John W. Harris, P. E.

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27, October 2021

Michael Haynes
Haynes Home Plans, Inc
P.O. Box 702
Wake Forest, NC 27588

RE: TLE Homes, Mount Olive
Structural Certification

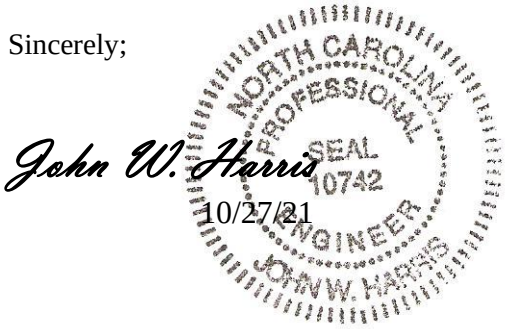
Michael;

At the request of Mr. Tommy Edwards of TLE Homes, I have reviewed your load determinations and checked the sizing of each of the structural components for your "Mount Olive" house design. I have determined that the structural design you have provided is sufficient to meets the current NC Building Code and thus is appropriate under these conditions.

I have included those calculations with this letter and my seal and signature on this letter are for the certification of those calculations (as attached).

If you should have any questions or need additional information, please do not hesitate to contact me.

Sincerely;



John W. Harris
10/27/21

John W. Harris, P.E.
Consulting Engineer, Inc.

Project: 210801B Mt Olive

Location: Roof valley garage gable short side
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 7.17 FT (Actual 8.5 FT)
#2 - Southern Pine - Dry Use
Section Adequate By: 199.6%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.03	IN L/3359
Dead Load	0.02	in
Total Load	0.05	IN L/2014

Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180

REACTIONS	A	B
Live Load	280 lb	445 lb
Dead Load	193 lb	290 lb
Total Load	473 lb	735 lb
Bearing Length	0.28 in	0.43 in

BEAM DATA	Center	
Span Length	7.17	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	0	ft
Beam End Elevation Difference	4.5	ft
Live Load Duration Factor	1.15	
Notch Depth	0.00	

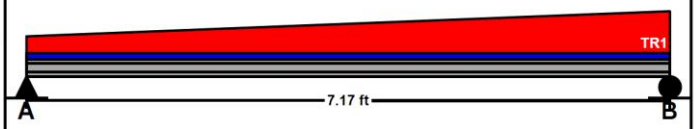
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 800	psi	Fb' = 920	psi
	Cd=1.15 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 201	psi
	Cd=1.15			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 1095 ft-lb
3.947 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -623 lb
6.776 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	14.28 in3	42.78 in3
Area (Shear):	4.64 in2	27.75 in2
Moment of Inertia (deflection):	17.68 in4	197.86 in4
Moment:	1095 ft-lb	3280 ft-lb
Shear:	-623 lb	3723 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	0	plf
Uniform Dead Load	0	plf
Beam Self Weight	7	plf
Total Uniform Load	7	plf

TRAPEZOIDAL LOADS - CENTER SPAN		
Load Number	One	
Left Live Load	32	plf
Left Dead Load	16	plf
Right Live Load	170	plf
Right Dead Load	85	plf
Load Start	0	ft
Load End	7.17	ft
Load Length	7.17	ft

Project: 210801B Mt Olive

Location: Roof Valley garage gable long side
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 10.33 FT (Actual 16.7 FT)
#2 - Southern Pine - Dry Use
Section Adequate By: 22.2%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.26	IN L/758
Dead Load	0.23	in
Total Load	0.50	IN L/406

Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180

REACTIONS	A		B	
Live Load	424	lb	638	lb
Dead Load	376	lb	561	lb
Total Load	800	lb	1199	lb
Bearing Length	0.47	in	0.71	in

BEAM DATA	Center	
Span Length	10.33	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	0	ft
Beam End Elevation Difference	13.17	ft
Live Load Duration Factor	1.15	
Notch Depth	0.00	

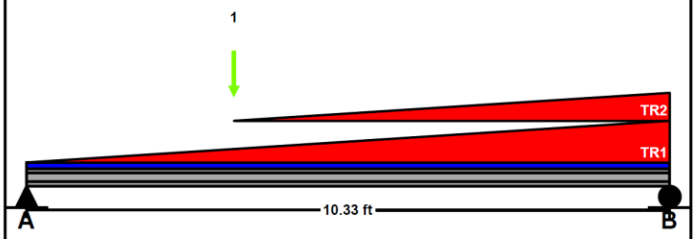
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb =	800 psi	Fb' =	920 psi
	Cd=1.15 CF=1.00			
Shear Stress:	Fv =	175 psi	Fv' =	201 psi
	Cd=1.15			
Modulus of Elasticity:	E =	1400 ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565 psi	Fc - ⊥' =	565 psi

Controlling Moment: 2685 ft-lb
5.166 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -740 lb
10.492 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	35.02 in3	42.78 in3
Area (Shear):	5.52 in2	27.75 in2
Moment of Inertia (deflection):	87.78 in4	197.86 in4
Moment:	2685 ft-lb	3280 ft-lb
Shear:	-740 lb	3723 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	0	plf
Uniform Dead Load	0	plf
Beam Self Weight	7	plf
Total Uniform Load	7	plf

POINT LOADS - LEFT SPAN

Load Number	One *
Live Load	280 lb
Dead Load	193 lb
Location	3.33 ft

* Entered Value from Load Tracker. See Summary Report for details.

