.2%)	318.0	560.0	12	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	1537	7	10414	11958
C	1152	5	7811	8968

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	Live	Y
Self Weight (lbf/ft)	-	15.78	15.78	0	12	Dead	Y

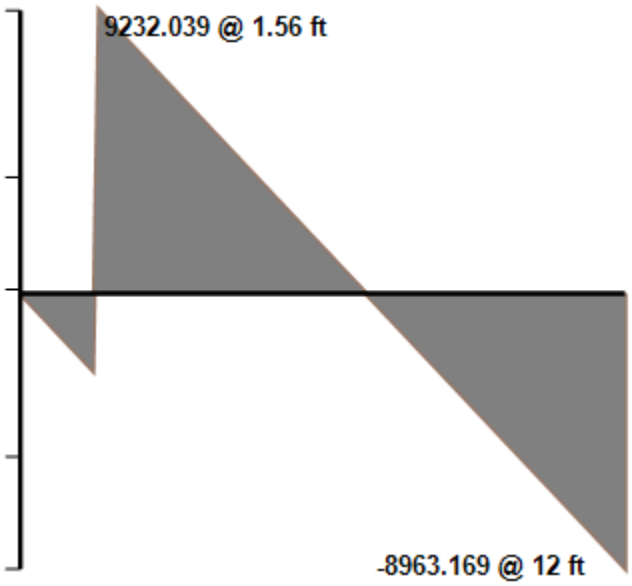
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #7	B	208.301	208.301	0	12	Dead	Y
Uniform (lbf/ft)	Trusses #7	B	1518.754	1518.754	0	12	Snow	Y

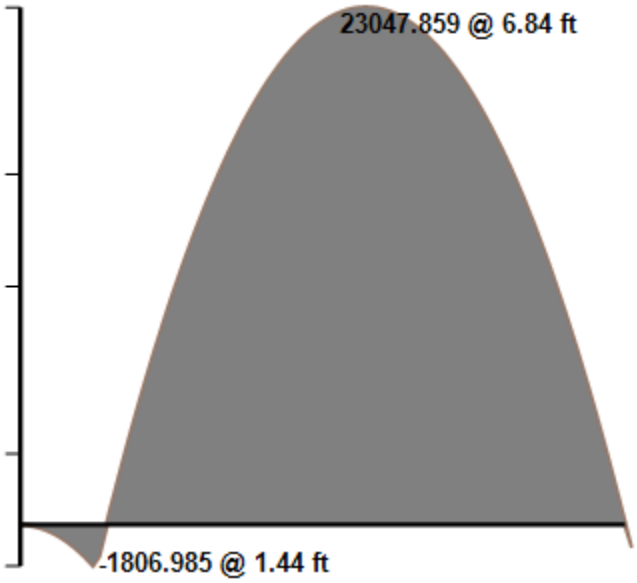
VMD DIAGRAMS

Load Combination: ASD

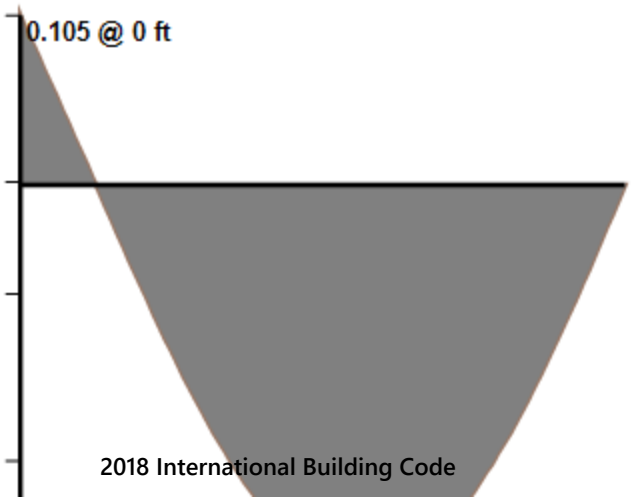
Y - Shear



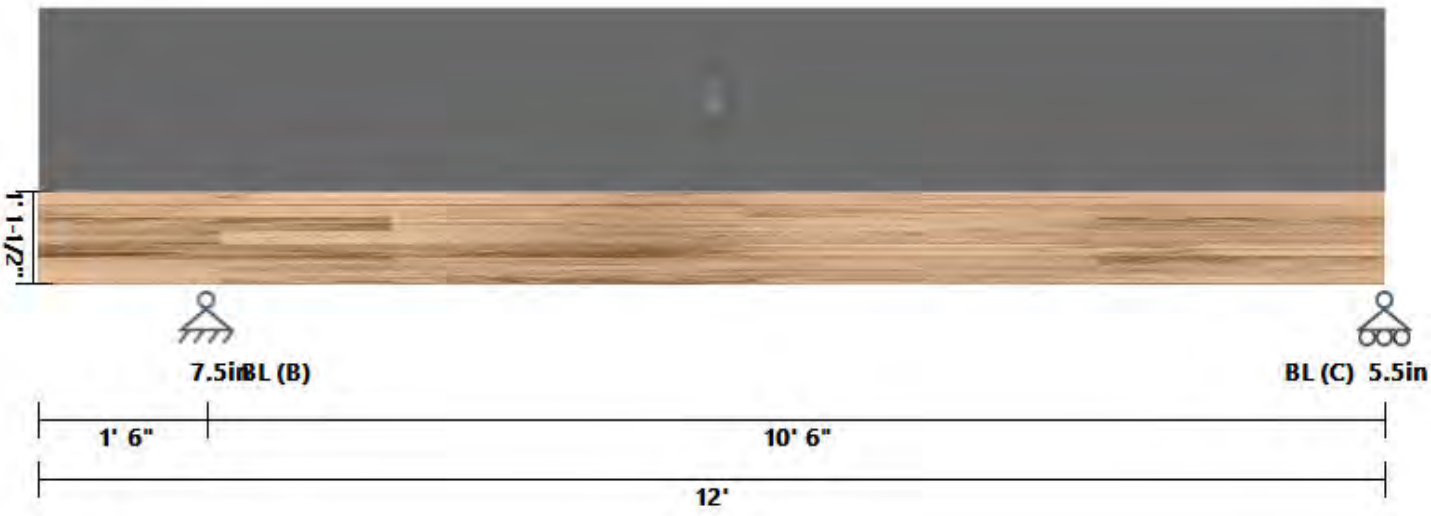
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

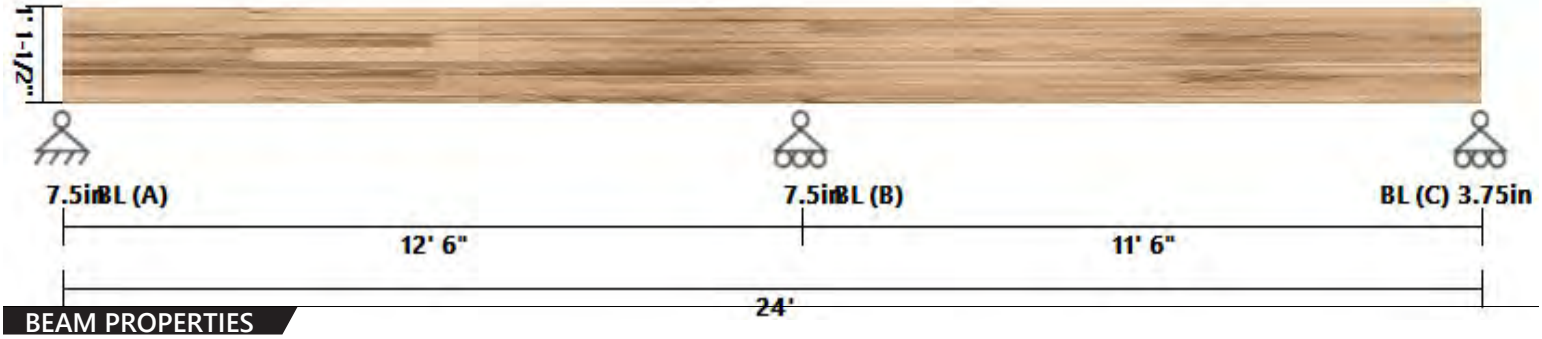


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #5	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		

Beam #5 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 24 Member Slope: 0/12 Actual Length (ft): 24

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

STRENGTH PROPERTIES

	Fbx+ (psi)	Fbx- (psi)	Fby (psi)	Ft (psi)	Fvx (psi)	Fvy (psi)	Fc (psi)	Fc⊥ (psi)	Ex (psi)	Exmin (psi)	Ey (psi)	Eymin (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_M	1	1	1	1	1	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C_{vr} = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12.5	0	12.5	0				
2	11.5	0	11.5	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (39.9%)	183.2	304.8	12.48	D+S	1.15
Bending Stress Y (psi)	PASS (24.6%)	1521.5	2018.3	12.48	D+S	1.15
Deflection Y (in)	PASS (84.7%)	0.127 (=L/2268)	0.833 (=L/346)	5.28	S	0
Bearing Stress (psi)	PASS (23.2%)	430.0	560.0	12.5	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	902	5	6059	6966
B	2822	15	18948	21785
C	785	4	5269	6058

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)	Uniform	1	1	0	24	Live	Y
Self Weight (lbf/ft)	-	20.78	20.78	0	24	Dead	Y

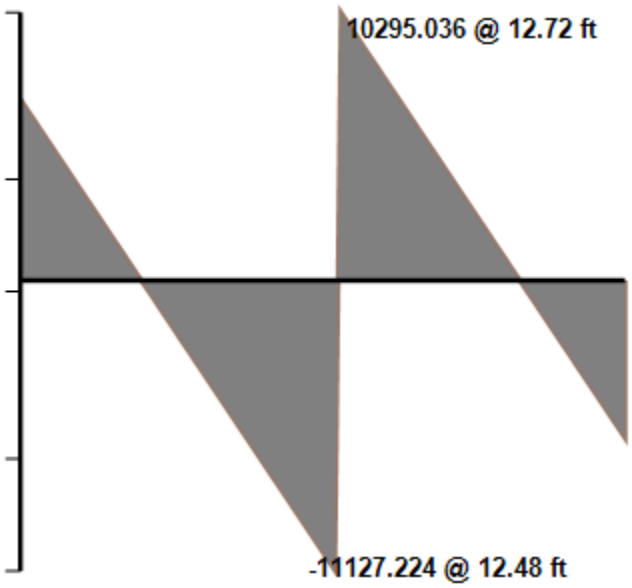
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #9	B	167.116	167.116	0	24	Dead	Y
Uniform (lbf/ft)	Trusses #9	B	1261.498	1261.498	0	24	Snow	Y

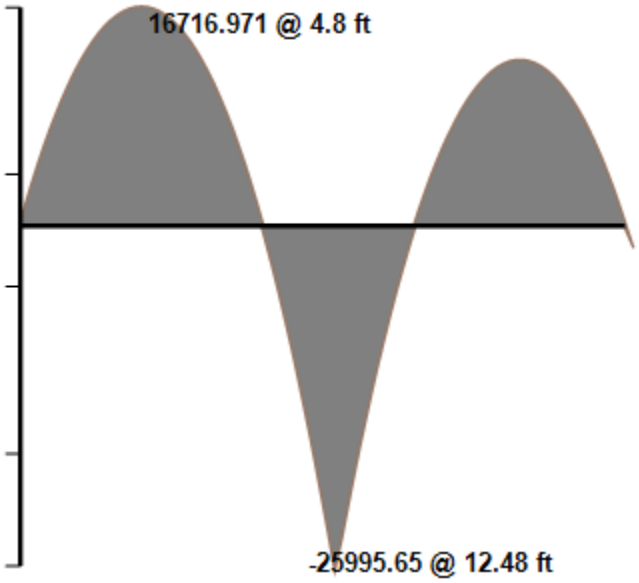
VMD DIAGRAMS

Load Combination: ASD

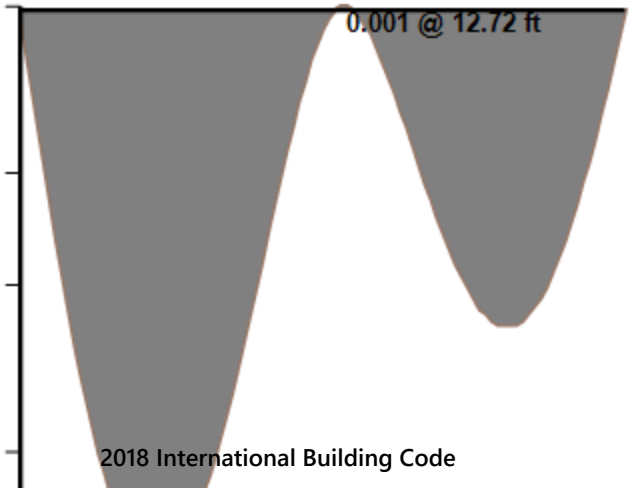
Y - Shear



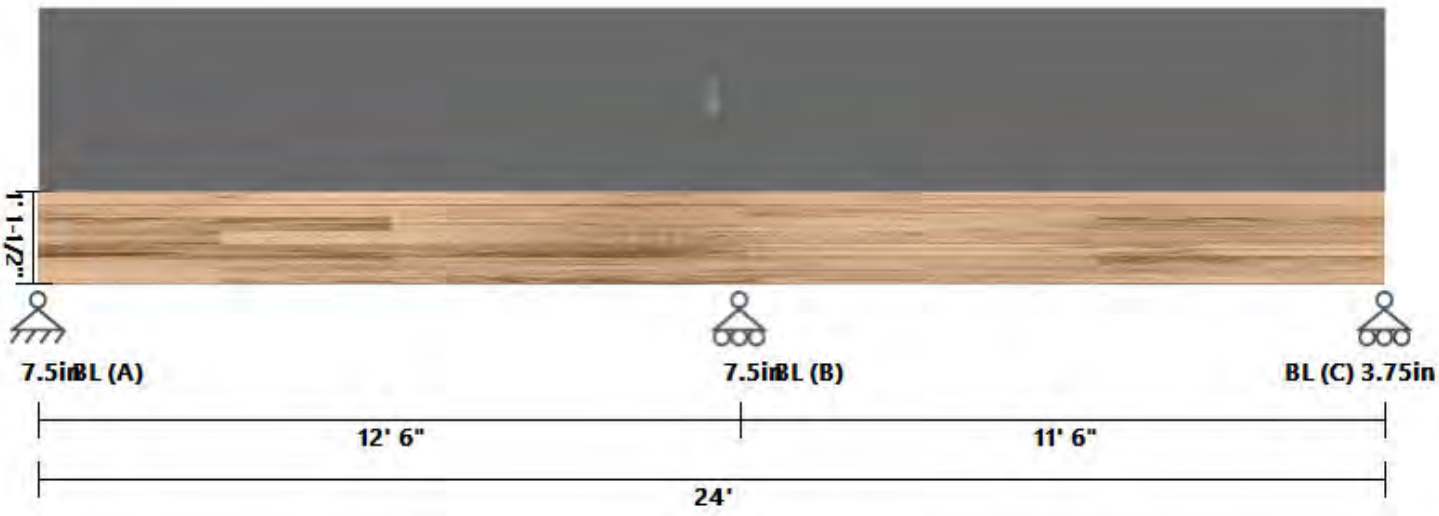
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

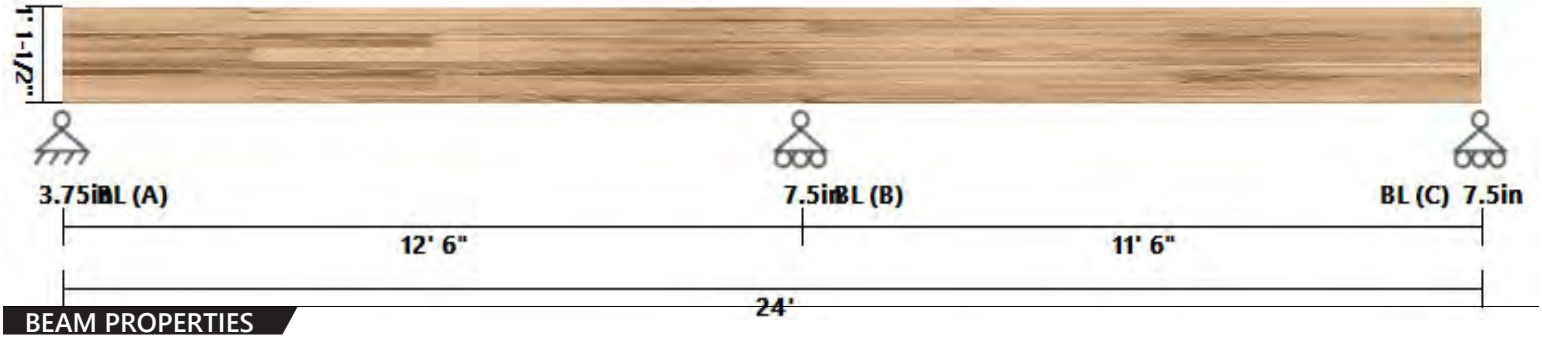


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Roof	LOADING:	ASD
MEMBER NAME:	Beam #6	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		

Beam #6 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 24 Member Slope: 0/12 Actual Length (ft): 24

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

STRENGTH PROPERTIES

	Fbx+ (psi)	Fbx- (psi)	Fby (psi)	Ft (psi)	Fvx (psi)	Fvy (psi)	Fc (psi)	Fc⊥ (psi)	Ex (psi)	Exmin (psi)	Ey (psi)	Eymin (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_M	1	1	1	1	1	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1	1	1	1	1	1

Bending Adjustment Factors C_{vr} = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	12.5	0	12.5	0				
2	11.5	0	11.5	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (39.9%)	183.2	304.8	12.48	D+S	1.15
Bending Stress Y (psi)	PASS (24.6%)	1521.5	2018.3	12.48	D+S	1.15
Deflection Y (in)	PASS (84.7%)	0.127 (=L/2268)	0.833 (=L/346)	5.28	S	0
Bearing Stress (psi)	PASS (23.2%)	430.0	560.0	12.5	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	902	5	6059	6966
B	2822	15	18948	21785
C	785	4	5269	6058

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)	Uniform	1	1	0	24	Live	Y
Self Weight (lbf/ft)	-	20.78	20.78	0	24	Dead	Y

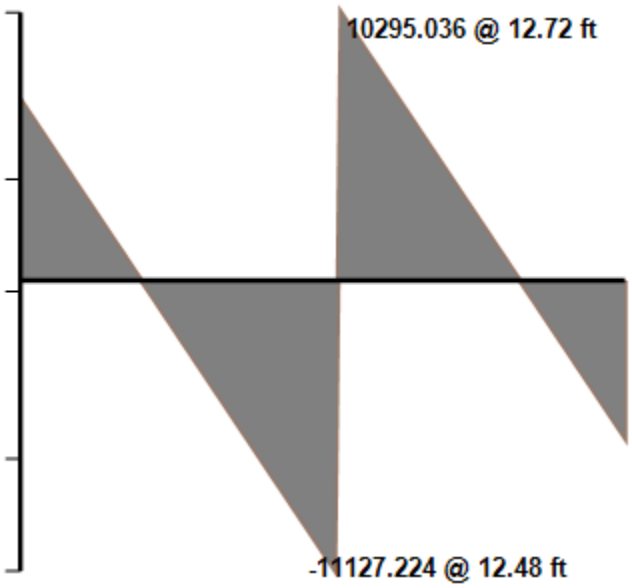
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #9	B	167.116	167.116	0	24	Dead	Y
Uniform (lbf/ft)	Trusses #9	B	1261.498	1261.498	0	24	Snow	Y

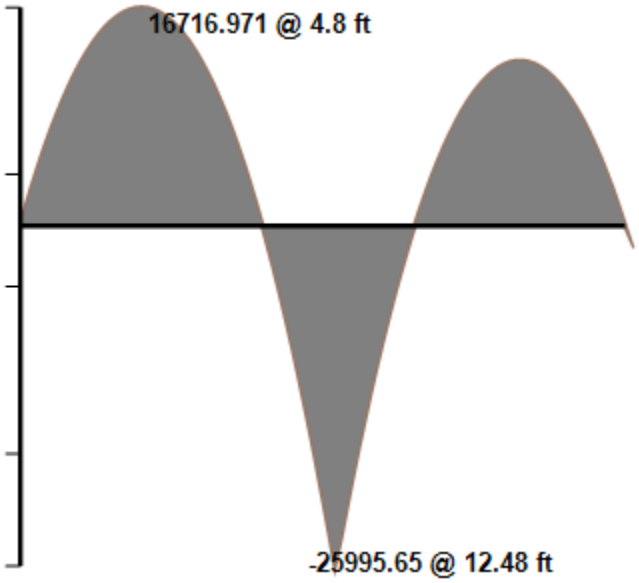
VMD DIAGRAMS

Load Combination: ASD

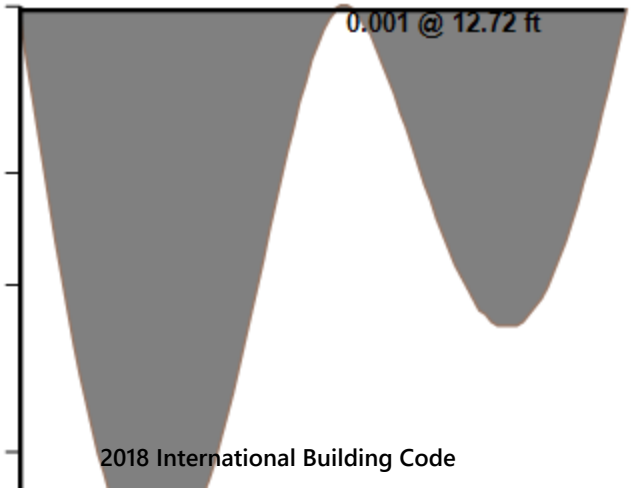
Y - Shear



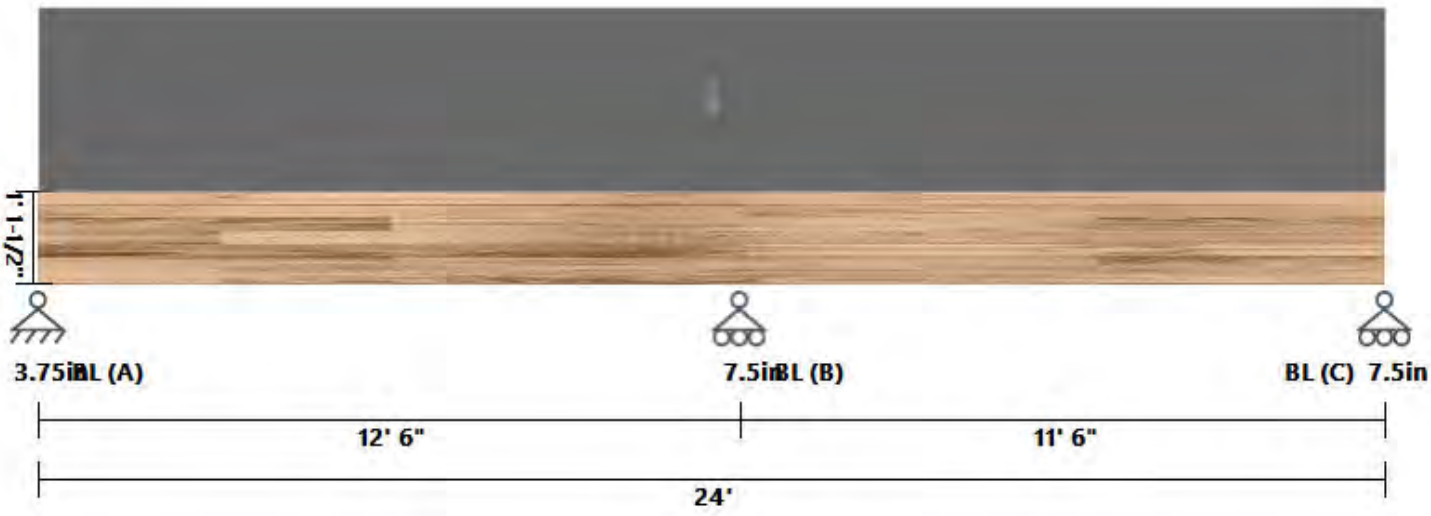
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

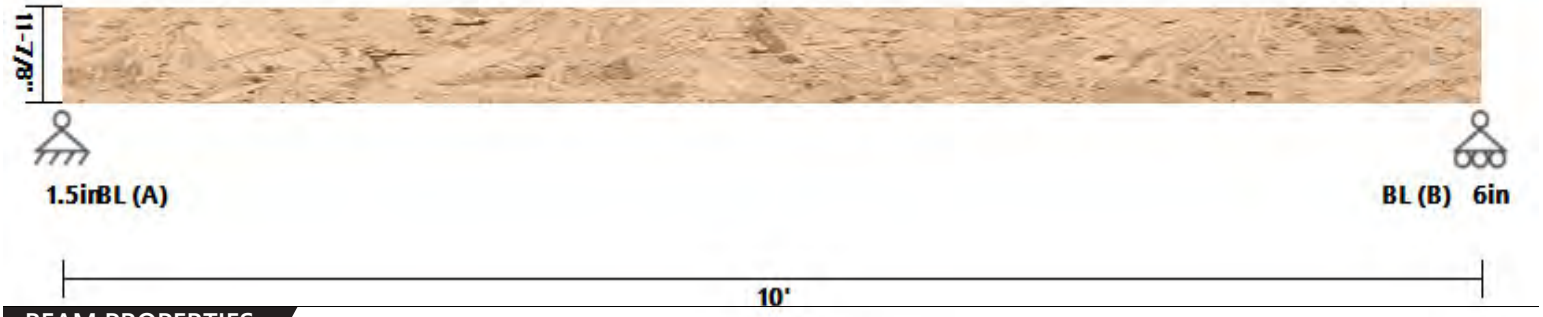


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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	(2) 1.75 X 11.875	DRY		

Header #1 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 10 Member Slope: 0/12 Actual Length (ft): 10

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (62.3%)	123.5	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (58.3%)	1248.0	2994.3	5	D+S	1.15
Deflection Y (in)	PASS (78.1%)	0.146 (=L/822)	0.667 (=L/180)	5	S	0
Bearing Stress (psi)	PASS (13.1%)	651.8	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	260	5	3162	3427
B	260	5	3162	3427

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)	-	12.12	12.12	0	10	Dead	Y

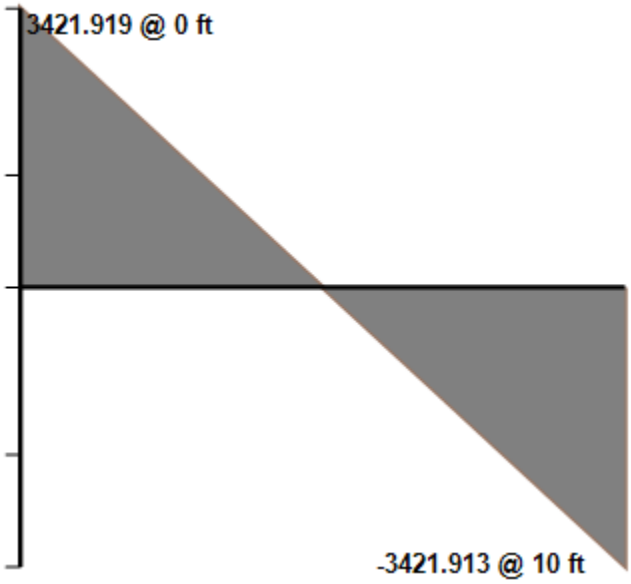
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	39.806	39.806	0	10	Dead	Y
Uniform (lbf/ft)	Outlookers	B	632.456	632.456	0	10	Snow	Y

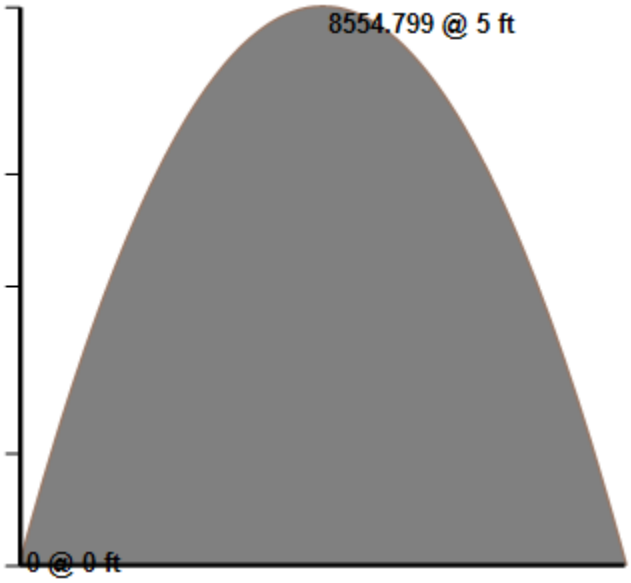
VMD DIAGRAMS

Load Combination: ASD

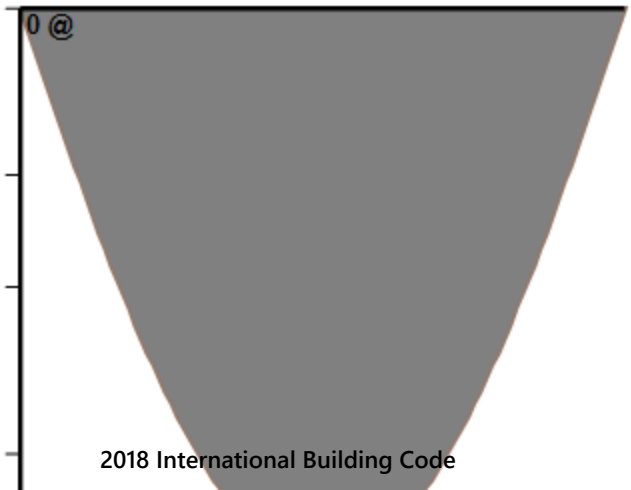
Y - Shear



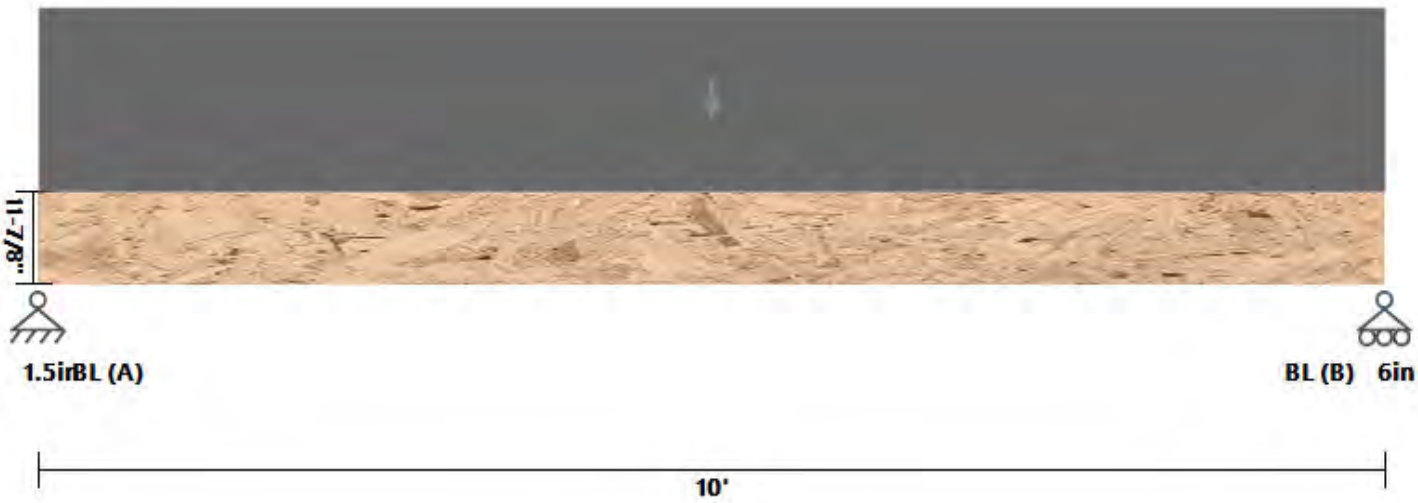
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

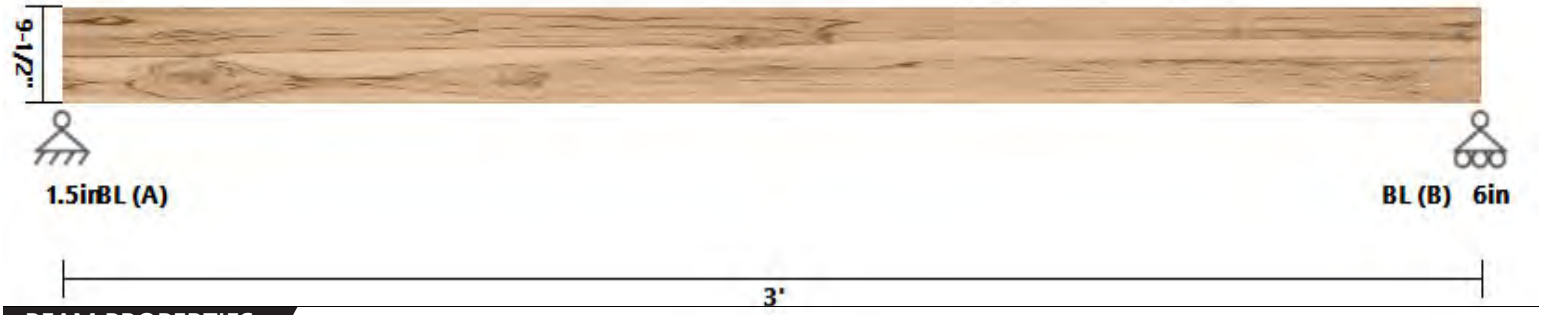


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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) 5.5 X 9.5	DRY		

Header #2 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (37.3%)	122.6	195.5	3	D+S	1.15
Bending Stress Y (psi)	PASS (53.8%)	464.6	1006.3	1.5	D+S	1.15
Deflection Y (in)	PASS (95.7%)	0.009 (=L/4000)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (17.2%)	517.7	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	671	420	2	3600	4693
B	671	420	2	3600	4693

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	3	Dead	Y

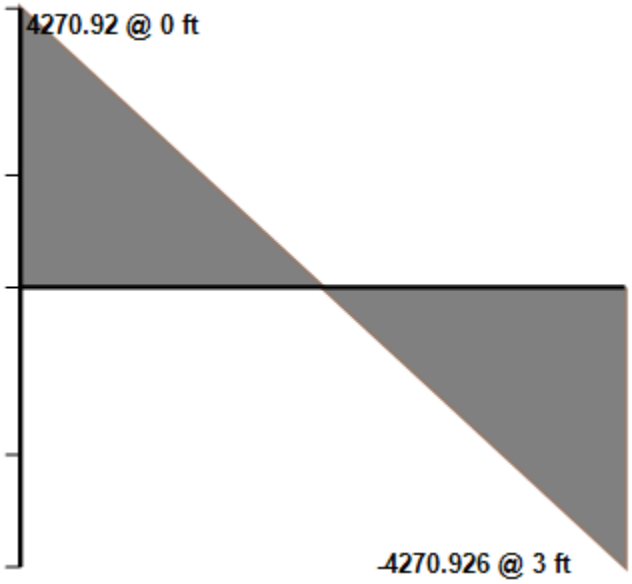
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	C	435.332	435.332	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #1	C	280	280	0	3	Live	Y
Uniform (lbf/ft)	Trusses #1	C	2400.031	2400.031	0	3	Snow	Y

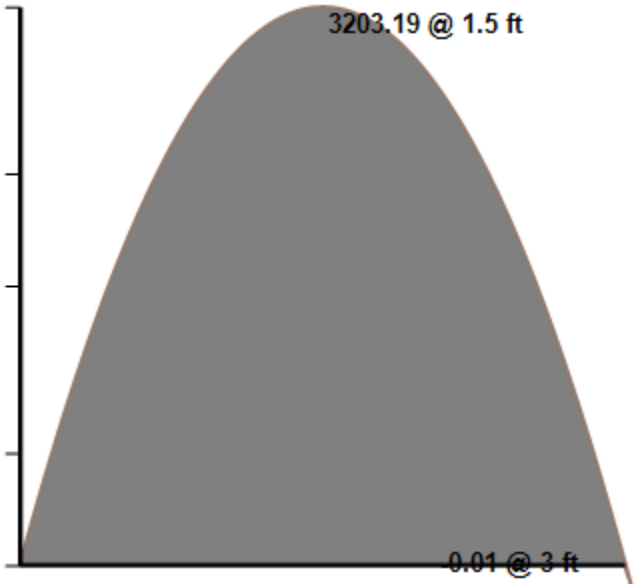
VMD DIAGRAMS

Load Combination: ASD

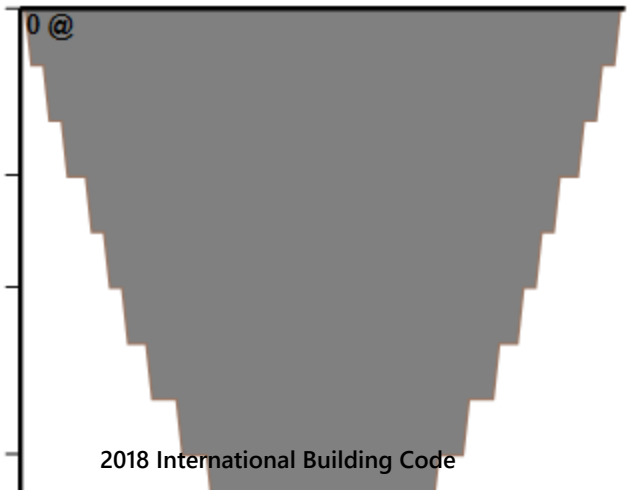
Y - Shear



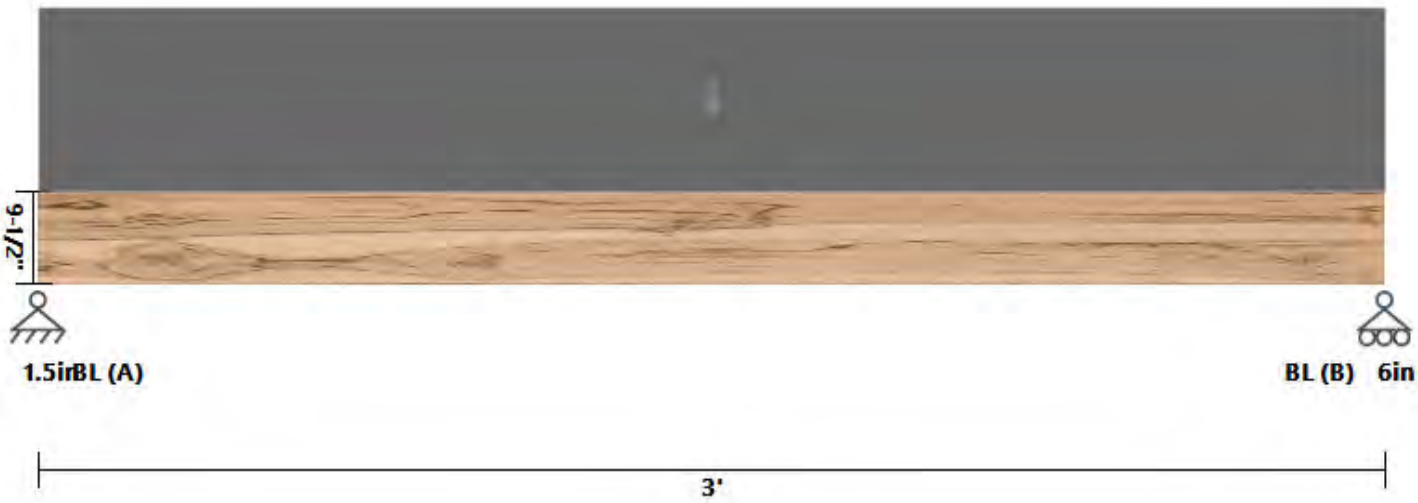
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

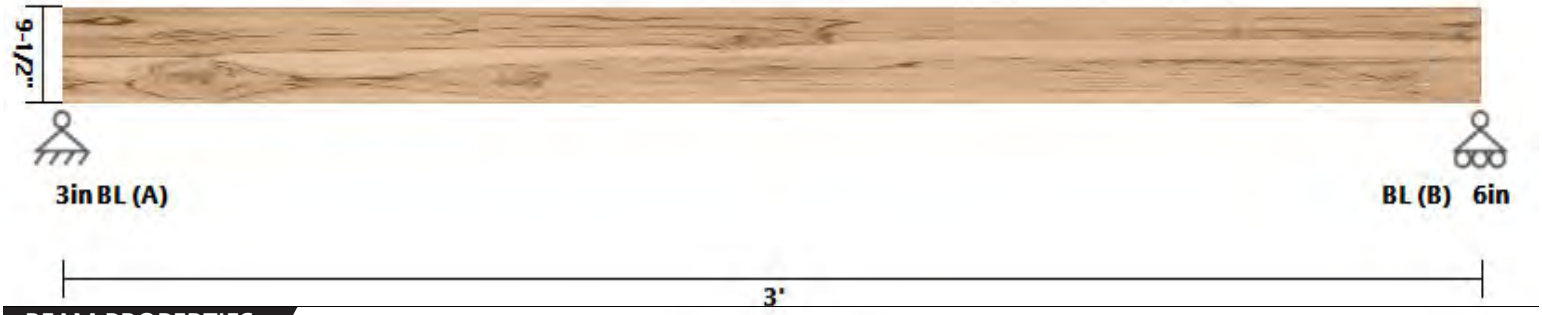


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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		

Header #3 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (7.7%)	180.5	195.5	3	D+S	1.15
Bending Stress Y (psi)	PASS (32.0%)	683.8	1006.3	1.5	D+S	1.15
Deflection Y (in)	PASS (93.6%)	0.013 (=L/2769)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (39.0%)	381.0	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	914	420	2	5372	6708
B	914	420	2	5372	6708

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	3	Dead	Y

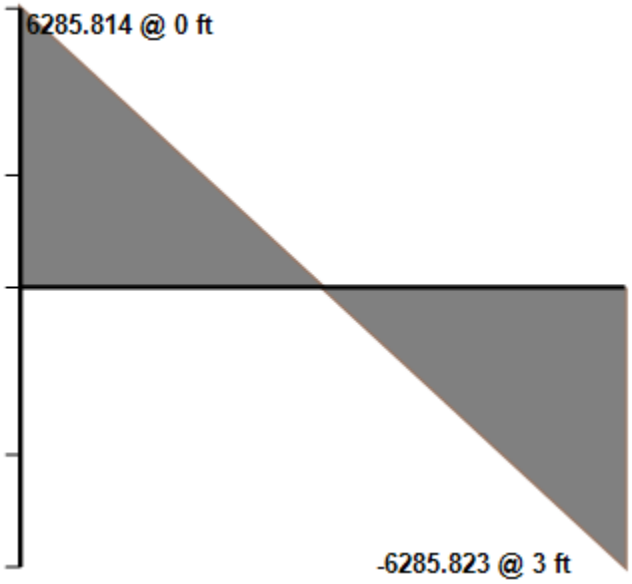
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	C	435.332	435.332	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #1	C	280	280	0	3	Live	Y
Uniform (lbf/ft)	Trusses #1	C	2400.031	2400.031	0	3	Snow	Y
Uniform (lbf/ft)	Trusses #7	A	162.012	162.012	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #7	A	1181.251	1181.251	0	3	Snow	Y

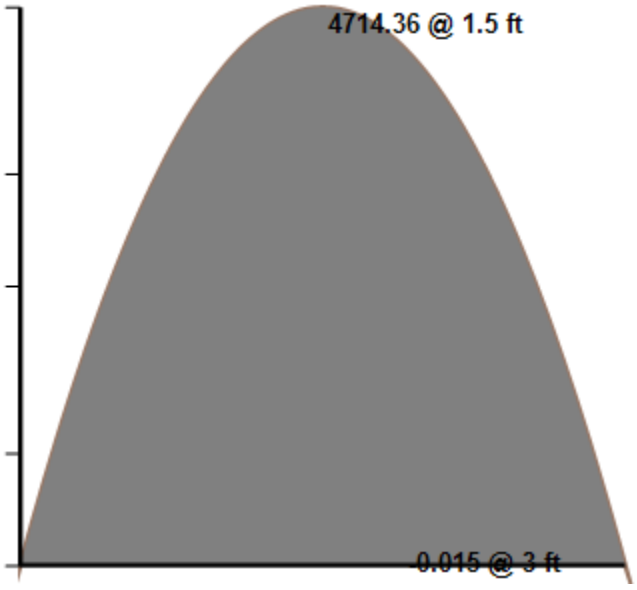
VMD DIAGRAMS

Load Combination: ASD

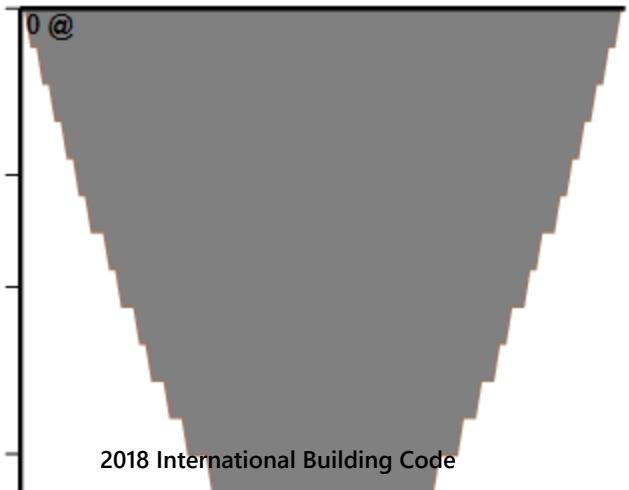
Y - Shear



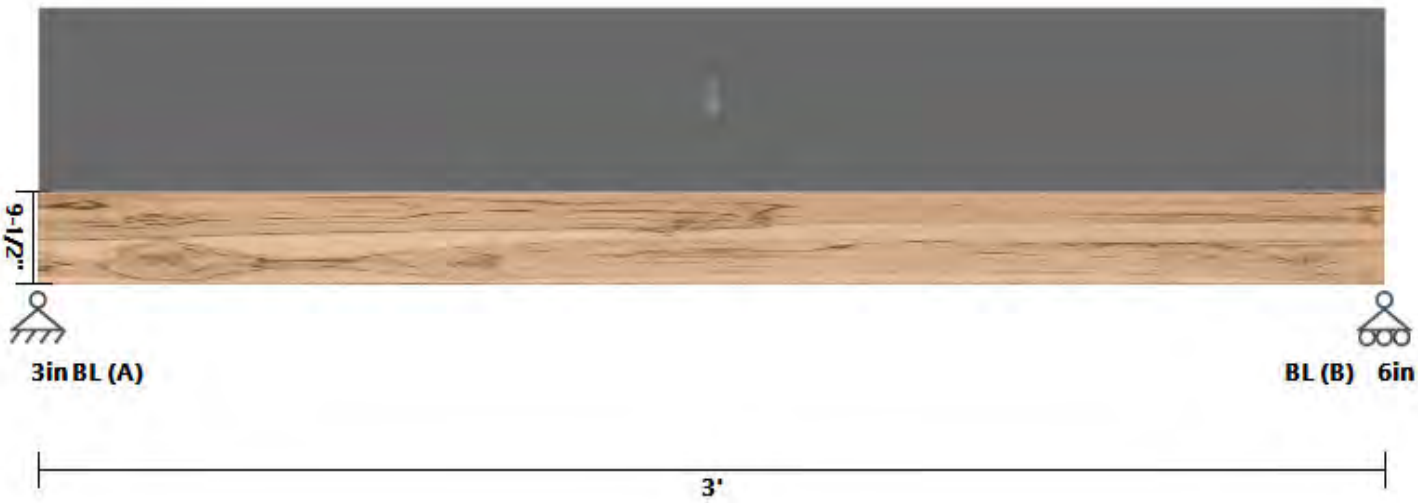
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