TRAPEZOIDAL LOADS - CENTER SPAN

Load Number	One	Two
Left Live Load	0 plf	0 plf
Left Dead Load	0 plf	0 plf
Right Live Load	104 plf	70 plf
Right Dead Load	52 plf	35 plf
Load Start	0 ft	3.33 ft
Load End	10.33 ft	10.33 ft
Load Length	10.33 ft	7 ft

Project: 210801B Mt Olive

Location: Roof Valleys at center gable
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 10.33 FT (Actual 12.3 FT)
#2 - Southern Pine - Dry Use
Section Adequate By: 38.8%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.14	IN L/1086
Dead Load	0.09	in
Total Load	0.23	IN L/650

Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180

REACTIONS	A		B	
Live Load	356	lb	713	lb
Dead Load	253	lb	465	lb
Total Load	609	lb	1178	lb
Bearing Length	0.36	in	0.69	in

BEAM DATA	Center	
Span Length	10.33	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	0	ft
Beam End Elevation Difference	6.67	ft
Live Load Duration Factor	1.15	
Notch Depth	0.00	

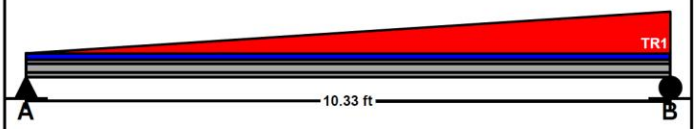
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 800	psi	Fb' = 920	psi
	Cd=1.15 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 201	psi
	Cd=1.15			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 2363 ft-lb
5.889 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -989 lb
10.081 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	30.82 in3	42.78 in3
Area (Shear):	7.37 in2	27.75 in2
Moment of Inertia (deflection):	54.8 in4	197.86 in4
Moment:	2363 ft-lb	3280 ft-lb
Shear:	-989 lb	3723 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	0	plf
Uniform Dead Load	0	plf
Beam Self Weight	7	plf
Total Uniform Load	7	plf

TRAPEZOIDAL LOADS - CENTER SPAN		
Load Number	One	
Left Live Load	0	plf
Left Dead Load	0	plf
Right Live Load	207	plf
Right Dead Load	103.5	plf
Load Start	0	ft
Load End	10.33	ft
Load Length	10.33	ft

Project: 210801B Mt Olive

Location: Fl2 Header gable end worst case
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 6.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 76.2%
Controlling Factor: Moment

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DEFLECTIONS	Center	
Live Load	0.03	IN L/2397
Dead Load	0.05	in
Total Load	0.08	IN L/905

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	180	lb	180	lb
Dead Load	297	lb	297	lb
Total Load	477	lb	477	lb
Bearing Length	0.28	in	0.28	in

BEAM DATA	Center	
Span Length	6	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	6	ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

MATERIAL PROPERTIES

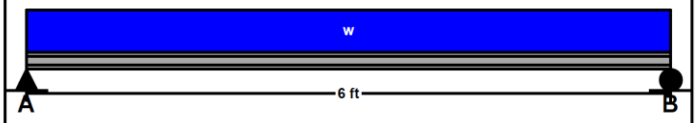
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 1000	psi	Fb' = 1000	psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 715 ft-lb
3.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -477 lb
At right support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	8.58 in3	15.13 in3
Area (Shear):	4.09 in2	16.5 in2
Moment of Inertia (deflection):	11.03 in4	41.59 in4
Moment:	715 ft-lb	1260 ft-lb
Shear:	-477 lb	1925 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	60	plf
Uniform Dead Load	95	plf
Beam Self Weight	4	plf
Total Uniform Load	159	plf

Project: 210801B Mt Olive

Location: FL2 Header window bed3
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 9.51 FT (3.2 + 3.2 + 3.2)
#2 - Southern Pine - Dry Use
Section Adequate By: 550.4%
Controlling Factor: Shear

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DEFLECTIONS	Left		Center		Right	
Live Load	0.00	IN L/MAX	0.00	IN L/MAX	0.00	IN L/MAX
Dead Load	0.00	in	0.00	in	0.00	in
Total Load	0.00	IN L/MAX	0.00	IN L/MAX	0.00	IN L/MAX

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B	C	D
Live Load	86 lb	228 lb	228 lb	86 lb
Dead Load	119 lb	328 lb	328 lb	119 lb
Total Load	205 lb	556 lb	556 lb	205 lb
Bearing Length	0.12 in	0.33 in	0.33 in	0.12 in

BEAM DATA	Left	Center	Right
Span Length	3.17 ft	3.17 ft	3.17 ft
Unbraced Length-Top	0 ft	0 ft	0 ft
Unbraced Length-Bottom	3.17 ft	3.17 ft	3.17 ft
Live Load Duration Factor	1.00		
Notch Depth	0.00		

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 1000	psi	Fb' = 996	psi
	Cd=1.00 Cl=1.00 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: -165 ft-lb
Over right support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2, 3
Controlling Shear: 296 lb
At left support of span 3 (Right Span)
Created by combining all dead loads and live loads on span(s) 2, 3

Comparisons with required sections:	Req'd	Provided
Section Modulus:	1.99 in3	15.13 in3
Area (Shear):	2.54 in2	16.5 in2
Moment of Inertia (deflection):	0.97 in4	41.59 in4
Moment:	-165 ft-lb	1255 ft-lb
Shear:	296 lb	1925 lb

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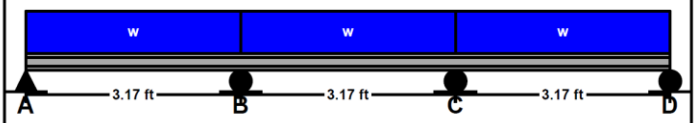

UNIFORM LOADS	Left		Center		Right	
Uniform Live Load	60	plf	60	plf	60	plf
Uniform Dead Load	90	plf	90	plf	90	plf
Beam Self Weight	4	plf	4	plf	4	plf
Total Uniform Load	154	plf	154	plf	154	plf

Project: 210801B Mt Olive

Location: FL2 Header plyroom window rear dormer
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 11.25 IN x 5.83 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 30.9%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.03	IN L/2484
Dead Load	0.01	in
Total Load	0.04	IN L/1640

Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180

REACTIONS	A		B	
Live Load	1574	lb	1574	lb
Dead Load	811	lb	811	lb
Total Load	2385	lb	2385	lb
Bearing Length	1.41	in	1.41	in

BEAM DATA	Center	
Span Length	5.83	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	5.33	ft
Live Load Duration Factor	1.15	
Notch Depth	0.00	

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 750	psi	Fb' = 863	psi
	Cd=1.15 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 201	psi
	Cd=1.15			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 3476 ft-lb
2.91 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: 2385 lb
At left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	48.36 in3	63.28 in3
Area (Shear):	17.77 in2	33.75 in2
Moment of Inertia (deflection):	39.07 in4	355.96 in4
Moment:	3476 ft-lb	4548 ft-lb
Shear:	2385 lb	4528 lb

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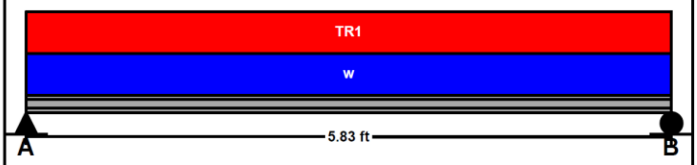

UNIFORM LOADS	Center	
Uniform Live Load	360	plf
Uniform Dead Load	180	plf
Beam Self Weight	8	plf
Total Uniform Load	548	plf

TRAPEZOIDAL LOADS - CENTER SPAN	
Load Number	One
Left Live Load	180 plf
Left Dead Load	90 plf
Right Live Load	180 plf
Right Dead Load	90 plf
Load Start	0 ft
Load End	5.83 ft
Load Length	5.83 ft

Project: 210801B Mt Olive

Location: FL2 Header at side of bed3
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 3.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 509.1%
Controlling Factor: Moment

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DEFLECTIONS	Center	
Live Load	0.00	IN L/9587
Dead Load	0.00	in
Total Load	0.01	IN L/6255

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	180	lb	180	lb
Dead Load	96	lb	96	lb
Total Load	276	lb	276	lb
Bearing Length	0.16	in	0.16	in

BEAM DATA	Center	
Span Length	3	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	3	ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

MATERIAL PROPERTIES

#2 - Southern Pine

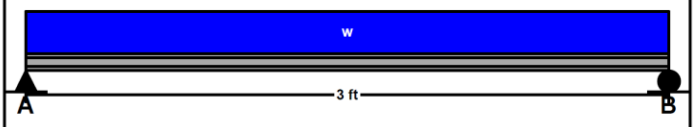
	Base Values		Adjusted	
Bending Stress:	Fb = 1000	psi	Fb' = 1000	psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 207 ft-lb
1.5 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Controlling Shear: -276 lb
At right support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	2.48 in3	15.13 in3
Area (Shear):	2.36 in2	16.5 in2
Moment of Inertia (deflection):	1.6 in4	41.59 in4
Moment:	207 ft-lb	1260 ft-lb
Shear:	-276 lb	1925 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	120	plf
Uniform Dead Load	60	plf
Beam Self Weight	4	plf
Total Uniform Load	184	plf