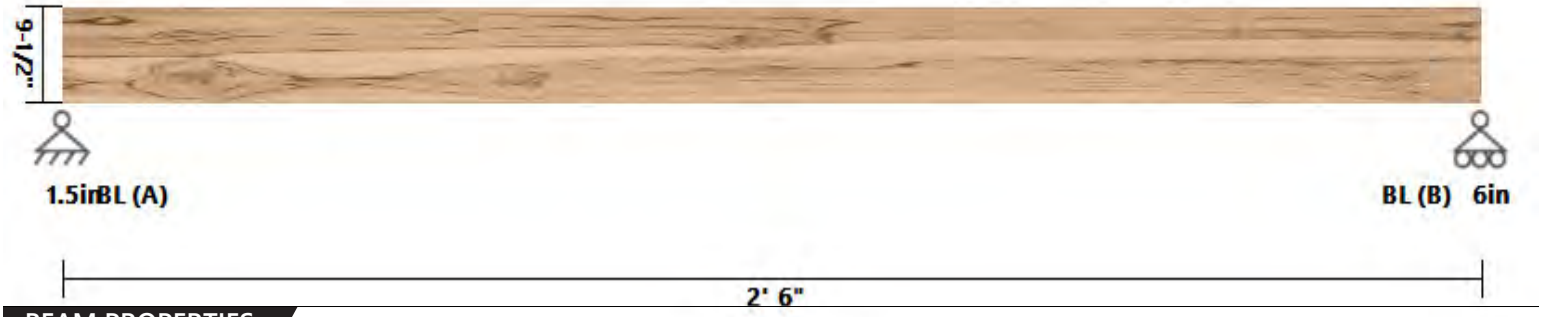


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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) 5.5 X 9.5	DRY		

Header #4 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 2.5 Member Slope: 0/12 Actual Length (ft): 2.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (32.0%)	132.9	195.5	0	D+S	1.15
Bending Stress Y (psi)	PASS (58.3%)	419.8	1006.3	1.25	D+S	1.15
Deflection Y (in)	PASS (96.7%)	0.005 (=L/6000)	0.167 (=L/180)	1.25	S	0
Bearing Stress (psi)	PASS (10.2%)	561.2	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	682	350	1	3949	4982
B	682	350	1	3949	4982

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)	-	11.92	11.92	0	2.5	Dead	Y

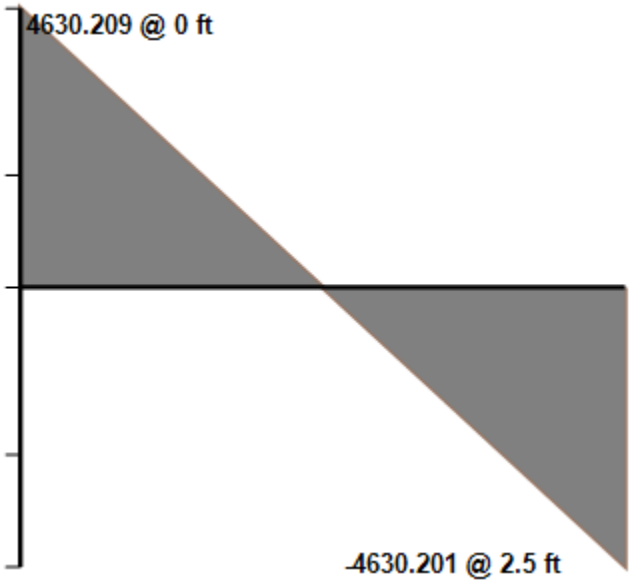
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	B	435.337	435.337	0	2.5	Dead	Y
Uniform (lbf/ft)	Trusses #1	B	280.005	280.005	0	2.5	Live	Y
Uniform (lbf/ft)	Trusses #1	B	2400.029	2400.029	0	2.5	Snow	Y
Uniform (lbf/ft)	Trusses #2	A	97.956	97.956	0	2.5	Dead	Y
Uniform (lbf/ft)	Trusses #2	A	758.929	758.929	0	2.5	Snow	Y

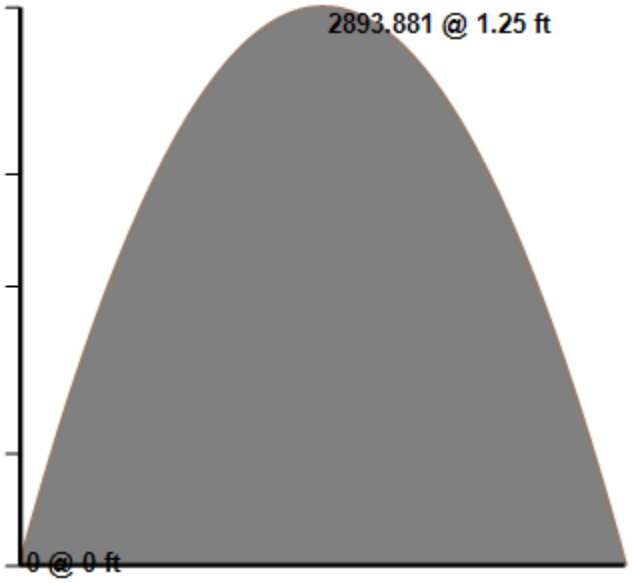
VMD DIAGRAMS

Load Combination: ASD

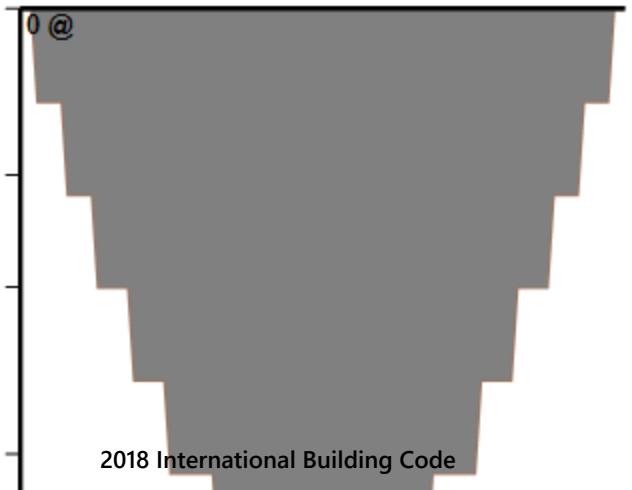
Y - Shear



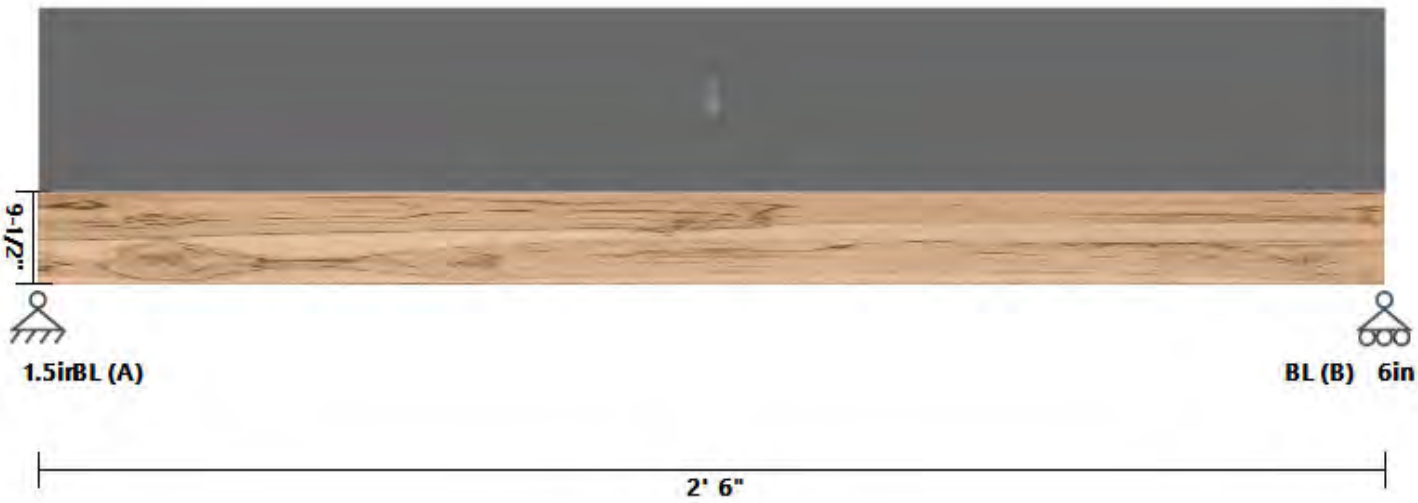
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

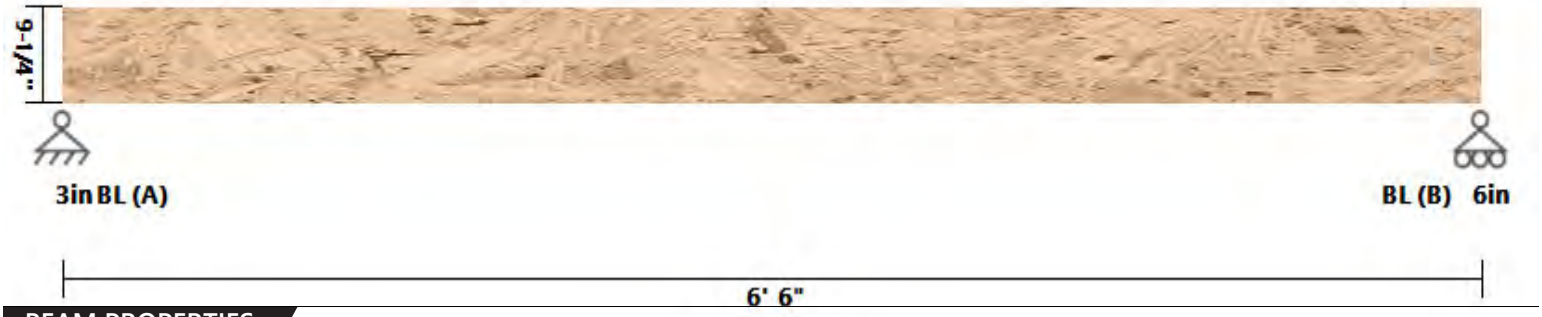


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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	(2) 1.75 X 9.25	DRY		

Header #5 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 6.5 Member Slope: 0/12 Actual Length (ft): 6.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
32.38	230.84	8.26	9.44	2	7.35	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.04 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (41.7%)	191.2	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (48.0%)	1612.0	3097.8	3.25	D+S	1.15
Deflection Y (in)	PASS (77.6%)	0.097 (=L/804)	0.433 (=L/180)	3.25	S	0
Bearing Stress (psi)	PASS (47.6%)	393.0	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	499	3	3627	4129
B	499	3	3627	4129

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)	-	9.44	9.44	0	6.5	Dead	Y

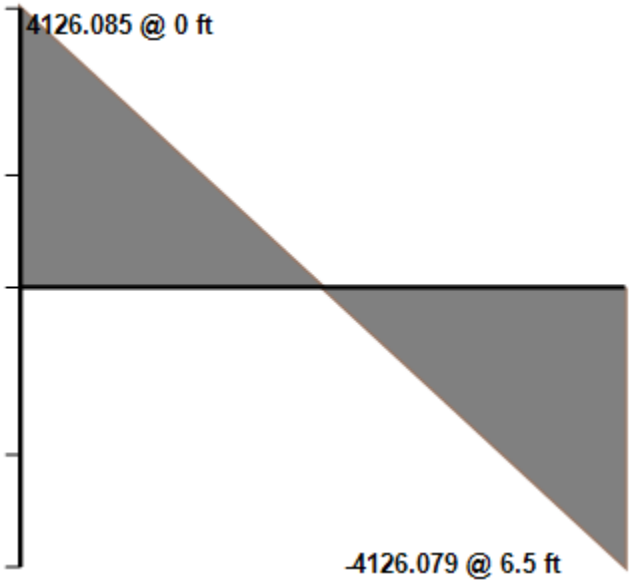
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #2	B	144.053	144.053	0	6.5	Dead	Y
Uniform (lbf/ft)	Trusses #2	B	1116.069	1116.069	0	6.5	Snow	Y

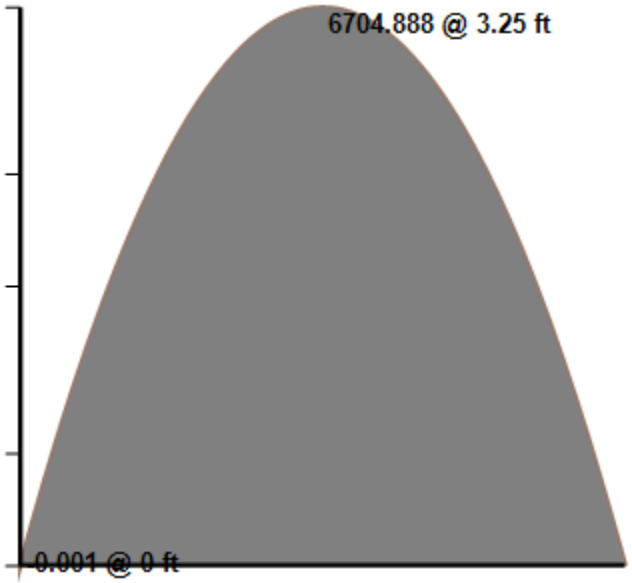
VMD DIAGRAMS

Load Combination: ASD

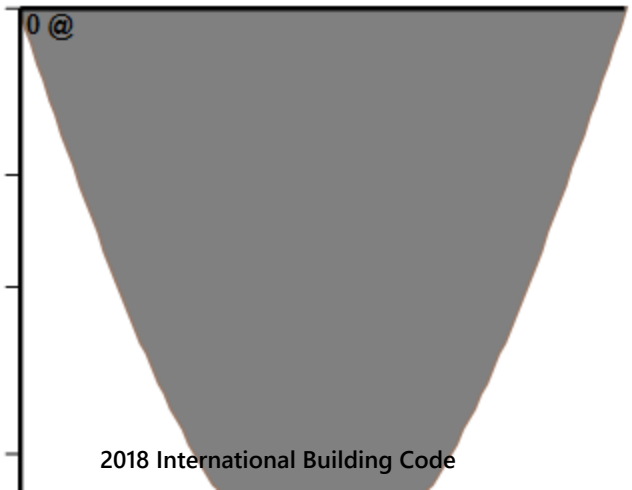
Y - Shear



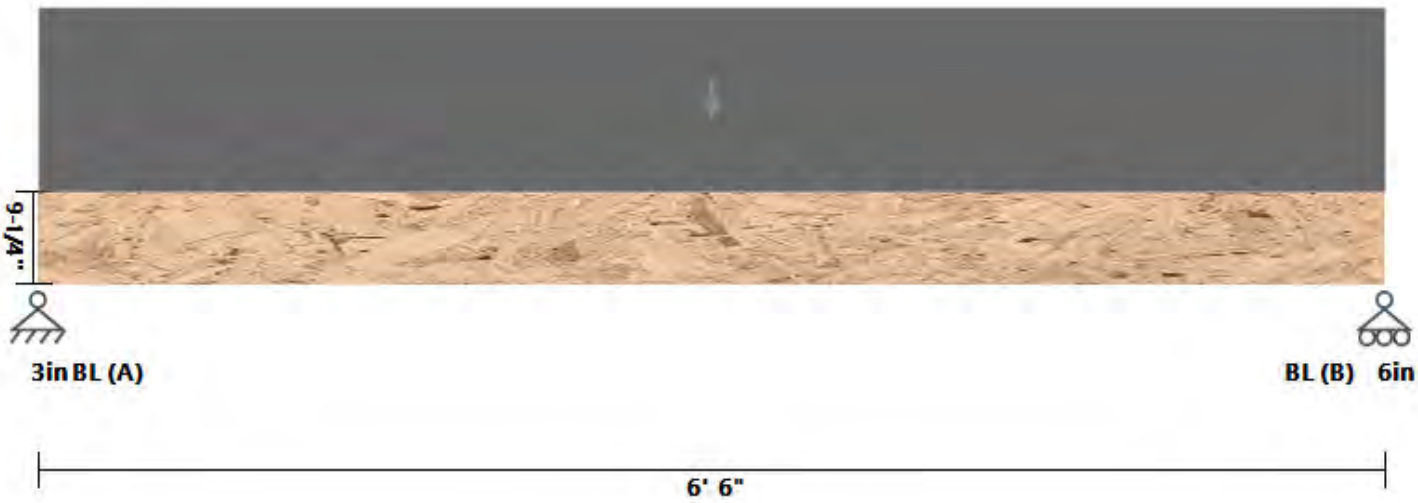
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

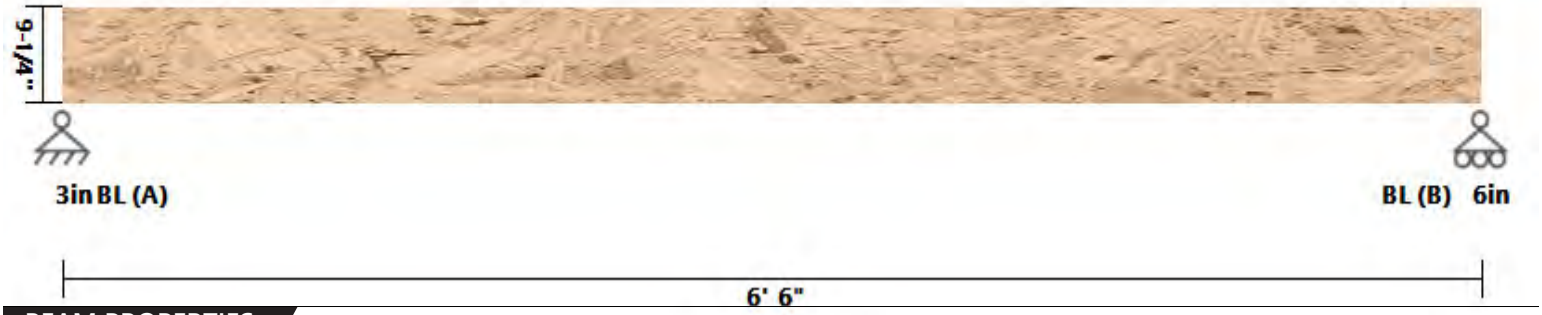


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #6	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		

Header #6 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 6.5 Member Slope: 0/12 Actual Length (ft): 6.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.04 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (22.0%)	255.5	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (30.5%)	2154.4	3097.8	3.25	D+S	1.15
Deflection Y (in)	PASS (71.9%)	0.122 (=L/639)	0.433 (=L/180)	3.25	S	0
Bearing Stress (psi)	PASS (30.0%)	525.2	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	1447	3	6825	8275
B	1447	3	6825	8275

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)	-	14.16	14.16	0	6.5	Dead	Y

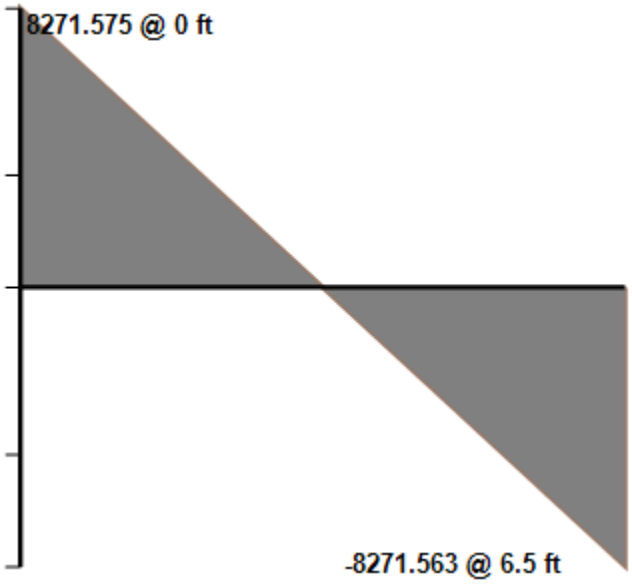
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #3	B	430.937	430.937	0	6.5	Dead	Y
Uniform (lbf/ft)	Trusses #3	B	2099.999	2099.999	0	6.5	Snow	Y

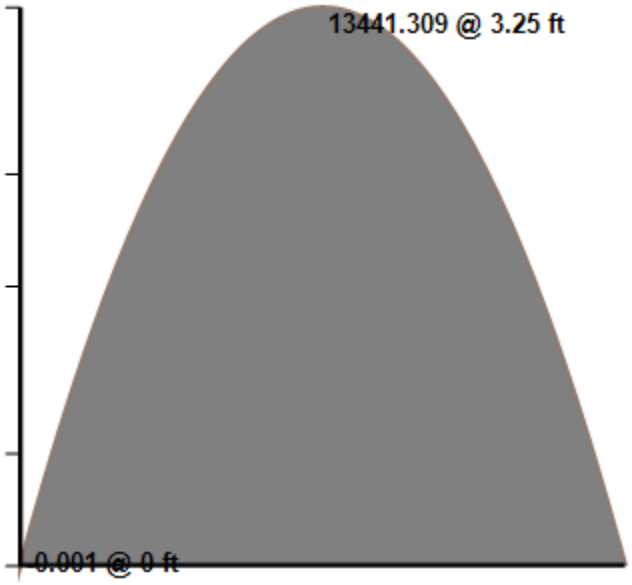
VMD DIAGRAMS

Load Combination: ASD

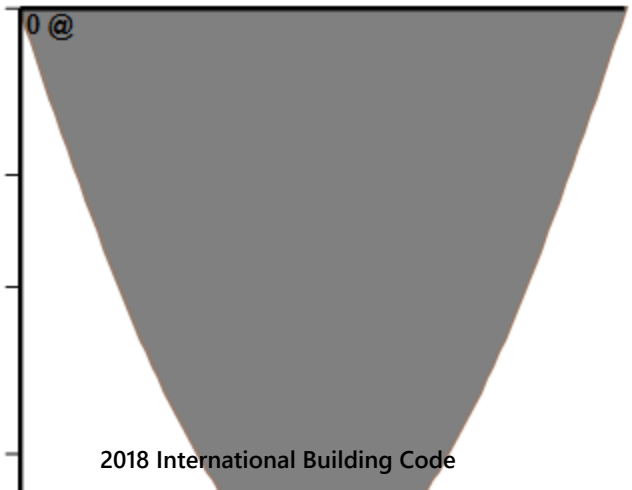
Y - Shear



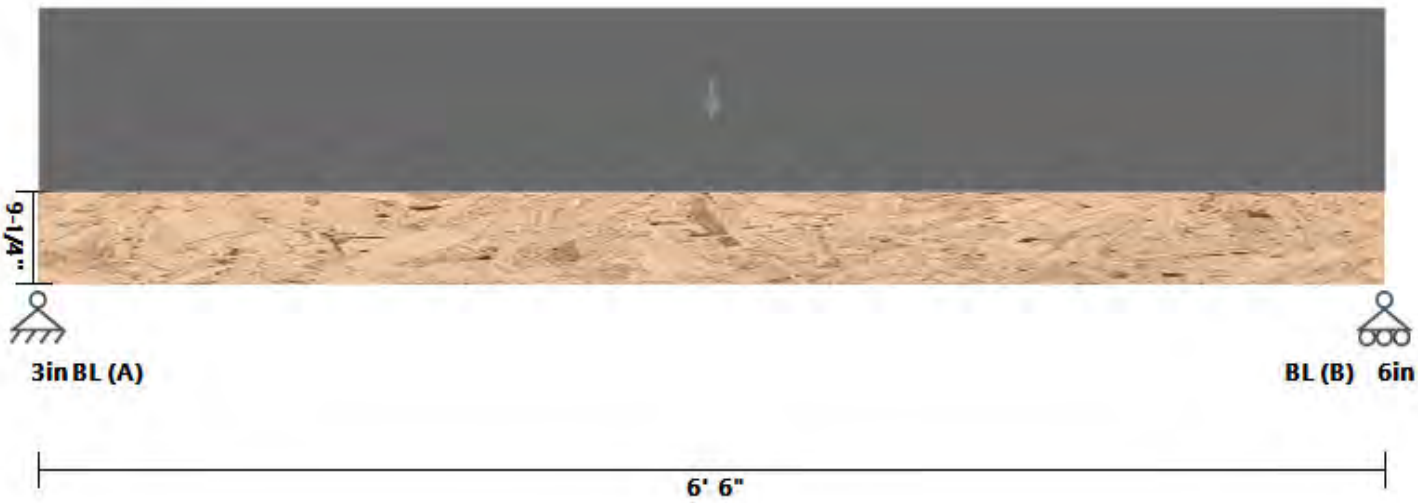
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

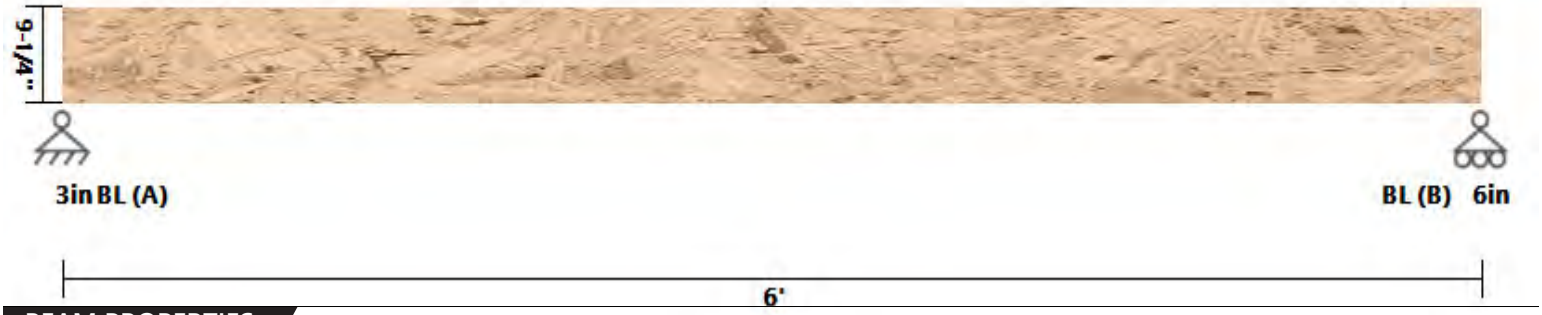


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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		

Header #7 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.04 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (28.0%)	235.8	327.8	6	D+S	1.15
Bending Stress Y (psi)	PASS (40.7%)	1835.7	3097.8	3	D+S	1.15
Deflection Y (in)	PASS (77.9%)	0.088 (=L/818)	0.400 (=L/180)	3	S	0
Bearing Stress (psi)	PASS (35.4%)	484.8	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	1335	3	6300	7638
B	1335	3	6300	7638

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	RoofLive	Y
Self Weight (lbf/ft)	-	14.16	14.16	0	6	Dead	Y

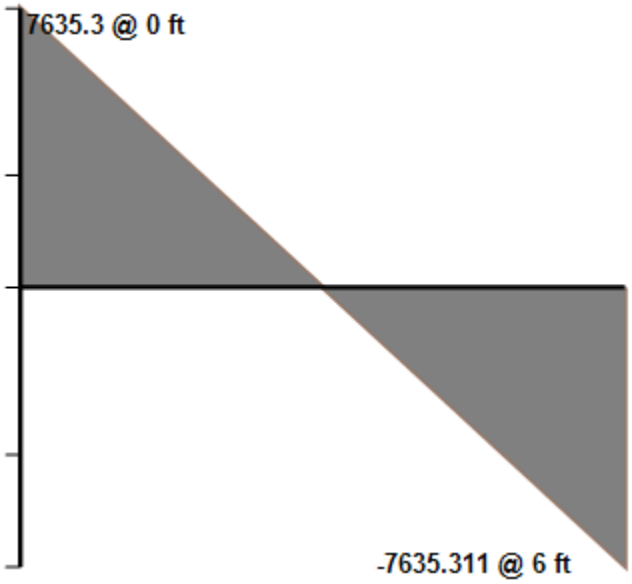
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #3	B	430.937	430.937	0	6	Dead	Y
Uniform (lbf/ft)	Trusses #3	B	2099.999	2099.999	0	6	Snow	Y

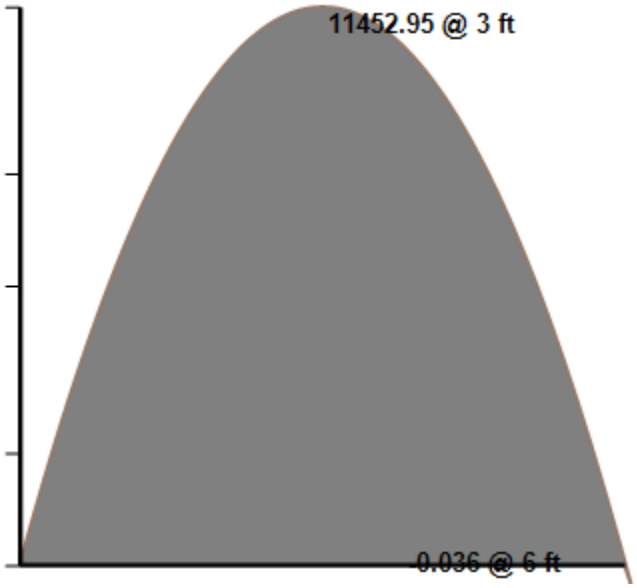
VMD DIAGRAMS

Load Combination: ASD

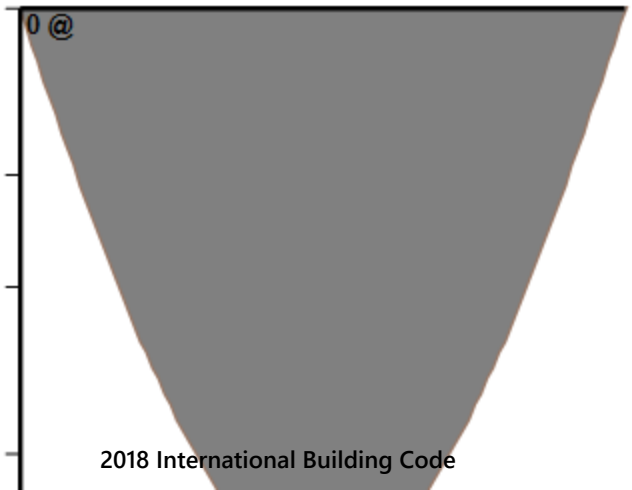
Y - Shear



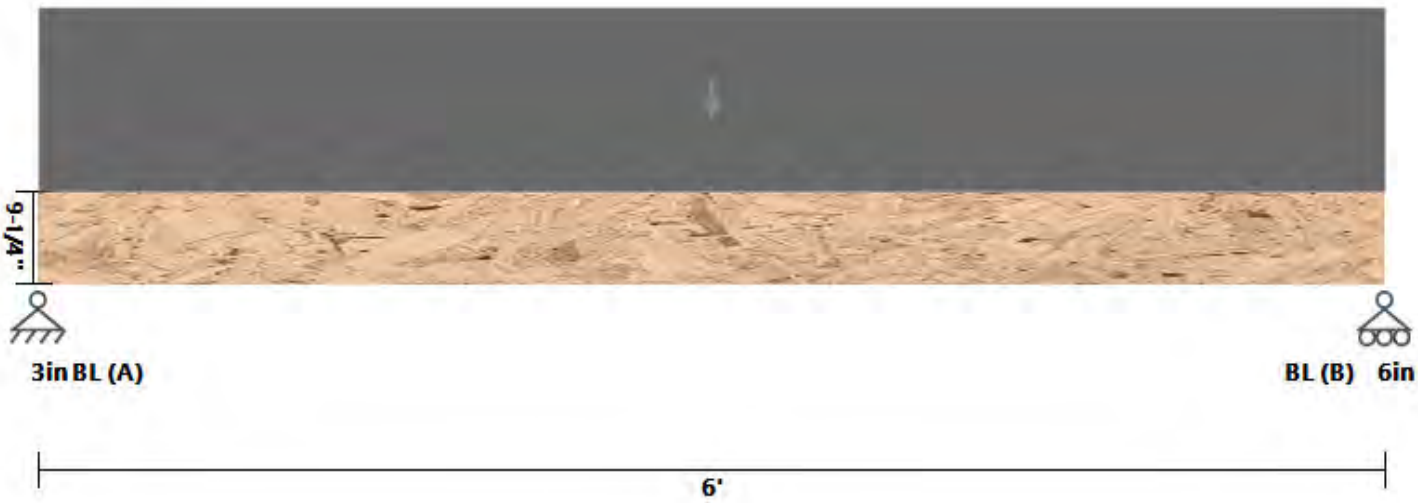
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

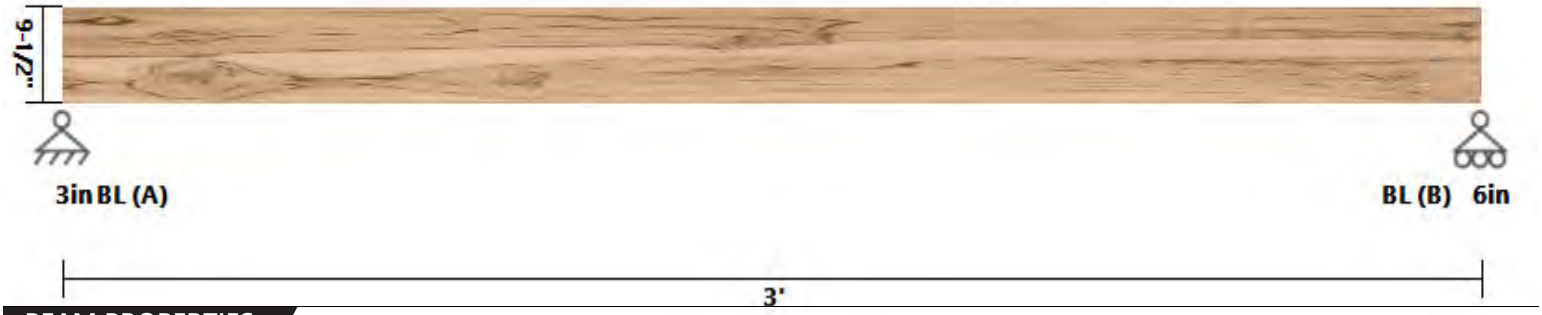


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #8	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		

Header #8 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (18.7%)	158.9	195.5	3	D+S	1.15
Bending Stress Y (psi)	PASS (40.2%)	602.1	1006.3	1.5	D+S	1.15
Deflection Y (in)	PASS (94.4%)	0.011 (=L/3273)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (46.3%)	335.4	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	860	2	4675	5537
B	860	2	4675	5537

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	3	Dead	Y

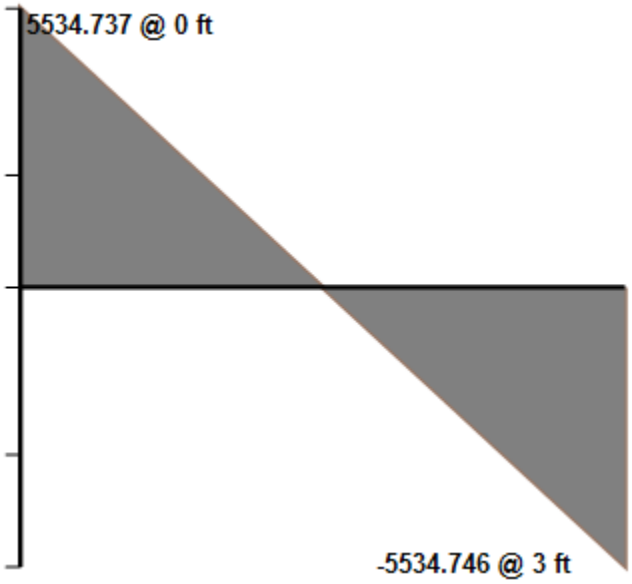
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #3	C	430.938	430.938	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #3	C	2100	2100	0	3	Snow	Y
Uniform (lbf/ft)	Rafters #1	A	130.453	130.453	0	3	Dead	Y
Uniform (lbf/ft)	Rafters #1	A	1016.518	1016.518	0	3	Snow	Y

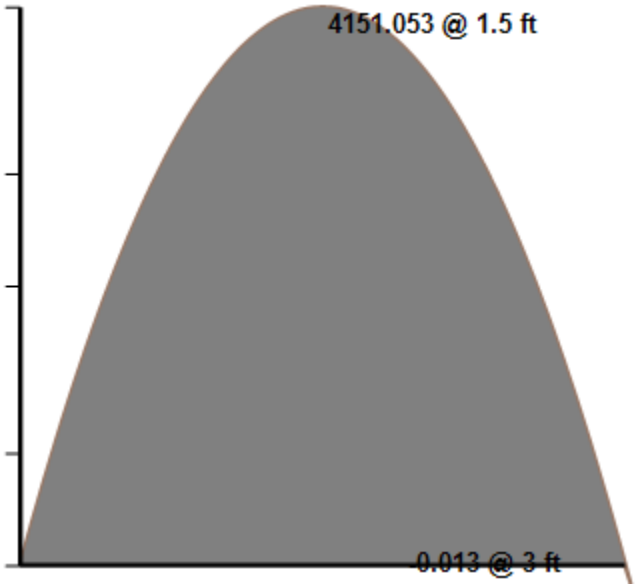
VMD DIAGRAMS

Load Combination: ASD

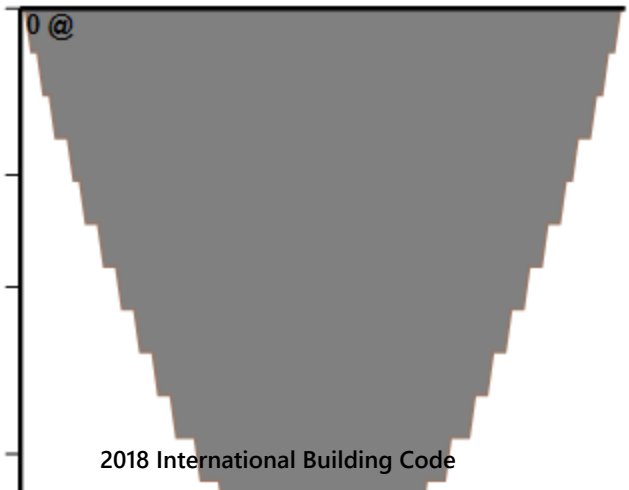
Y - Shear



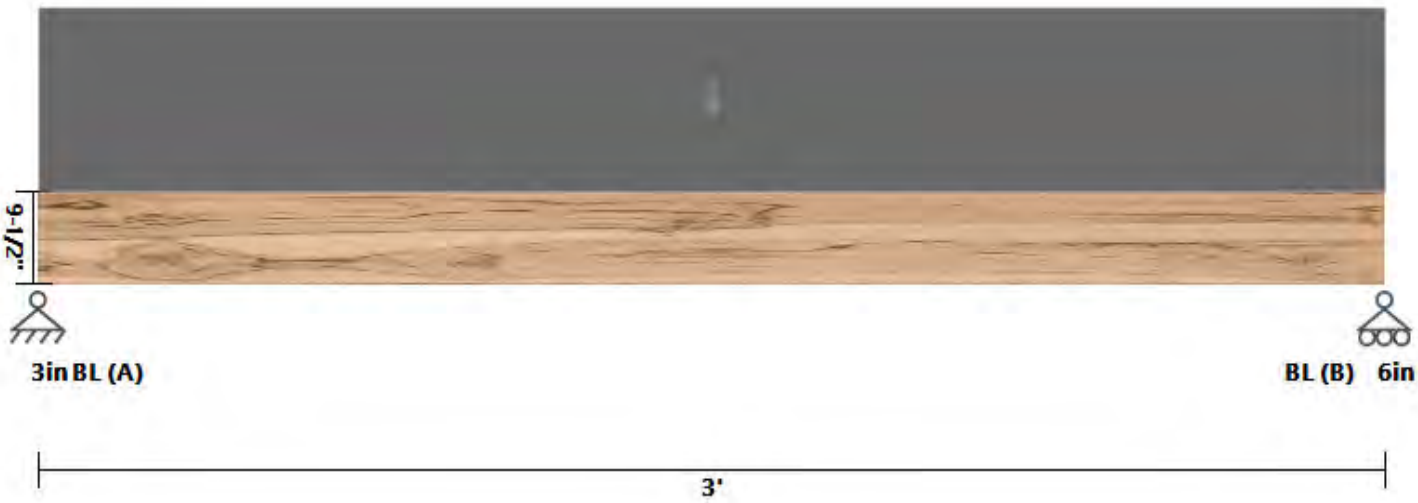
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM



PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #9	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		

Header #9 DIAGRAM

BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (10.2%)	185.8	207.0	3	D+S	1.15
Bending Stress Y (psi)	PASS (31.4%)	922.6	1345.5	1.5	D+S	1.15
Deflection Y (in)	PASS (90.8%)	0.018 (=L/2000)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (4.2%)	598.7	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	443	2	2700	3145
B	443	2	2700	3145

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	3	Dead	Y

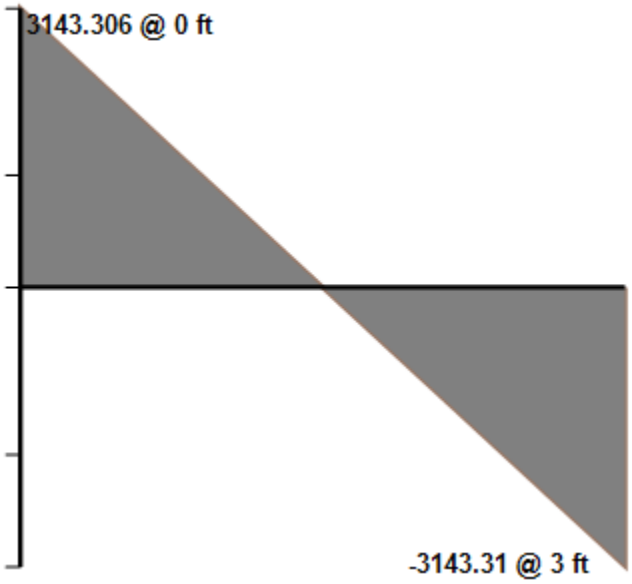
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #4	B	289.75	289.75	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #4	B	1800	1800	0	3	Snow	Y

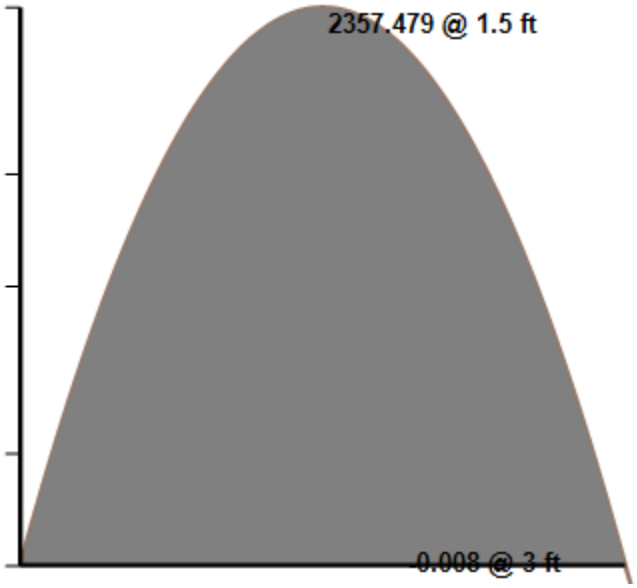
VMD DIAGRAMS

Load Combination: ASD

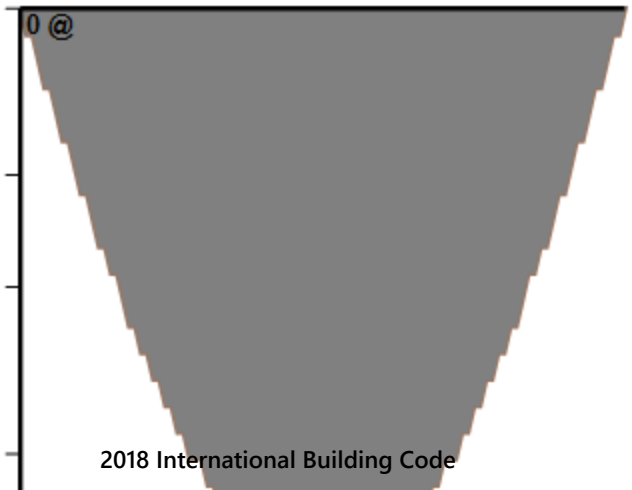
Y - Shear



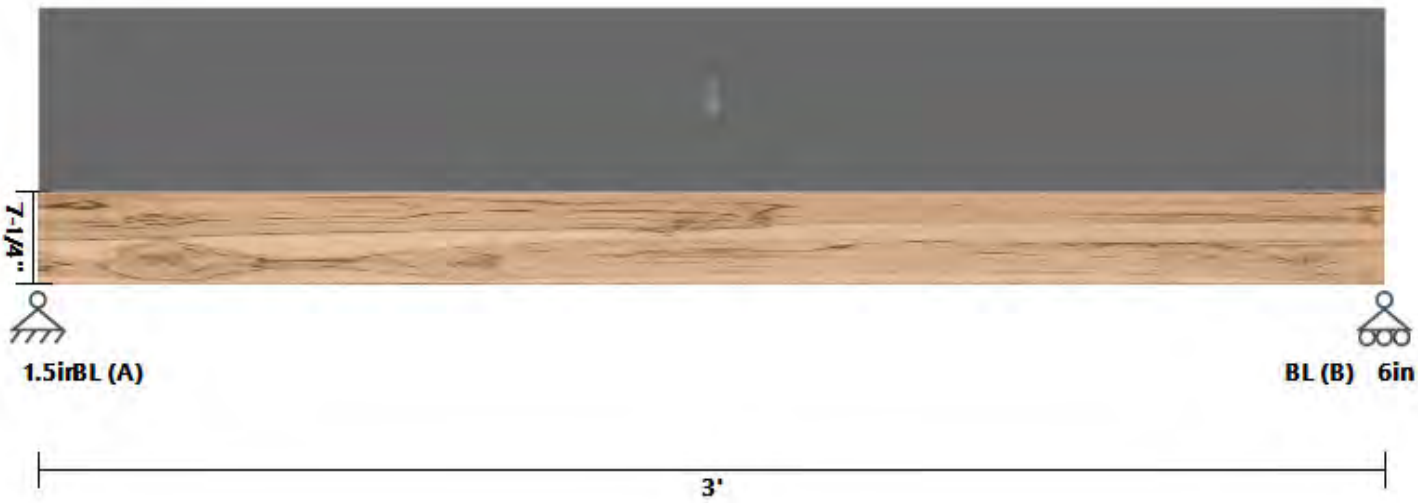
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