Project: 210801B Mt Olive

Location: FL2 Header at storage entry
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 3.17 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 338.3%
Controlling Factor: Moment

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DEFLECTIONS	Center	
Live Load	0.01	IN L/6501
Dead Load	0.00	in
Total Load	0.01	IN L/4259

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	238	lb	238	lb
Dead Load	125	lb	125	lb
Total Load	363	lb	363	lb
Bearing Length	0.21	in	0.21	in

BEAM DATA	Center	
Span Length	3.17	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	3.17	ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

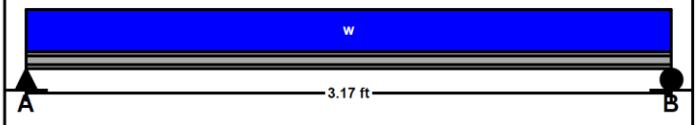
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 1000	psi	Fb' = 1000	psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 288 ft-lb
1.59 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -363 lb
3.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	3.45 in3	15.13 in3
Area (Shear):	3.11 in2	16.5 in2
Moment of Inertia (deflection):	2.34 in4	41.59 in4
Moment:	288 ft-lb	1260 ft-lb
Shear:	-363 lb	1925 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	150	plf
Uniform Dead Load	75	plf
Beam Self Weight	4	plf
Total Uniform Load	229	plf

Project: 210801B Mt Olive

Location: FL1 Joist over family - kitchen
Floor Joist
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 17.67 FT @ 12 O.C.
#2 - Southern Pine - Dry Use
Section Adequate By: 35.3%
Controlling Factor: Deflection

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CAUTIONS
* Properly connect sheathing to double joists/rafters or fully laminate to transfer diaphragm forces.

DEFLECTIONS Center

Live Load	0.32	IN L/670
Dead Load	0.12	in
Total Load	0.44	IN L/487

Live Load Deflection Criteria: L/480 Total Load Deflection Criteria: L/360

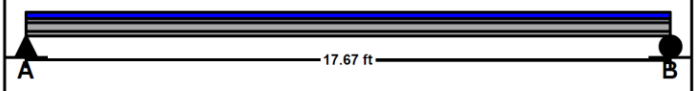
REACTIONS

	A	B
Live Load	353 lb	353 lb
Dead Load	133 lb	133 lb
Total Load	486 lb	486 lb
Bearing Length	0.29 in	0.29 in

SUPPORT LOADS

	A	B
Live Load	353 plf	353 plf
Dead Load	133 plf	133 plf
Total Load	486 plf	486 plf

LOADING DIAGRAM



MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 800	psi	Fb' = 920	psi
	Cd=1.00 CF=1.00 Cr=1.15			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 2147 ft-lb
8.84 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -486 lb
18.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	28 in3	42.78 in3
Area (Shear):	4.17 in2	27.75 in2
Moment of Inertia (deflection):	146.28 in4	197.86 in4
Moment:	2147 ft-lb	3280 ft-lb
Shear:	-486 lb	3238 lb

JOIST DATA Center

Span Length	17.67	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	0	ft

Floor sheathing applied to top of joists-top of joists fully braced.
Floor Duration Factor 1.00

JOIST LOADING
Uniform Floor Loading Center

Live Load	LL =	40	psf
Dead Load	DL =	15	psf
Total Load	TL =	55	psf
TL Adj. For Joist Spacing	wT =	55	plf

Project: 210801B Mt Olive

Location: FL1 Beam mastster bath - bed
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(3) 1.75 IN x 9.25 IN x 25.58 FT (11.8 + 13.8)
Versa-Lam 3100 Fb - Boise Cascade
Section Adequate By: 34.0%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

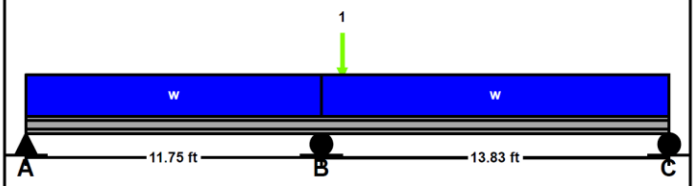
DEFLECTIONS	Left		Center	
Live Load	0.19	IN L/746	0.34	IN L/482
Dead Load	0.05	in	0.16	in
Total Load	0.23	IN L/605	0.50	IN L/331

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B		C	
Live Load	2184	lb	7176	lb	2525	lb
Dead Load	1070	lb	4623	lb	1440	lb
Total Load	3254	lb	11799	lb	3965	lb
Bearing Length	0.83	in	3.00	in	1.01	in

BEAM DATA	Left		Center	
Span Length	11.75	ft	13.83	ft
Unbraced Length-Top	0	ft	0	ft
Unbraced Length-Bottom	11.75	ft	13.83	ft
Live Load Duration Factor	1.00			
Notch Depth	0.00			

LOADING DIAGRAM



UNIFORM LOADS	Left		Center	
Uniform Live Load	420	plf	420	plf
Uniform Dead Load	250	plf	250	plf
Beam Self Weight	14	plf	14	plf
Total Uniform Load	684	plf	684	plf

POINT LOADS - CENTER SPAN

Load Number	One *
Live Load	424 lb
Dead Load	376 lb
Location	0.83 ft

* Load obtained from Load Tracker. See Summary Report for details.