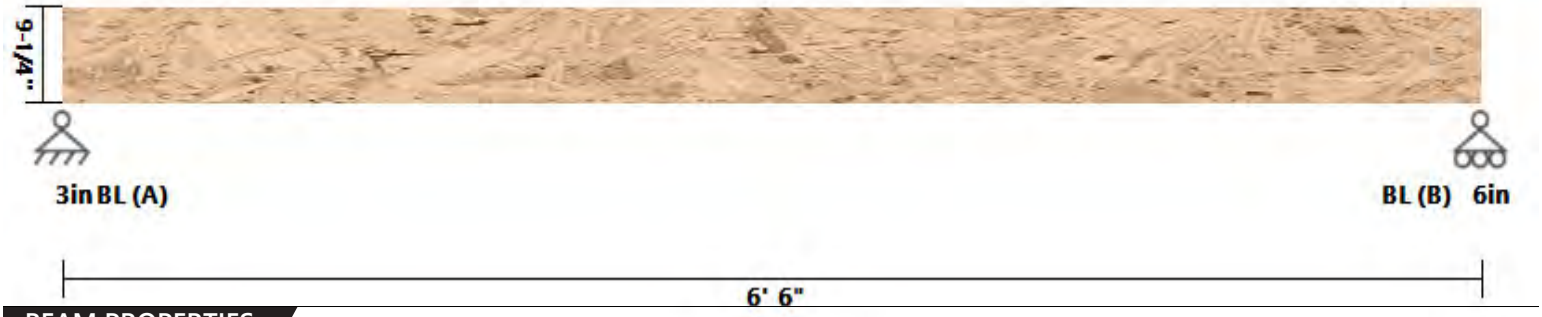


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #10	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		

Header #10 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 6.5 Member Slope: 0/12 Actual Length (ft): 6.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.04 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (35.6%)	211.2	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (42.5%)	1781.0	3097.8	3.25	D+S	1.15
Deflection Y (in)	PASS (75.9%)	0.104 (=L/750)	0.433 (=L/180)	3.25	S	0
Bearing Stress (psi)	PASS (42.1%)	434.1	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	988	3	5850	6841
B	988	3	5850	6841

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)	-	14.16	14.16	0	6.5	Dead	Y

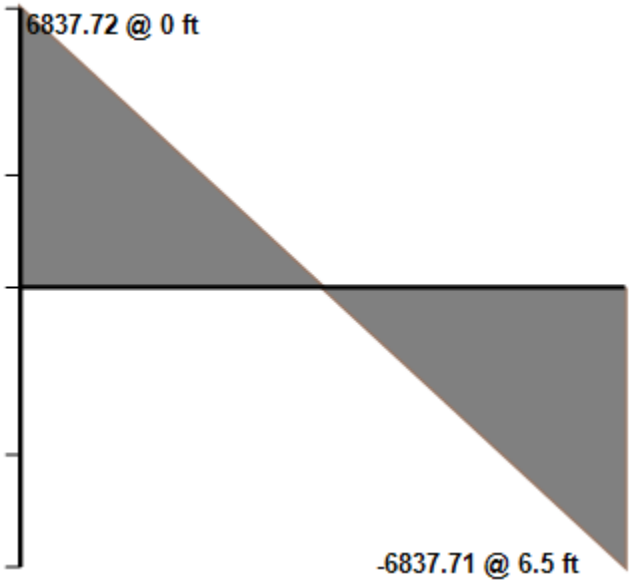
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #4	A	289.75	289.75	0	6.5	Dead	Y
Uniform (lbf/ft)	Trusses #4	A	1800	1800	0	6.5	Snow	Y

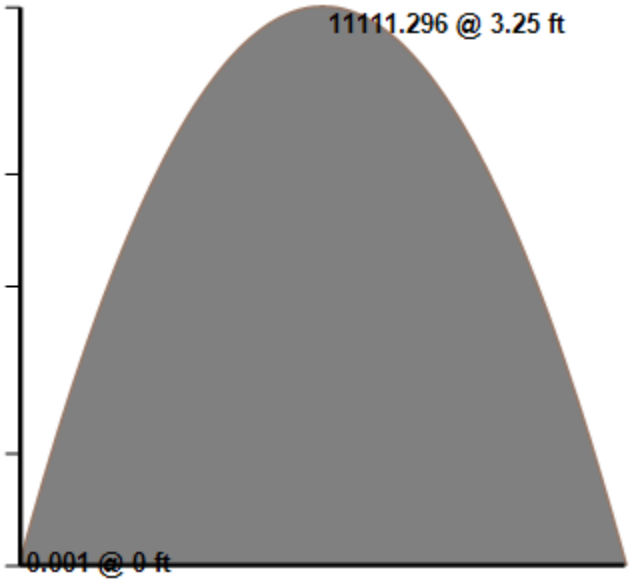
VMD DIAGRAMS

Load Combination: ASD

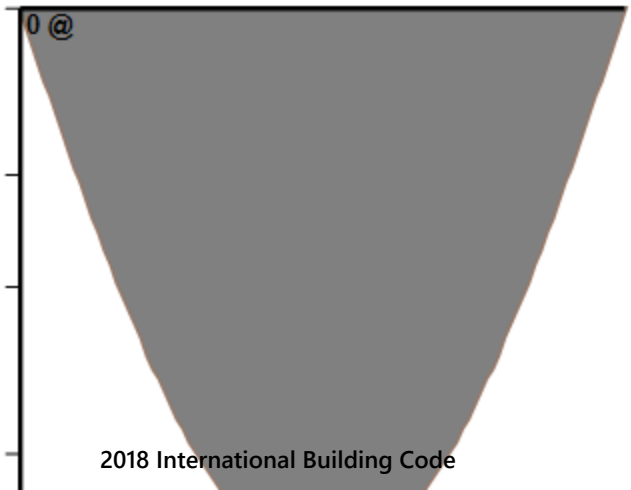
Y - Shear



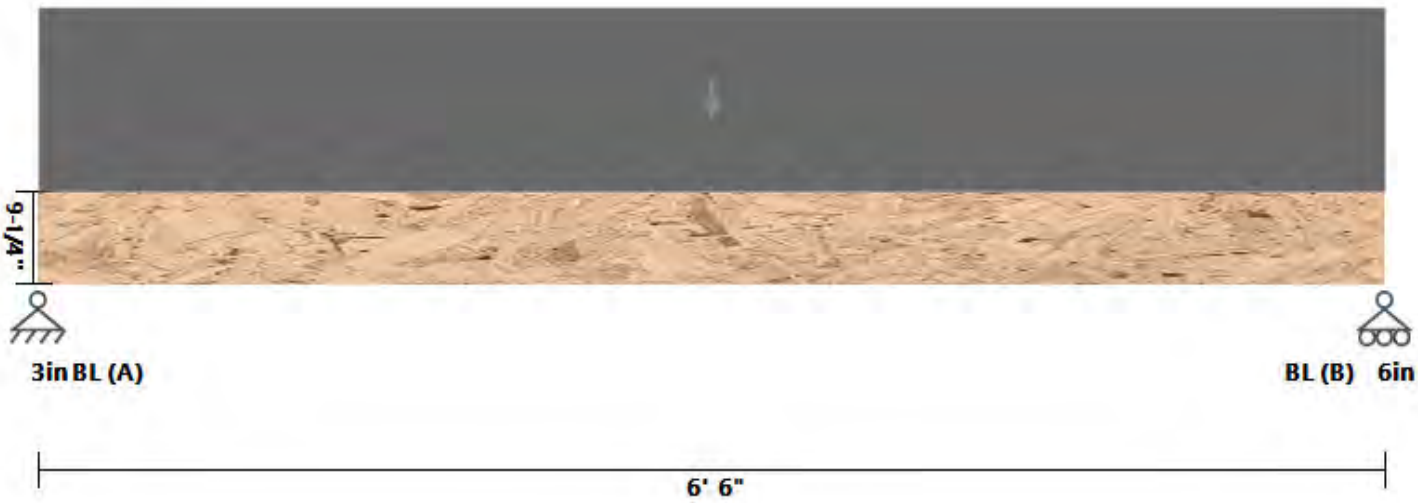
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

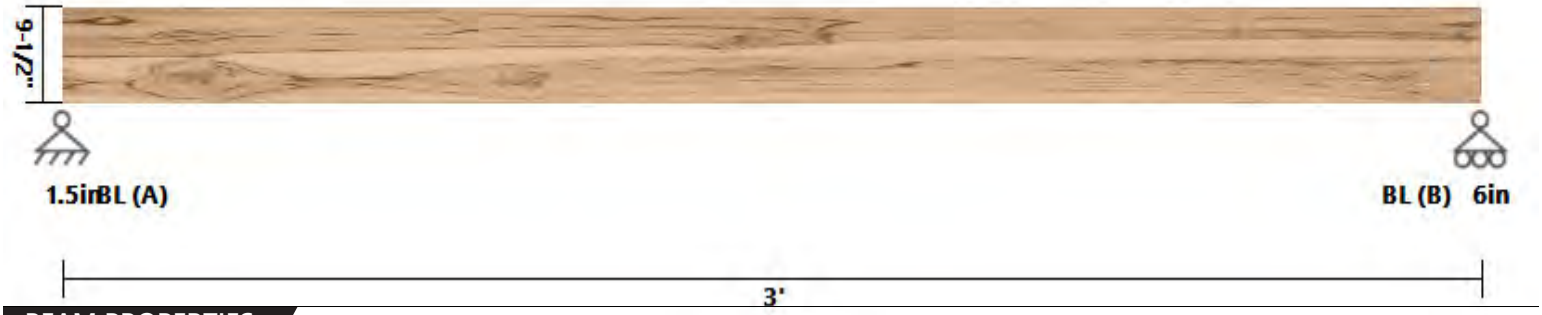


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #11	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		

Header #11 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (44.3%)	108.9	195.5	3	D+S	1.15
Bending Stress Y (psi)	PASS (59.0%)	412.8	1006.3	1.5	D+S	1.15
Deflection Y (in)	PASS (96.3%)	0.007 (=L/5143)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (26.4%)	460.0	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	661	2	3134	3797
B	661	2	3134	3797

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	3	Dead	Y

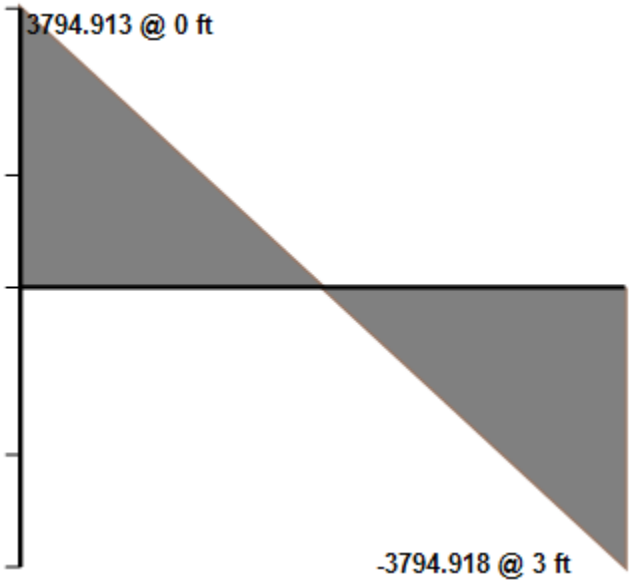
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #5	A	428.739	428.739	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #5	A	2089.286	2089.286	0	3	Snow	Y

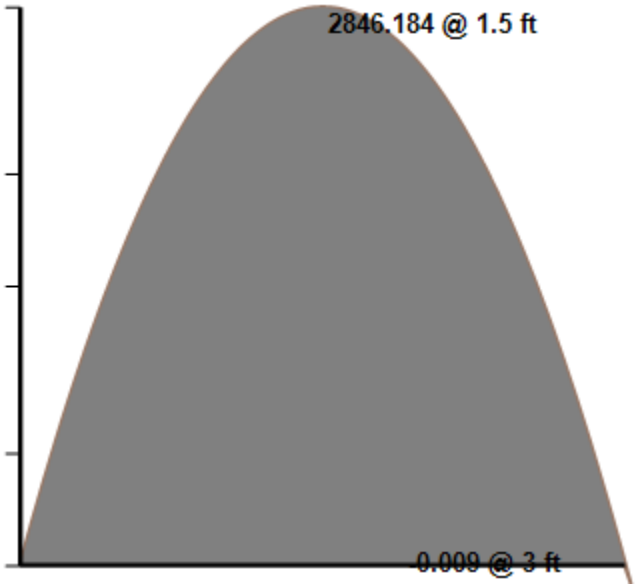
VMD DIAGRAMS

Load Combination: ASD

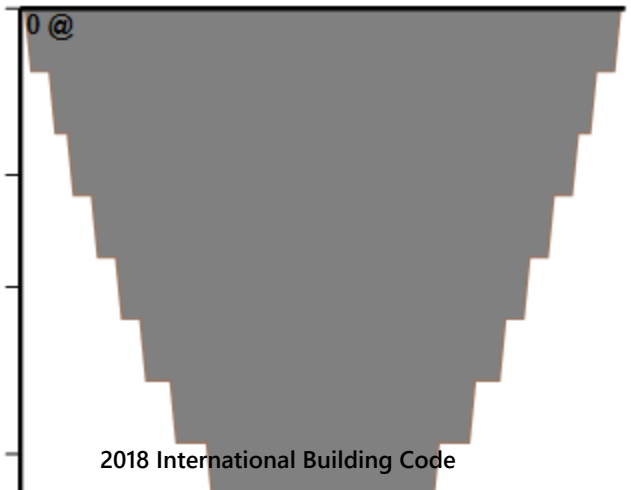
Y - Shear



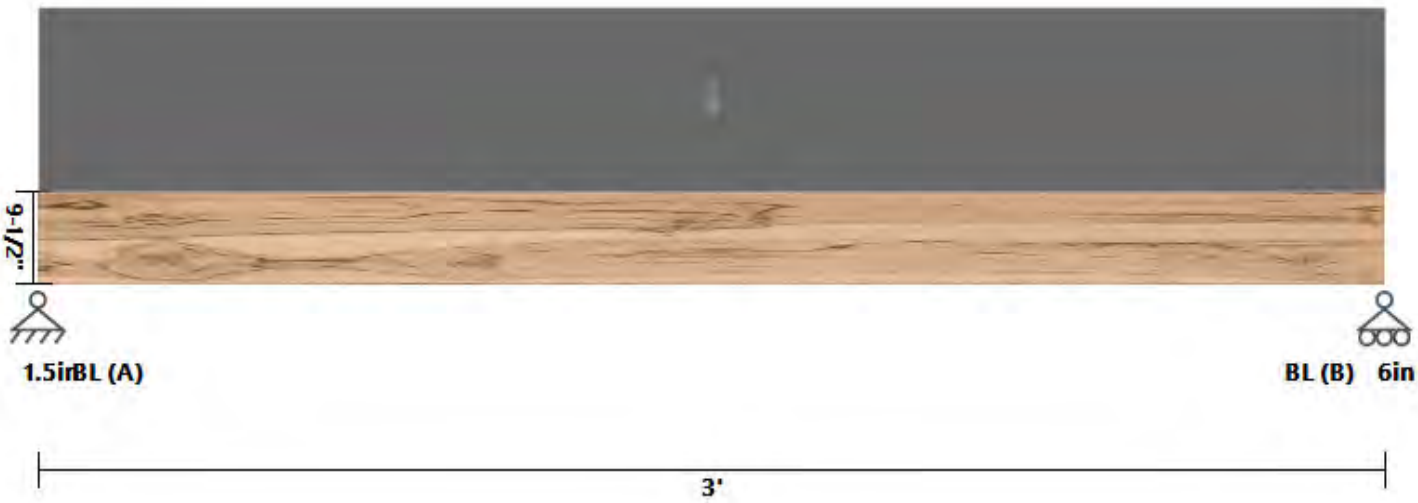
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

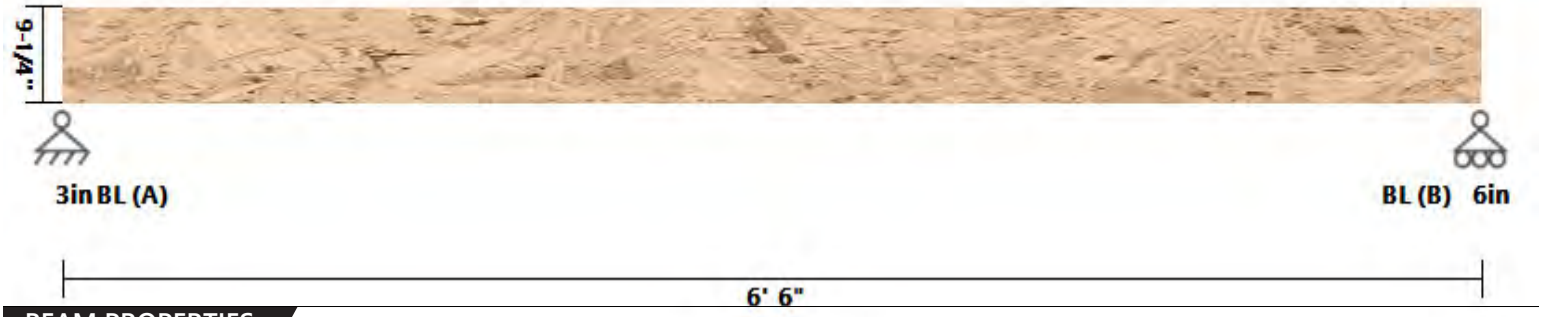


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #12	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		

Header #12 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 6.5 Member Slope: 0/12 Actual Length (ft): 6.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.04 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (11.0%)	291.8	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (20.6%)	2460.5	3097.8	3.25	D+S	1.15
Deflection Y (in)	PASS (67.9%)	0.139 (=L/561)	0.433 (=L/180)	3.25	S	0
Bearing Stress (psi)	PASS (20.0%)	599.8	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	1647	3	7800	9450
B	1647	3	7800	9450

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)	-	14.16	14.16	0	6.5	Dead	Y

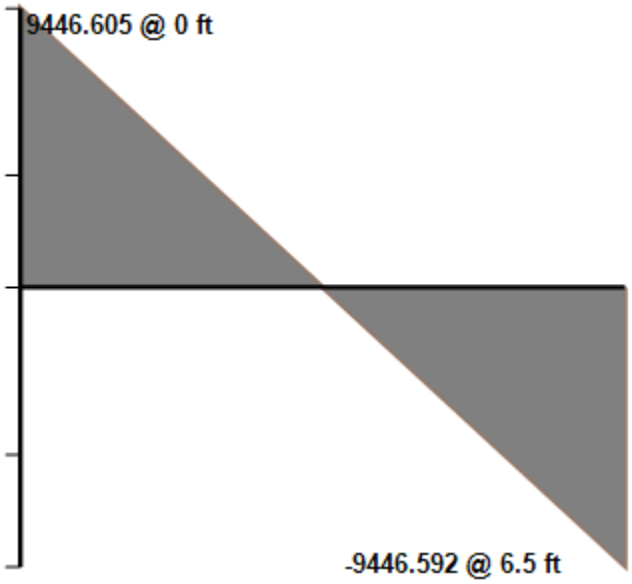
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #6	B	492.497	492.497	0	6.5	Dead	Y
Uniform (lbf/ft)	Trusses #6	B	2399.987	2399.987	0	6.5	Snow	Y

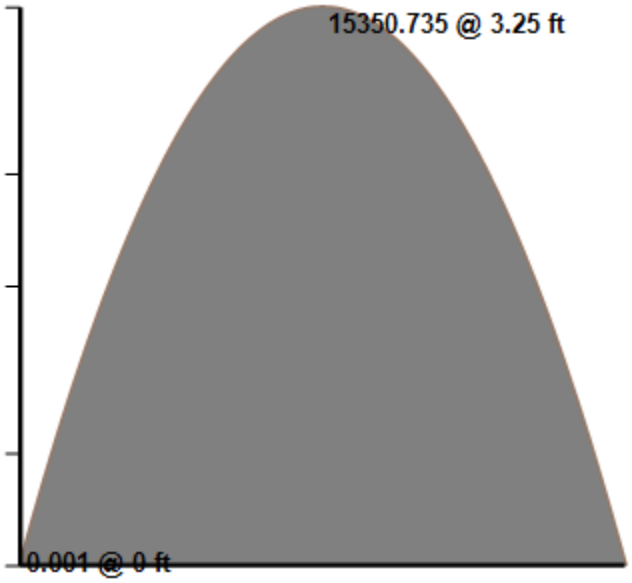
VMD DIAGRAMS

Load Combination: ASD

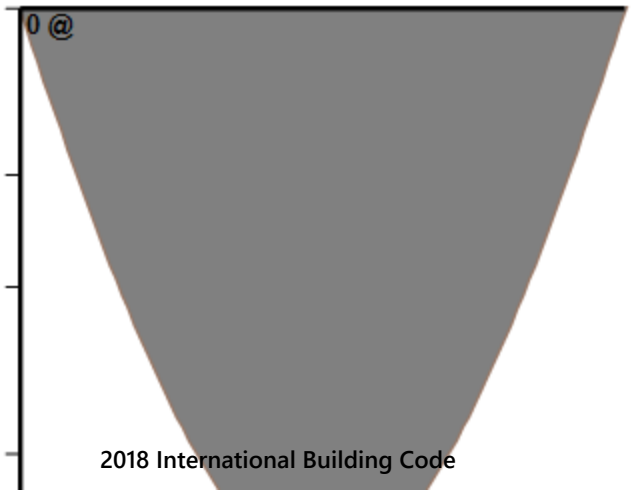
Y - Shear



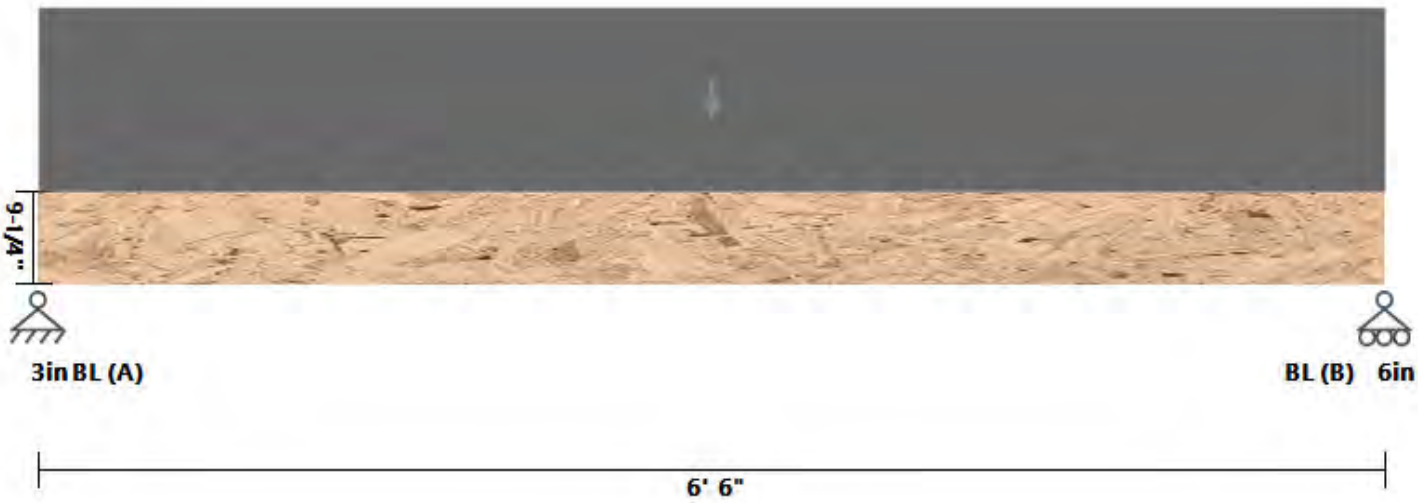
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

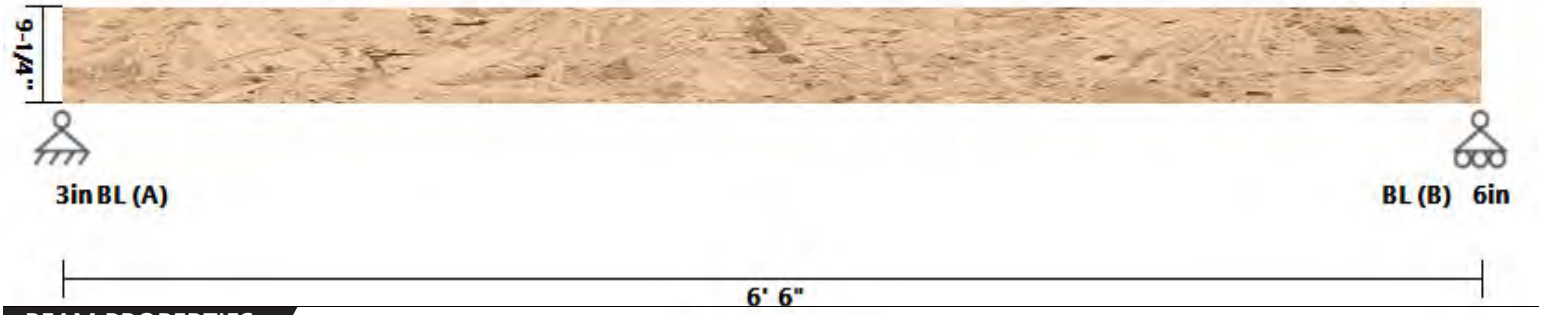


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #13	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		

Header #13 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 6.5 Member Slope: 0/12 Actual Length (ft): 6.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.04 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (11.0%)	291.8	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (20.6%)	2460.5	3097.8	3.25	D+S	1.15
Deflection Y (in)	PASS (67.9%)	0.139 (=L/561)	0.433 (=L/180)	3.25	S	0
Bearing Stress (psi)	PASS (20.0%)	599.8	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	1647	3	7800	9450
B	1647	3	7800	9450

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)	-	14.16	14.16	0	6.5	Dead	Y

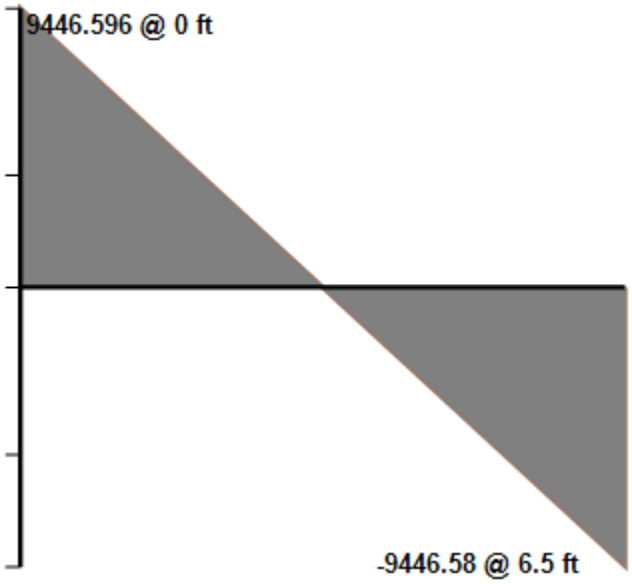
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #6	C	492.496	492.496	0	6.5	Dead	Y
Uniform (lbf/ft)	Trusses #6	C	2399.984	2399.984	0	6.5	Snow	Y

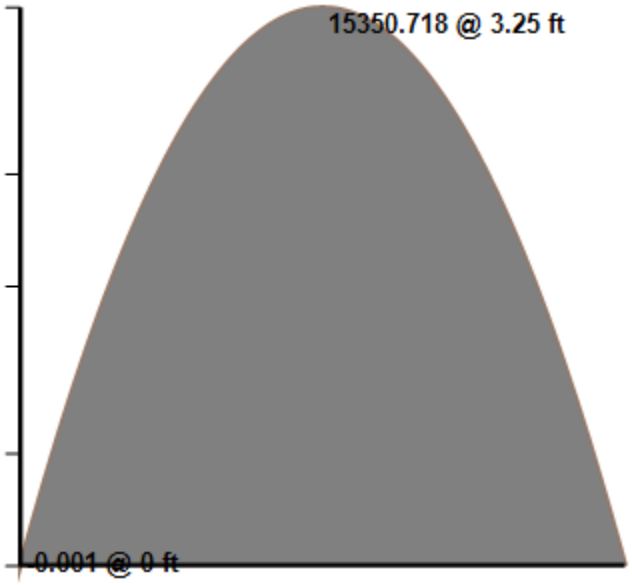
VMD DIAGRAMS

Load Combination: ASD

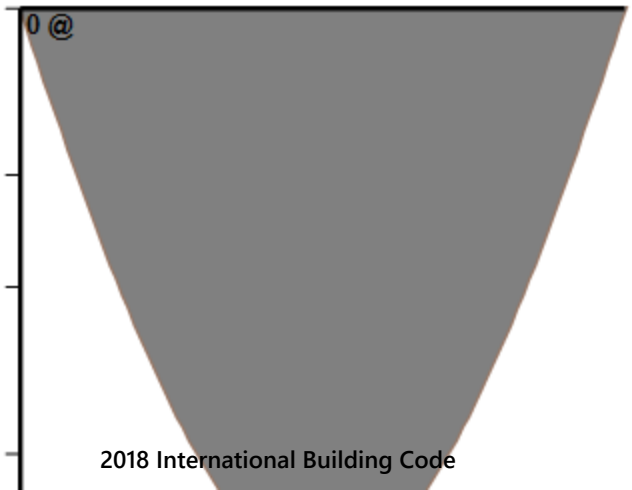
Y - Shear



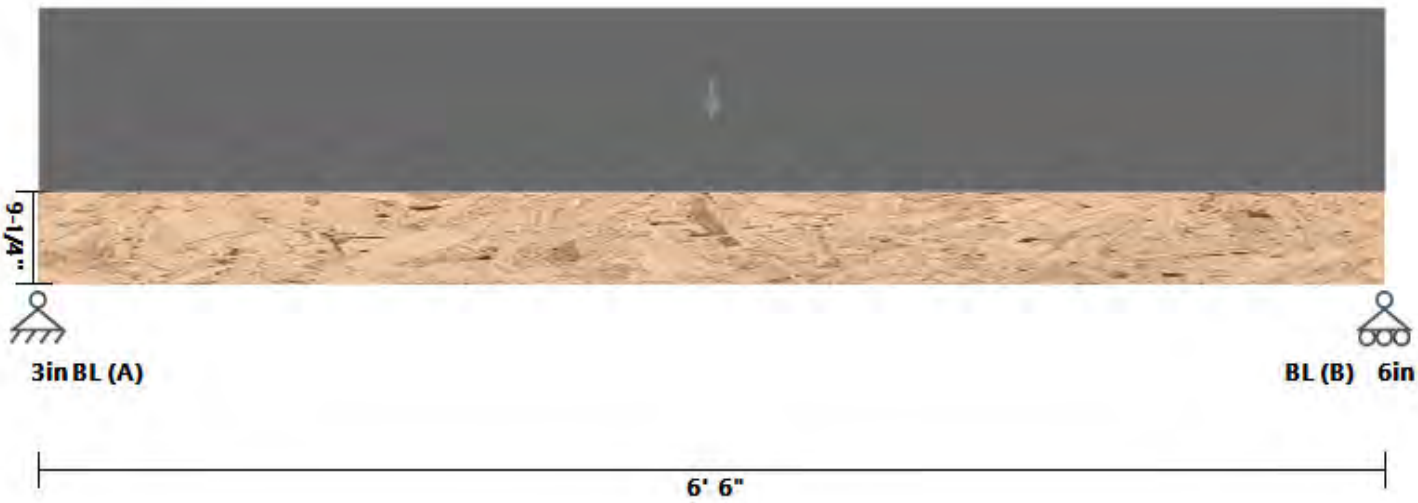
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

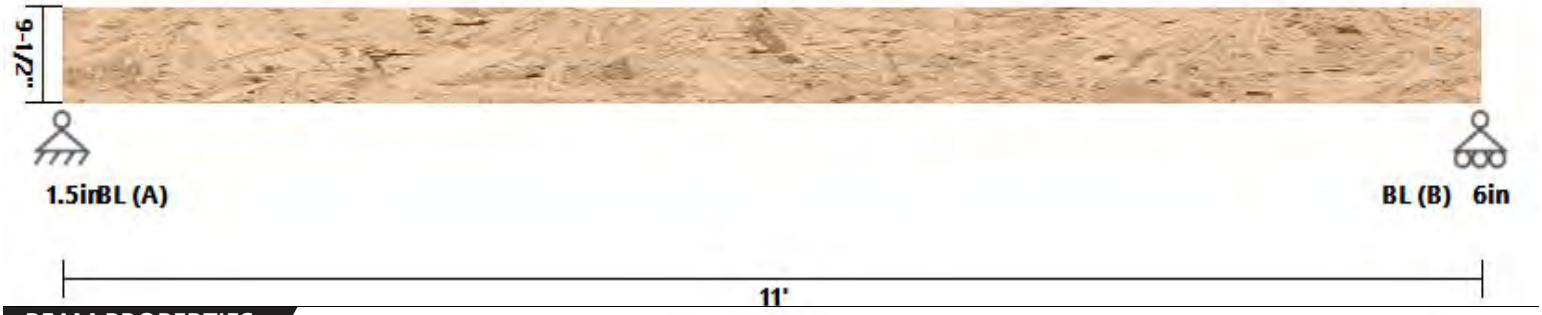


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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 9.5	DRY		

Header #14 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1.03 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (65.3%)	113.6	327.8	0	D+S	1.15
Bending Stress Y (psi)	PASS (48.9%)	1578.5	3086.6	5.5	D+S	1.15
Deflection Y (in)	PASS (62.1%)	0.278 (=L/475)	0.733 (=L/180)	5.5	S	0
Bearing Stress (psi)	PASS (36.0%)	479.7	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	299	6	3479	3784
B	299	6	3479	3784

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	11	RoofLive	Y
Self Weight (lbf/ft)	-	14.55	14.55	0	11	Dead	Y

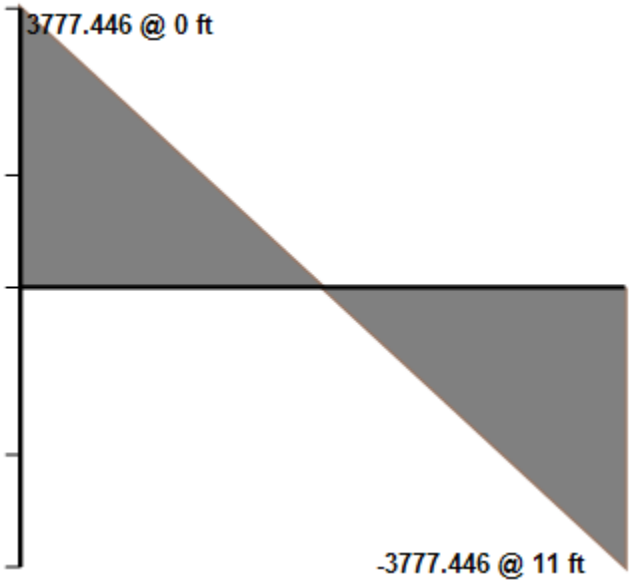
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	39.806	39.806	0	11	Dead	Y
Uniform (lbf/ft)	Outlookers	B	632.456	632.456	0	11	Snow	Y

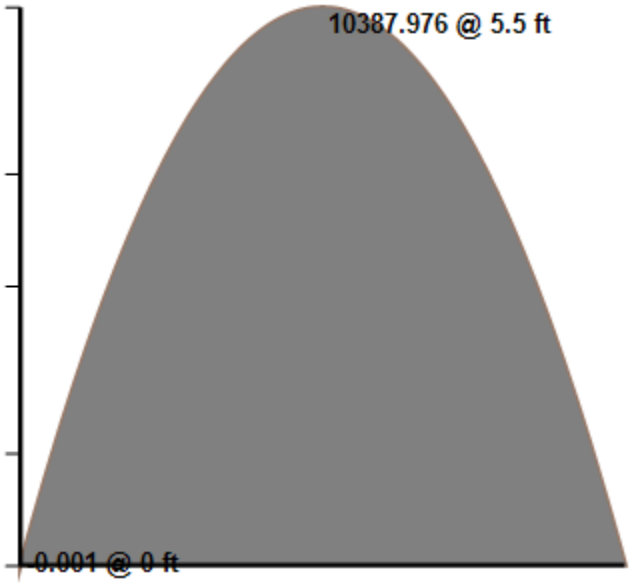
VMD DIAGRAMS

Load Combination: ASD

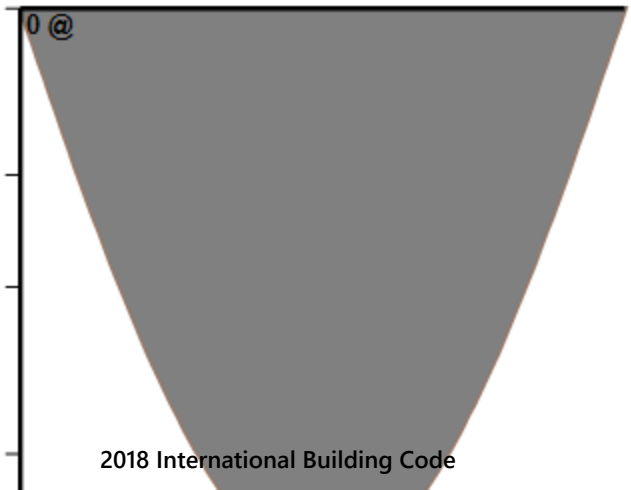
Y - Shear



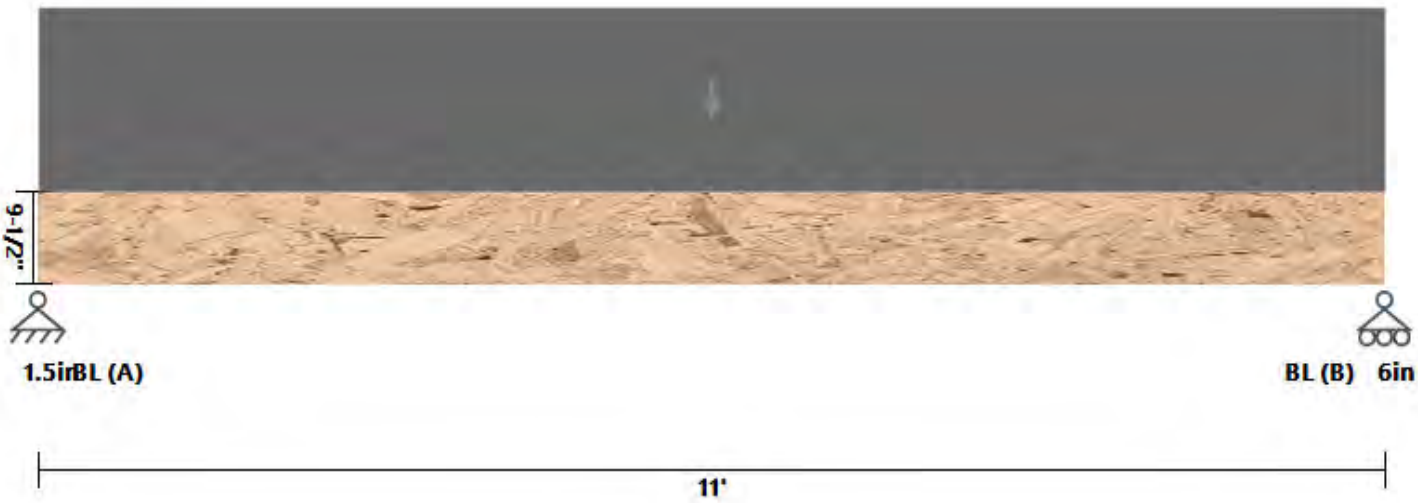
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

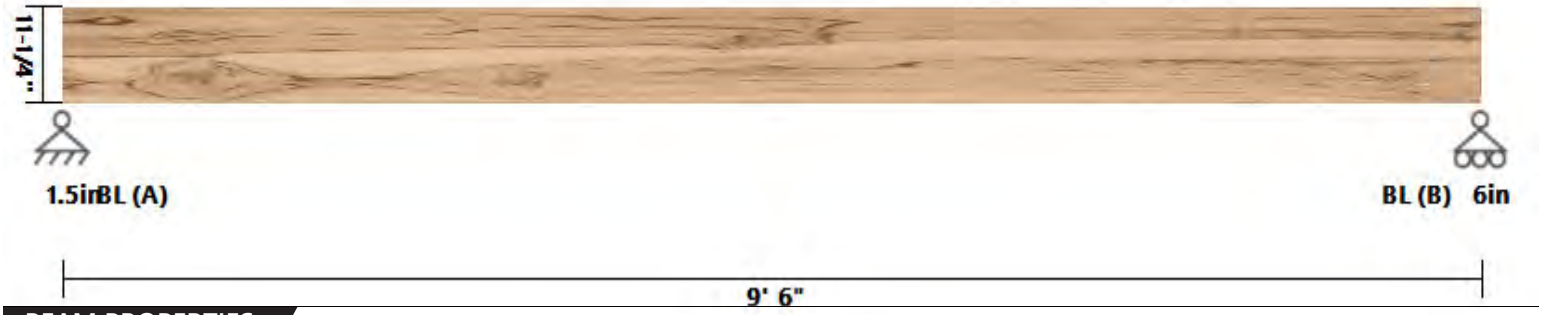


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #15	CODE:	2018 International Building Code
MEMBER TYPE:	ROOF BEAM	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch	No. 2	(3) 1.5 X 11.25	DRY		

Header #15 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 9.5 Member Slope: 0/12 Actual Length (ft): 9.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr Creep Factor
50.62	533.94	85.43	11.55	3	0.5	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	900	575	180	1350	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	9.5	0	9.5	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (53.5%)	96.2	207.0	0	D+S	1.15
Bending Stress Y (psi)	PASS (5.8%)	975.2	1035.0	4.75	D+S	1.15
Deflection Y (in)	PASS (78.6%)	0.136 (=L/838)	0.633 (=L/180)	4.75	S	0
Bearing Stress (psi)	PASS (23.0%)	481.2	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	244	5	3004	3253
B	244	5	3004	3253

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	9.5	RoofLive	Y
Self Weight (lbf/ft)	-	11.55	11.55	0	9.5	Dead	Y

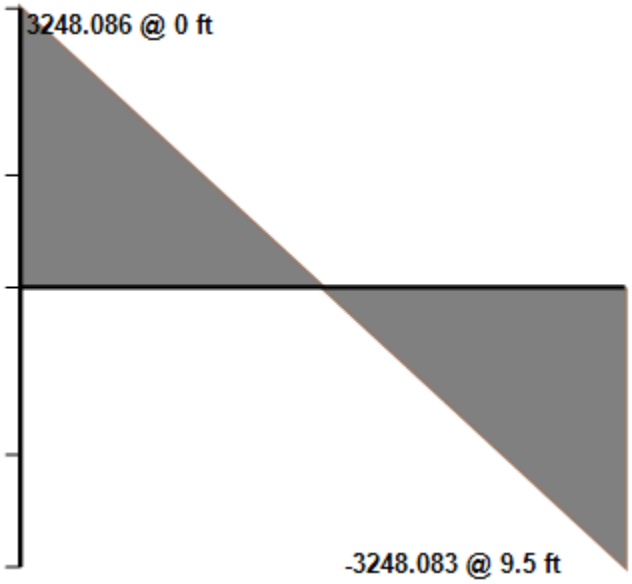
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	39.806	39.806	0	9.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	632.456	632.456	0	9.5	Snow	Y

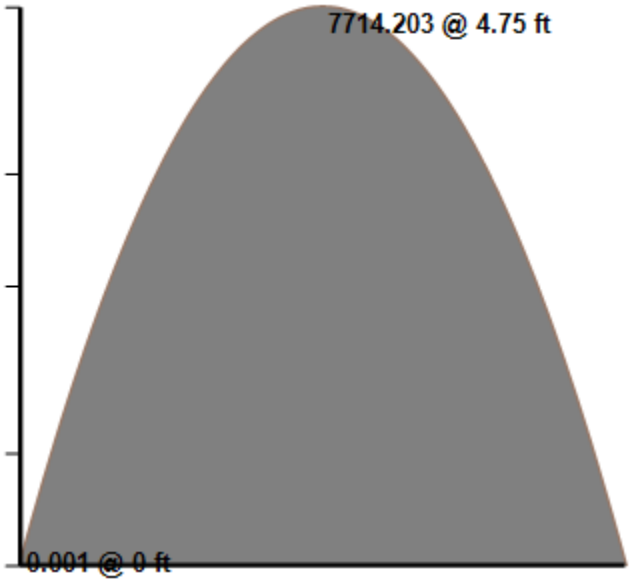
VMD DIAGRAMS

Load Combination: ASD

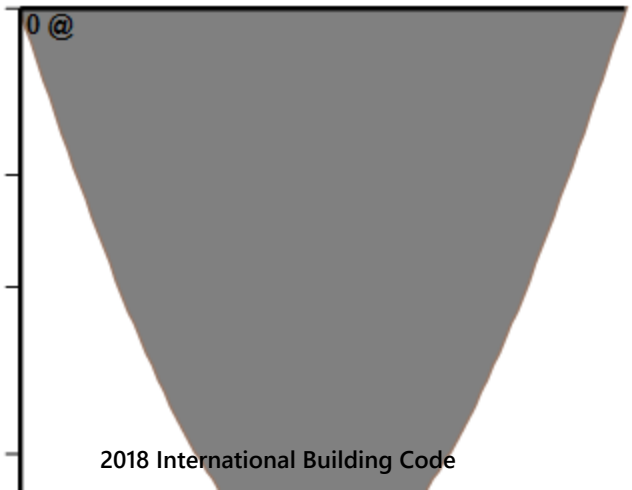
Y - Shear



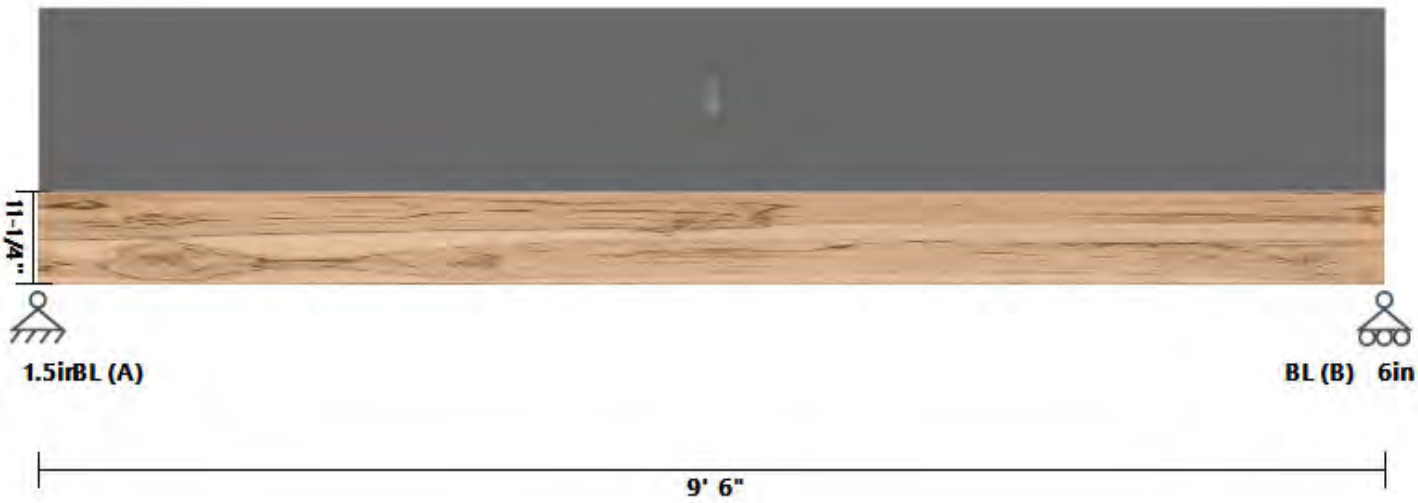
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