MATERIAL PROPERTIES
Versa-Lam 3100 Fb - Boise Cascade

	Base Values		Adjusted	
Bending Stress:	Fb = 3100	psi	Fb' = 3135	psi
	Cd=1.00 Cl=0.98 CF=1.03			
Shear Stress:	Fv = 285	psi	Fv' = 285	psi
	Cd=1.00			
Modulus of Elasticity:	E = 2000	ksi	E' = 2000	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 750	psi	Fc - ⊥' = 750	psi

Controlling Moment: -14595 ft-lb
Over left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 1, 2
Controlling Shear: 6538 lb
At left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 1, 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	55.87 in3	74.87 in3
Area (Shear):	34.41 in2	48.56 in2
Moment of Inertia (deflection):	258.36 in4	346.26 in4
Moment:	-14595 ft-lb	19558 ft-lb
Shear:	6538 lb	9227 lb

Project: 210801B Mt Olive

Location: FL1 Beam foyer family
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(2) 3.5 IN x 9.25 IN x 9.0 FT
Versa-Lam 3100 Fb - Boise Cascade
Section Adequate By: 209.0%
Controlling Factor: Moment

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DEFLECTIONS Center

Live Load	0.10	IN L/1120
Dead Load	0.04	in
Total Load	0.14	IN L/796

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS

	A		B	
Live Load	2715	lb	2715	lb
Dead Load	1103	lb	1103	lb
Total Load	3818	lb	3818	lb
Bearing Length	0.73	in	0.73	in

BEAM DATA Center

Span Length	9	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

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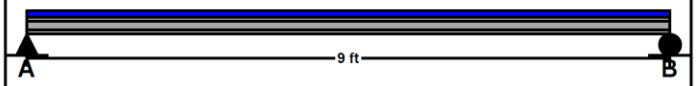

MATERIAL PROPERTIES

Versa-Lam 3100 Fb - Boise Cascade

		Base Values		Adjusted	
Bending Stress:	Fb =	3100	psi	Fb' =	3191 psi
	Cd=1.00 CF=1.03				
Shear Stress:	Fv =	285	psi	Fv' =	285 psi
	Cd=1.00				
Modulus of Elasticity:	E =	2000	ksi	E' =	2000 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	750	psi	Fc - ⊥' =	750 psi

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	40	psf	40	psf
Floor Dead Load	FDL =	15	psf	15	psf
Floor Tributary Width	FTW =	9	ft	6.1	ft
Wall Load	WALL =	0	plf		

BEAM LOADING

Beam Total Live Load:	wL =	603	plf
Beam Total Dead Load:	wD =	226	plf
Beam Self Weight:	BSW =	19	plf
Total Maximum Load:	wT =	848	plf

Controlling Moment: 8591 ft-lb
4.5 ft from left support
Created by combining all dead and live loads.

Controlling Shear: -3818 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	32.31 in3	99.82 in3
Area (Shear):	20.09 in2	64.75 in2
Moment of Inertia (deflection):	148.42 in4	461.68 in4
Moment:	8591 ft-lb	26544 ft-lb
Shear:	-3818 lb	12303 lb

Project: 210801B Mt Olive

Location: FL1 Header worst case back of master bath - bed
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 5.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 180.2%
Controlling Factor: Moment

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DEFLECTIONS	Center	
Live Load	0.02	IN L/3106
Dead Load	0.02	in
Total Load	0.03	IN L/1726

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	200	lb	200	lb
Dead Load	160	lb	160	lb
Total Load	360	lb	360	lb
Bearing Length	0.21	in	0.21	in

BEAM DATA	Center	
Span Length	5	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	5	ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

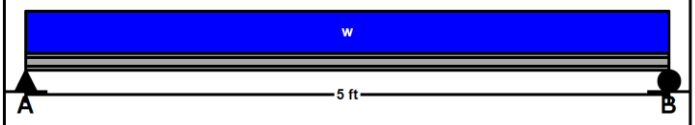
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 1000	psi	Fb' = 1000	psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 450 ft-lb
2.5 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: 360 lb
At left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	5.4 in3	15.13 in3
Area (Shear):	3.08 in2	16.5 in2
Moment of Inertia (deflection):	5.78 in4	41.59 in4
Moment:	450 ft-lb	1260 ft-lb
Shear:	360 lb	1925 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	80	plf
Uniform Dead Load	60	plf
Beam Self Weight	4	plf
Total Uniform Load	144	plf

Project: 210801B Mt Olive

Location: FL1 Beam breakfast - pantry
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(4) 1.75 IN x 9.25 IN x 16.0 FT (11.2 + 4.8)
Versa-Lam 3100 Fb - Boise Cascade
Section Adequate By: 17.5%
Controlling Factor: Shear

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center		Right	
Live Load	0.22	IN L/601	-0.03	IN L/1837
Dead Load	0.12	in	-0.01	in
Total Load	0.34	IN L/391	-0.04	IN L/1294

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B	C
Live Load	4390 lb	10649 lb	2690 lb
Dead Load	2243 lb	6348 lb	694 lb
Total Load	6633 lb	16997 lb	3384 lb
Uplift (1.5 F.S)	0 **lb**	0 **lb**	**-1867 lb**
Bearing Length	1.26 in	3.24 in	0.64 in

BEAM DATA	Center	Right
Span Length	11.17 ft	4.83 ft
Unbraced Length-Top	0 ft	0 ft
Unbraced Length-Bottom	11.17 ft	4.83 ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

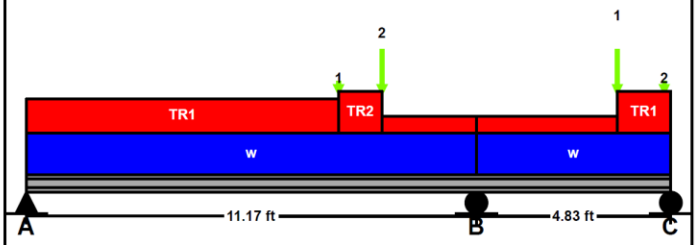
MATERIAL PROPERTIES
Versa-Lam 3100 Fb - Boise Cascade

	Base Values		Adjusted	
Bending Stress:	Fb = 3100 psi		Fb' = 3169 psi	
	Cd=1.00 Cl=0.99 CF=1.03			
Shear Stress:	Fv = 285 psi		Fv' = 285 psi	
	Cd=1.00			
Modulus of Elasticity:	E = 2000 ksi		E' = 2000 ksi	
Comp. ⊥ to Grain:	Fc - ⊥ = 750 psi		Fc - ⊥' = 750 psi	

Controlling Moment: -19047 ft-lb
11.17 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2, 3
Controlling Shear: -10472 lb
11.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2, 3

Comparisons with required sections:	Req'd	Provided
Section Modulus:	72.12 in3	99.82 in3
Area (Shear):	55.11 in2	64.75 in2
Moment of Inertia (deflection):	283.17 in4	461.68 in4
Moment:	-19047 ft-lb	26363 ft-lb
Shear:	-10472 lb	12303 lb

LOADING DIAGRAM



UNIFORM LOADS	Center	Right
Uniform Live Load	450 plf	450 plf
Uniform Dead Load	195 plf	195 plf
Beam Self Weight	19 plf	19 plf
Total Uniform Load	664 plf	664 plf

POINT LOADS - CENTER SPAN

Load Number	One	Two *
Live Load	0 lb	1574 lb
Dead Load	600 lb	811 lb
Location	7.75 ft	8.83 ft

RIGHT SPAN

Load Number	One *	Two
Live Load	1574 lb	0 lb
Dead Load	811 lb	600 lb
Location	3.5 ft	4.67 ft

* Load obtained from Load Tracker. See Summary Report for details.

TRAPEZOIDAL LOADS - CENTER SPAN

Load Number	One	Two	Three
Left Live Load	475 plf	540 plf	0 plf
Left Dead Load	240 plf	335 plf	64 plf
Right Live Load	475 plf	540 plf	0 plf
Right Dead Load	240 plf	335 plf	64 plf
Load Start	0 ft	7.75 ft	8.83 ft
Load End	7.75 ft	8.83 ft	11.17 ft
Load Length	7.75 ft	1.08 ft	2.34 ft

RIGHT SPAN

Load Number	One	Two
Left Live Load	540 plf	0 plf
Left Dead Load	335 plf	64 plf
Right Live Load	540 plf	0 plf
Right Dead Load	335 plf	64 plf
Load Start	3.5 ft	0 ft
Load End	4.83 ft	3.5 ft
Load Length	1.33 ft	3.5 ft

Project: 210801B Mt Olive

Location: FL1 Header family window
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 9.51 FT (3.2 + 3.2 + 3.2)
#2 - Southern Pine - Dry Use
Section Adequate By: 37.3%
Controlling Factor: Shear

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

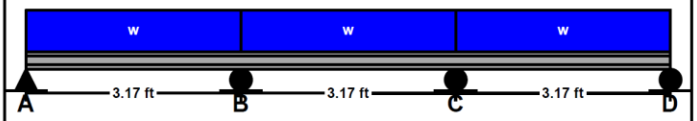
DEFLECTIONS	Left		Center		Right	
Live Load	0.01	IN L/7295	0.00	IN L/MAX	0.01	IN L/7295
Dead Load	0.00	in	0.00	in	0.00	in
Total Load	0.01	IN L/5545	0.00	IN L/MAX	0.01	IN L/5545