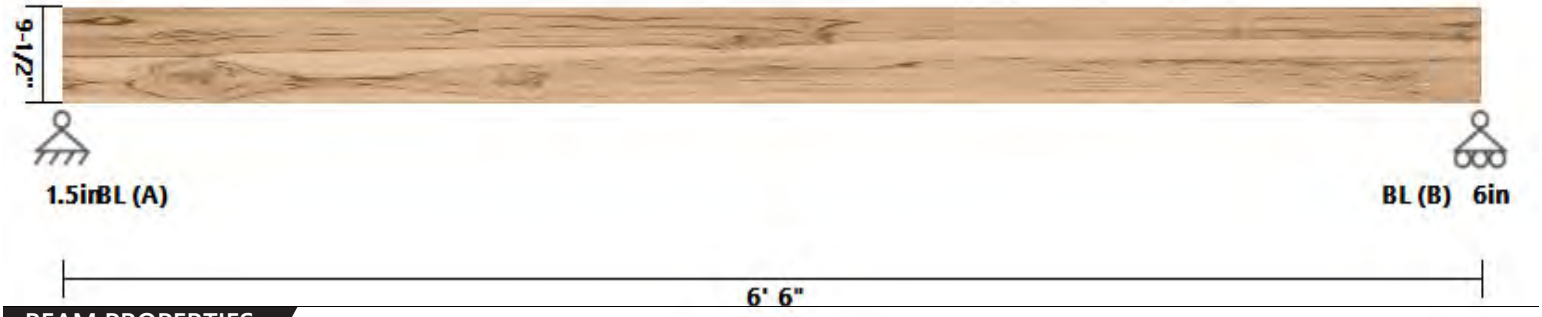


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st 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) 5.5 X 9.5	DRY		

Header #16 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 6.5 Member Slope: 0/12 Actual Length (ft): 6.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (67.3%)	63.8	195.5	0	D+S	1.15
Bending Stress Y (psi)	PASS (47.9%)	524.1	1006.3	3.25	D+S	1.15
Deflection Y (in)	PASS (88.5%)	0.050 (=L/1560)	0.433 (=L/180)	3.25	S	0
Bearing Stress (psi)	PASS (56.9%)	269.5	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	168	3	2055	2226
B	168	3	2055	2226

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

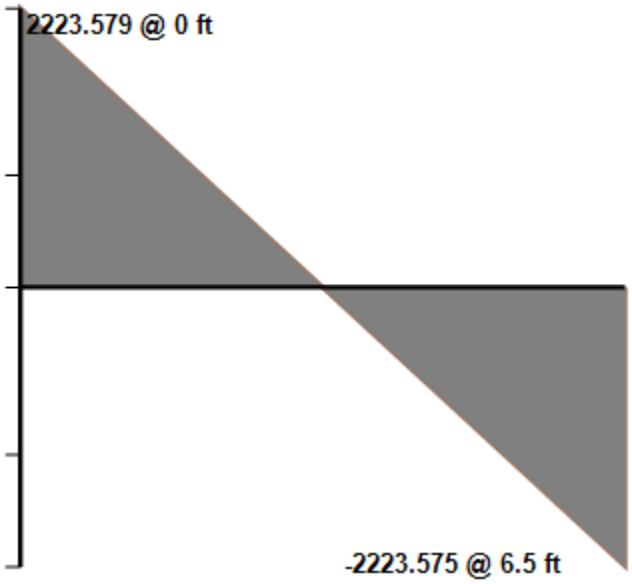
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	39.806	39.806	0	6.5	Dead	Y
Uniform (lbf/ft)	Outlookers	B	632.456	632.456	0	6.5	Snow	Y

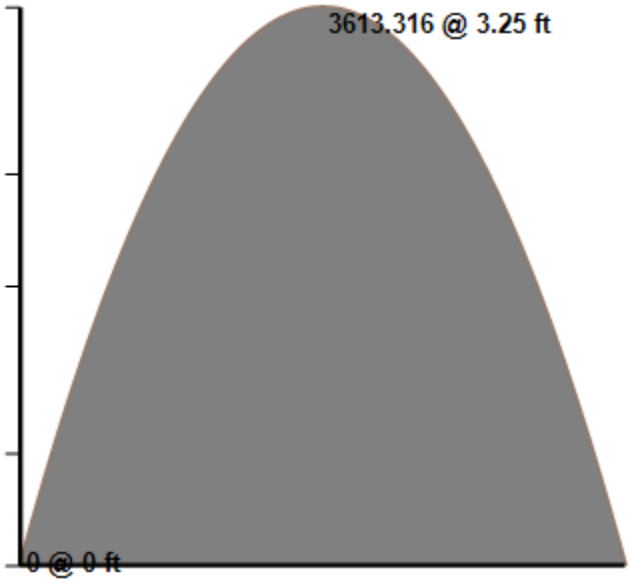
VMD DIAGRAMS

Load Combination: ASD

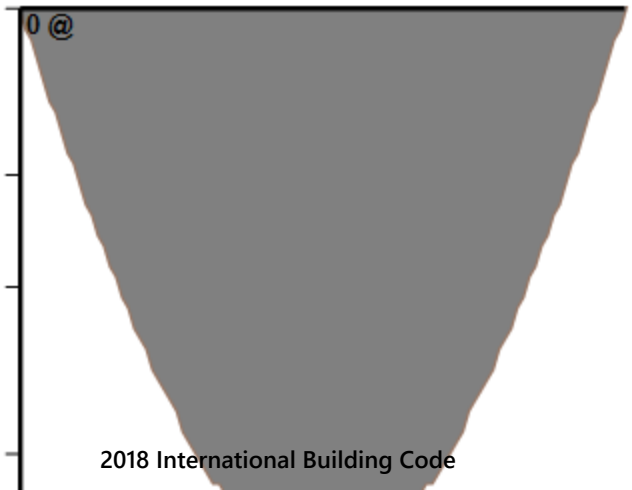
Y - Shear



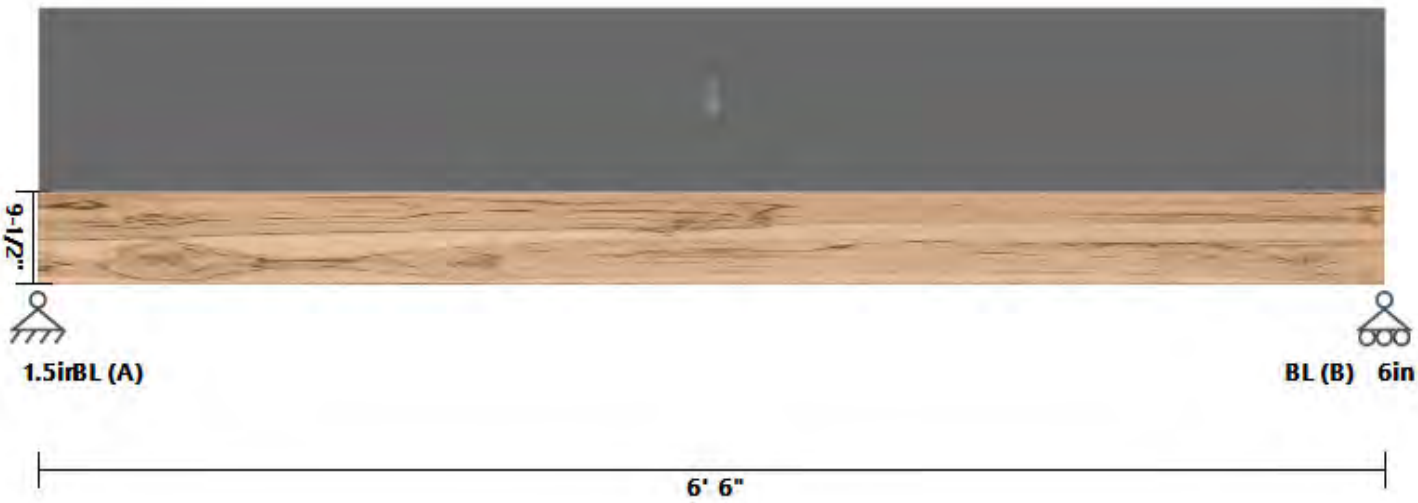
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM



PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st Level	LOADING:	ASD
MEMBER NAME:	Header #17	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		

Header #17 DIAGRAM

BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (25.8%)	153.7	207.0	3	D+S	1.15
Bending Stress Y (psi)	PASS (43.3%)	763.0	1345.5	1.5	D+S	1.15
Deflection Y (in)	PASS (92.2%)	0.016 (=L/2250)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (20.8%)	495.1	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	321	2	2278	2601
B	321	2	2278	2601

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	3	Dead	Y

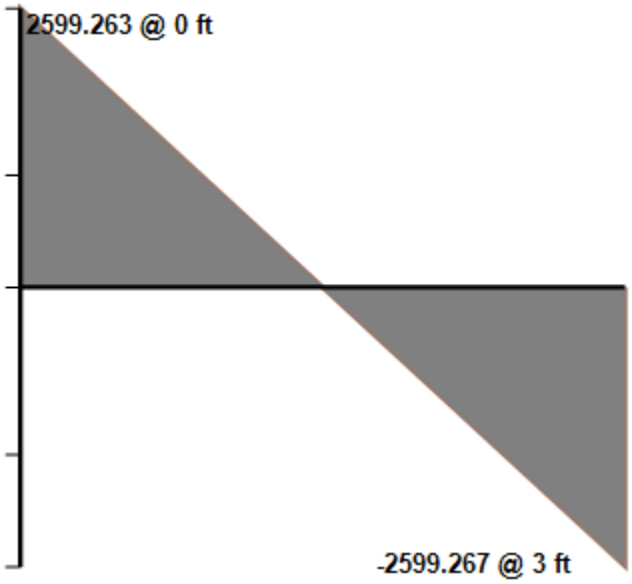
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #7	B	208.301	208.301	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #7	B	1518.754	1518.754	0	3	Snow	Y

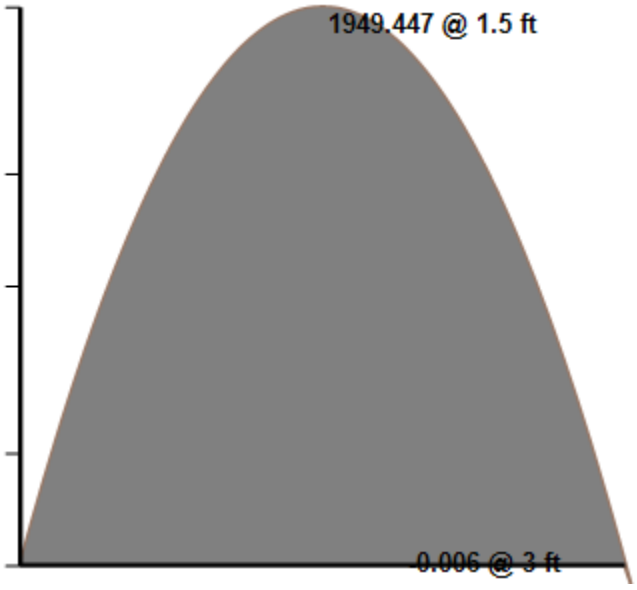
VMD DIAGRAMS

Load Combination: ASD

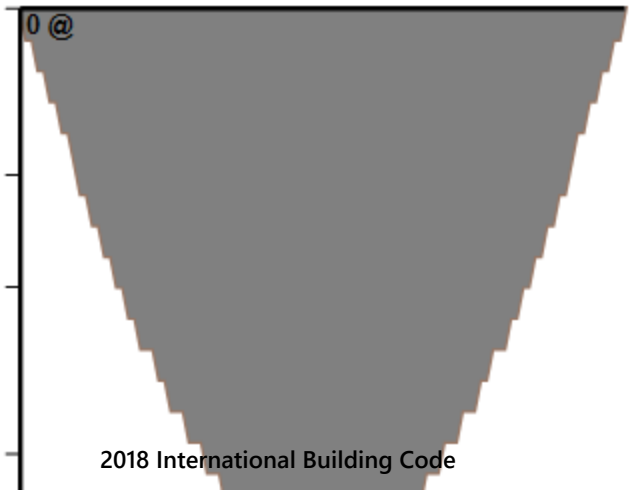
Y - Shear



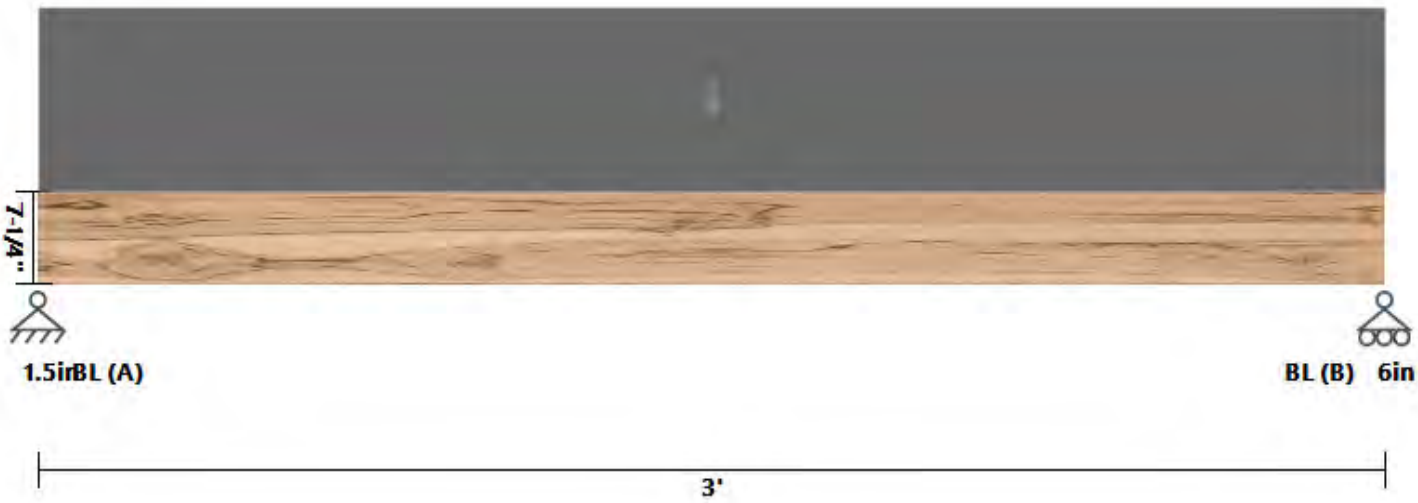
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

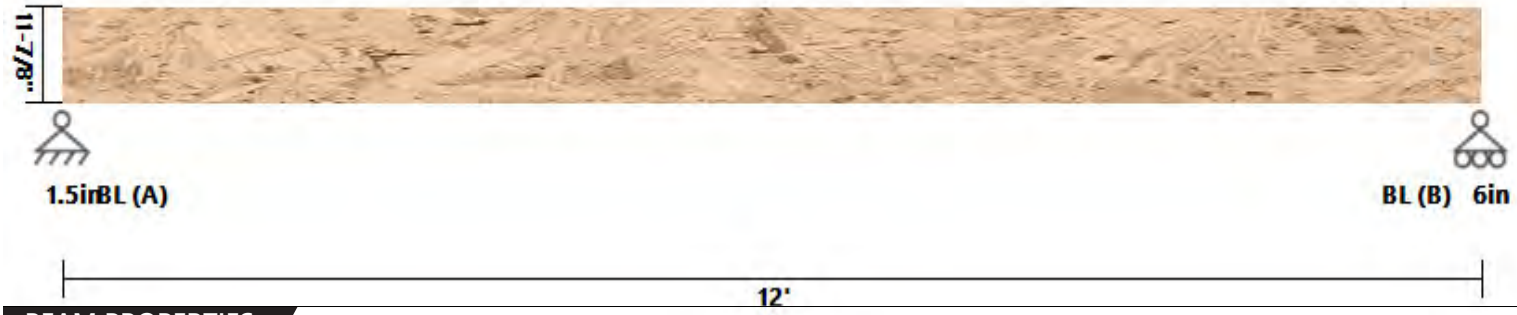


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st 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	(3) 1.75 X 11.875	DRY		

Header #18 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr 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) x10^3	Emin (psi) x10^3
Base Values	2600	1895	285	2510	750	2000	1016.535
Adjusted Values	2600	1895	285	2510	750	2000	1017
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1

Bending Adjustment Factors C_V = 1 C_r = 1 Volume factor Is applied on a load combination basis And Is Not reflected in the adjusted values

BEAM DATA

		Unbraced Length (ft)		Beam End				
Span	Length (ft)	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)	PASS (69.6%)	99.7	327.8	12	D+S	1.15
Bending Stress Y (psi)	PASS (59.6%)	1208.7	2994.3	6	D+S	1.15
Deflection Y (in)	PASS (74.8%)	0.201 (=L/716)	0.800 (=L/180)	6	S	0
Bearing Stress (psi)	PASS (29.9%)	526.1	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	348	6	3795	4149
B	348	6	3795	4149

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	RoofLive	Y
Self Weight (lbf/ft)	-	18.18	18.18	0	12	Dead	Y

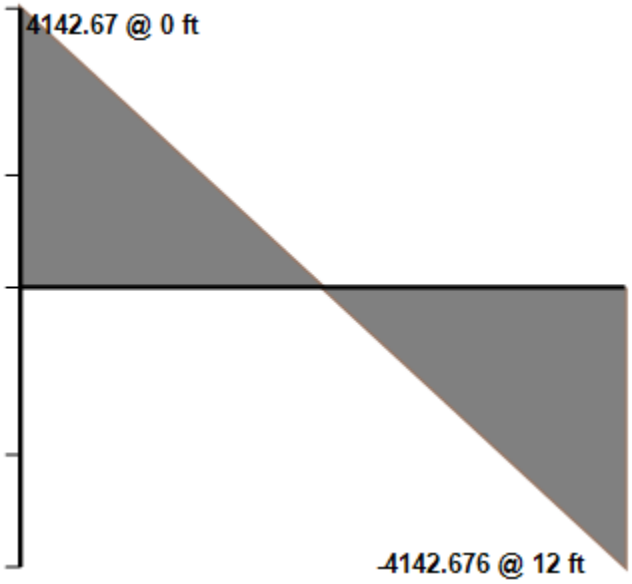
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Outlookers	B	39.806	39.806	0	12	Dead	Y
Uniform (lbf/ft)	Outlookers	B	632.456	632.456	0	12	Snow	Y

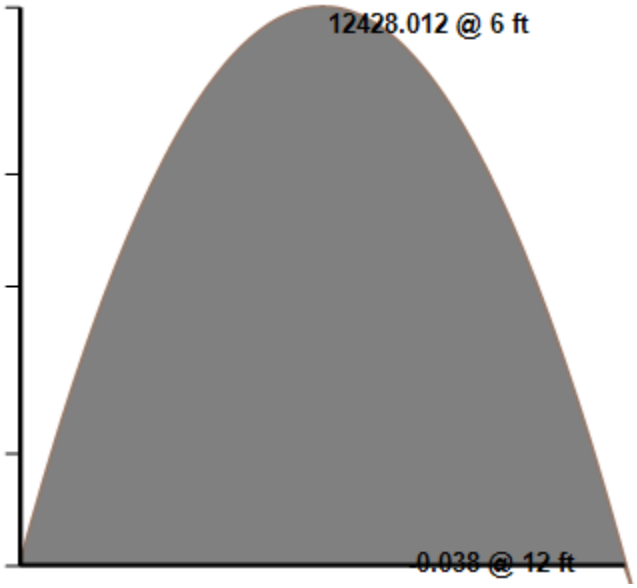
VMD DIAGRAMS

Load Combination: ASD

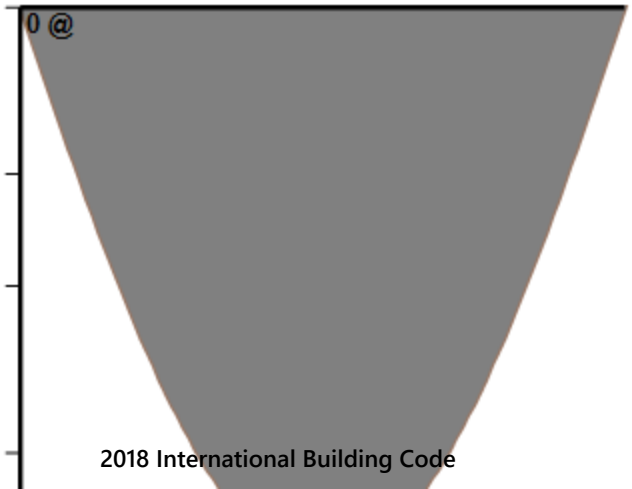
Y - Shear



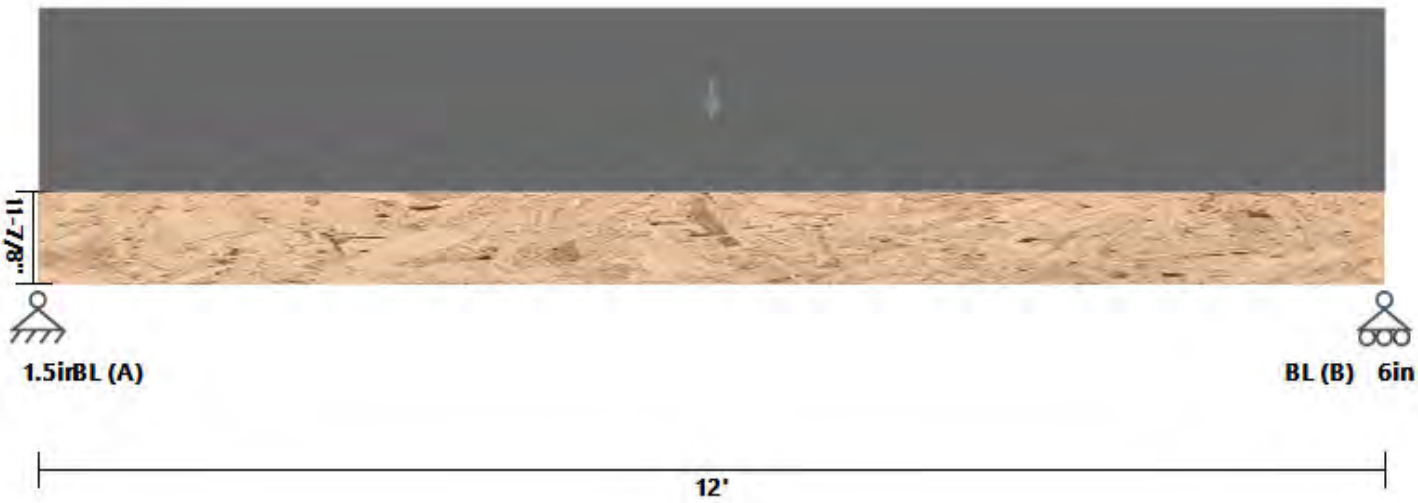
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

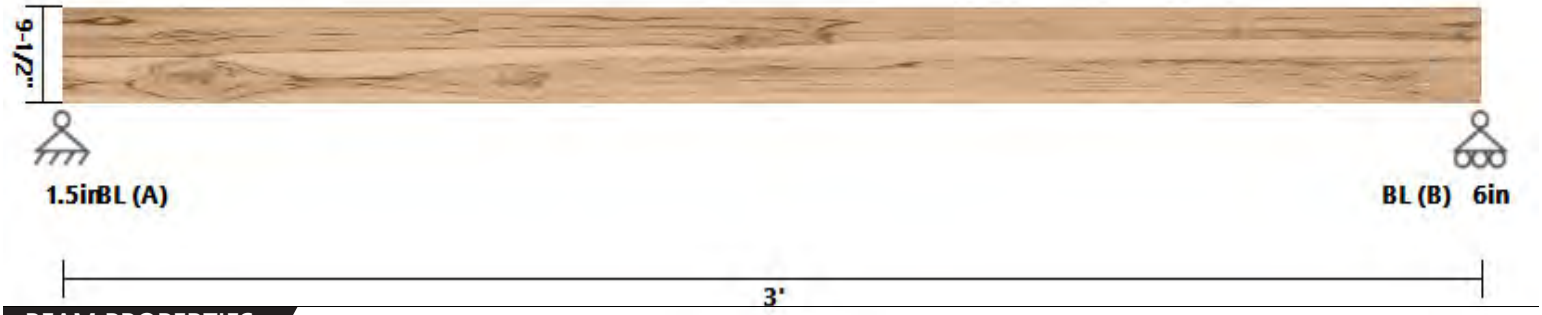


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st 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) 5.5 X 9.5	DRY		

Header #19 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (26.8%)	143.1	195.5	3	D+S	1.15
Bending Stress Y (psi)	PASS (46.1%)	542.4	1006.3	1.5	D+S	1.15
Deflection Y (in)	PASS (94.9%)	0.010 (=L/3600)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (3.3%)	604.3	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	690	2	4295	4987
B	690	2	4295	4987

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	3	Dead	Y

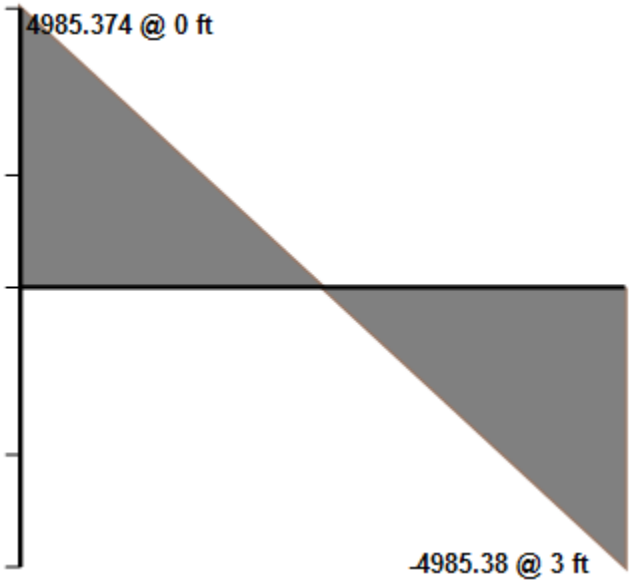
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #8	C	327.166	327.166	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #8	C	1949.984	1949.984	0	3	Snow	Y
Uniform (lbf/ft)	Trusses #9	A	121.015	121.015	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #9	A	913.5	913.5	0	3	Snow	Y

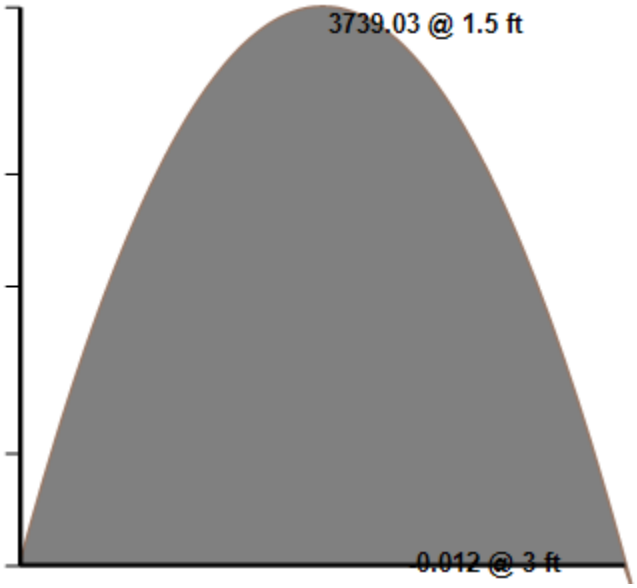
VMD DIAGRAMS

Load Combination: ASD

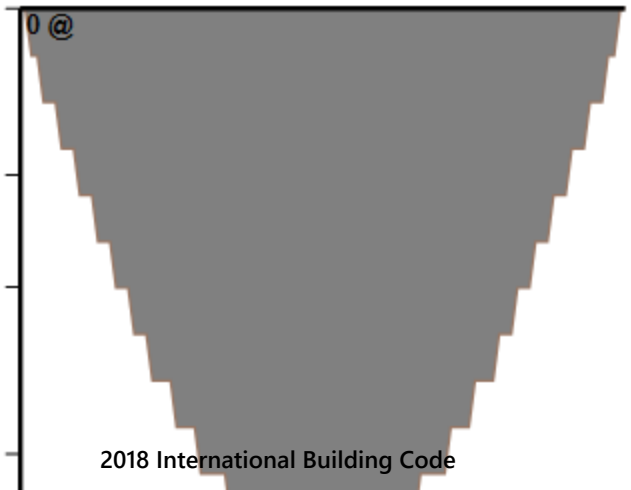
Y - Shear



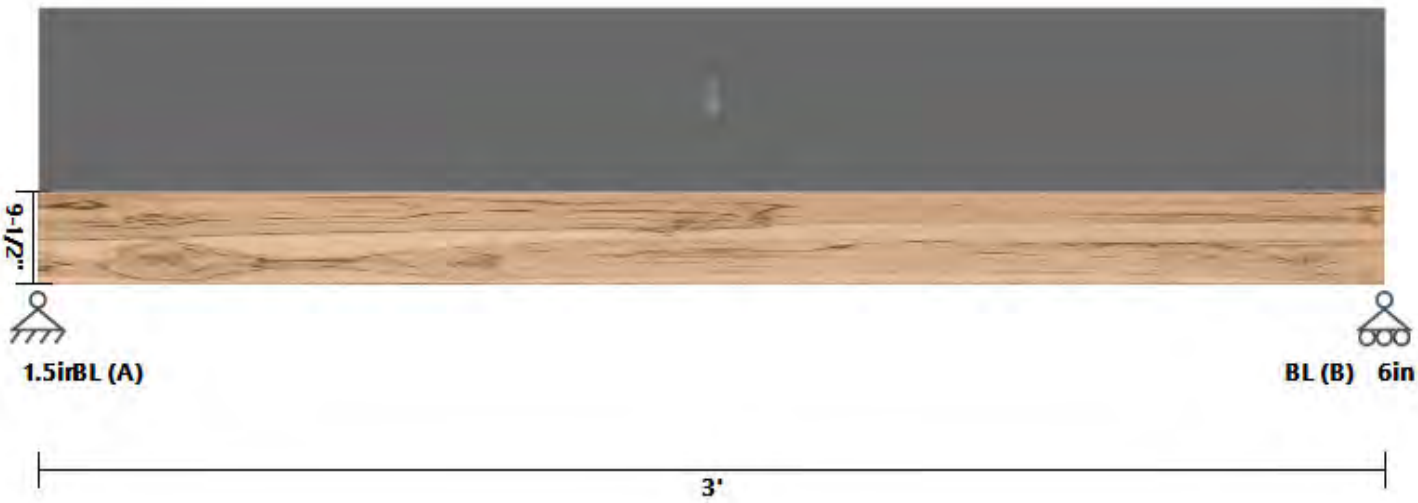
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

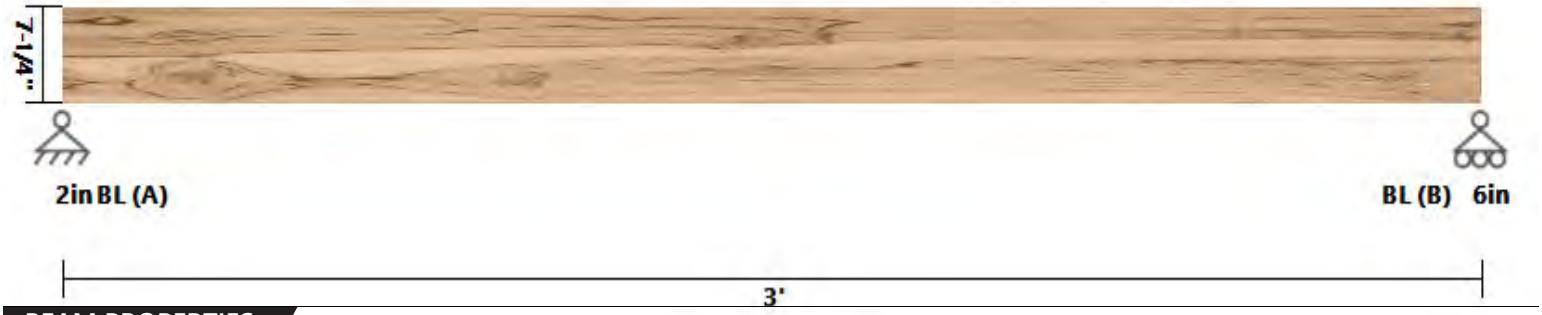


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Headers - 1st 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		

Header #20 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 3 Member Slope: 0/12 Actual Length (ft): 3

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	900	575	180	1350	625	1600	580
Adjusted Values	1170	690	180	1418	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.3	1.2	1	1.05	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (2.2%)	202.4	207.0	3	D+S	1.15
Bending Stress Y (psi)	PASS (25.3%)	1005.2	1345.5	1.5	D+S	1.15
Deflection Y (in)	PASS (90.0%)	0.020 (=L/1800)	0.200 (=L/180)	1.5	S	0
Bearing Stress (psi)	PASS (21.7%)	489.2	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	499	2	2925	3426
B	499	2	2925	3426

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	3	RoofLive	Y
Self Weight (lbf/ft)	-	5.79	5.79	0	3	Dead	Y

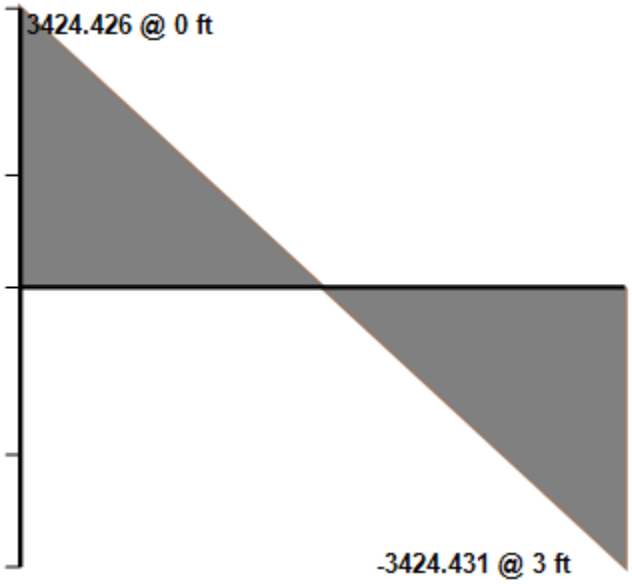
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #8	B	327.166	327.166	0	3	Dead	Y
Uniform (lbf/ft)	Trusses #8	B	1949.997	1949.997	0	3	Snow	Y

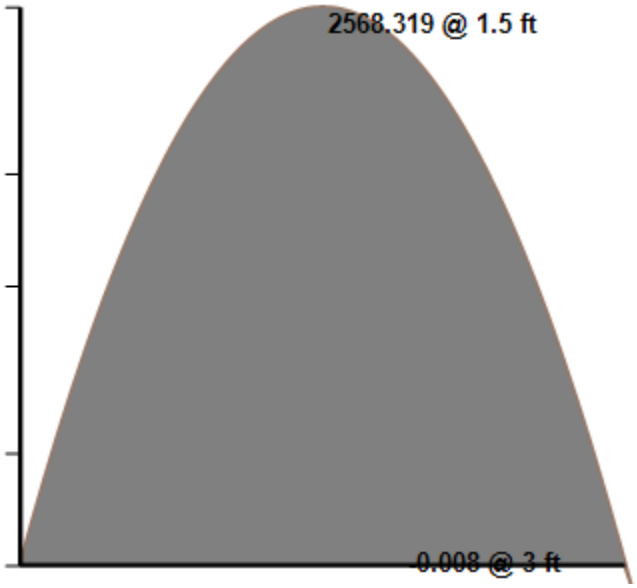
VMD DIAGRAMS

Load Combination: ASD

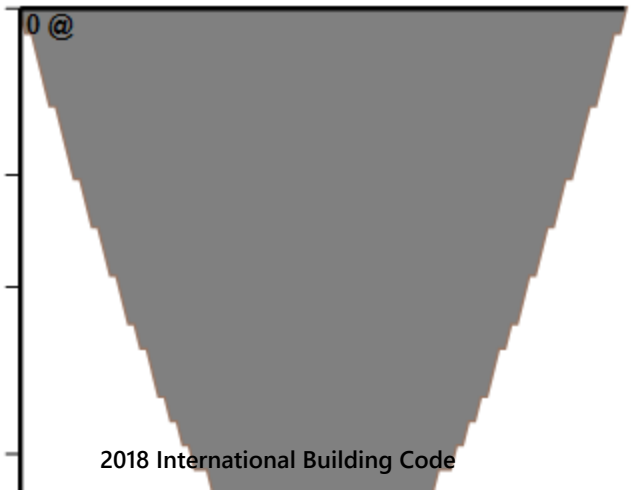
Y - Shear



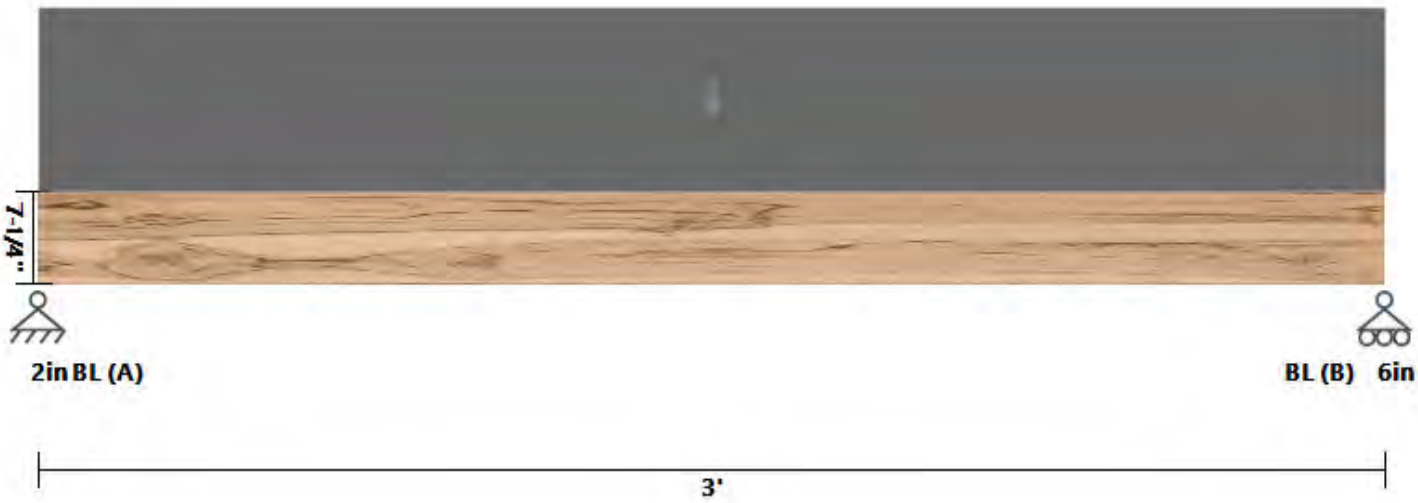
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

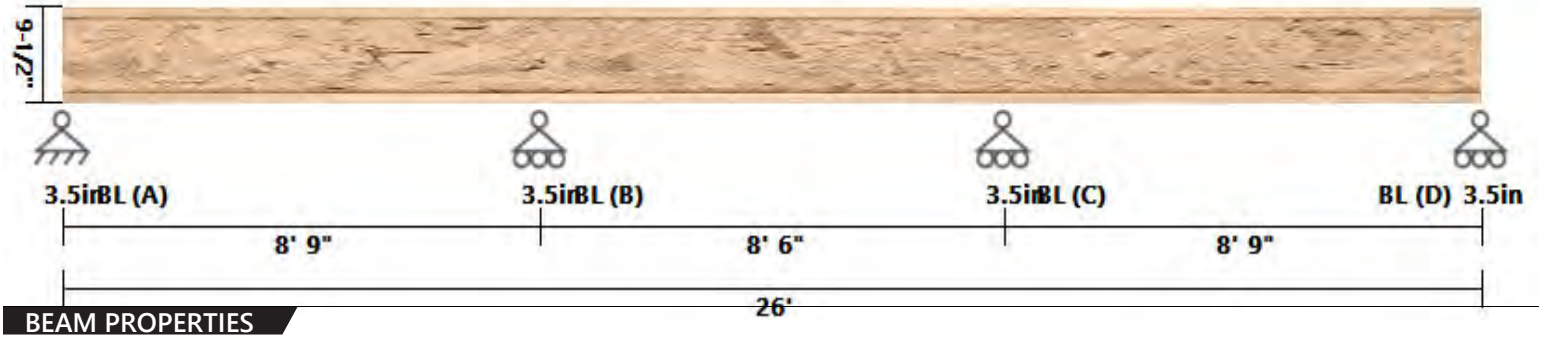


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #1	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	

Joists #1 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 26 Member Slope: 0/12 Actual Length (ft): 26 O.C. Spacing(in): 24

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
EI x10^6	BSW	Lams	K x10^6	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^2)	(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

		Unbraced Length (ft)		Beam End
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)
1	8.75	0	8.75	0
2	8.5	0	8.5	0
3	8.75	0	8.75	0

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	PASS (55.9%)	537.7	1220.0	17.42	D+L	1
Bending Moment (lbf-ft)	PASS (69.9%)	753.3	2500.0	8.84	D+L	1
Deflection Y (in)	PASS (87.6%)	0.036 (=L/8667)	0.292 (=L/1068)	3.9	L	0
Bearing Load (lbf)	PASS (47.9%)	1007.5	1935.0	8.75	D+L	1

REACTIONS

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

Y axis	DEAD	LIVE	TOTAL
A	93	282	375
B	249	758	1007
C	249	758	1007
D	93	282	375

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D
NSR	NSR	NSR	NSR

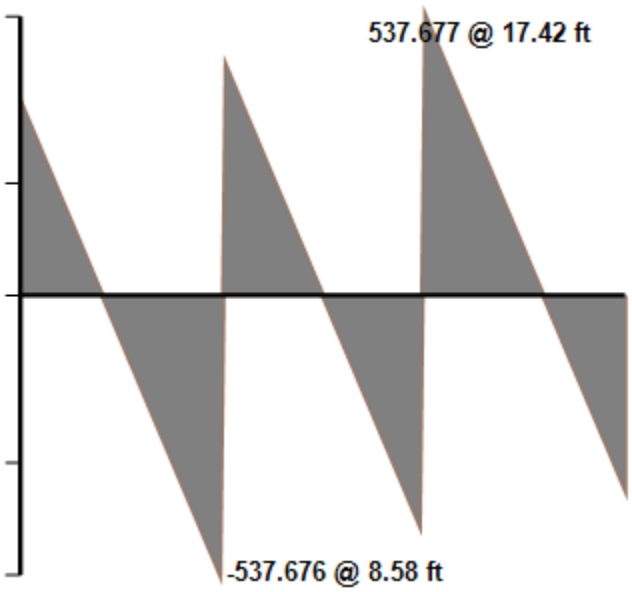
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	40	40	0	26	Live	Y
Uniform (lbf/ft²)	Uniform	12	12	0	26	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	26	Dead	Y

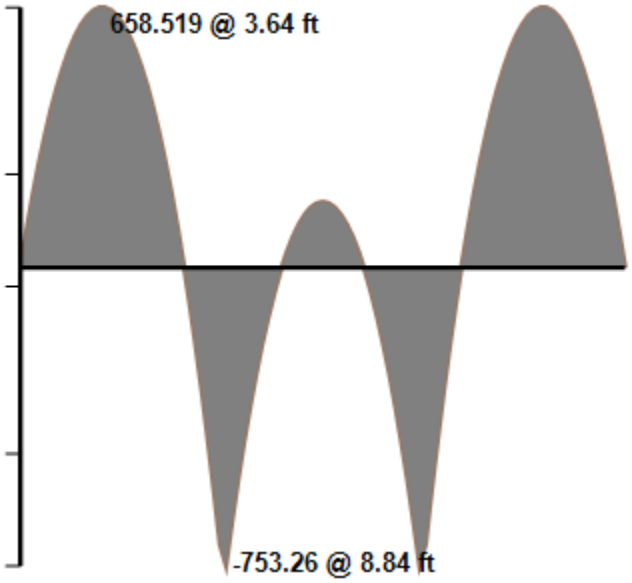
VMD DIAGRAMS

Load Combination: ASD

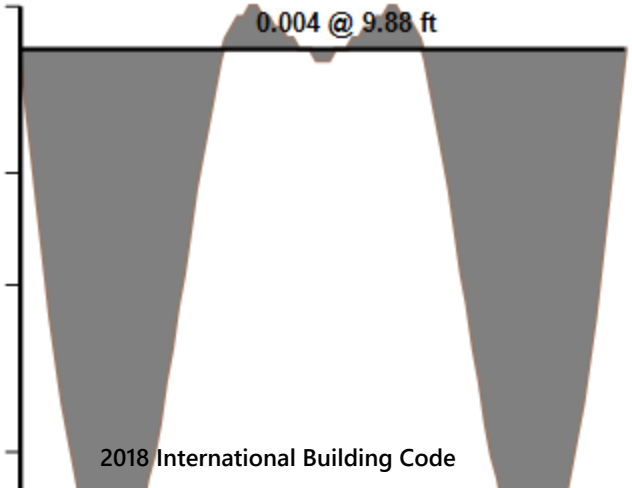
Y - Shear



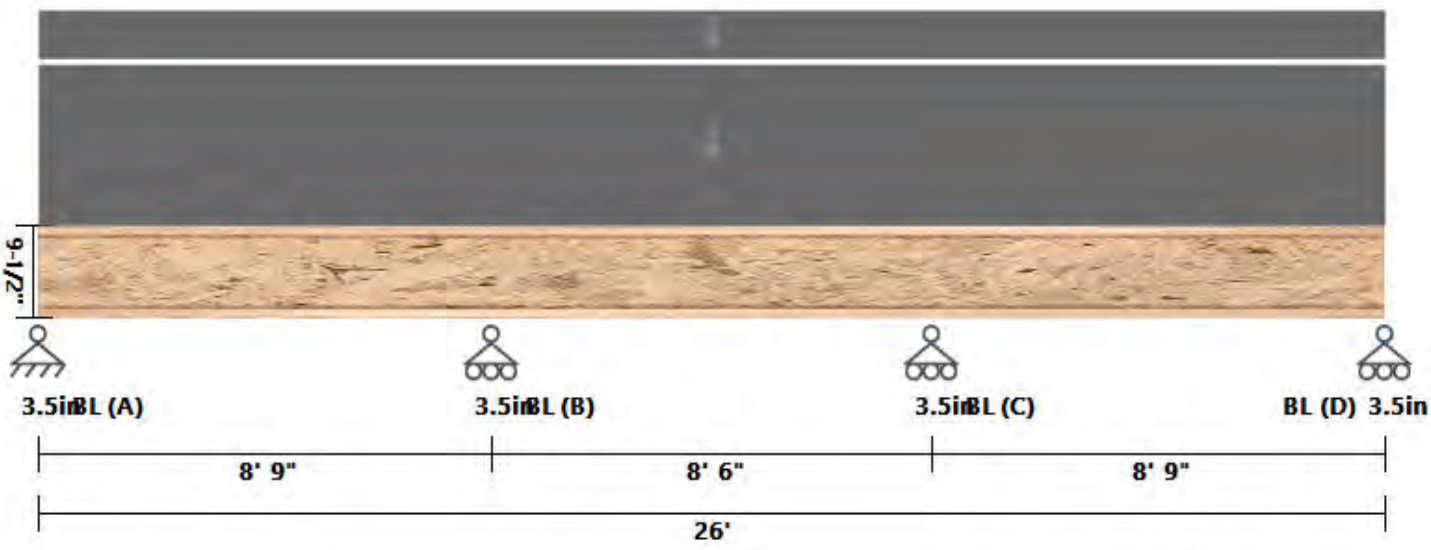
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM

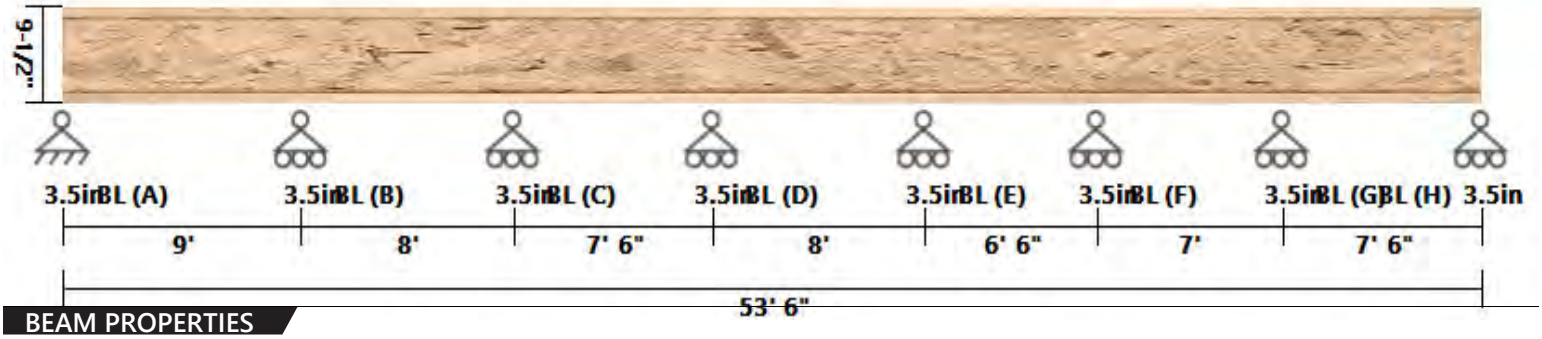


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #2	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	

Joists #2 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 53.5 Member Slope: 0/12 Actual Length (ft): 53.5 O.C. Spacing(in): 24

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
EI x10^6	BSW	Lams	K x10^6	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^2)	(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

		Unbraced Length (ft)		Beam End
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)
1	9	0	9	0
2	8	0	8	0
3	7.5	0	7.5	0
4	8	0	8	0
5	6.5	0	6.5	0
6	7	0	7	0
7	7.5	0	7.5	0

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	PASS (56.7%)	527.8	1220.0	8.56	D+L	1
Bending Moment (lbf-ft)	PASS (67.1%)	821.4	2500.0	9.095	D+L	1
Deflection Y (in)	PASS (86.9%)	0.039 (=L/16462)	0.300 (=L/2140)	3.745	L	0
Bearing Load (lbf)	PASS (45.6%)	1053.1	1935.0	9	D+L	1

REACTIONS

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

Y axis	DEAD	LIVE	TOTAL
A	95	288	383
B	261	793	1054
C	186	567	753
D	210	640	850
E	194	592	786
F	161	490	651
G	222	674	896
H	78	238	316

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D	E	F	G	H
NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR

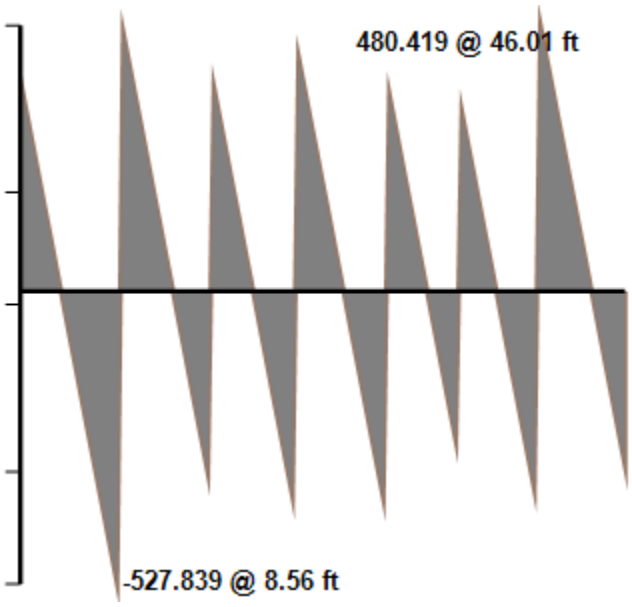
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft^2)	Uniform	40	40	0	53.5	Live	Y
Uniform (lbf/ft^2)	Uniform	12	12	0	53.5	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	53.5	Dead	Y

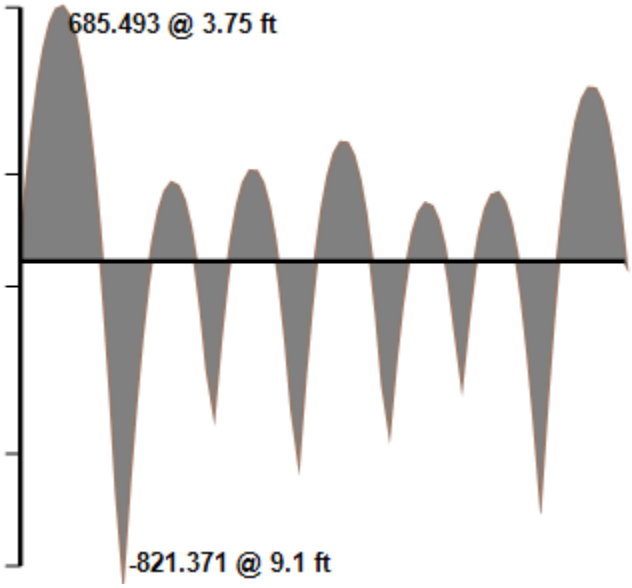
VMD DIAGRAMS

Load Combination: ASD

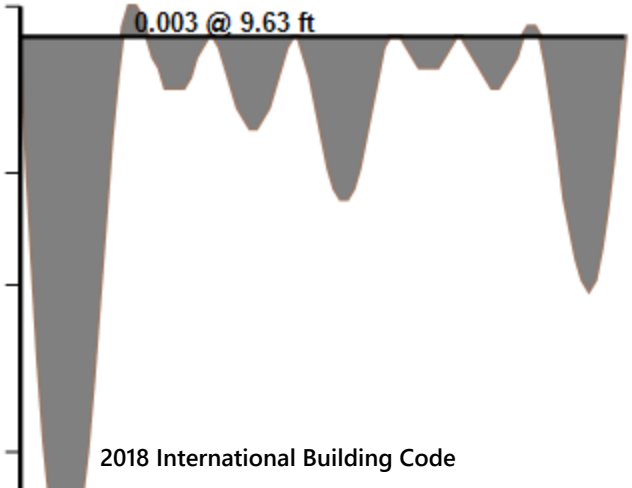
Y - Shear



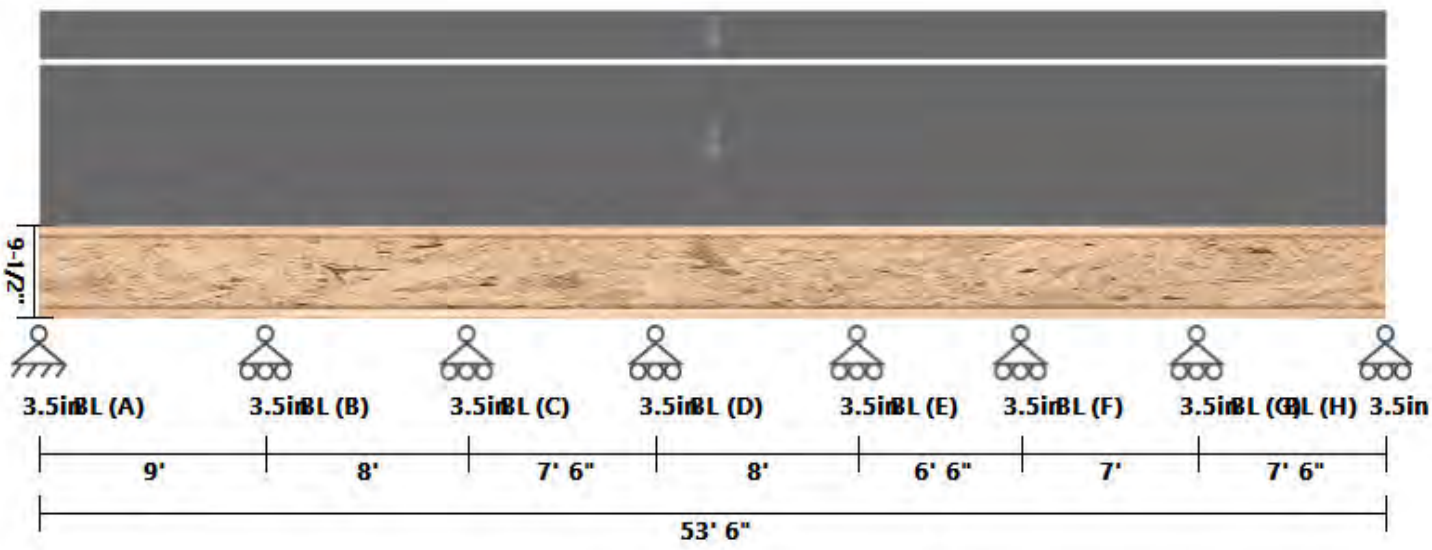
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM

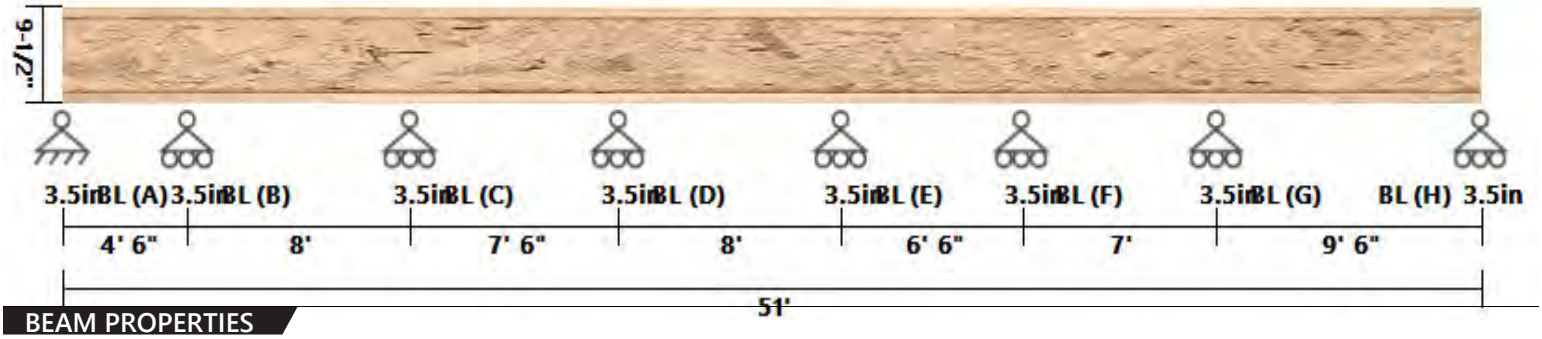


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #3	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	

Joists #3 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 51 Member Slope: 0/12 Actual Length (ft): 51 O.C. Spacing(in): 24

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
EI x10^6	BSW	Lams	K x10^6	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^2)	(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

		Unbraced Length (ft)		Beam End
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)
1	4.5	0	4.5	0
2	8	0	8	0
3	7.5	0	7.5	0
4	8	0	8	0
5	6.5	0	6.5	0
6	7	0	7	0
7	9.5	0	9.5	0

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	PASS (53.5%)	567.1	1220.0	41.82	D+L	1
Bending Moment (lbf-ft)	PASS (66.9%)	827.3	2500.0	41.31	D+L	1
Deflection Y (in)	PASS (83.8%)	0.051 (=L/12000)	0.317 (=L/1931)	46.92	L	0
Bearing Load (lbf)	PASS (44.8%)	1068.7	1935.0	41.5	D+L	1

REACTIONS

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

Y axis	DEAD	LIVE	TOTAL
A	34	102	136
B	187	570	757
C	207	630	837
D	204	620	824
E	201	610	811
F	144	437	581
G	264	804	1068
H	101	308	409

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D	E	F	G	H
NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR

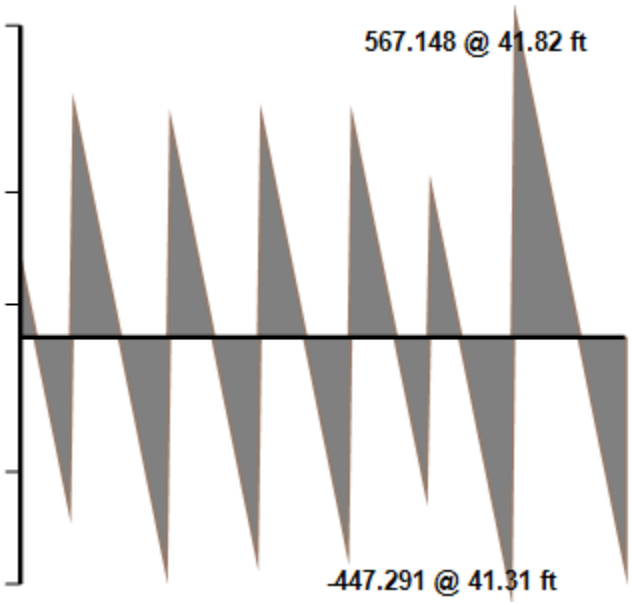
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft^2)	Uniform	40	40	0	51	Live	Y
Uniform (lbf/ft^2)	Uniform	12	12	0	51	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	51	Dead	Y

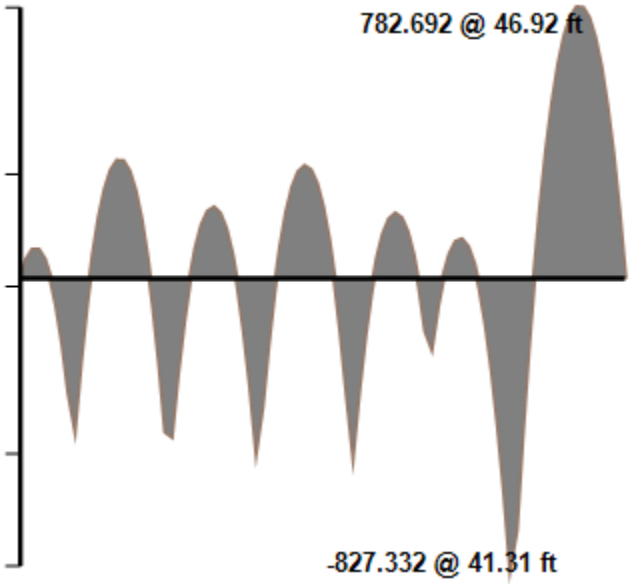
VMD DIAGRAMS

Load Combination: ASD

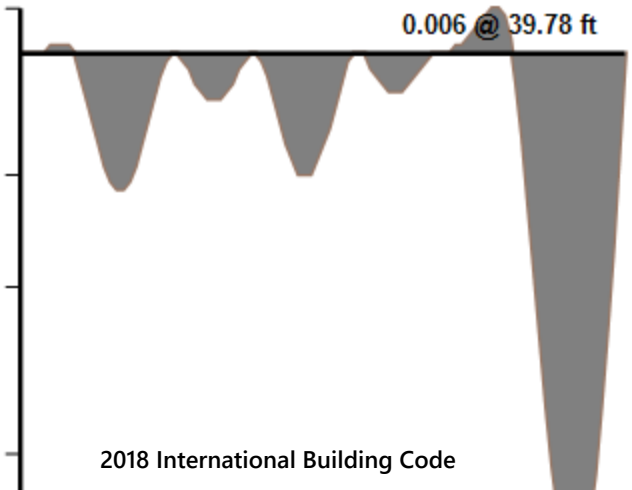
Y - Shear



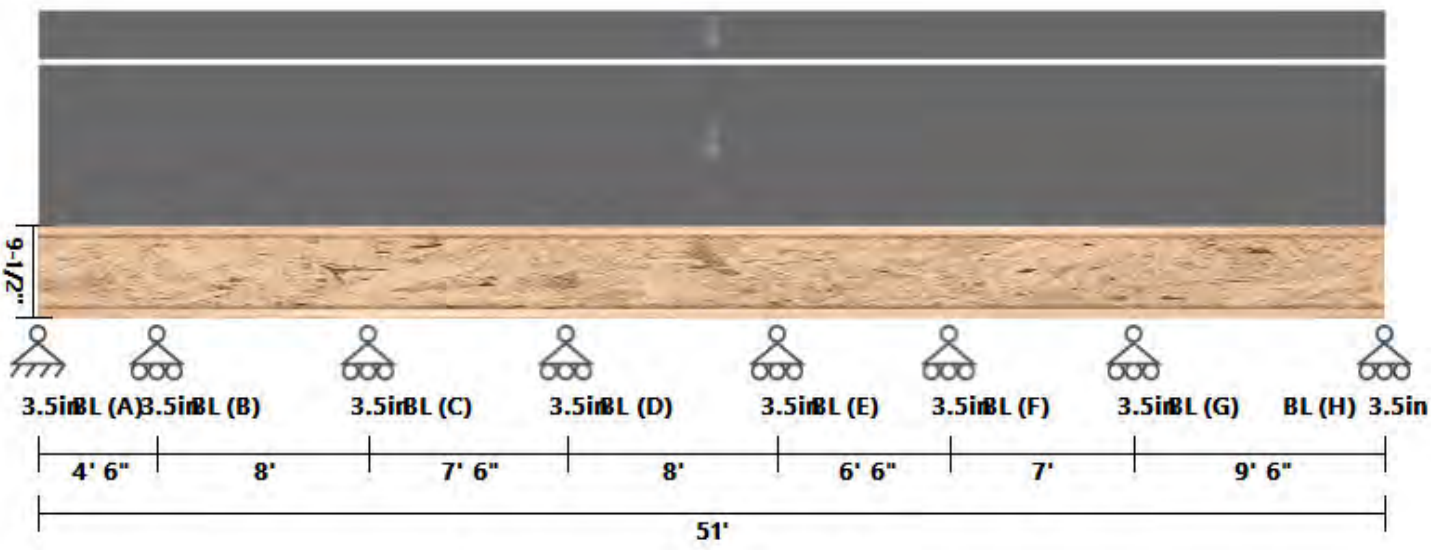
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM

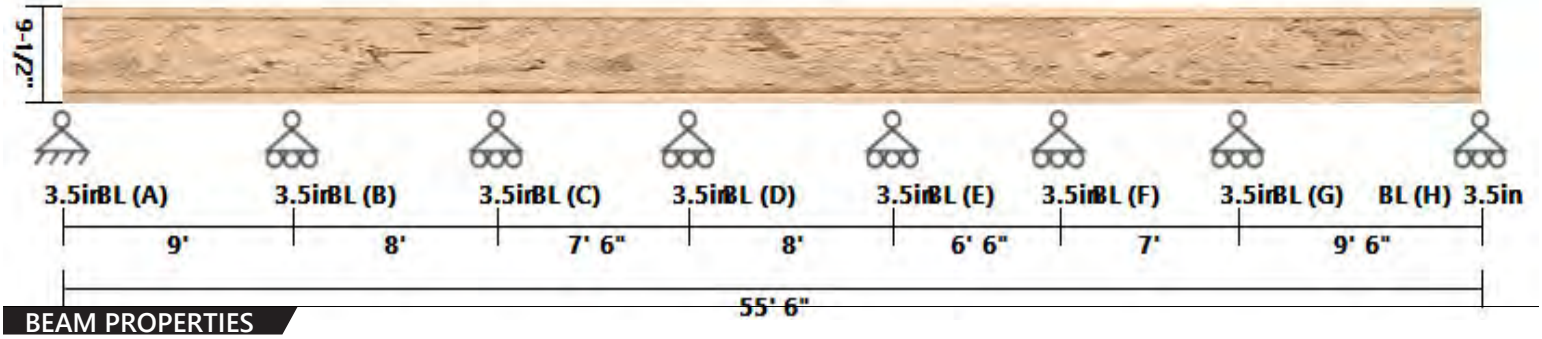


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #4	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	

Joists #4 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 55.5 Member Slope: 0/12 Actual Length (ft): 55.5 O.C. Spacing(in): 24

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
EI x10^6	BSW	Lams	K x10^6	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^2)	(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

		Unbraced Length (ft)		Beam End
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)
1	9	0	9	0
2	8	0	8	0
3	7.5	0	7.5	0
4	8	0	8	0
5	6.5	0	6.5	0
6	7	0	7	0
7	9.5	0	9.5	0

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	PASS (51.3%)	594.2	1220.0	46.065	D+L	1
Bending Moment (lbf-ft)	PASS (65.0%)	874.9	2500.0	46.065	D+L	1
Deflection Y (in)	PASS (83.8%)	0.051 (=L/13059)	0.317 (=L/2101)	51.06	L	0
Bearing Load (lbf)	PASS (44.8%)	1068.2	1935.0	46	D+L	1

REACTIONS

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

Y axis	DEAD	LIVE	TOTAL
A	95	288	383
B	260	792	1052
C	187	568	755
D	209	637	846
E	199	605	804
F	144	438	582
G	264	804	1068
H	101	308	409

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D	E	F	G	H
NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR

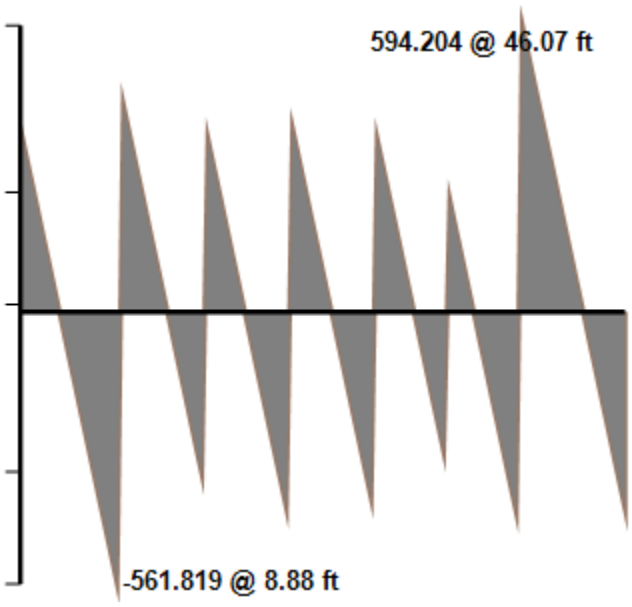
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft^2)	Uniform	40	40	0	55.5	Live	Y
Uniform (lbf/ft^2)	Uniform	12	12	0	55.5	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	55.5	Dead	Y

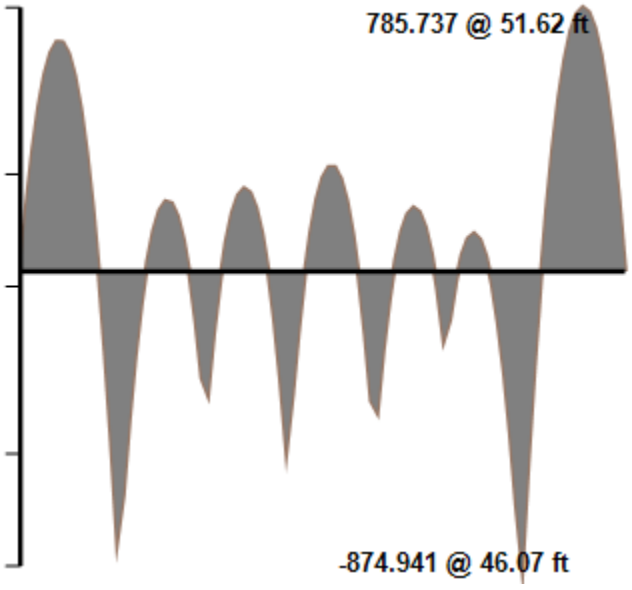
VMD DIAGRAMS

Load Combination: ASD

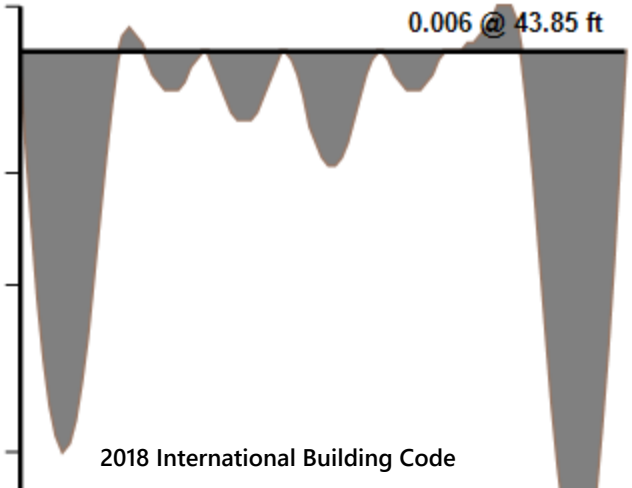
Y - Shear



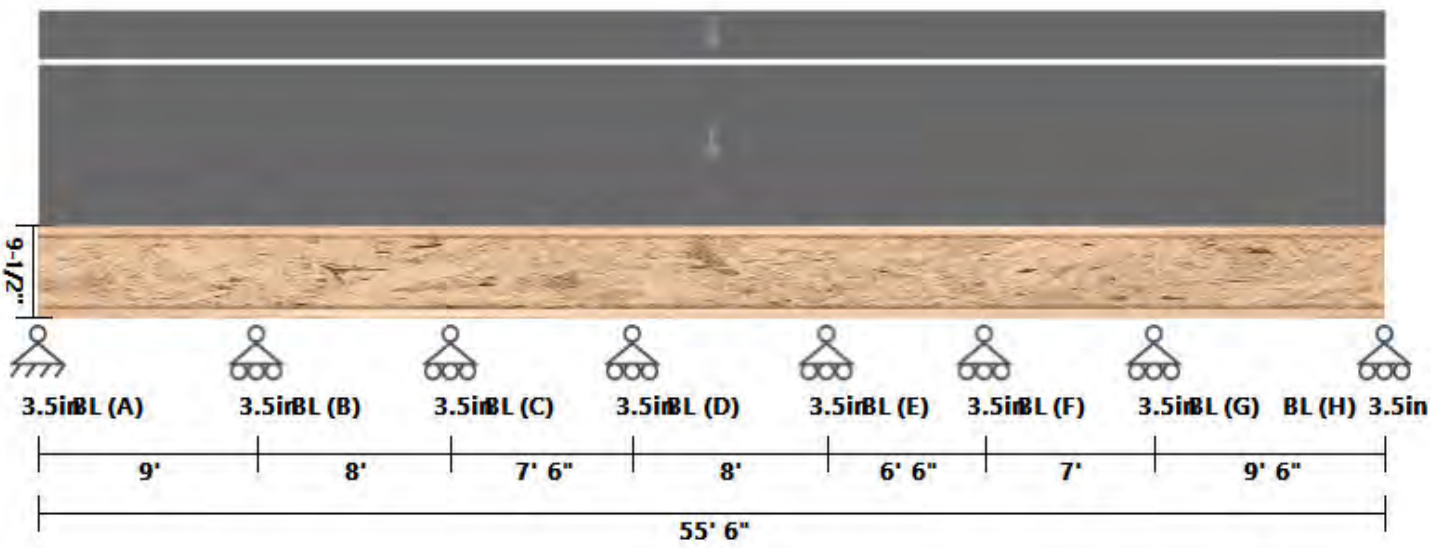
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM

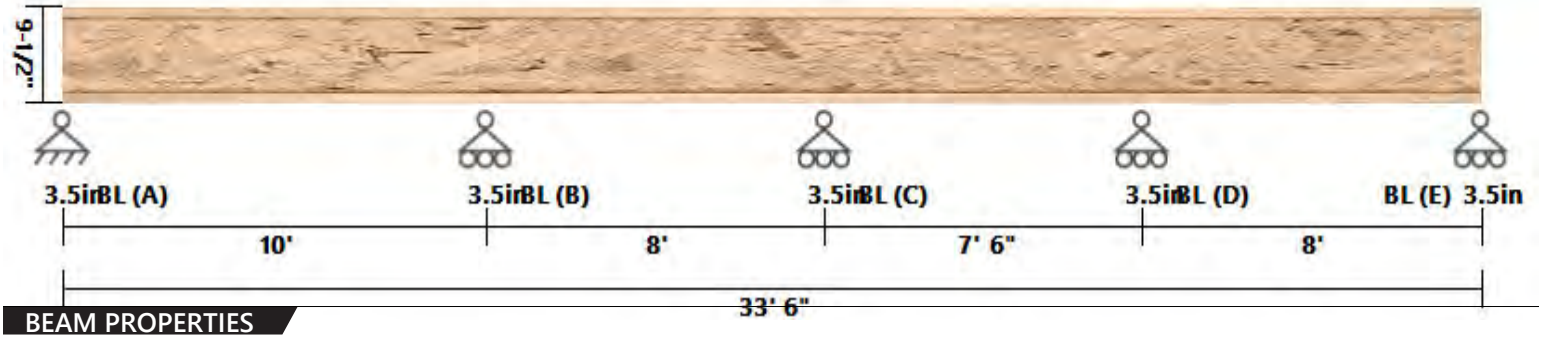


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #5	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	

Joists #5 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 33.5 Member Slope: 0/12 Actual Length (ft): 33.5 O.C. Spacing(in): 24

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
EI x10^6	BSW	Lams	K x10^6	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^2)	(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

		Unbraced Length (ft)		Beam End
Span	Length (ft)	Top	Bottom	Elev. Diff (ft)
1	10	0	10	0
2	8	0	8	0
3	7.5	0	7.5	0
4	8	0	8	0

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	PASS (50.4%)	604.8	1220.0	9.715	D+L	1
Bending Moment (lbf-ft)	PASS (59.6%)	1010.4	2500.0	10.05	D+L	1
Deflection Y (in)	PASS (81.4%)	0.062 (=L/6484)	0.333 (=L/1207)	4.355	L	0
Bearing Load (lbf)	PASS (40.8%)	1144.6	1935.0	10	D+L	1

REACTIONS

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

Y axis	DEAD	LIVE	TOTAL
A	106	322	428
B	283	861	1144
C	171	521	692
D	237	722	959
E	83	253	336

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D	E
NSR	NSR	NSR	NSR	NSR

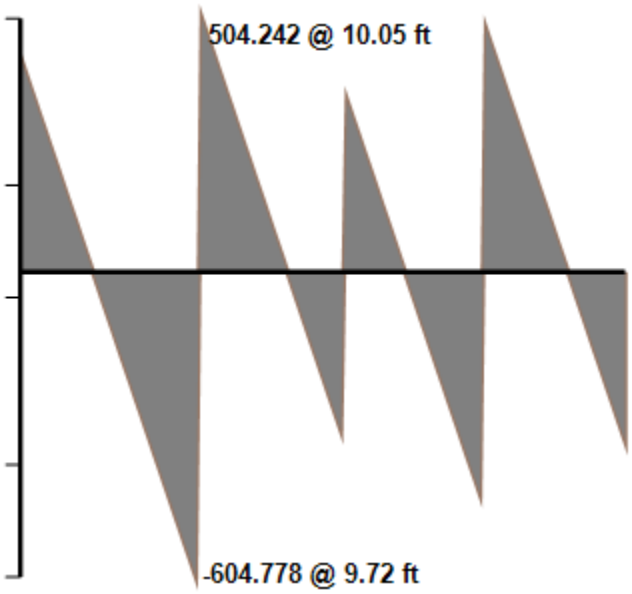
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	40	40	0	33.5	Live	Y
Uniform (lbf/ft²)	Uniform	12	12	0	33.5	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	33.5	Dead	Y

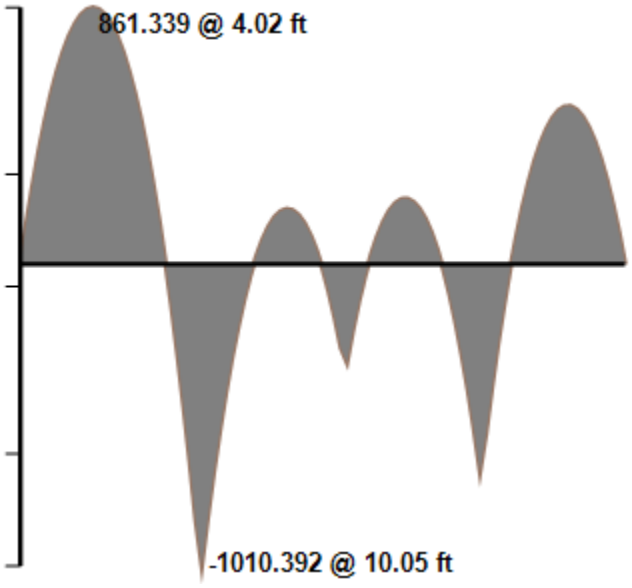
VMD DIAGRAMS

Load Combination: ASD

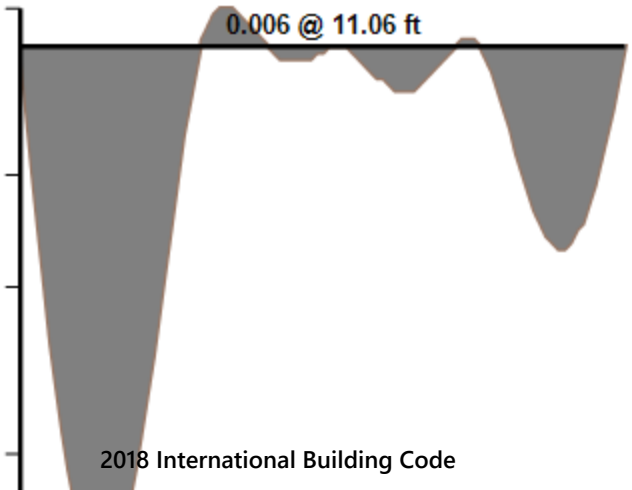
Y - Shear



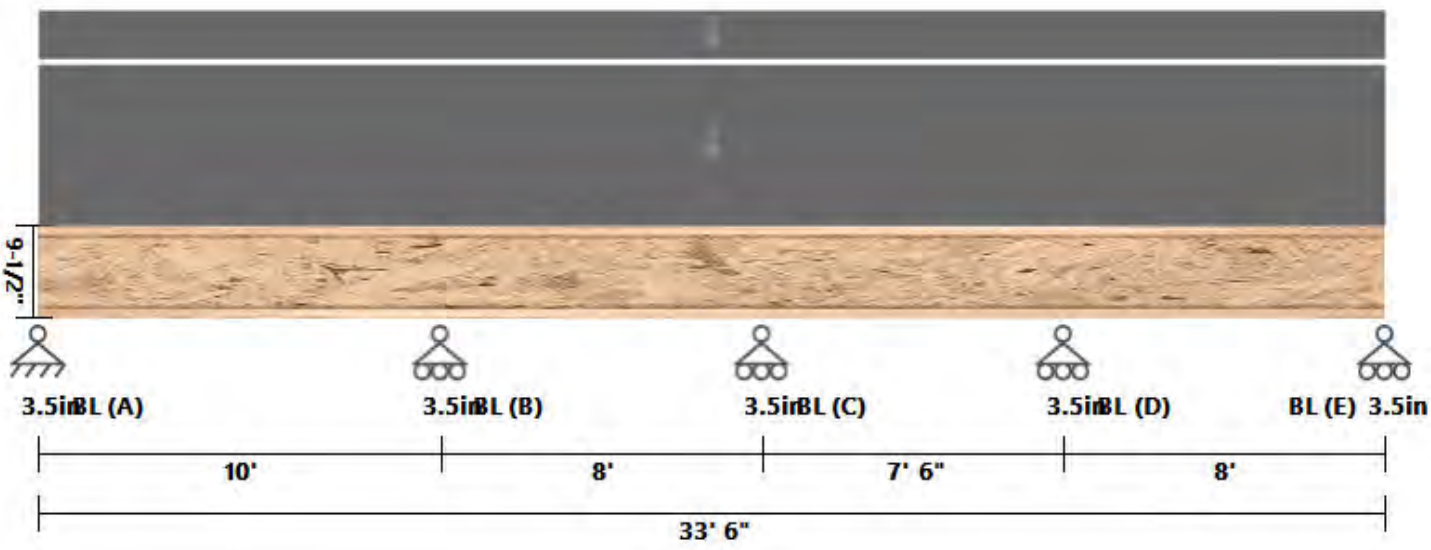
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM

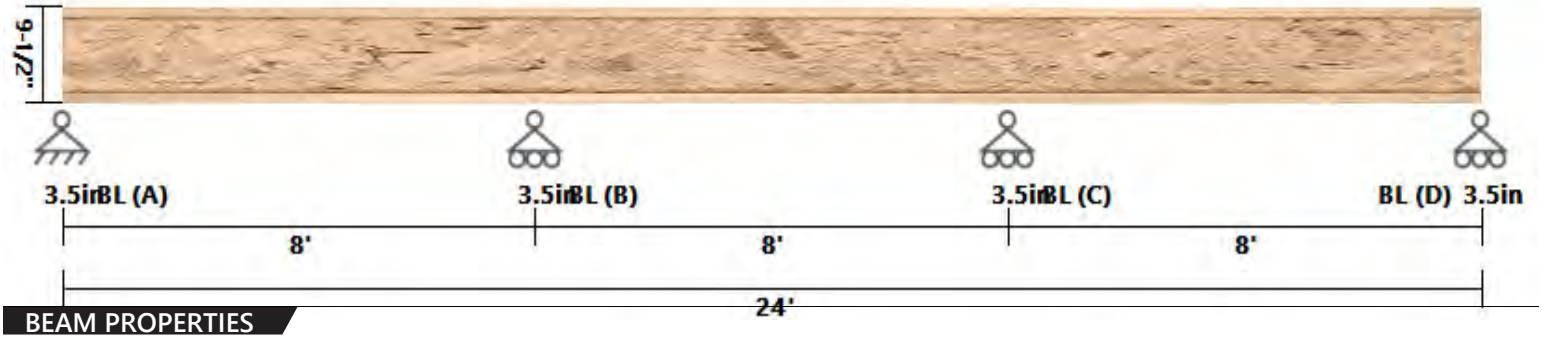


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Joists #6	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	

Joists #6 DIAGRAM



BEAM PROPERTIES

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

						End Rcap	End Rcap	End Rcap	End Rcap	Int Rcap	Int Rcap	Int Rcap	Int Rcap
EI x10^6	BSW	Lams	K x10^6	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^2)	(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

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

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Force (lbf)	PASS (58.9%)	501.7	1220.0	7.92	D+L	1
Bending Moment (lbf-ft)	PASS (74.4%)	639.8	2500.0	7.92	D+L	1
Deflection Y (in)	PASS (90.7%)	0.025 (=L/11520)	0.267 (=L/1079)	3.6	L	0
Bearing Load (lbf)	PASS (51.7%)	935.4	1935.0	8	D+L	1

REACTIONS

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

Y axis	DEAD	LIVE	TOTAL
A	84	256	340
B	231	704	935
C	231	704	935
D	84	256	340

Reaction Location WS-Web Stiffener Required NSR-No Stiffener Required

A	B	C	D
NSR	NSR	NSR	NSR

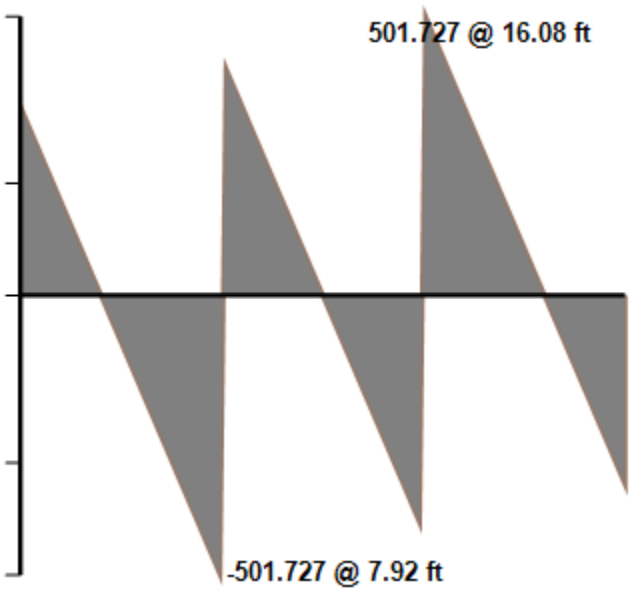
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	40	40	0	24	Live	Y
Uniform (lbf/ft²)	Uniform	12	12	0	24	Dead	Y
Self Weight (lbf/ft)	-	2.3	2.3	0	24	Dead	Y

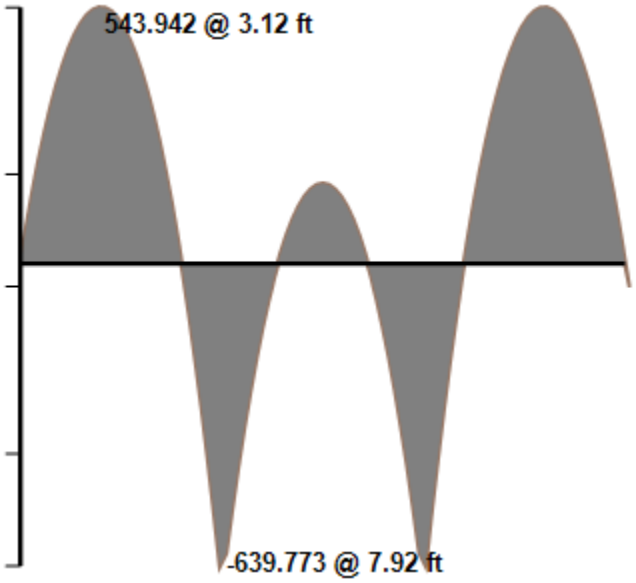
VMD DIAGRAMS

Load Combination: ASD

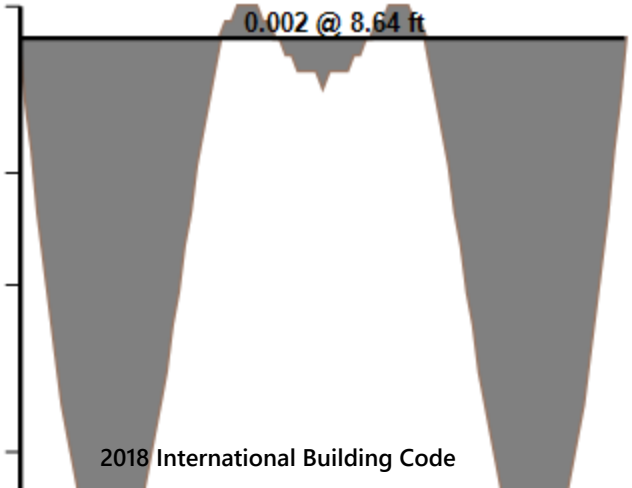
Y - Shear



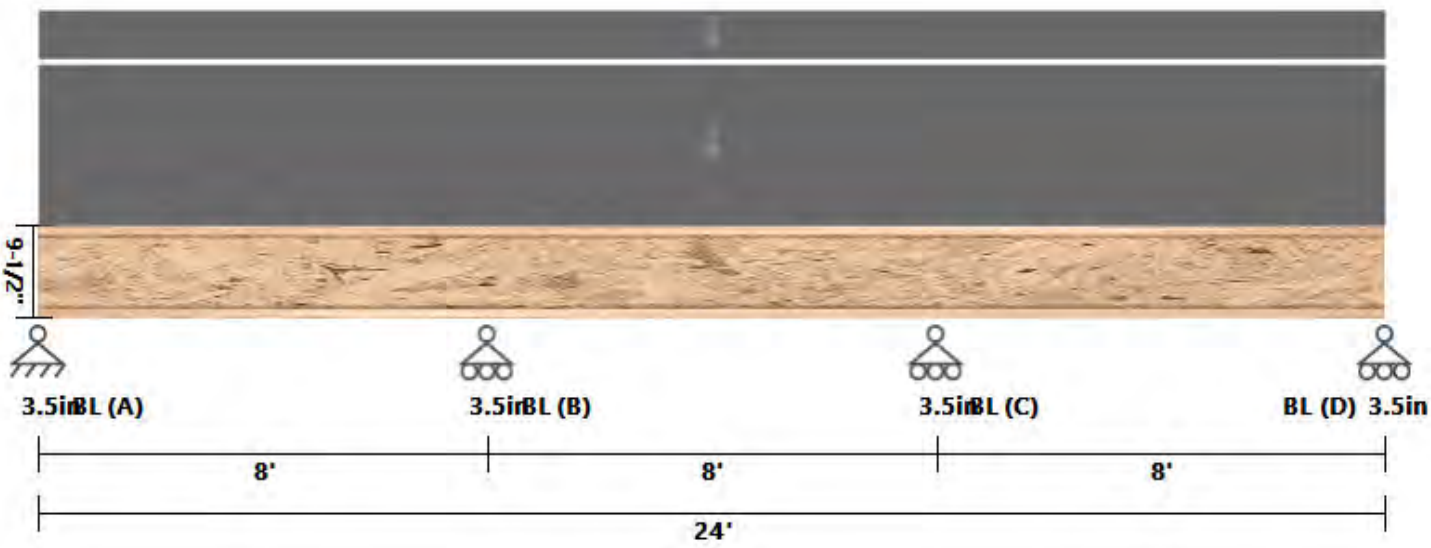
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM