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B	C	D
Live Load	1191 lb	3176 lb	3176 lb	1191 lb
Dead Load	484 lb	1331 lb	1331 lb	484 lb
Total Load	1675 lb	4507 lb	4507 lb	1675 lb
Bearing Length	0.99 in	2.66 in	2.66 in	0.99 in

BEAM DATA	Left	Center	Right
Span Length	3.17 ft	3.17 ft	3.17 ft
Unbraced Length-Top	0 ft	0 ft	0 ft
Unbraced Length-Bottom	3.17 ft	3.17 ft	3.17 ft
Live Load Duration Factor	1.00		
Notch Depth	0.00		

LOADING DIAGRAM



UNIFORM LOADS	Left		Center		Right	
Uniform Live Load	835	plf	835	plf	835	plf
Uniform Dead Load	375	plf	375	plf	375	plf
Beam Self Weight	7	plf	7	plf	7	plf
Total Uniform Load	1217	plf	1217	plf	1217	plf

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values	Adjusted
Bending Stress:	Fb = 800 psi	Fb' = 795 psi
	Cd=1.00 Cl=0.99 CF=1.00	
Shear Stress:	Fv = 175 psi	Fv' = 175 psi
	Cd=1.00	
Modulus of Elasticity:	E = 1400 ksi	E' = 1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565 psi	Fc - ⊥' = 565 psi

Controlling Moment: -1362 ft-lb
Over right support of span 1 (Left Span)
Created by combining all dead loads and live loads on span(s) 1, 2
Controlling Shear: -2358 lb
3.0 Ft from left support of span 1 (Left Span)
Created by combining all dead loads and live loads on span(s) 1, 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	20.56 in3	42.78 in3
Area (Shear):	20.21 in2	27.75 in2
Moment of Inertia (deflection):	9.76 in4	197.86 in4
Moment:	-1362 ft-lb	2836 ft-lb
Shear:	-2358 lb	3238 lb

Project: 210801B Mt Olive

Location: FL1 Header garage door
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(3) 1.75 IN x 18.0 IN x 18.83 FT
Versa-Lam 3100 Fb - Boise Cascade
Section Adequate By: 48.7%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.40	IN L/570
Dead Load	0.19	in
Total Load	0.59	IN L/384

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	6732	lb	6732	lb
Dead Load	3272	lb	3272	lb
Total Load	10004	lb	10004	lb
Bearing Length	2.54	in	2.54	in

BEAM DATA	Center	
Span Length	18.83	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	18.33	ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

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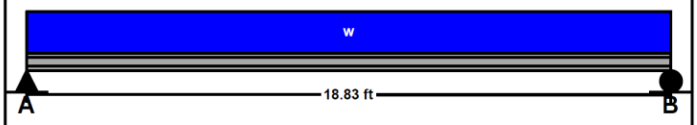

UNIFORM LOADS	Center	
Uniform Live Load	715	plf
Uniform Dead Load	320	plf
Beam Self Weight	28	plf
Total Uniform Load	1063	plf

MATERIAL PROPERTIES
Versa-Lam 3100 Fb - Boise Cascade

	Base Values		Adjusted	
Bending Stress:	Fb = 3100	psi	Fb' = 2963	psi
	Cd=1.00 CF=0.96			
Shear Stress:	Fv = 285	psi	Fv' = 285	psi
	Cd=1.00			
Modulus of Elasticity:	E = 2000	ksi	E' = 2000	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 750	psi	Fc - ⊥' = 750	psi

Controlling Moment: 47094 ft-lb
9.41 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: 10004 lb
At left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	190.7 in3	283.5 in3
Area (Shear):	52.65 in2	94.5 in2
Moment of Inertia (deflection):	1610.88 in4	2551.5 in4
Moment:	47094 ft-lb	70011 ft-lb
Shear:	10004 lb	17955 lb

Project: 210801B Mt Olive

Location: FL1 Header front porch in front of bed4
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 11.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 16.7%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.11	IN L/1169
Dead Load	0.08	in
Total Load	0.19	IN L/687

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B
Live Load	523 lb	523 lb
Dead Load	366 lb	366 lb
Total Load	889 lb	889 lb
Bearing Length	0.52 in	0.52 in

BEAM DATA	Center
Span Length	11 ft
Unbraced Length-Top	0 ft
Unbraced Length-Bottom	11 ft
Live Load Duration Factor	1.00
Notch Depth	0.00

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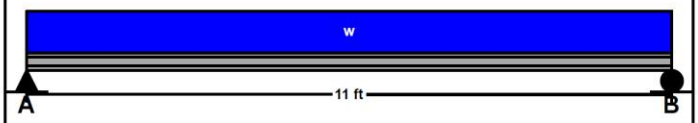