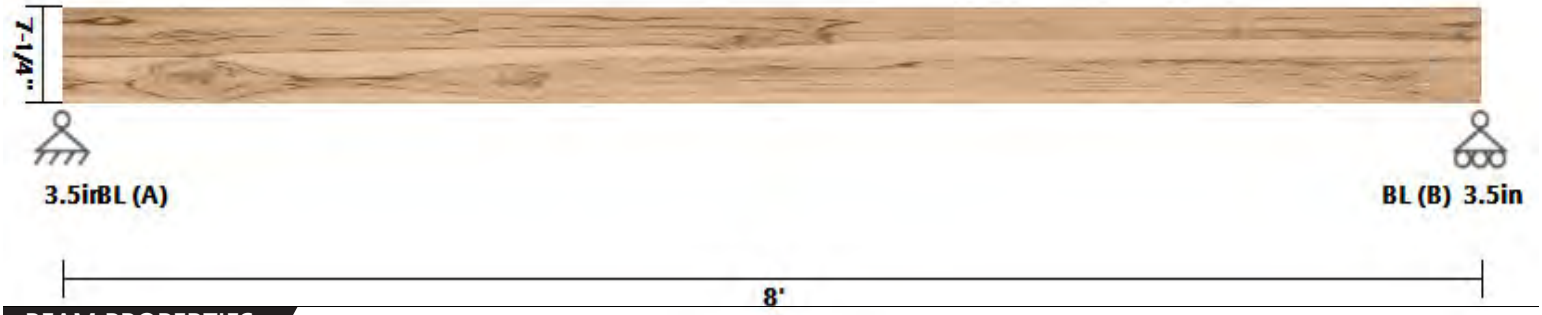


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Deck Joists #1	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch(North)	No. 2	(1) 1.5 X 7.25	0(in) O.C.	DRY	

Deck Joists #1 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr Creep Factor
10.88	47.63	2.04	2.43	1	0.49	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	850	500	180	1400	625	1600	580
Adjusted Values	1173	600	180	1470	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.2	1.2	1	1.05	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1.15

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (68.4%)	65.3	207.0	0	D+S	1.15
Bending Stress Y (psi)	PASS (35.9%)	865.2	1349.0	4	D+S	1.15
Deflection Y (in)	PASS (69.8%)	0.121 (=L/793)	0.400 (=L/240)	4	S	0
Bearing Stress (psi)	PASS (85.6%)	90.2	625.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	74	400	474
B	74	400	474

Reaction Location

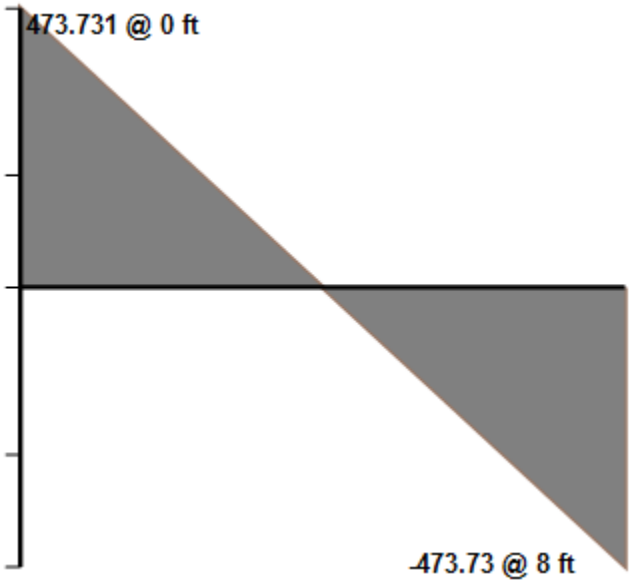
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	75	75	0	8	Snow	Y
Uniform (lbf/ft²)	Uniform	12	12	0	8	Dead	Y
Self Weight (lbf/ft)	-	2.43	2.43	0	8	Dead	Y

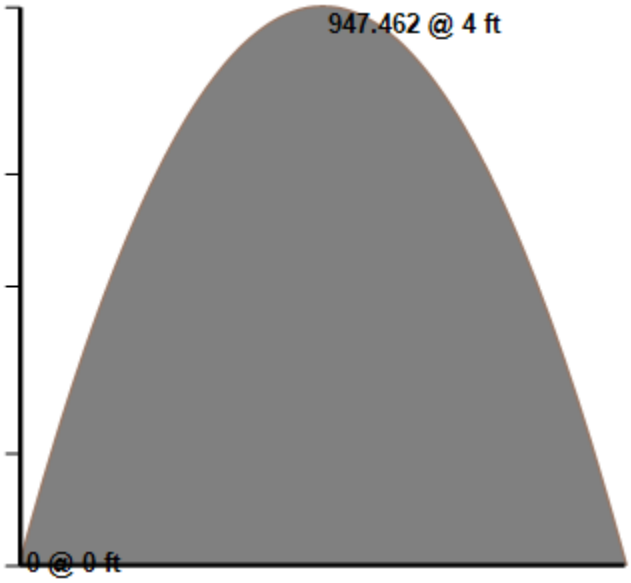
VMD DIAGRAMS

Load Combination: ASD

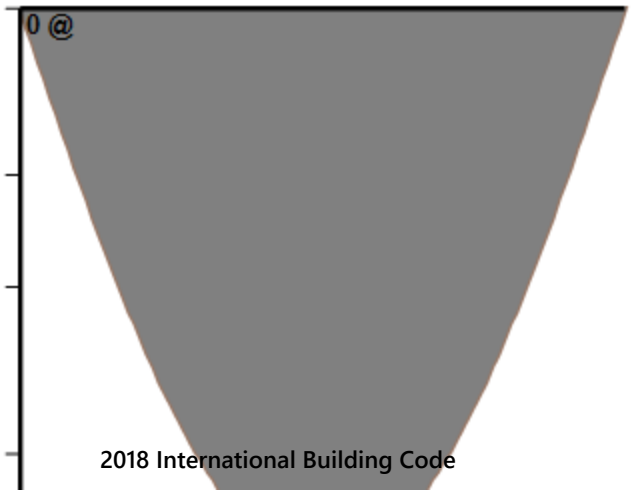
Y - Shear



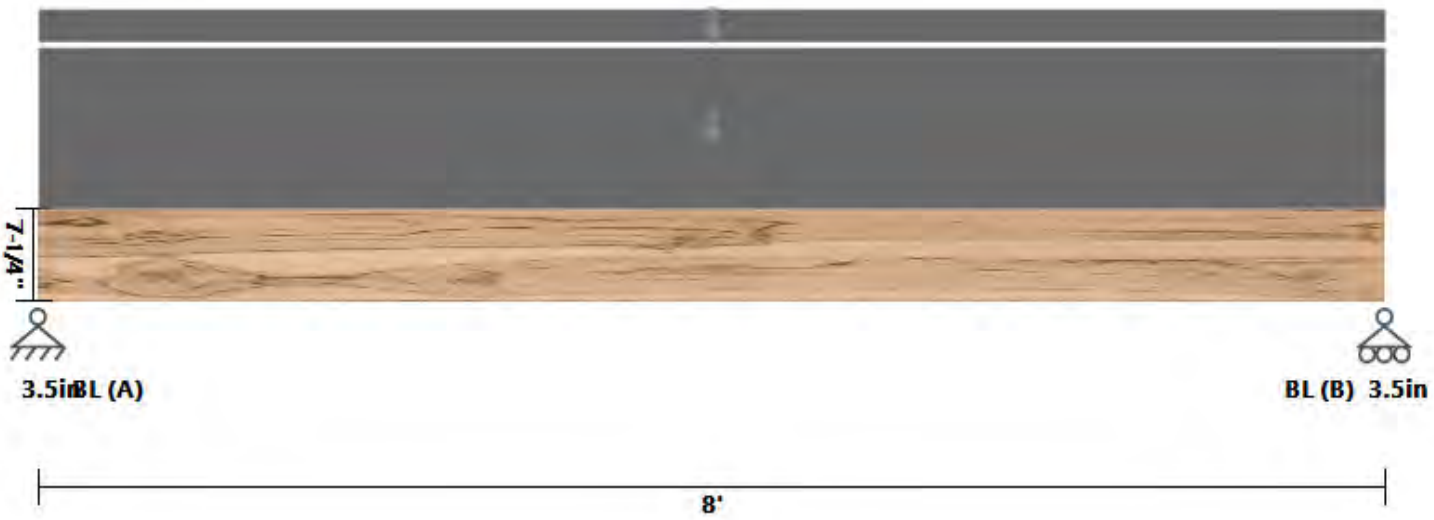
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM



PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Deck Joists #2	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch(North)	No. 2	(1) 1.5 X 7.25	0(in) O.C.	DRY	

Deck Joists #2 DIAGRAM

BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr Creep Factor
10.88	47.63	2.04	2.43	1	0.49	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	850	500	180	1400	625	1600	580
Adjusted Values	1173	600	180	1470	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.2	1.2	1	1.05	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1.15

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (66.5%)	69.4	207.0	0	D+S	1.15
Bending Stress Y (psi)	PASS (27.6%)	976.8	1349.0	4.25	D+S	1.15
Deflection Y (in)	PASS (63.7%)	0.154 (=L/662)	0.425 (=L/240)	4.25	S	0
Bearing Stress (psi)	PASS (84.7%)	95.9	625.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	78	425	503
B	78	425	503

Reaction Location

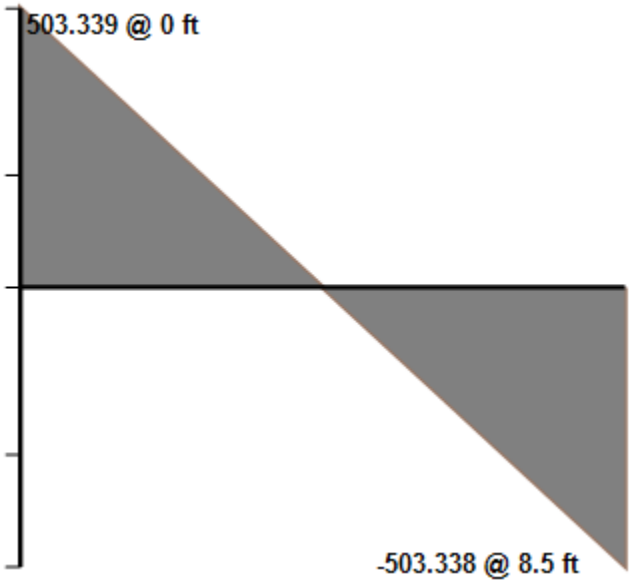
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	75	75	0	8.5	Snow	Y
Uniform (lbf/ft²)	Uniform	12	12	0	8.5	Dead	Y
Self Weight (lbf/ft)	-	2.43	2.43	0	8.5	Dead	Y

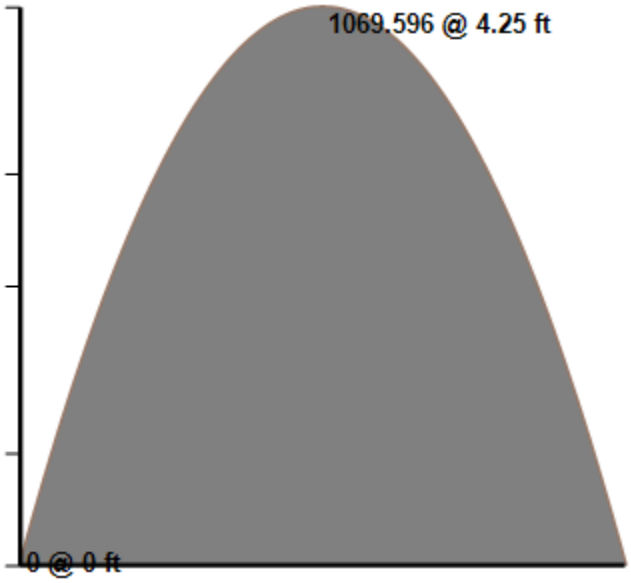
VMD DIAGRAMS

Load Combination: ASD

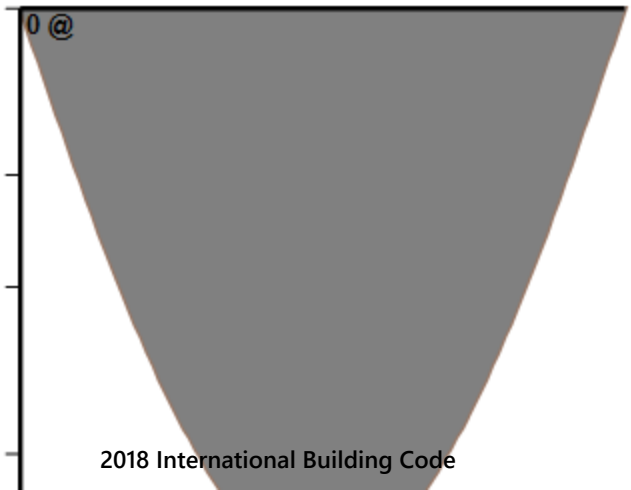
Y - Shear



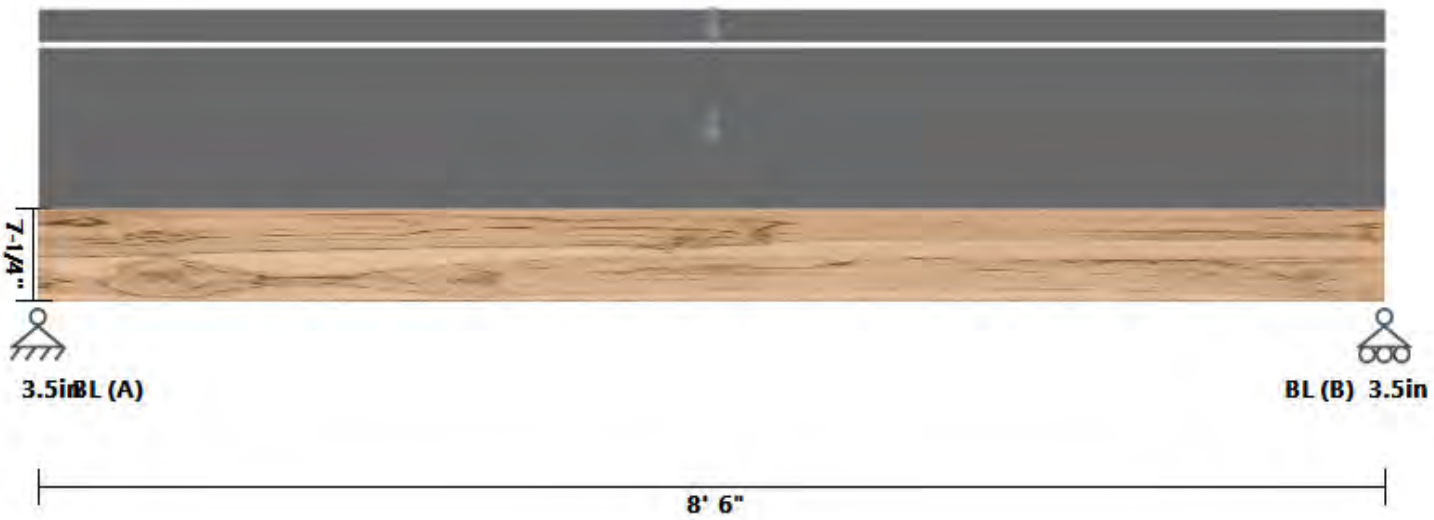
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM



PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Deck Joists #3	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR JOIST	NDS:	2018 NDS
MATERIAL:	Solid Sawn		

Douglas Fir-Larch(North)	No. 2	(1) 1.5 X 7.25	0(in) O.C.	DRY	

Deck Joists #3 DIAGRAM

BEAM PROPERTIES

Start (ft): 0 End (ft): 5.5 Member Slope: 0/12 Actual Length (ft): 5.5 O.C. Spacing(in): 16

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr Creep Factor
10.88	47.63	2.04	2.43	1	0.49	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	850	500	180	1400	625	1600	580
Adjusted Values	1173	600	180	1470	625	1600	580
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1.2	1.2	1	1.05	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1.15

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (78.3%)	44.9	207.0	0	D+S	1.15
Bending Stress Y (psi)	PASS (69.7%)	409.0	1349.0	2.75	D+S	1.15
Deflection Y (in)	PASS (90.2%)	0.027 (=L/2444)	0.275 (=L/240)	2.75	S	0
Bearing Stress (psi)	PASS (90.1%)	62.0	625.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	SNOW	TOTAL
A	51	275	326
B	51	275	326

Reaction Location

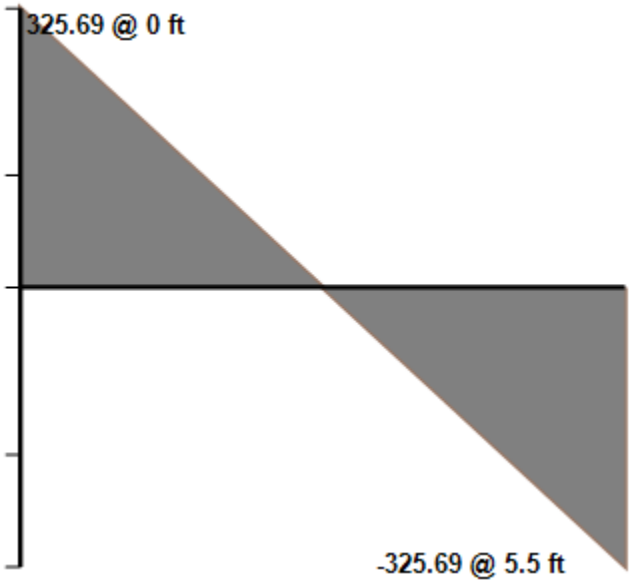
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft²)	Uniform	75	75	0	5.5	Snow	Y
Uniform (lbf/ft²)	Uniform	12	12	0	5.5	Dead	Y
Self Weight (lbf/ft)	-	2.43	2.43	0	5.5	Dead	Y

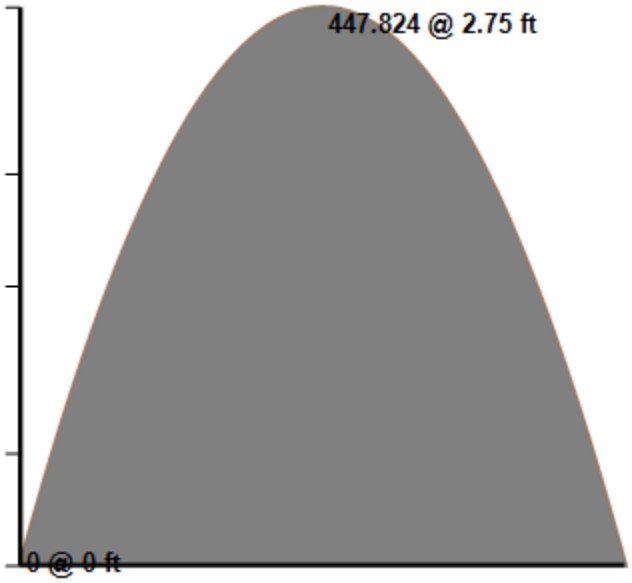
VMD DIAGRAMS

Load Combination: ASD

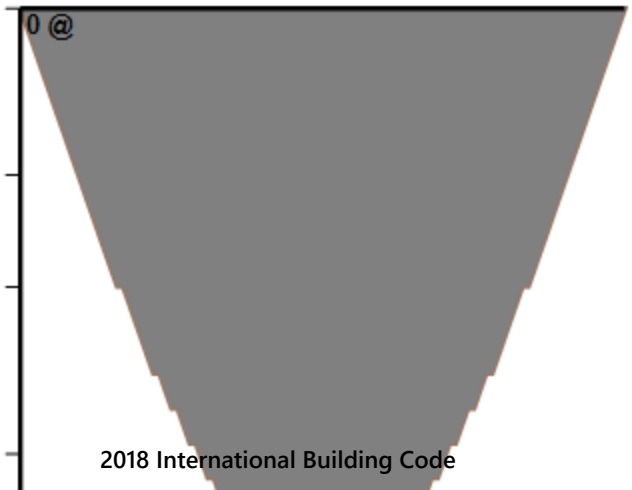
Y - Shear



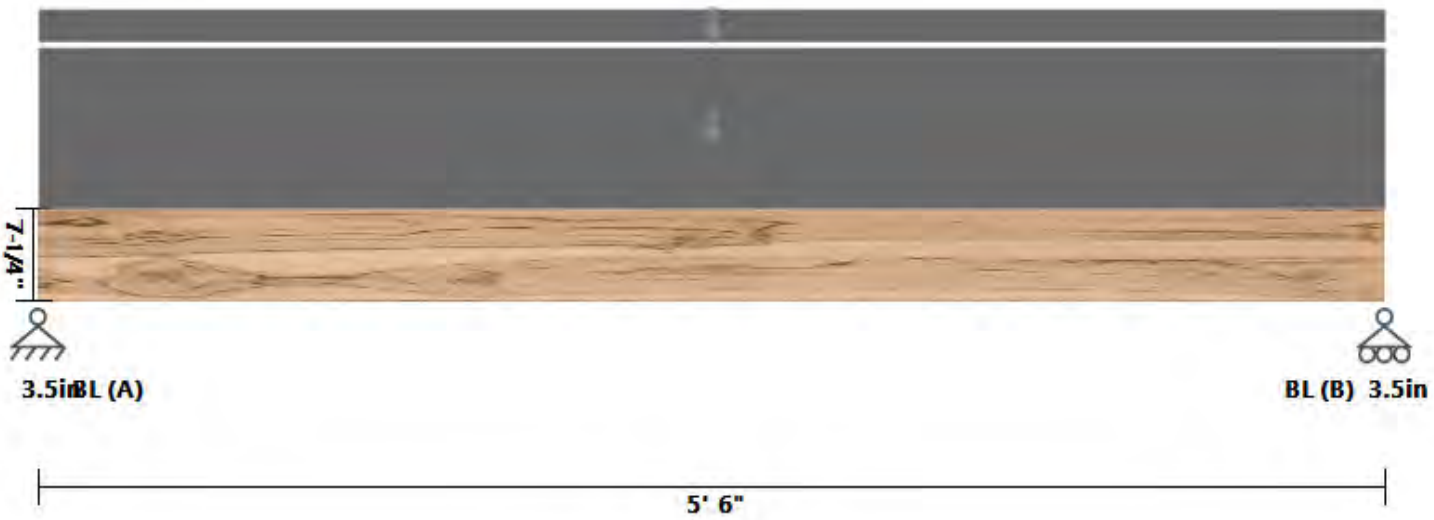
Y - Moment



Y - Deflection



Floor Joist LOAD DIAGRAM

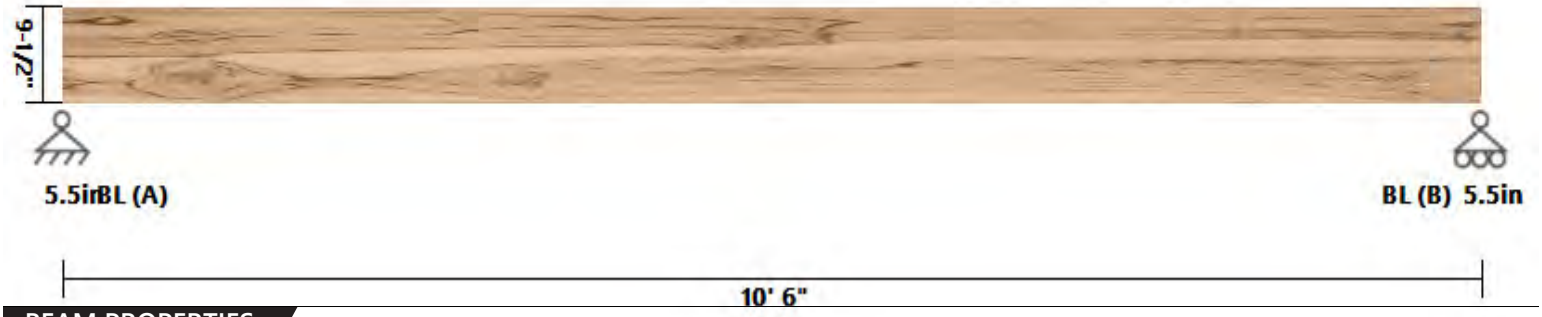


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Beam #7	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 #7 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 10.5 Member Slope: 0/12 Actual Length (ft): 10.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (71.7%)	55.3	195.5	10.5	D+S	1.15
Bending Stress Y (psi)	PASS (27.0%)	734.1	1006.3	5.25	D+S	1.15
Deflection Y (in)	PASS (77.1%)	0.161 (=L/783)	0.700 (=L/180)	5.25	S	0
Bearing Stress (psi)	PASS (89.8%)	63.7	625.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	353	5	1575	1933
B	353	5	1575	1933

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	Live	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	10.5	Dead	Y

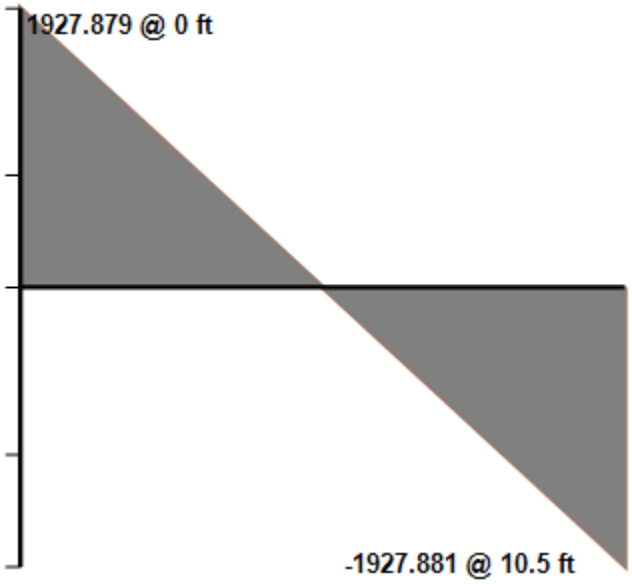
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Deck Joists #1	A	55.298	55.298	0	10.5	Dead	Y
Uniform (lbf/ft)	Deck Joists #1	A	300	300	0	10.5	Snow	Y

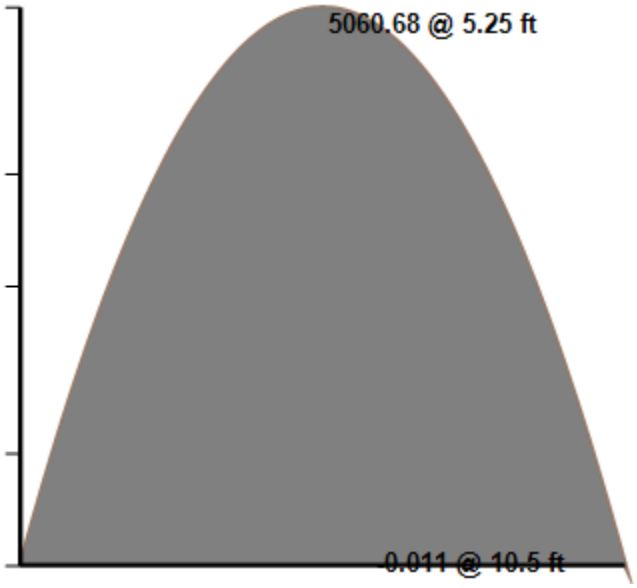
VMD DIAGRAMS

Load Combination: ASD

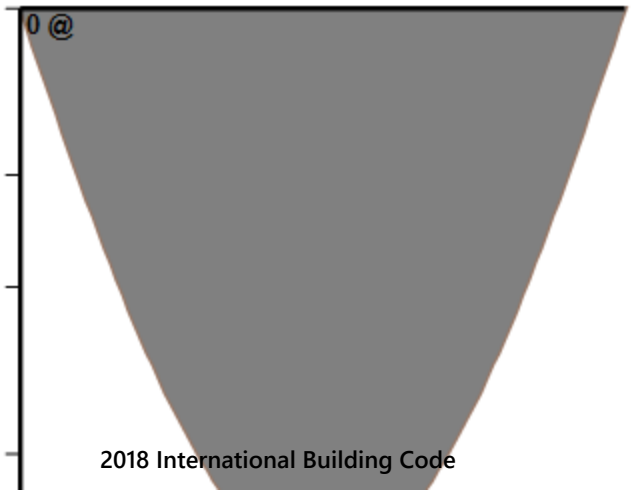
Y - Shear



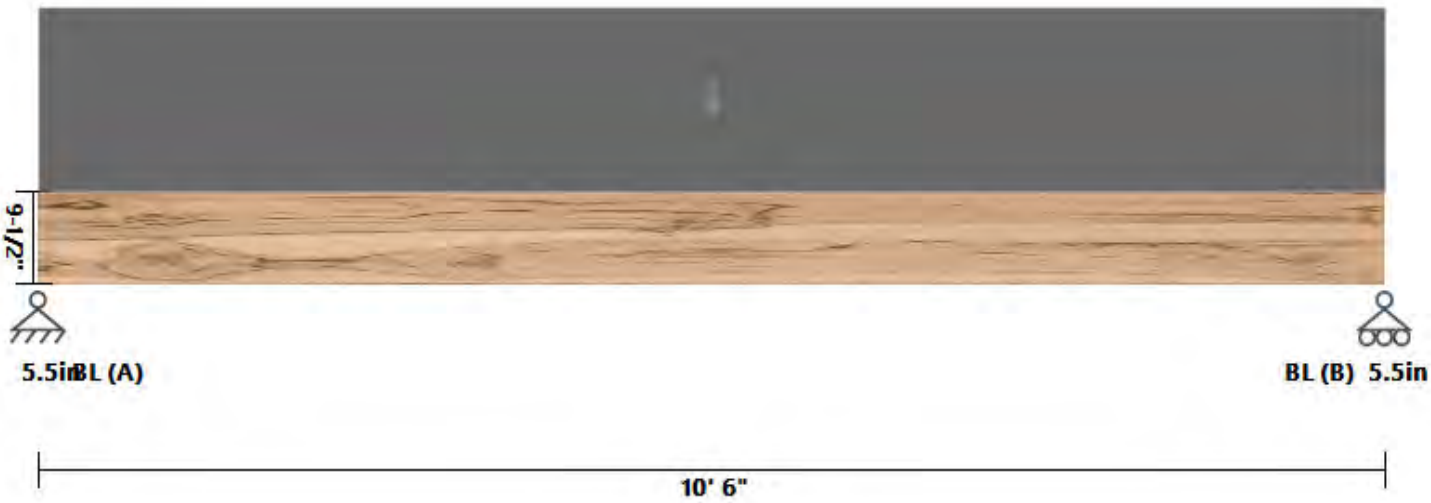
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM

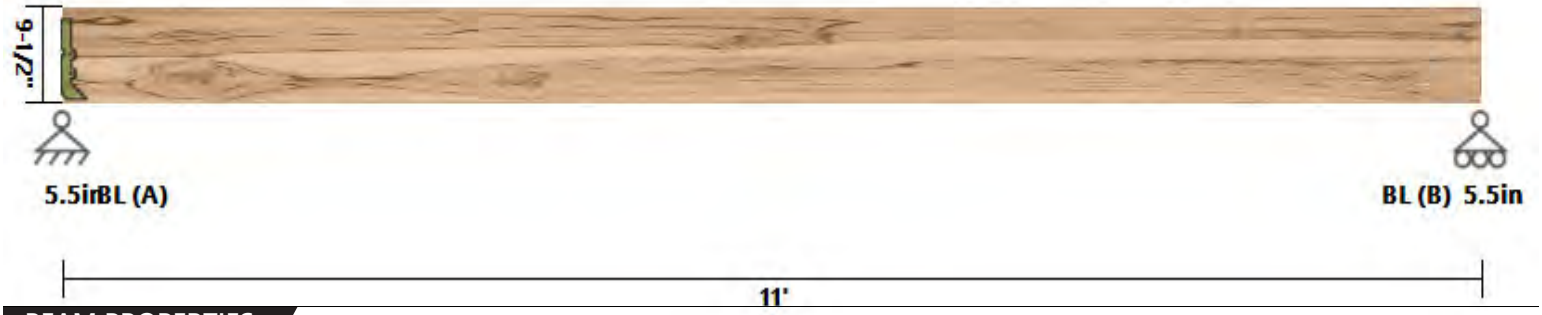


PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Beam #8	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 #8 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors $C_{fu} = 1$ $C_r = 1$

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (68.5%)	61.5	195.5	0	D+S	1.15
Bending Stress Y (psi)	PASS (15.1%)	854.4	1006.3	5.5	D+S	1.15
Deflection Y (in)	PASS (72.0%)	0.206 (=L/641)	0.733 (=L/180)	5.5	S	0
Bearing Stress (psi)	PASS (88.7%)	70.8	625.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	389	6	1753	2148
B	389	6	1753	2148

Reaction Location

A B

CONNECTORS

(All connectors are Simpson Strong-Tie connectors)*

Support A	Model	Type	Adequacy (%)	Header Fastening (in)	Joist Nails (in)	Nailer Thickness (in)
Primary	HUC610 (Min)	Hanger	8.86	(14) 0.162 x 3.5	(6) 0.162 x 3.5	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 (lbf/ft)	Uniform	1	1	0	11	Live	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	11	Dead	Y

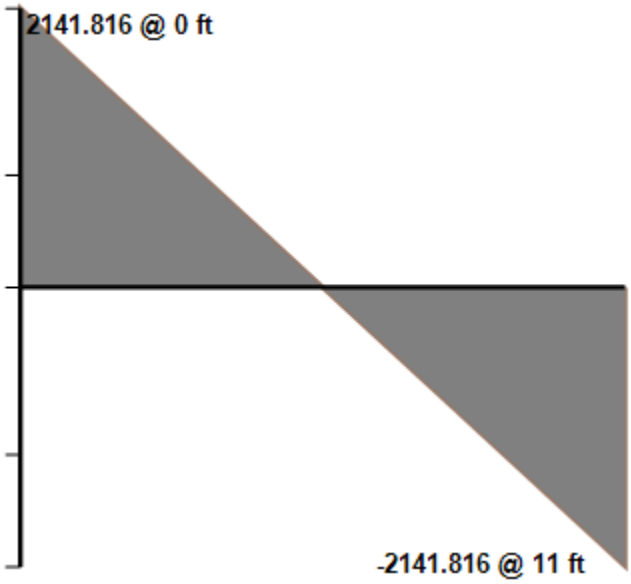
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Deck Joists #2	B	58.754	58.754	0	11	Dead	Y
Uniform (lbf/ft)	Deck Joists #2	B	318.75	318.75	0	11	Snow	Y

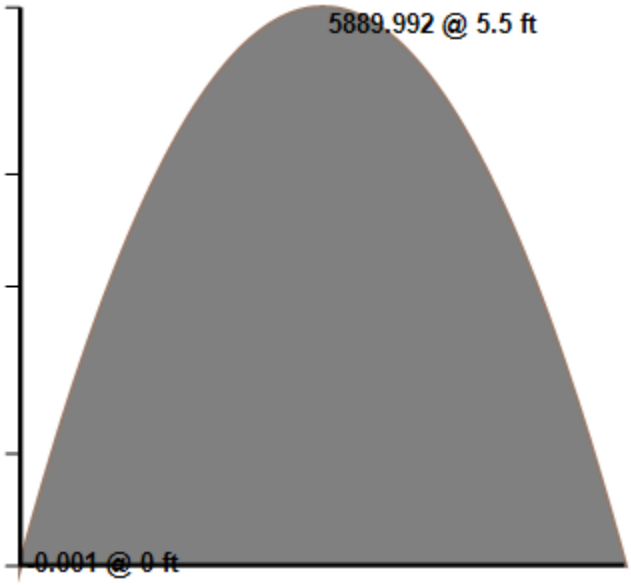
VMD DIAGRAMS

Load Combination: ASD

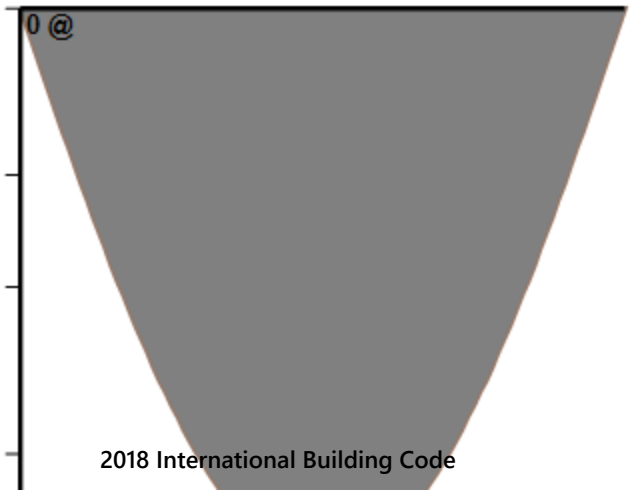
Y - Shear



Y - Moment



Y - Deflection



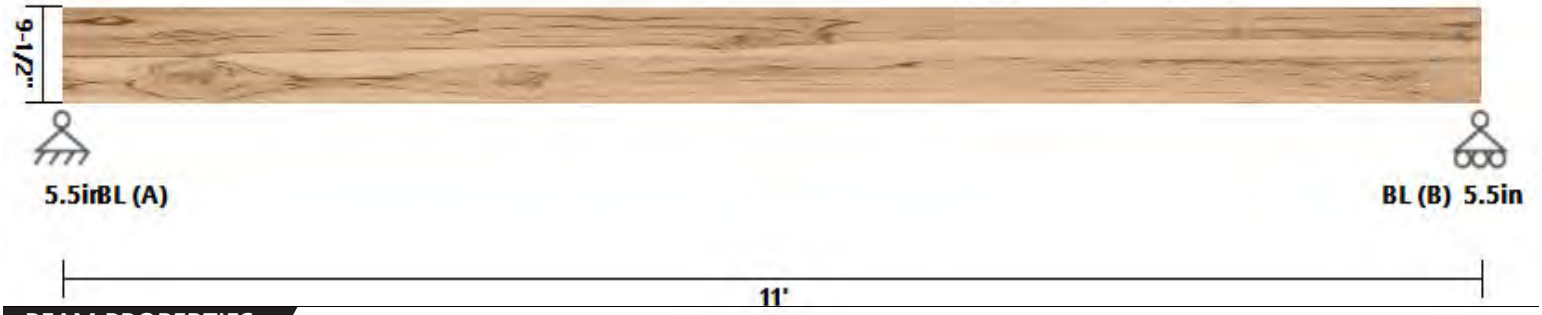
Roof Beam LOAD DIAGRAM

PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Beam #9	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 #9 DIAGRAM



BEAM PROPERTIES

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

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr 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⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End 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)	PASS (80.9%)	37.4	195.5	0	D+S	1.15
Bending Stress Y (psi)	PASS (68.7%)	315.2	1006.3	3.3	D+S	1.15
Deflection Y (in)	PASS (91.8%)	0.060 (=L/2200)	0.733 (=L/180)	4.84	S	0
Bearing Stress (psi)	PASS (93.1%)	43.0	625.0	0	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	258	6	1043	1307
B	108	6	232	346

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	11	Live	Y
Self Weight (lbf/ft)	-	11.92	11.92	0	11	Dead	Y

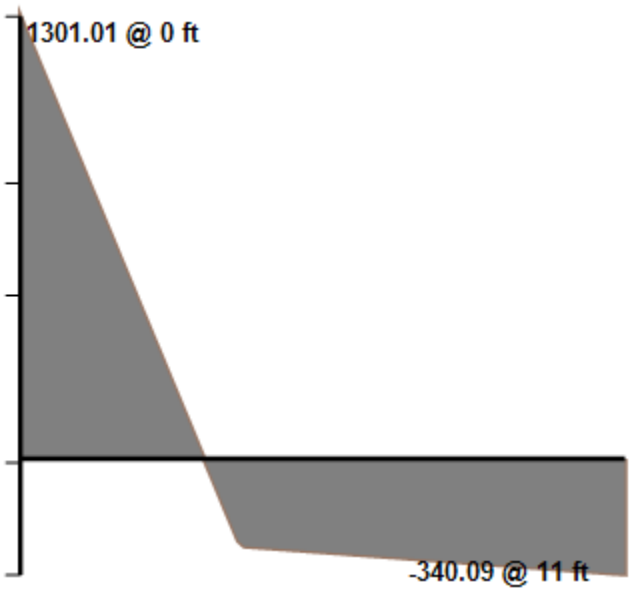
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Deck Joists #2	B	58.754	58.754	0	4	Dead	Y
Uniform (lbf/ft)	Deck Joists #2	B	318.75	318.75	0	4	Snow	Y

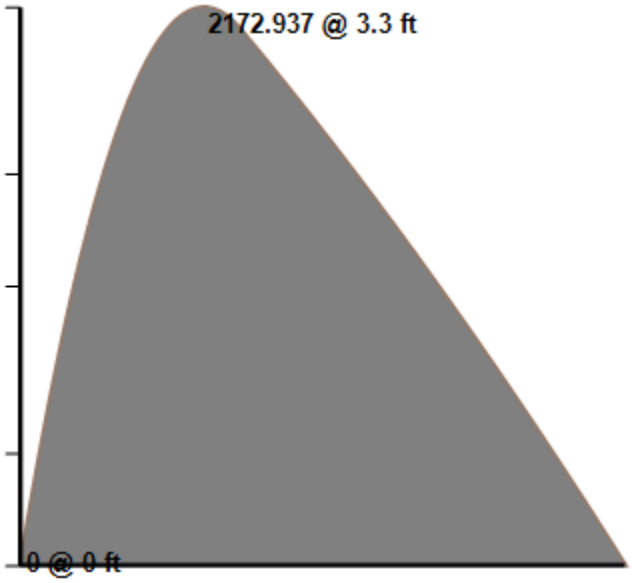
VMD DIAGRAMS

Load Combination: ASD

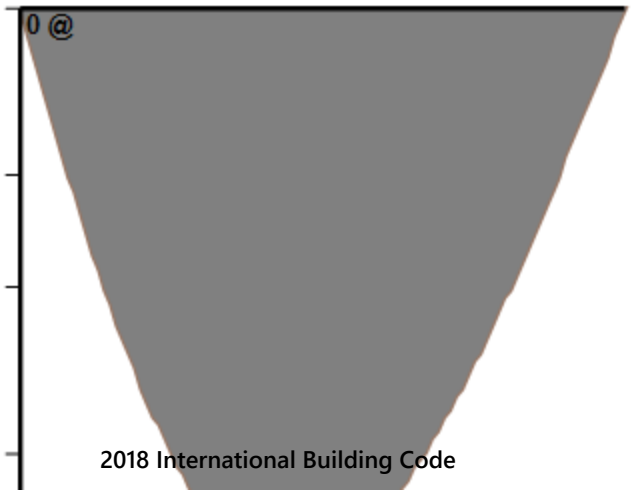
Y - Shear



Y - Moment



Y - Deflection



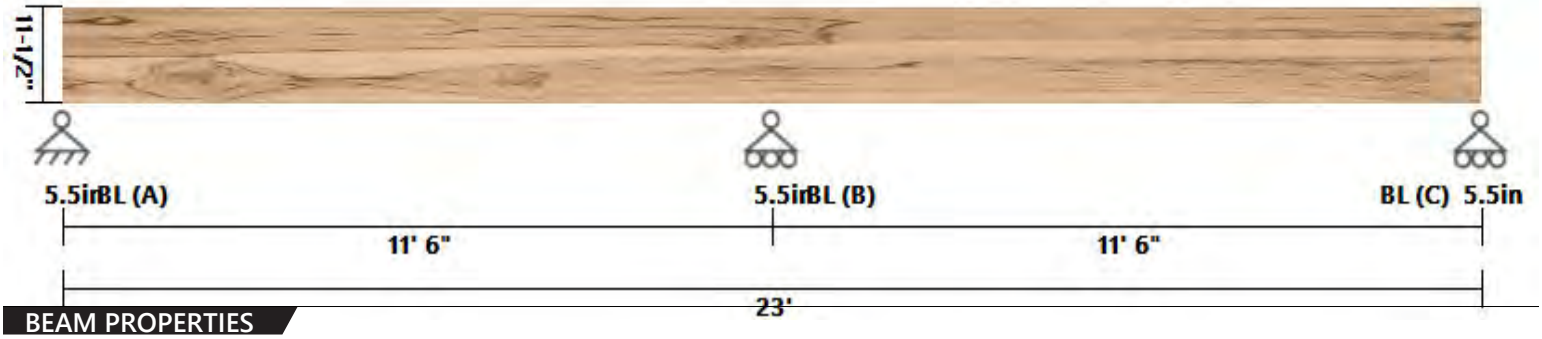
Roof Beam LOAD DIAGRAM

PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Floor - 1st Level	LOADING:	ASD
MEMBER NAME:	Beam #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 11.5	DRY		

Beam #10 DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 23 Member Slope: 0/12 Actual Length (ft): 23

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	G	Kcr Creep Factor
63.25	697.07	159.44	14.43	1	0.5	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	875	425	170	600	625	1300	470
Adjusted Values	875	425	170	600	625	1300	470
C_M	1	1	1	1	1	1	1
C_T	1	1	1	1	1	1	1
C_i	1	1	1	1	1	1	1
C_F	1	1	1	1	1	1	1

Bending Adjustment Factors C_{fu} = 1 C_r = 1

BEAM DATA

Span	Length (ft)	Unbraced Length (ft) Top	Unbraced Length (ft) Bottom	Beam End Elev. Diff (ft)	CL(Top)	CL(Bottom)	CL(Left)	CL(Right)
1	11.5	0	11.5	0				
2	11.5	0	11.5	0				

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	DURATION FACTOR CD
Shear Stress Y (psi)	PASS (47.1%)	103.3	195.5	11.5	D+S	1.15
Bending Stress Y (psi)	PASS (20.2%)	795.6	997.4	11.5	D+S	1.15
Deflection Y (in)	PASS (83.6%)	0.126 (=L/2190)	0.767 (=L/360)	5.29	S	0
Bearing Stress (psi)	PASS (62.7%)	248.9	667.6	11.5	D+S	1.15

REACTIONS

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

Y axis	DEAD	LIVE	SNOW	TOTAL
A	513	4	2446	2963
B	1347	14	6182	7543
C	198	4	738	940

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)	Uniform	1	1	0	23	Live	Y
Self Weight (lbf/ft)	-	14.43	14.43	0	23	Dead	Y

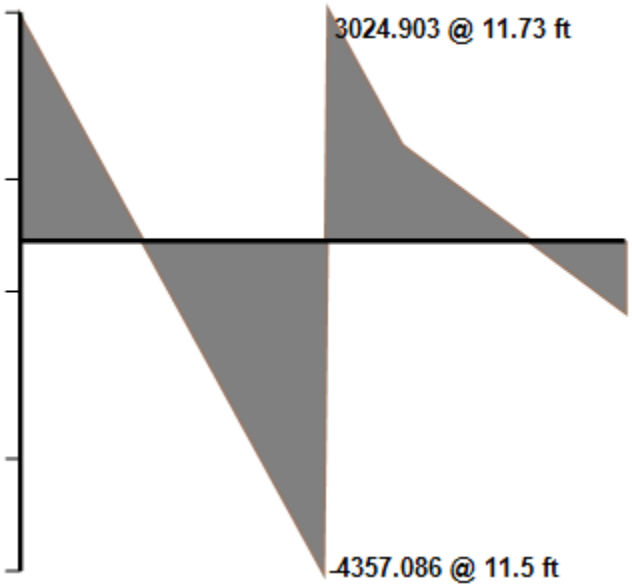
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Deck Joists #2	A	58.754	58.754	0	14.5	Dead	Y
Uniform (lbf/ft)	Deck Joists #2	A	318.75	318.75	0	14.5	Snow	Y
Uniform (lbf/ft)	Deck Joists #3	B	38.018	38.018	0	23	Dead	Y
Uniform (lbf/ft)	Deck Joists #3	B	206.25	206.25	0	23	Snow	Y

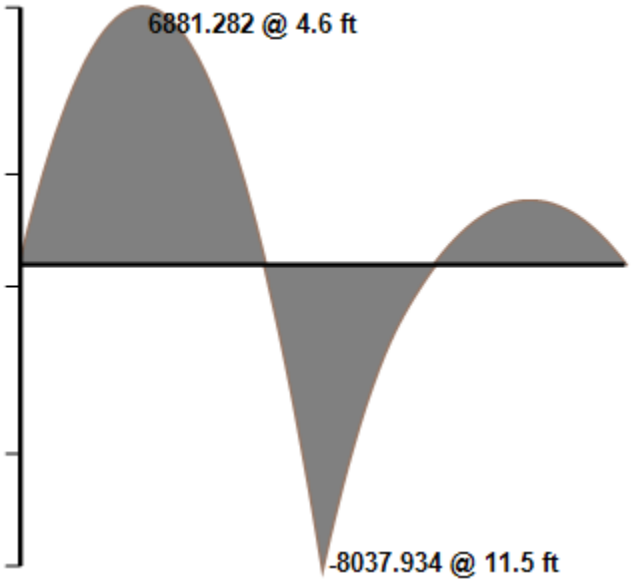
VMD DIAGRAMS

Load Combination: ASD

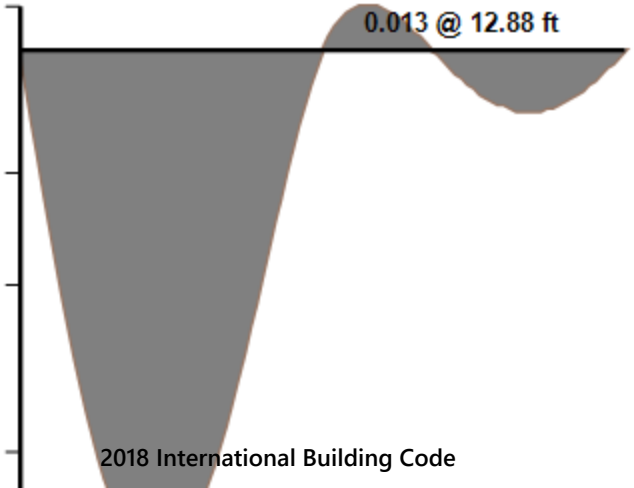
Y - Shear



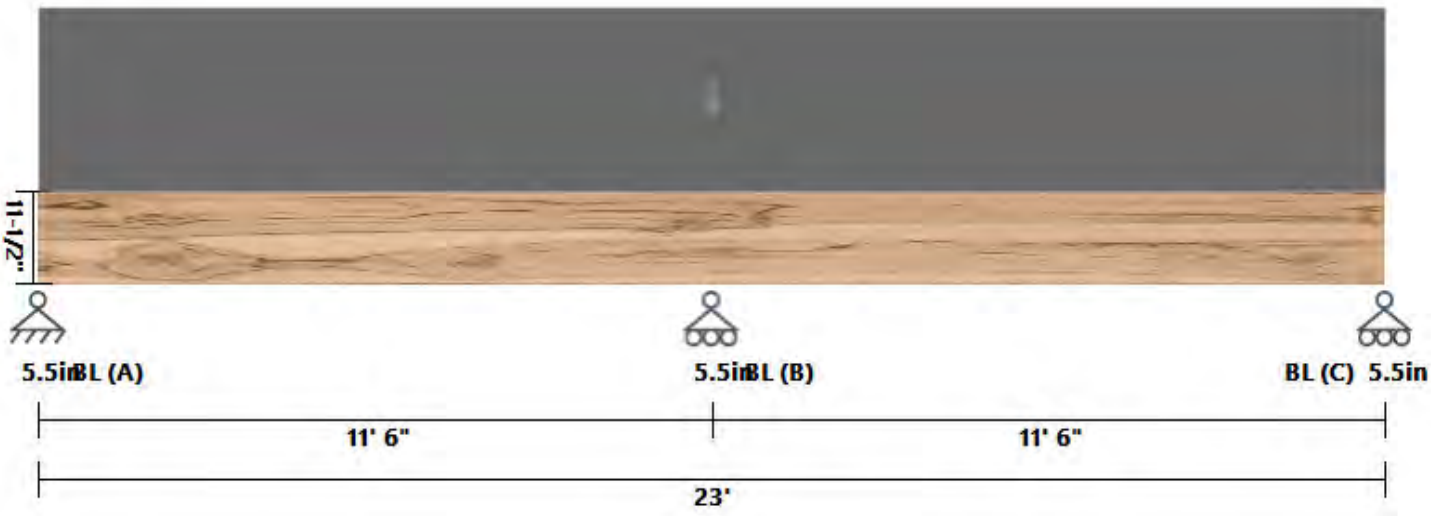
Y - Moment



Y - Deflection



Roof Beam LOAD DIAGRAM



PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #1	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 (lb/ft)	Stemwall Weight (lb/ft)
2.5	10	302.0833	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (11.2%)	1332.3	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (94.0%)	1180.2	19718.0	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (93.1%)	780.4	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.5	2.5	D	LRFD

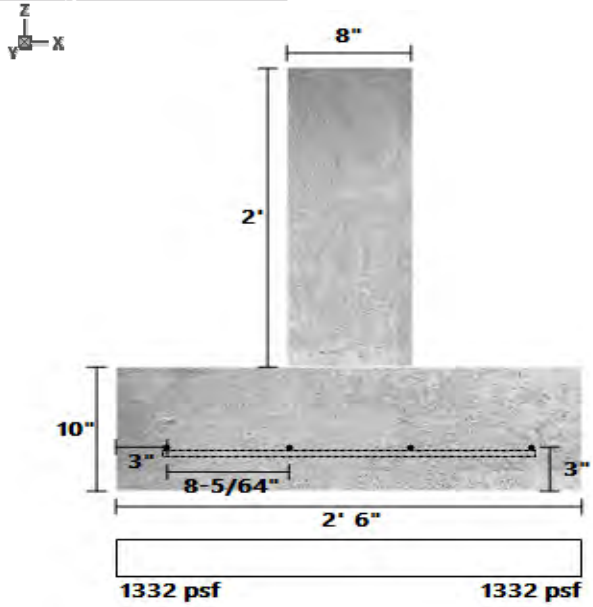
LOAD LIST

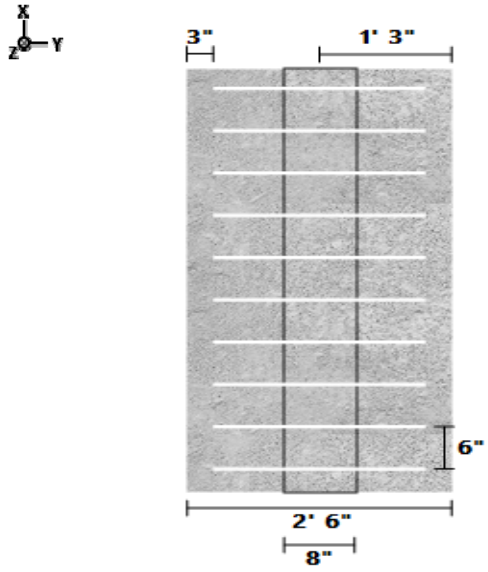
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	C	435.332	435.332	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #1	C	280	280	0	1	Live	Z
Uniform (lbf/ft)	Trusses #1	C	2400.031	2400.031	0	1	Snow	Z

Footing #1 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #2	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 (lb/ft)	Stemwall Weight (lb/ft)
3	10	362.5	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (5.6%)	1416.0	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (92.5%)	1763.5	23661.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (87.9%)	1355.5	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	3.0	3.0	D	LRFD

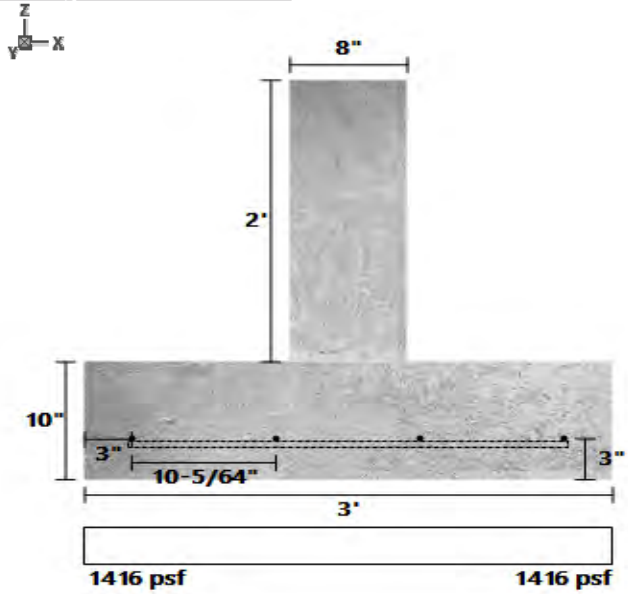
LOAD LIST

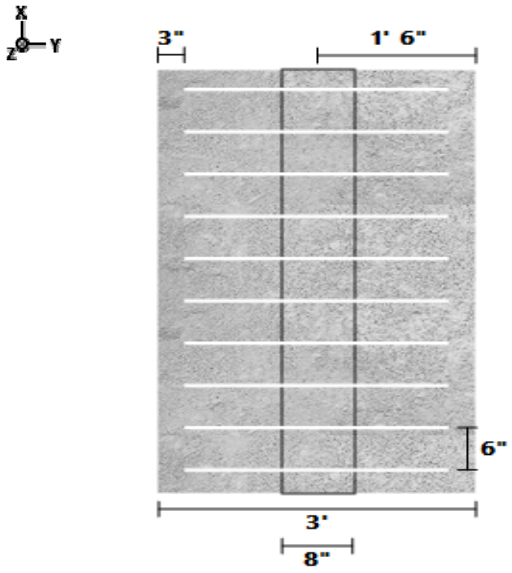
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #1	B	435.3369	435.3369	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #1	B	280.0049	280.0049	0	1	Live	Z
Uniform (lbf/ft)	Trusses #1	B	2400.029	2400.029	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #2	A	97.95585	97.95585	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #2	A	758.929	758.929	0	1	Snow	Z

Footing #2 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #3	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 (lb/ft)	Stemwall Weight (lb/ft)
1.333	10	161.0708	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (19.3%)	1211.2	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (99.3%)	76.3	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (99.3%)	81.6	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	1.3	1.3	D	LRFD

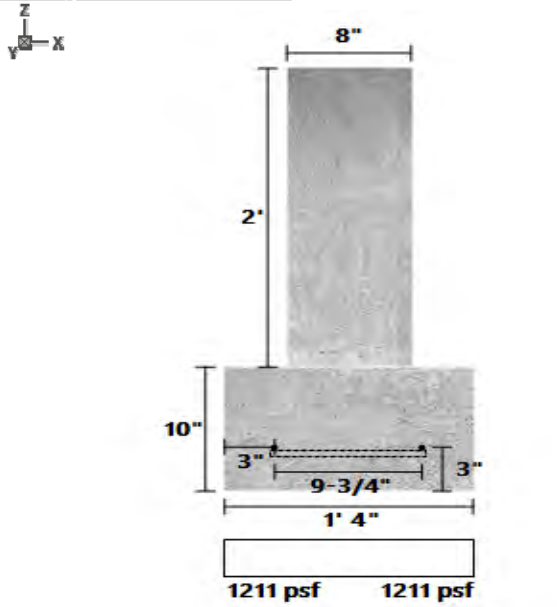
LOAD LIST

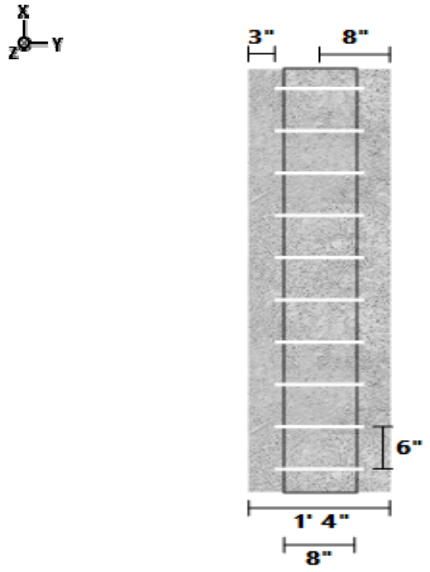
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #2	B	144.0526	144.0526	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #2	B	1116.069	1116.069	0	1	Snow	Z

Footing #3 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #4	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 (lb/ft)	Stemwall Weight (lb/ft)
2.5	10	302.0833	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (19.3%)	1210.5	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (95.0%)	985.7	19718.0	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (94.2%)	651.7	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.5	2.5	D	LRFD

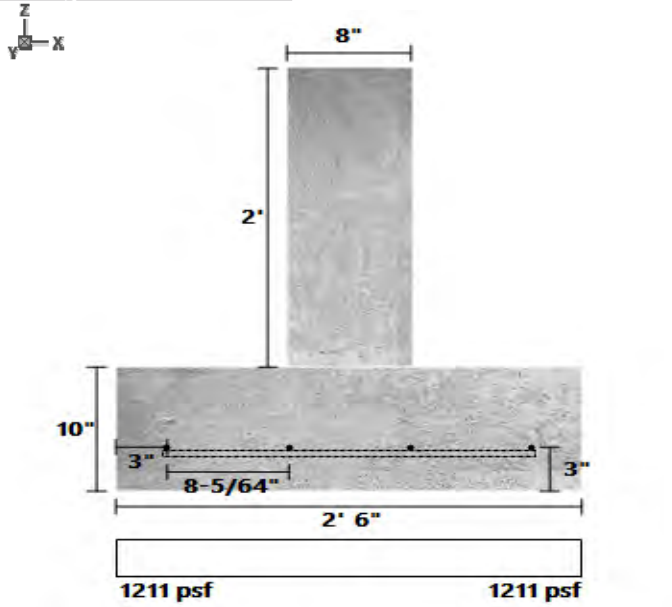
LOAD LIST

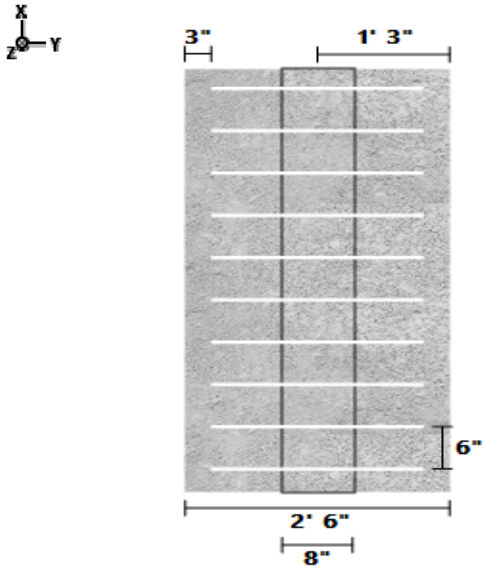
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #3	B	430.9367	430.9367	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #3	B	2099.999	2099.999	0	1	Snow	Z

Footing #4 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #5	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 (lb/ft)	Stemwall Weight (lb/ft)
3	10	362.5	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (5.0%)	1425.3	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (92.7%)	1723.5	23661.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (88.2%)	1324.7	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	3.0	3.0	D	LRFD

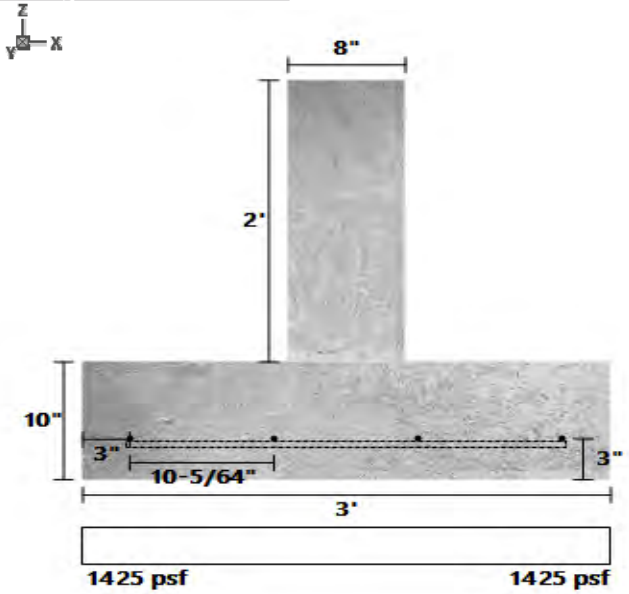
LOAD LIST

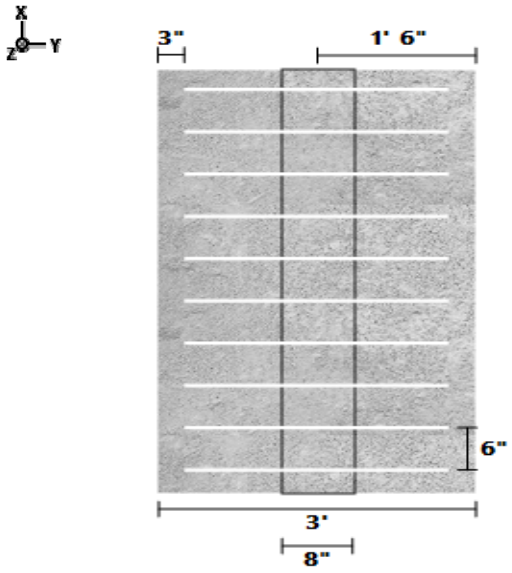
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #3	C	430.9375	430.9375	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #3	C	2100	2100	0	1	Snow	Z
Uniform (lbf/ft)	Rafters #1	A	130.4531	130.4531	0	1	Dead	Z
Uniform (lbf/ft)	Rafters #1	A	1016.518	1016.518	0	1	Snow	Z
Uniform (lbf/ft)	Joists #6	D	42.08105	42.08105	0	1	Dead	Z
Uniform (lbf/ft)	Joists #6	D	128.0032	128.0032	0	1	Live	Z

Footing #5 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing - WD-#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 (lb/ft)	Stemwall Weight (lb/ft)
2.5	10	302.0833	84.58334

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (30.2%)	1047.2	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (93.6%)	1260.5	19718.0	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (90.6%)	1061.1	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.5	2.5	D	LRFD

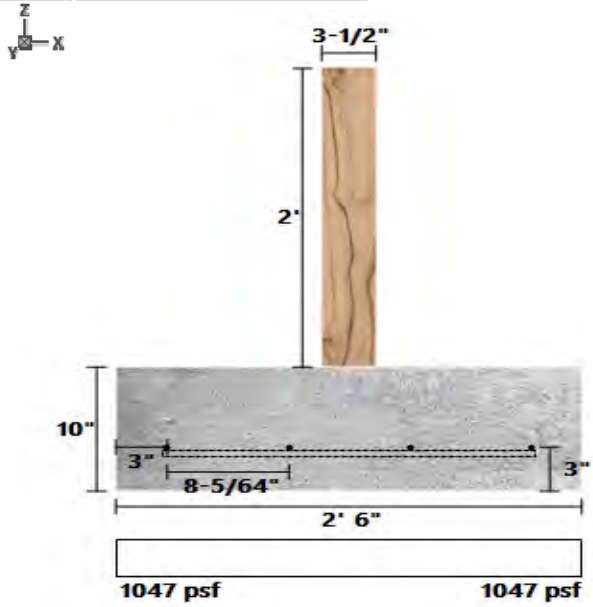
LOAD LIST

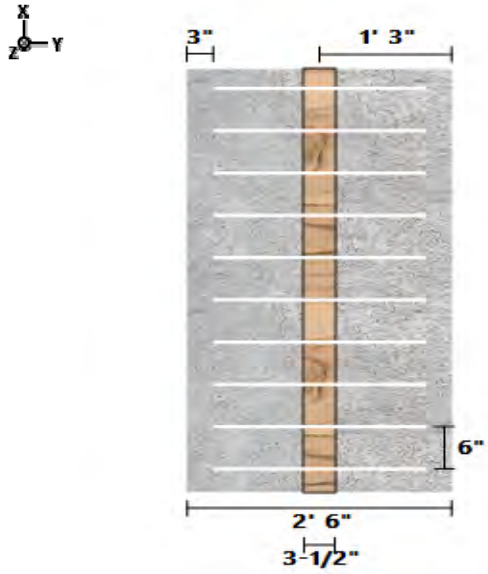
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #4	A	289.75	289.75	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #4	A	1800	1800	0	1	Snow	Z
Uniform (lbf/ft)	Joists #5	B	141.5981	141.5981	0	1	Dead	Z
Uniform (lbf/ft)	Joists #5	B	430.7167	430.7167	0	1	Live	Z

Footing - WD-#6 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing - WD-#7	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 (lb/ft)	Stemwall Weight (lb/ft)
2.5	10	302.0833	84.58334

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (31.3%)	1030.4	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (93.9%)	1201.7	19718.0	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (91.0%)	1011.7	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.5	2.5	D	LRFD

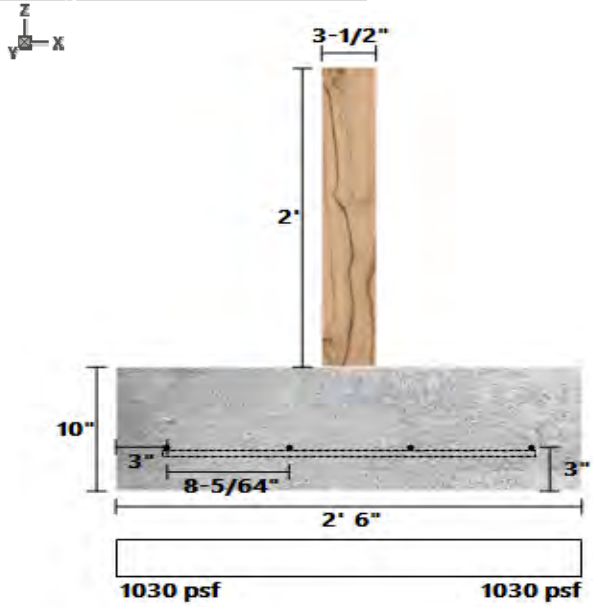
LOAD LIST

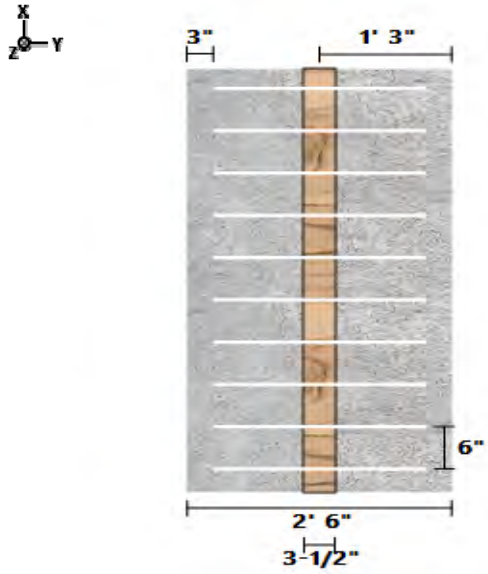
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #4	B	289.75	289.75	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #4	B	1800	1800	0	1	Snow	Z
Uniform (lbf/ft)	Joists #4	E	99.51359	99.51359	0	1	Dead	Z
Uniform (lbf/ft)	Joists #4	E	302.7029	302.7029	0	1	Live	Z

Footing - WD-#7 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #8	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 (lb/ft)	Stemwall Weight (lb/ft)
2.5	10	302.0833	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (9.7%)	1355.2	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (94.3%)	1126.5	19718.0	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (93.4%)	744.8	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.5	2.5	D	LRFD

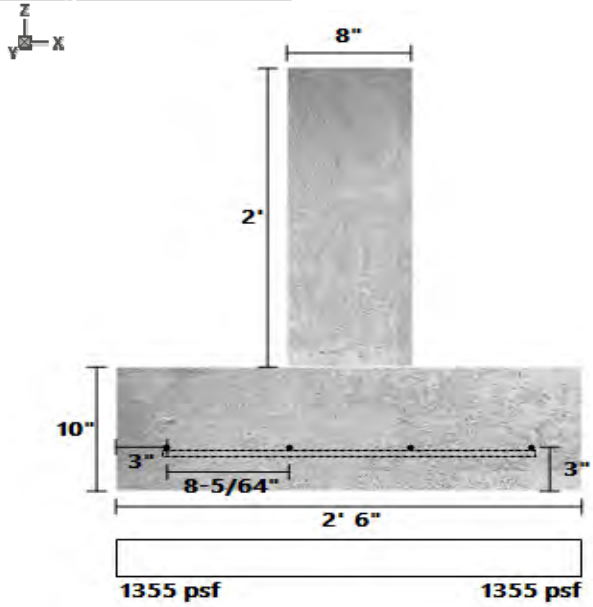
LOAD LIST

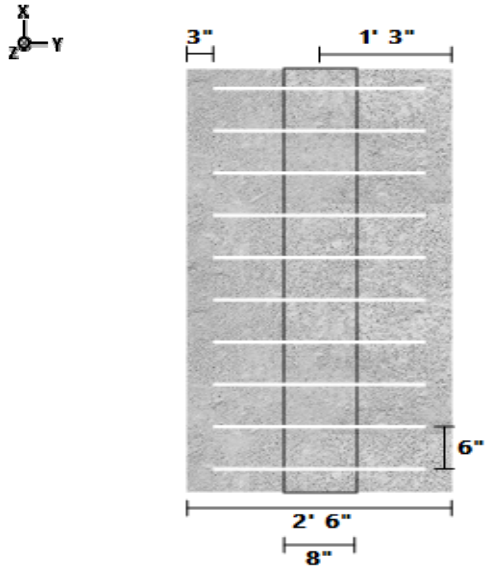
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #6	B	492.4973	492.4973	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #6	B	2399.987	2399.987	0	1	Snow	Z

Footing #8 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #9	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 (lb/ft)	Stemwall Weight (lb/ft)
2.5	10	302.0833	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (9.3%)	1360.3	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (94.3%)	1131.5	19718.0	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (93.3%)	748.2	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.5	2.5	D	LRFD

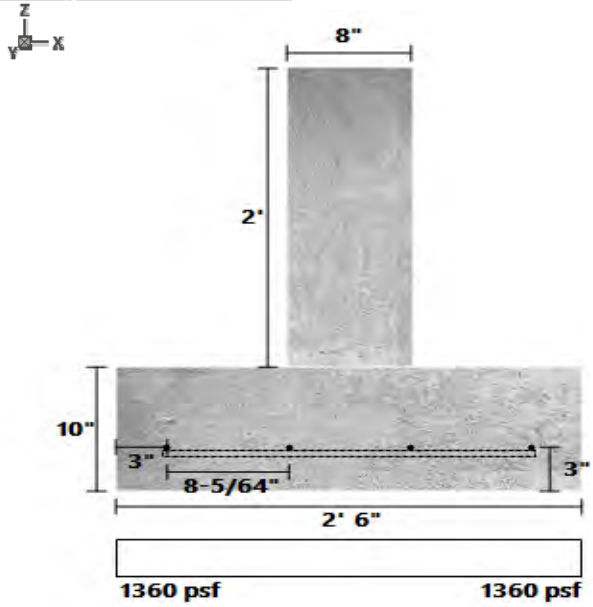
LOAD LIST

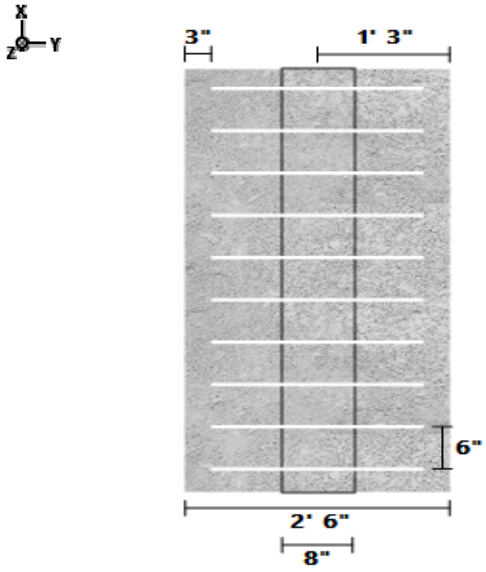
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

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	494.6992	494.6992	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #5	B	2410.719	2410.719	0	1	Snow	Z

Footing #9 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing - WD-#10	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 (lb/ft)	Stemwall Weight (lb/ft)
1.333	10	161.0708	84.58334

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (20.5%)	1192.0	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (96.4%)	374.6	10513.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (97.5%)	275.6	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	1.3	1.3	D	LRFD

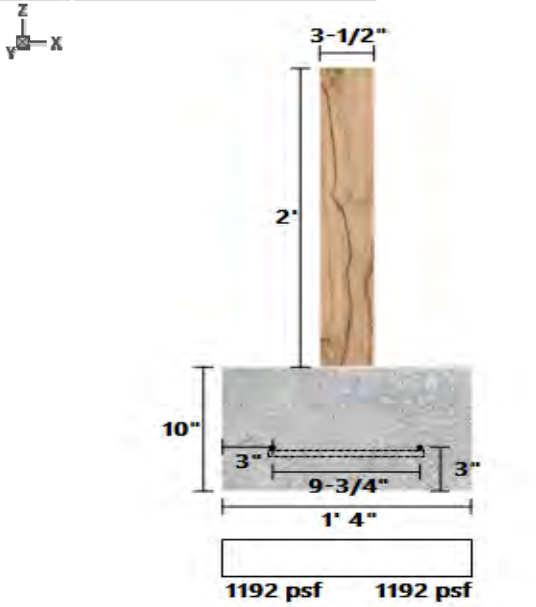
LOAD LIST

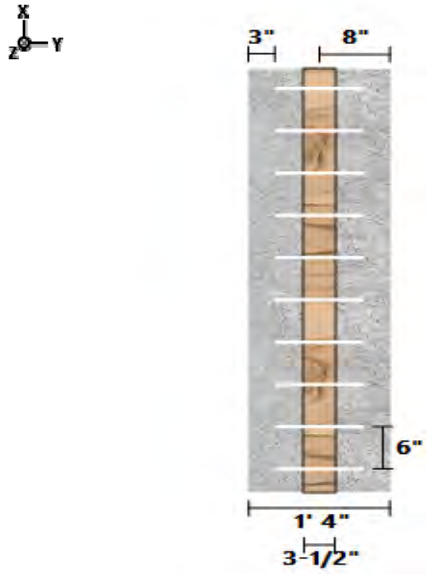
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #7	A	162.0118	162.0118	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #7	A	1181.251	1181.251	0	1	Snow	Z

Footing - WD-#10 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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 (lb/ft)	Stemwall Weight (lb/ft)
2	10	241.6667	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (27.9%)	1081.0	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (96.7%)	516.6	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (97.4%)	297.9	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.0	2.0	D	LRFD

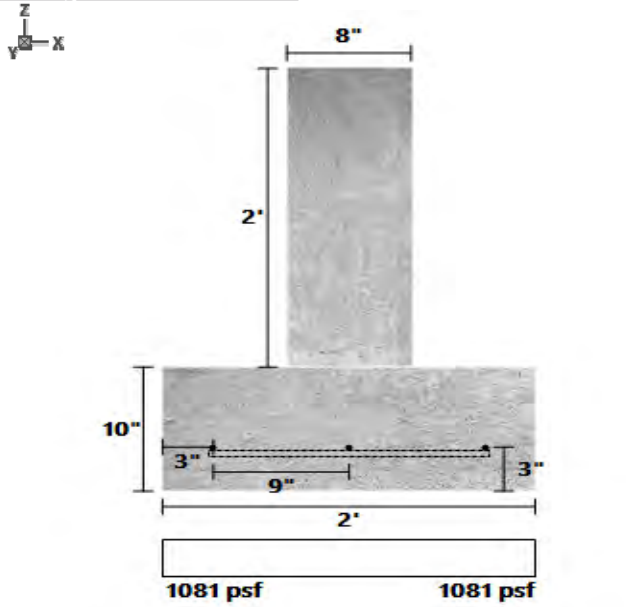
LOAD LIST

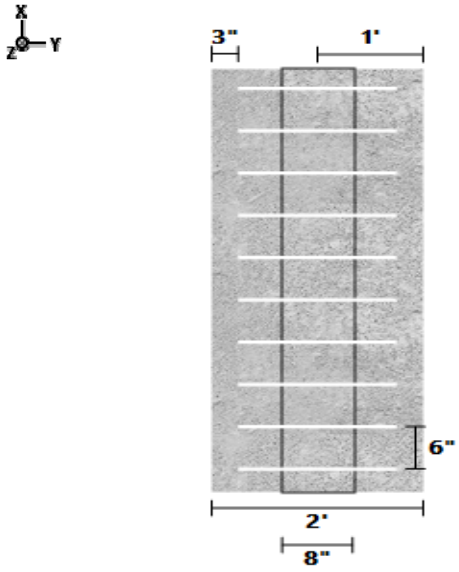
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #7	B	208.3008	208.3008	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #7	B	1518.754	1518.754	0	1	Snow	Z

Footing #11 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #12	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 (lb/ft)	Stemwall Weight (lb/ft)
2	10	241.6667	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (9.6%)	1356.1	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (95.7%)	677.1	15774.4	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (96.5%)	390.4	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	2.0	2.0	D	LRFD

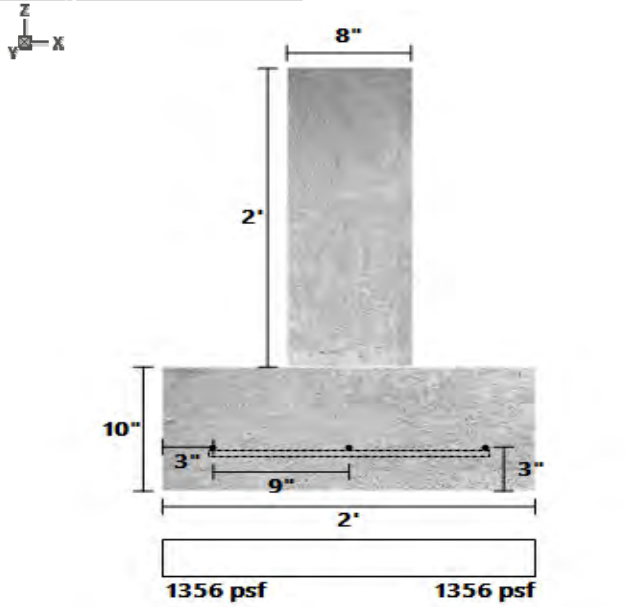
LOAD LIST

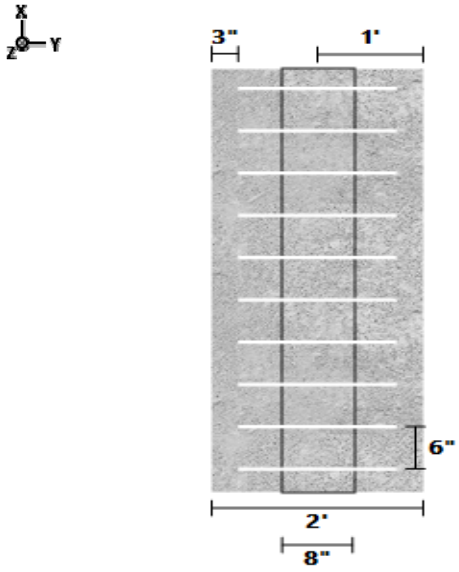
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #8	B	327.1664	327.1664	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #8	B	1949.997	1949.997	0	1	Snow	Z

Footing #12 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	Footing #13	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 (lb/ft)	Stemwall Weight (lb/ft)
3	10	362.5	193.3333

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	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^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (14.1%)	1289.2	1500.0	D+S	ASD
One-Way Shear (lbf)	PASS (93.6%)	1511.2	23661.6	1.2D+1.6S+L	LRFD
Moment (lbf-ft)	PASS (89.7%)	1161.6	11245.8	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	3.0	3.0	D	LRFD

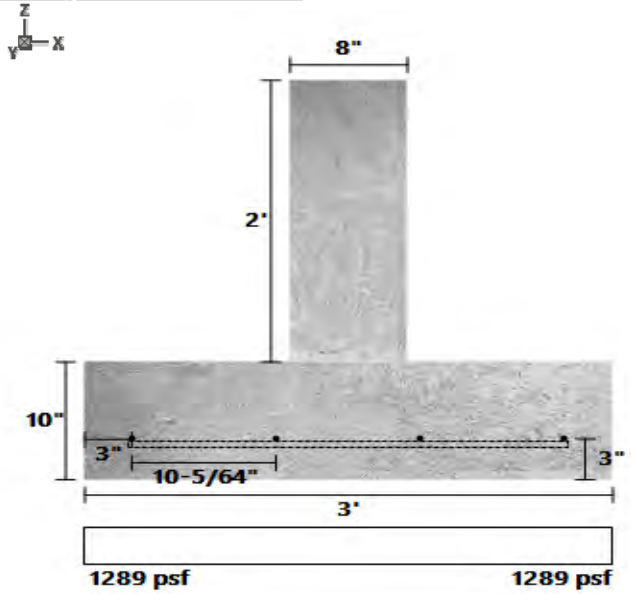
LOAD LIST

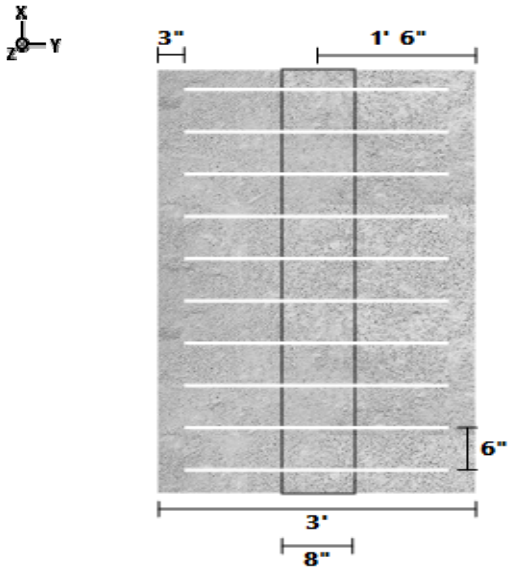
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Uniform	1	1	0	1	Live	Z

LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	Trusses #8	C	327.166	327.166	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #8	C	1949.984	1949.984	0	1	Snow	Z
Uniform (lbf/ft)	Trusses #9	A	121.015	121.015	0	1	Dead	Z
Uniform (lbf/ft)	Trusses #9	A	913.5003	913.5003	0	1	Snow	Z

Footing #13 DIAGRAMS





PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #2-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

2.5 (ft) X 2.5 (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^3)	Footing Weight (lb/ft)
2.5	2.5	10	5.21	755.21

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (13.7%)	1294.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (85.4%)	2881.3	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (85.4%)	2881.3	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (88.9%)	8595.9	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (89.0%)	1905.1	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (89.0%)	1905.1	17278.2	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (94.7%)	11336.2	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	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

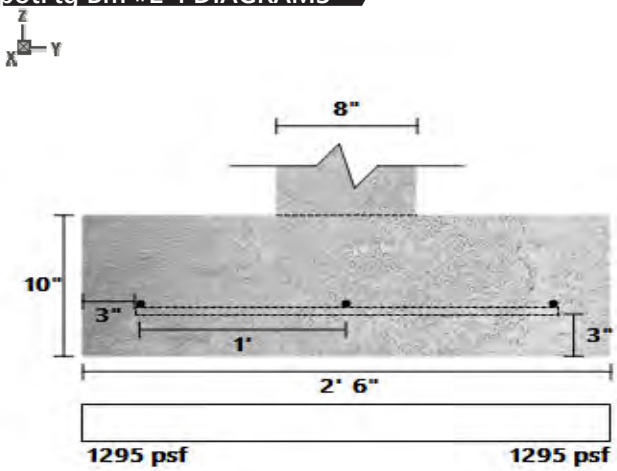
LINKED LOAD LIST

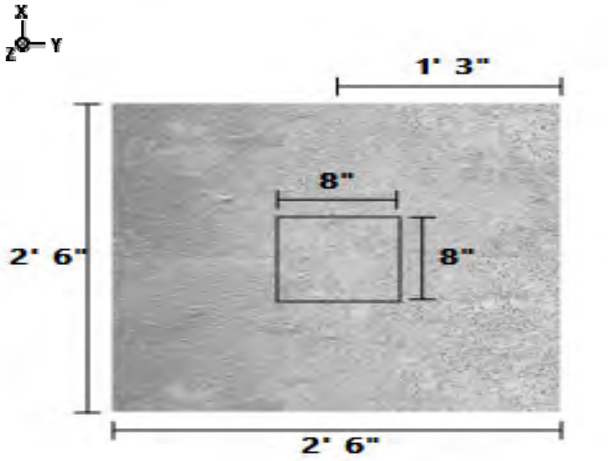
Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #2	A	664.3839	-	0	-	Dead	Z
Point (lbf)	Beam #2	A	4743.294	-	0	-	Snow	Z
Point (lbf)	Beam #7	A	352.8784	-	0	-	Dead	Z
Point (lbf)	Beam #7	A	5.25	-	0	-	Live	Z

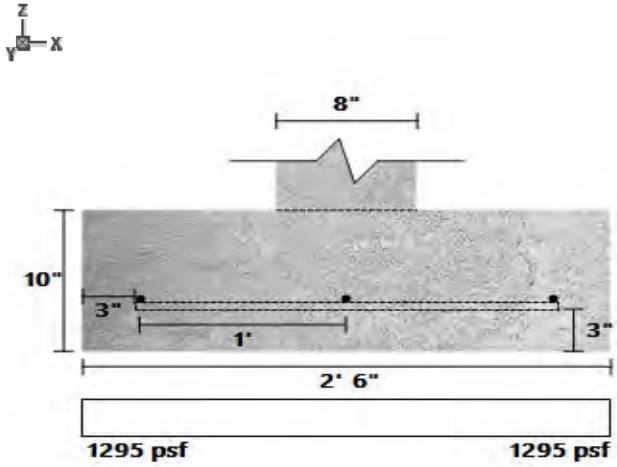
LINKED LOAD LIST CONT.

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #7	A	1575	-	0	-	Snow	Z

SpotFtg Bm #2-1 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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		

2.5 (ft) X 2.5 (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^3)	Footing Weight (lb/ft)
2.5	2.5	10	5.21	755.21

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (34.3%)	986.1	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (89.2%)	2131.8	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (89.2%)	2131.8	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (91.8%)	6360.0	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (91.8%)	1409.6	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (91.8%)	1409.6	17278.2	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (96.0%)	8387.5	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	6.3	6.3	D	LRFD

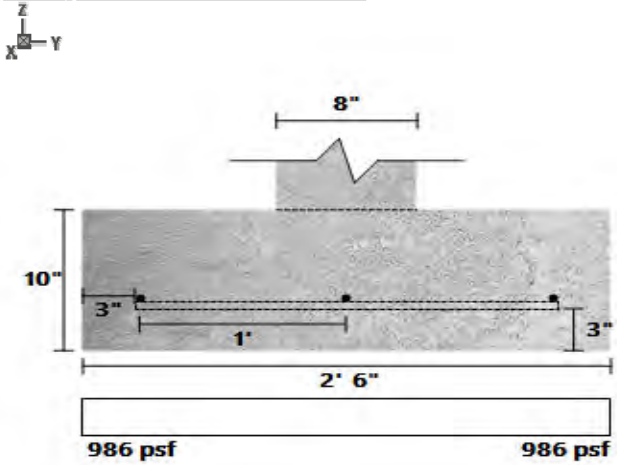
LOAD LIST

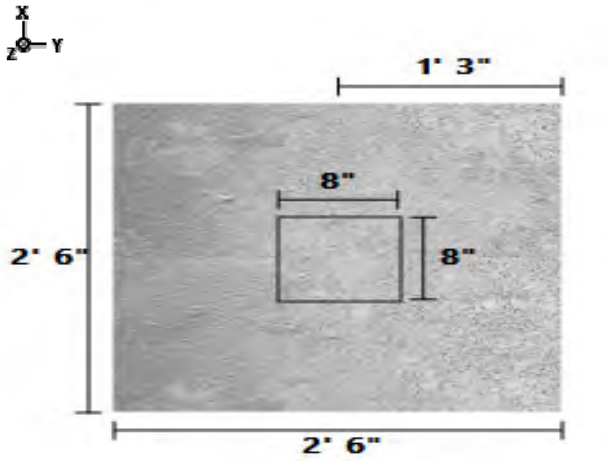
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

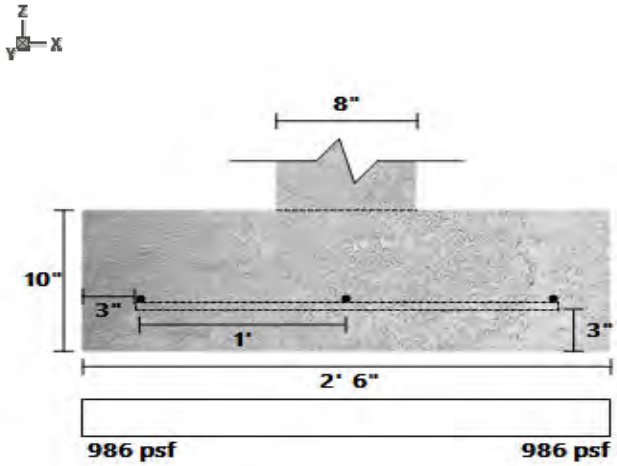
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #2	B	664.3839	-	0	-	Dead	Z
Point (lbf)	Beam #2	B	4743.295	-	0	-	Snow	Z

SpotFtg Bm #2-2 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #3-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

3 (ft) X 3 (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^3)	Footing Weight (lb/ft)
3	3	10	7.5	1087.5

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (2.8%)	1457.8	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (76.8%)	5494.0	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (76.8%)	5494.0	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (80.0%)	15490.0	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (81.6%)	4222.8	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (81.6%)	4222.8	22946.6	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (91.2%)	18615.0	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	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

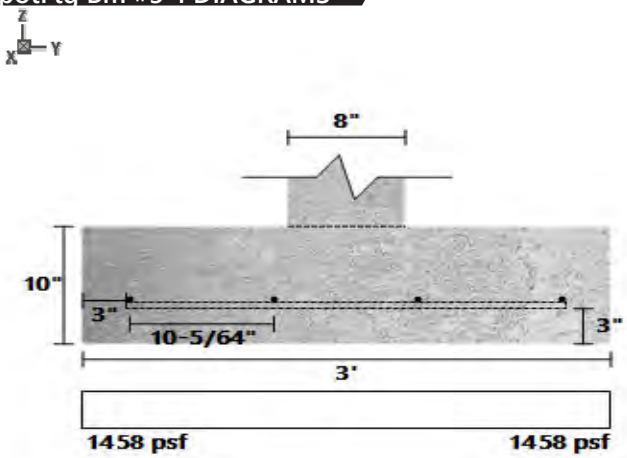
LINKED LOAD LIST

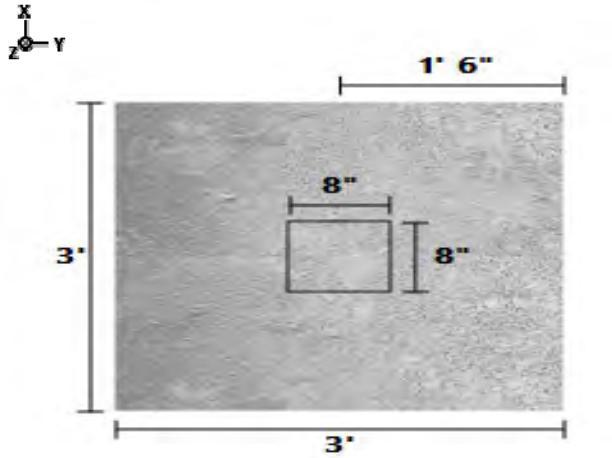
Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #3	B	1234.238	-	0	-	Dead	Z
Point (lbf)	Beam #3	B	5.935132	-	0	-	Live	Z
Point (lbf)	Beam #3	B	8656.269	-	0	-	Snow	Z
Point (lbf)	Beam #8	A	388.6909	-	0	-	Dead	Z

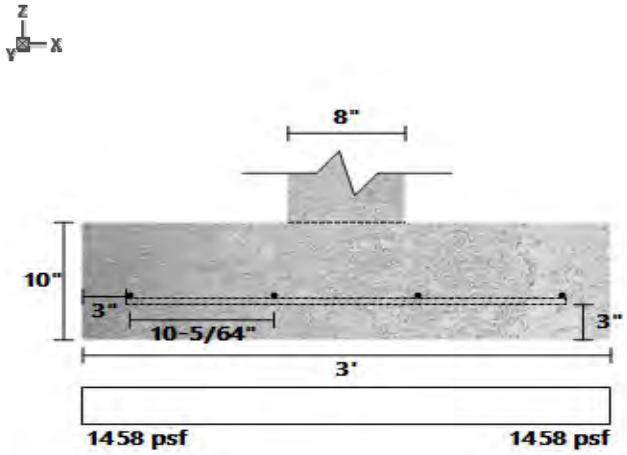
LINKED LOAD LIST CONT.

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #8	A	5.5	-	0	-	Live	Z
Point (lbf)	Beam #8	A	1753.125	-	0	-	Snow	Z

SpotFtg Bm #3-1 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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		

5 (ft) X 5 (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^3)	Footing Weight (lb/ft)
5	5	10	20.83	3020.83

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (19.5%)	1206.9	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (59.8%)	15847.9	39436.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (59.8%)	15847.9	39436.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (49.1%)	39487.8	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (42.9%)	19729.7	34556.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (42.9%)	19729.7	34556.4	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (80.2%)	42027.7	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	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

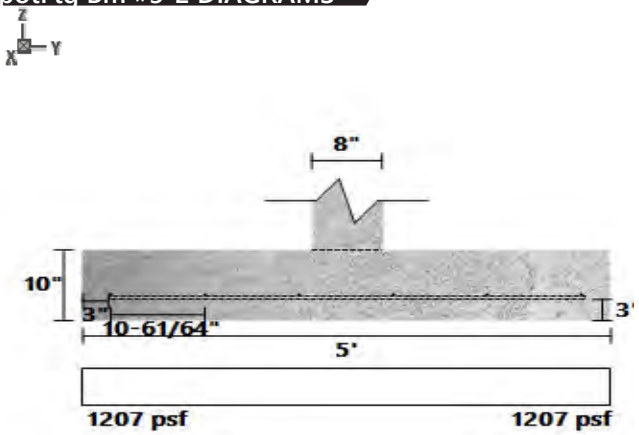
LINKED LOAD LIST

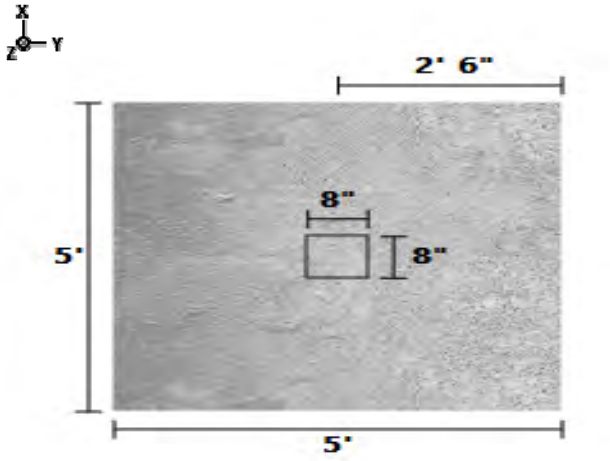
Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #3	C	2958.696	-	0	-	Dead	Z
Point (lbf)	Beam #3	C	14.22758	-	0	-	Live	Z
Point (lbf)	Beam #3	C	20750.67	-	0	-	Snow	Z
Point (lbf)	Beam #8	B	388.6909	-	0	-	Dead	Z

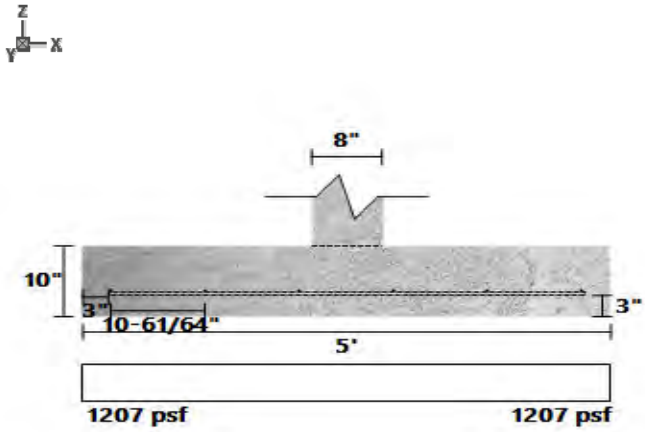
LINKED LOAD LIST CONT.

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #8	B	5.5	-	0	-	Live	Z
Point (lbf)	Beam #8	B	1753.125	-	0	-	Snow	Z
Point (lbf)	Beam #9	A	257.8289	-	0	-	Dead	Z
Point (lbf)	Beam #9	A	5.499998	-	0	-	Live	Z
Point (lbf)	Beam #9	A	1043.182	-	0	-	Snow	Z

SpotFtg Bm #3-2 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #3-3	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

2.5 (ft) X 2.5 (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^3)	Footing Weight (lb/ft)
2.5	2.5	10	5.21	755.21

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (11.2%)	1331.7	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (84.9%)	2976.6	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (84.9%)	2976.6	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (88.6%)	8880.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (88.6%)	1968.1	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (88.6%)	1968.1	17278.2	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (94.5%)	11711.1	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	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

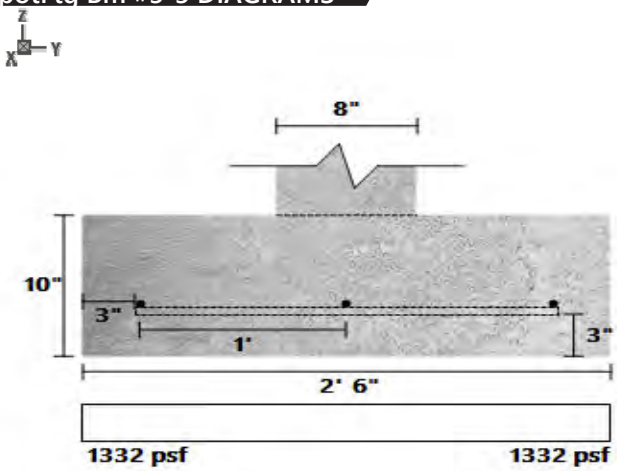
LINKED LOAD LIST

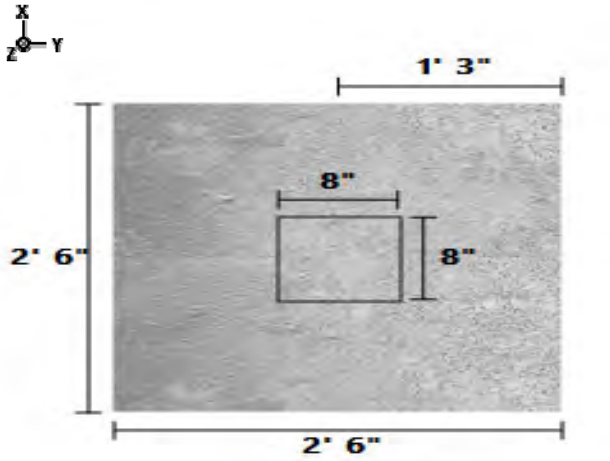
Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #3	D	901.9624	-	0	-	Dead	Z
Point (lbf)	Beam #3	D	6325.87	-	0	-	Snow	Z
Point (lbf)	Beam #9	B	108.2722	-	0	-	Dead	Z
Point (lbf)	Beam #9	B	5.500001	-	0	-	Live	Z

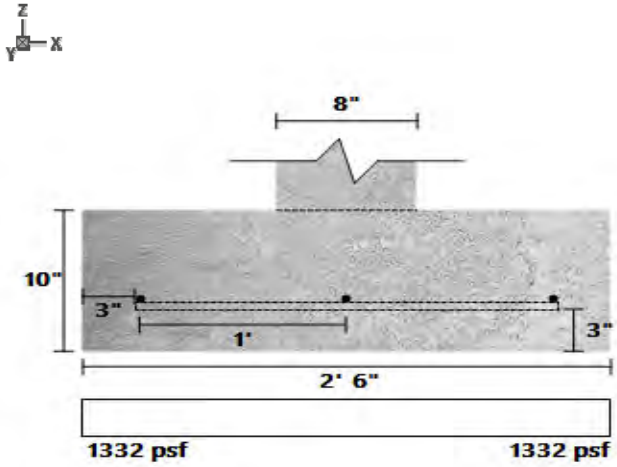
LINKED LOAD LIST CONT.

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #9	B	231.8183	-	0	-	Snow	Z

SpotFtg Bm #3-3 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #4-1	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

3 (ft) X 3 (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^3)	Footing Weight (lb/ft)
3	3	10	7.5	1087.5

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (3.4%)	1448.7	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (76.9%)	5464.4	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (76.9%)	5464.4	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (80.1%)	15406.5	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (81.7%)	4200.1	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (81.7%)	4200.1	22946.6	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (91.3%)	18514.6	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	9.0	9.0	D	LRFD

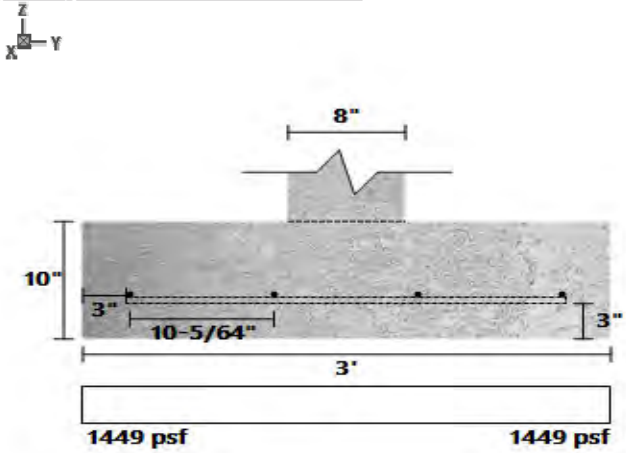
LOAD LIST

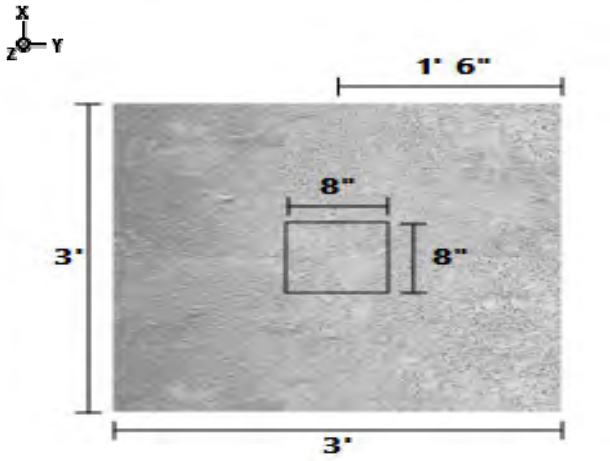
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

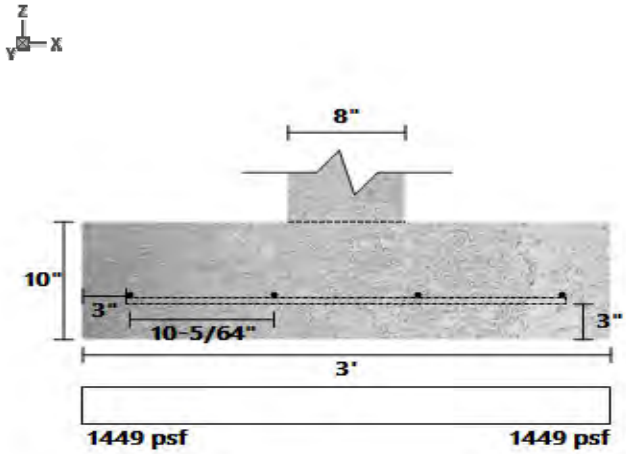
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #4	B	1536.552	-	0	-	Dead	Z
Point (lbf)	Beam #4	B	6.857149	-	0	-	Live	Z
Point (lbf)	Beam #4	B	10414.31	-	0	-	Snow	Z

SpotFtg Bm #4-1 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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		

3 (ft) X 3 (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^3)	Footing Weight (lb/ft)
3	3	10	7.5	1087.5

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (25.6%)	1116.7	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (82.7%)	4098.4	23661.6	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (82.7%)	4098.4	23661.6	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (85.1%)	11555.1	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (86.3%)	3150.1	22946.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (86.3%)	3150.1	22946.6	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (93.5%)	13886.2	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	9.0	9.0	D	LRFD

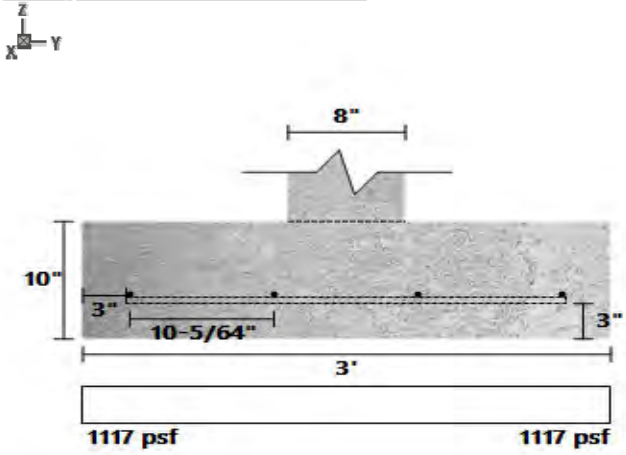
LOAD LIST

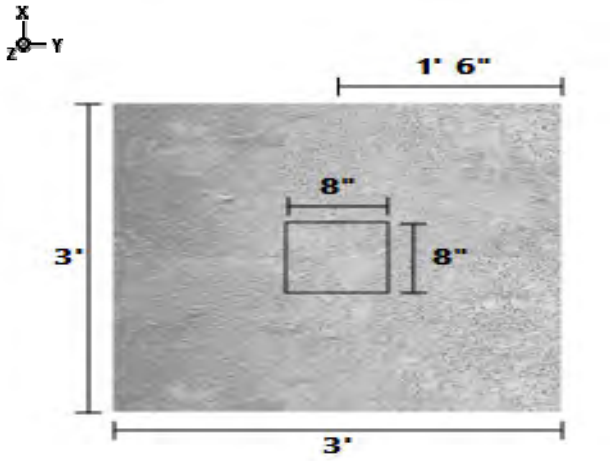
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

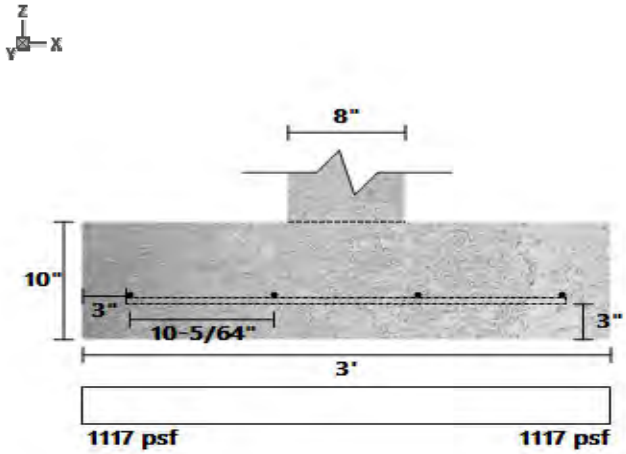
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #4	C	1152.414	-	0	-	Dead	Z
Point (lbf)	Beam #4	C	5.14286	-	0	-	Live	Z
Point (lbf)	Beam #4	C	7810.738	-	0	-	Snow	Z

SpotFtg Bm #4-2 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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		

2.5 (ft) X 2.5 (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^3)	Footing Weight (lb/ft)
2.5	2.5	10	5.21	755.21

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (17.7%)	1234.6	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (86.1%)	2739.4	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (86.1%)	2739.4	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (89.5%)	8172.6	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (89.5%)	1811.3	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (89.5%)	1811.3	17278.2	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (94.9%)	10778.0	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	6.3	6.3	D	LRFD

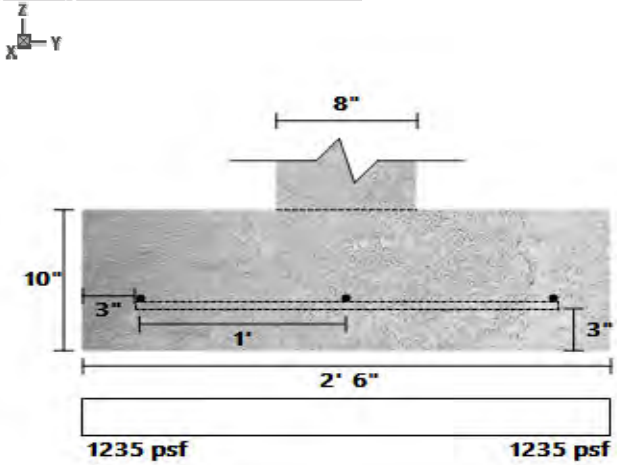
LOAD LIST

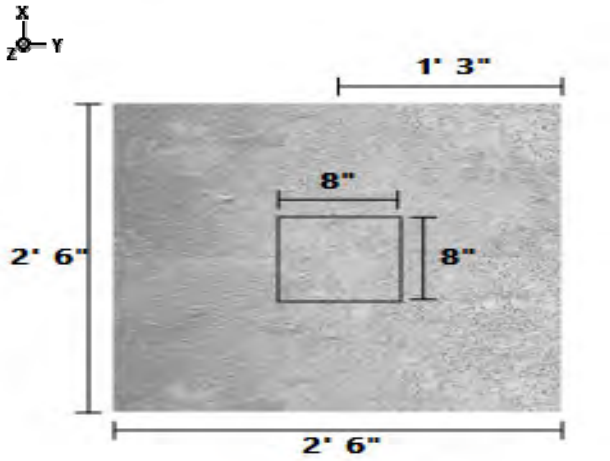
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

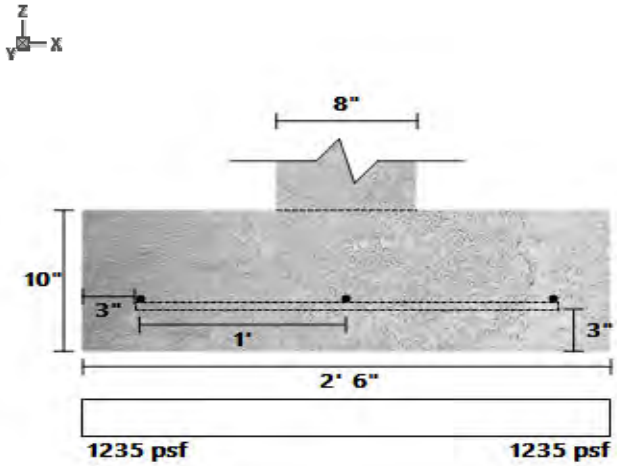
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #5	A	902.4546	-	0	-	Dead	Z
Point (lbf)	Beam #5	A	6058.801	-	0	-	Snow	Z

SpotFtg Bm #5-1 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #5-2	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

4 (ft) X 4 (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^3)	Footing Weight (lb/ft)
4	4	10	13.33	1933.33

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (1.2%)	1481.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (63.0%)	11678.8	31548.8	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (63.0%)	11678.8	31548.8	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (60.6%)	30535.3	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (59.3%)	11708.1	28754.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (59.3%)	11708.1	28754.4	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (84.1%)	33719.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	16.0	16.0	D	LRFD

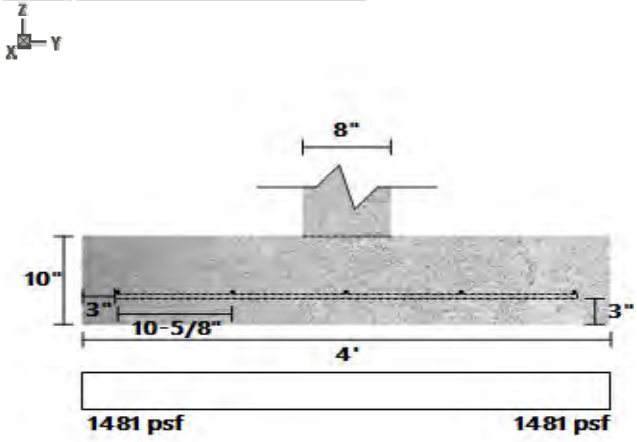
LOAD LIST

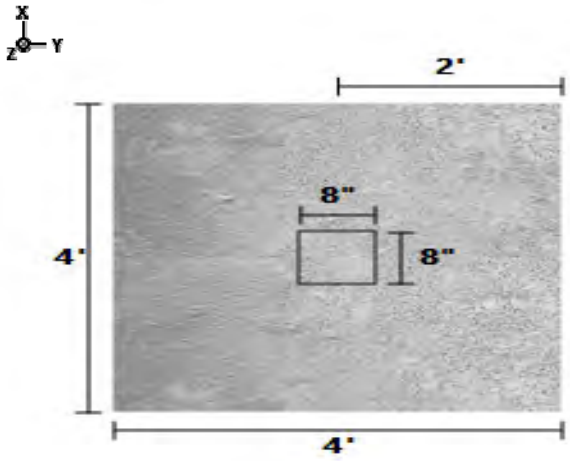
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

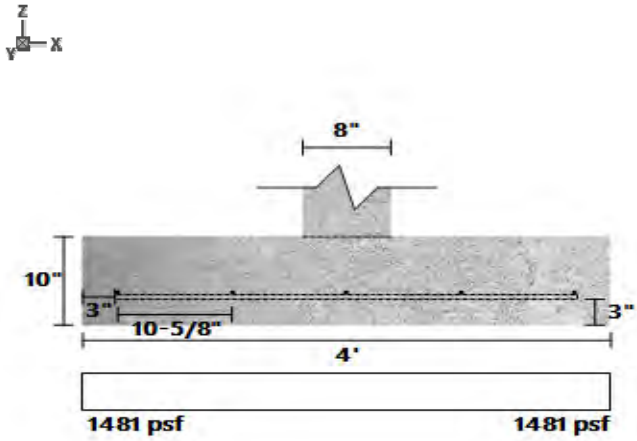
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #5	B	2822.27	-	0	-	Dead	Z
Point (lbf)	Beam #5	B	15.02011	-	0	-	Live	Z
Point (lbf)	Beam #5	B	18947.85	-	0	-	Snow	Z

SpotFtg Bm #5-2 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #5-3	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

3.5 (ft) X 3.5 (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^3)	Footing Weight (lb/ft)
3.5	3.5	10	10.21	1480.21

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (21.1%)	1183.3	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (76.3%)	6537.0	27605.2	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (76.3%)	6537.0	27605.2	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (77.2%)	17665.5	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (75.0%)	5777.4	23076.6	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (75.0%)	5777.4	23076.6	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (90.5%)	20150.8	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	12.3	12.3	D	LRFD

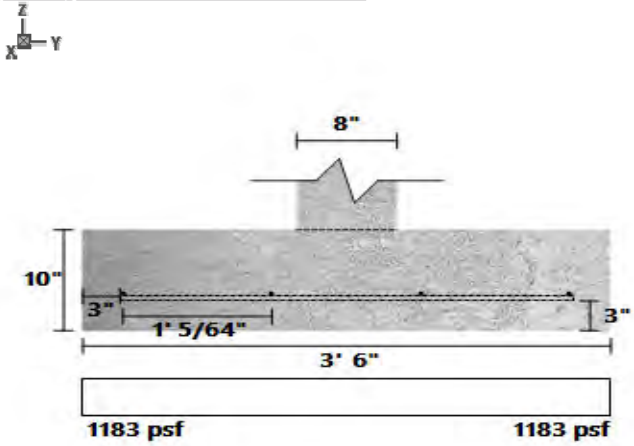
LOAD LIST

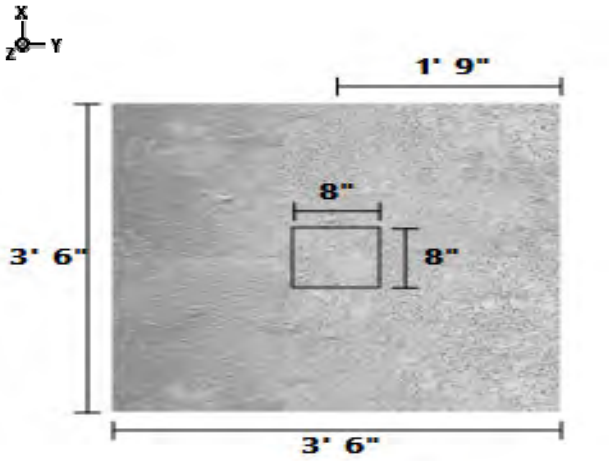
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

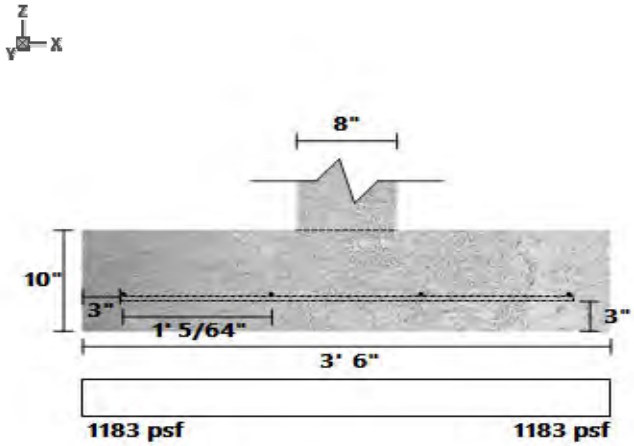
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #5	C	784.86	-	0	-	Dead	Z
Point (lbf)	Beam #5	C	5269.307	-	0	-	Snow	Z
Point (lbf)	Beam #6	A	902.4546	-	0	-	Dead	Z
Point (lbf)	Beam #6	A	6058.801	-	0	-	Snow	Z

SpotFtg Bm #5-3 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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		

4 (ft) X 4 (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^3)	Footing Weight (lb/ft)
4	4	10	13.33	1933.33

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (1.2%)	1481.5	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (63.0%)	11678.8	31548.8	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (63.0%)	11678.8	31548.8	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (60.6%)	30535.3	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (59.3%)	11708.1	28754.4	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (59.3%)	11708.1	28754.4	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (84.1%)	33719.3	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	16.0	16.0	D	LRFD

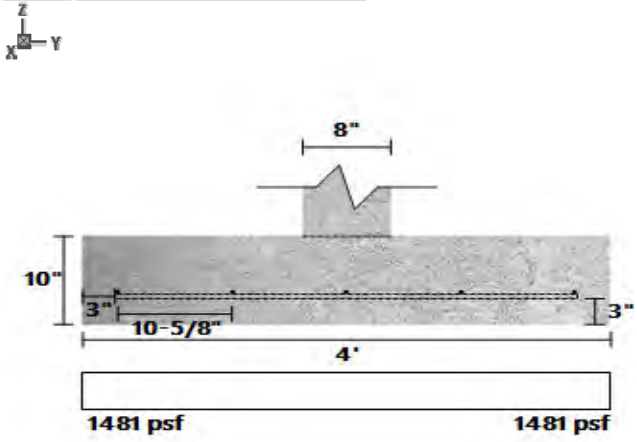
LOAD LIST

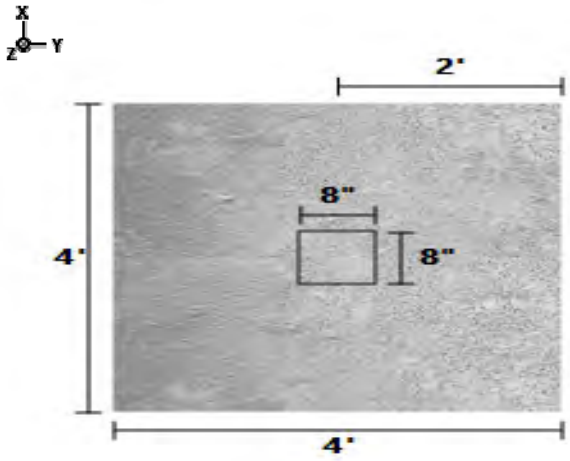
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

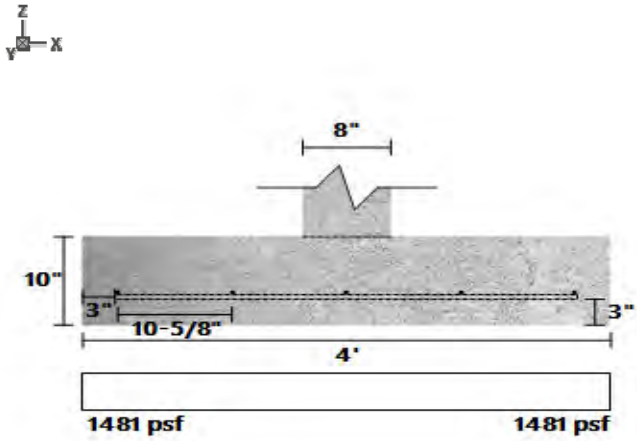
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #6	B	2822.27	-	0	-	Dead	Z
Point (lbf)	Beam #6	B	15.02011	-	0	-	Live	Z
Point (lbf)	Beam #6	B	18947.85	-	0	-	Snow	Z

SpotFtg Bm #6-2 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #6-3	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

2.5 (ft) X 2.5 (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^3)	Footing Weight (lb/ft)
2.5	2.5	10	5.21	755.21

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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

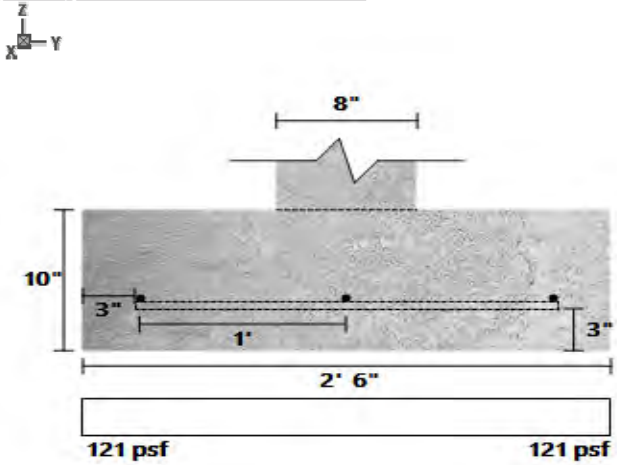
PASS-FAIL

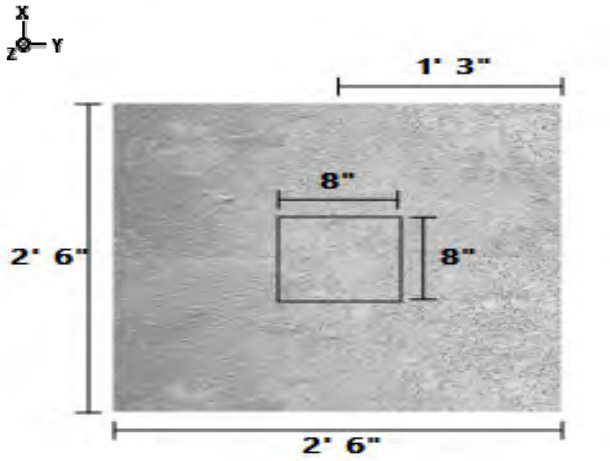
	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lbf/ft^2)	PASS (91.9%)	121.0	1500.0	D+L	ASD
One-Way Shear X (lbf)	PASS (100.0%)	0.4	19718.0	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	PASS (100.0%)	0.4	19718.0	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf)	PASS (100.0%)	1.2	77557.5	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	PASS (100.0%)	0.3	17278.2	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	PASS (100.0%)	0.3	17278.2	1.2D+1.6L+0.5Lr	LRFD
Crushing (lbf)	PASS (100.0%)	1.6	212160.0	1.2D+1.6L+0.5Lr	LRFD
Compression (ft^2)	PASS (100.0%)	6.3	6.3	D	LRFD

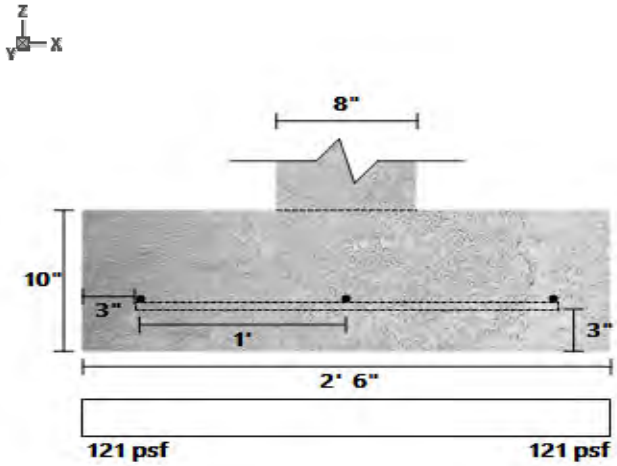
LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

SpotFtg Bm #6-3 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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		

2 (ft) X 2 (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^3)	Footing Weight (lb/ft)
2	2	10	3.33	483.33

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (59.8%)	602.8	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (96.4%)	568.4	15774.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (96.4%)	568.4	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (97.6%)	1835.6	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (98.1%)	327.7	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (98.1%)	327.7	17124.7	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (98.6%)	2949.7	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	4.0	4.0	D	LRFD

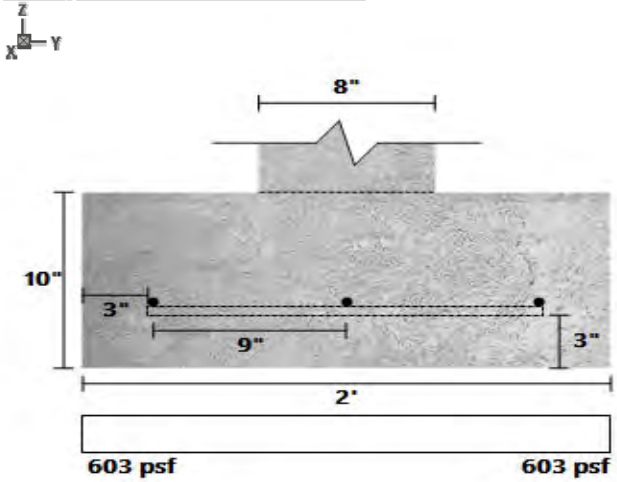
LOAD LIST

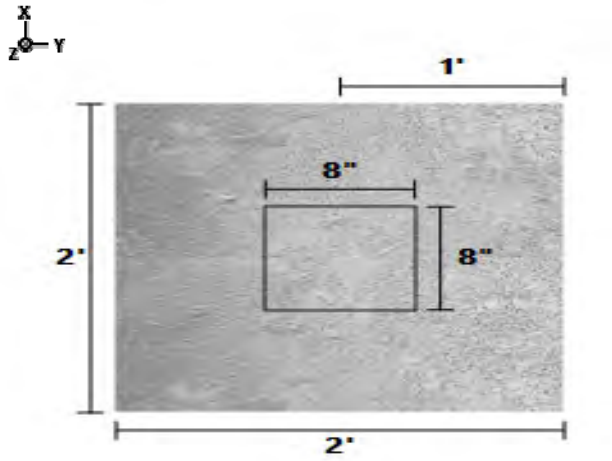
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

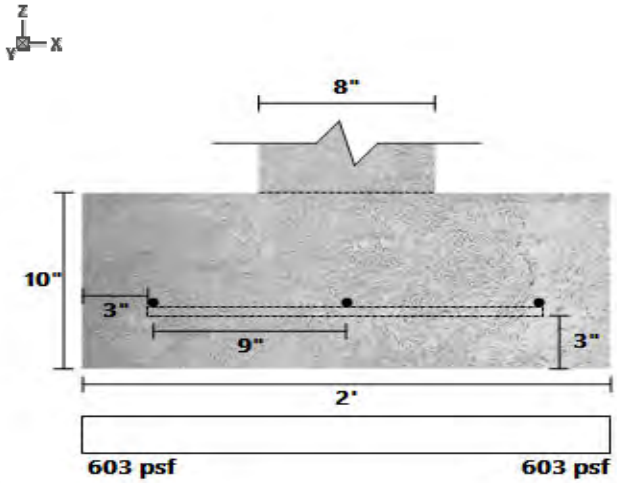
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #7	B	352.8784	-	0	-	Dead	Z
Point (lbf)	Beam #7	B	5.25	-	0	-	Live	Z
Point (lbf)	Beam #7	B	1575	-	0	-	Snow	Z

SpotFtg Bm #7-2 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	-- --	PROJECT NAME:	23-018 Hons
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		

2 (ft) X 2 (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^3)	Footing Weight (lb/ft)
2	2	10	3.33	483.33

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (42.6%)	860.6	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (94.5%)	873.1	15774.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (94.5%)	873.1	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (96.4%)	2819.3	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (97.1%)	503.4	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (97.1%)	503.4	17124.7	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (97.9%)	4530.5	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	4.0	4.0	D	LRFD

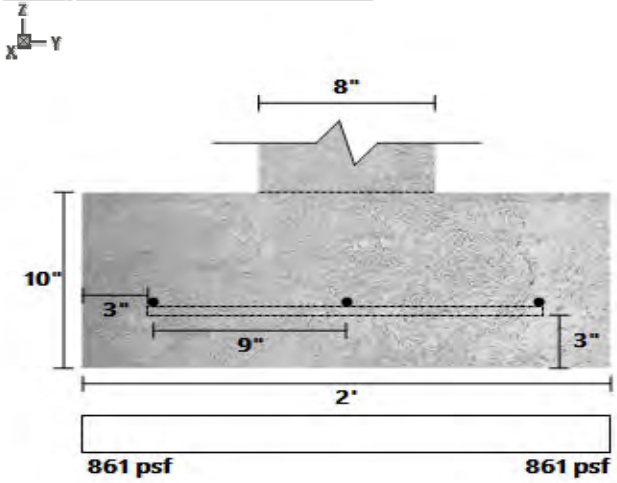
LOAD LIST

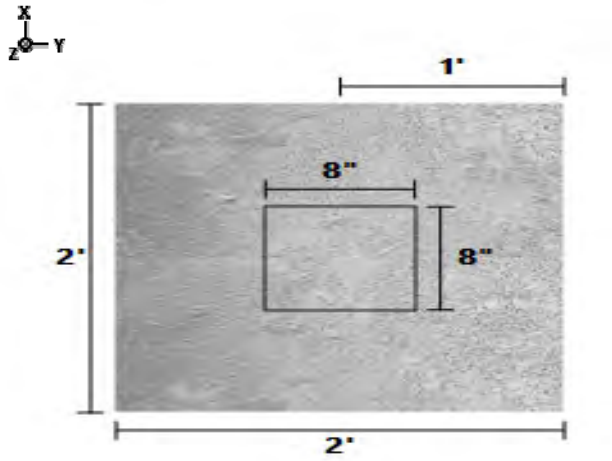
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

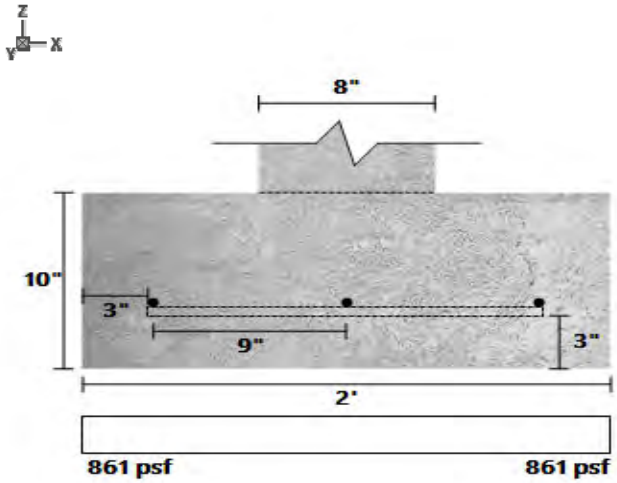
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #10	A	513.0942	-	0	-	Dead	Z
Point (lbf)	Beam #10	A	2446.09	-	0	-	Snow	Z

SpotFtg Bm #10-1 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
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		

2.5 (ft) X 2.5 (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^3)	Footing Weight (lb/ft)
2.5	2.5	10	5.21	755.21

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (11.6%)	1325.4	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (85.1%)	2928.5	19718.0	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (85.1%)	2928.5	19718.0	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (88.7%)	8736.7	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (88.8%)	1936.3	17278.2	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (88.8%)	1936.3	17278.2	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (94.6%)	11522.0	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	6.3	6.3	D	LRFD

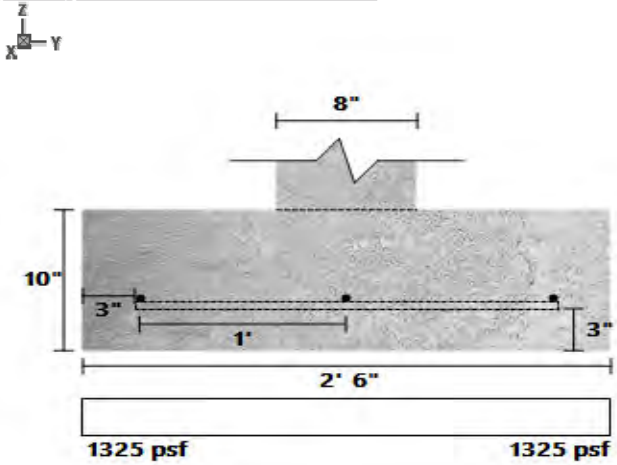
LOAD LIST

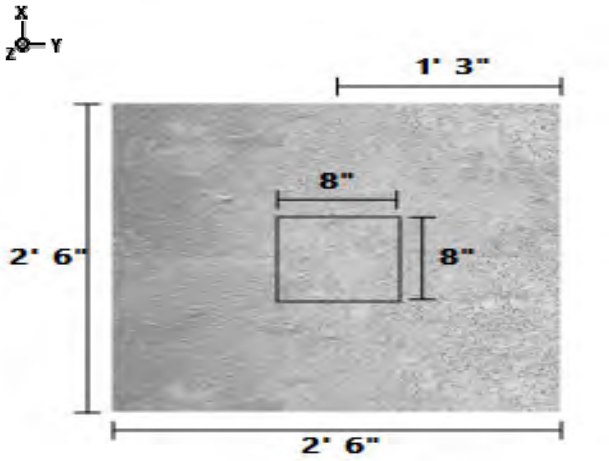
Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	1	-	0	-	Live	Z

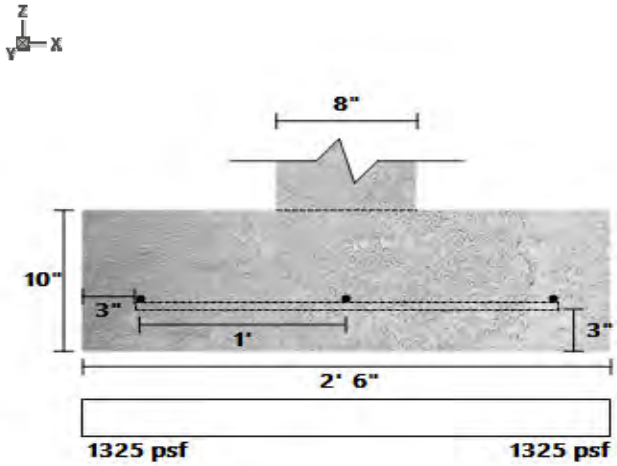
LINKED LOAD LIST

Type	Member	Support	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Beam #10	B	1346.786	-	0	-	Dead	Z
Point (lbf)	Beam #10	B	14.37462	-	0	-	Live	Z
Point (lbf)	Beam #10	B	6181.529	-	0	-	Snow	Z

SpotFtg Bm #10-2 DIAGRAMS







PASS

DATE:	5/13/2024	COMPANY:	SMC Design
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Stephen Curtis
CUSTOMER:		REVIEWED BY:	Stephen Curtis
PROJ. ADDRESS:	--	PROJECT NAME:	23-018 Hons
	--		
LEVEL:	Basement	LOADING:	ASD
MEMBER NAME:	SpotFtg Bm #10-3	CODE:	2018 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-14
MATERIAL:	Concrete		

2 (ft) X 2 (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^3)	Footing Weight (lb/ft)
2	2	10	3.33	483.33

CONCRETE

fc' (psi)	Ec (psi)	Density (lbf/ft^3)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
8	8	Concrete	0	0

SOIL

Bearing Strength (lbf/ft^2)	Density (lbf/ft^3)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
1500	140	0	30	0	3

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^2)	PASS (76.3%)	354.9	1500.0	D+S	ASD
One-Way Shear X (lbf)	PASS (98.3%)	273.6	15774.4	1.2D+1.6S+L	LRFD
One-Way Shear Y (lbf)	PASS (98.3%)	273.6	15774.4	1.2D+1.6S+L	LRFD
Two-Way Shear (lbf)	PASS (98.9%)	883.5	77557.5	1.2D+1.6S+L	LRFD
Moment X (lbf-ft)	PASS (99.1%)	157.8	17124.7	1.2D+1.6S+L	LRFD
Moment Y (lbf-ft)	PASS (99.1%)	157.8	17124.7	1.2D+1.6S+L	LRFD
Crushing (lbf)	PASS (99.3%)	1419.7	212160.0	1.2D+1.6S+L	LRFD
Compression (ft^2)	PASS (100.0%)	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 #10	C	198.2473	-	0	-	Dead	Z
Point (lbf)	Beam #10	C	738.0061	-	0	-	Snow	Z

SpotFtg Bm #10-3 DIAGRAMS