UNIFORM LOADS	Center
Uniform Live Load	95 plf
Uniform Dead Load	60 plf
Beam Self Weight	7 plf
Total Uniform Load	162 plf

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb =	800 psi	Fb' =	800 psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv =	175 psi	Fv' =	175 psi
	Cd=1.00			
Modulus of Elasticity:	E =	1400 ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565 psi	Fc - ⊥' =	565 psi

Controlling Moment: 2444 ft-lb
5.5 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: 889 lb
At left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	36.67 in3	42.78 in3
Area (Shear):	7.62 in2	27.75 in2
Moment of Inertia (deflection):	69.13 in4	197.86 in4
Moment:	2444 ft-lb	2852 ft-lb
Shear:	889 lb	3238 lb

Project: 210801B Mt Olive

Location: FL1 Header front porch side worst case
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 8.33 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 28.1%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

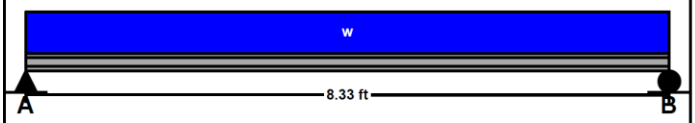
DEFLECTIONS	Center	
Live Load	0.05	IN L/1826
Dead Load	0.05	in
Total Load	0.10	IN L/996

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	583	lb	583	lb
Dead Load	486	lb	486	lb
Total Load	1069	lb	1069	lb
Bearing Length	0.63	in	0.63	in

BEAM DATA	Center	
Span Length	8.33	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	8.33	ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

LOADING DIAGRAM



UNIFORM LOADS	Center	
Uniform Live Load	140	plf
Uniform Dead Load	110	plf
Beam Self Weight	7	plf
Total Uniform Load	257	plf

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 800	psi	Fb' = 800	psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 2226 ft-lb
4.16 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -1069 lb
8.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd		Provided	
Section Modulus:	33.39	in3	42.78	in3
Area (Shear):	9.16	in2	27.75	in2
Moment of Inertia (deflection):	47.67	in4	197.86	in4
Moment:	2226	ft-lb	2852	ft-lb
Shear:	-1069	lb	3238	lb

Project: 210801B Mt Olive

Location: FL1 Header dining window
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.75 IN x 9.25 IN x 6.17 FT
Versa-Lam 3100 Fb - Boise Cascade
Section Adequate By: 90.0%
Controlling Factor: Shear

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center
Live Load	0.05 IN L/1509
Dead Load	0.03 in
Total Load	0.07 IN L/999

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B
Live Load	2144 lb	2144 lb
Dead Load	1093 lb	1093 lb
Total Load	3237 lb	3237 lb
Bearing Length	1.23 in	1.23 in

BEAM DATA	Center
Span Length	6.17 ft
Unbraced Length-Top	0 ft
Unbraced Length-Bottom	6.17 ft
Live Load Duration Factor	1.00
Notch Depth	0.00

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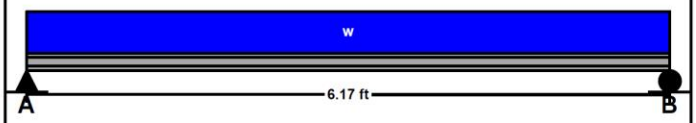

UNIFORM LOADS	Center
Uniform Live Load	695 plf
Uniform Dead Load	345 plf
Beam Self Weight	9 plf
Total Uniform Load	1049 plf

MATERIAL PROPERTIES
Versa-Lam 3100 Fb - Boise Cascade

	Base Values		Adjusted	
Bending Stress:	Fb = 3100 psi		Fb' = 3191 psi	
	Cd=1.00 CF=1.03			
Shear Stress:	Fv = 285 psi		Fv' = 285 psi	
	Cd=1.00			
Modulus of Elasticity:	E = 2000 ksi		E' = 2000 ksi	
Comp. ⊥ to Grain:	Fc - ⊥ = 750 psi		Fc - ⊥' = 750 psi	

Controlling Moment: 4994 ft-lb
3.09 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -3238 lb
6.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	18.78 in3	49.91 in3
Area (Shear):	17.04 in2	32.38 in2
Moment of Inertia (deflection):	55.45 in4	230.84 in4
Moment:	4994 ft-lb	13272 ft-lb
Shear:	-3238 lb	6151 lb

Project: 210801B Mt Olive

Location: FL1 Header front door
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.75 IN x 9.25 IN x 6.0 FT
Versa-Lam 3100 Fb - Boise Cascade
Section Adequate By: 164.8%
Controlling Factor: Shear

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CAUTIONS
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DEFLECTIONS	Center	
Live Load	0.03	IN L/2151
Dead Load	0.02	in
Total Load	0.05	IN L/1472

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	1590	lb	1590	lb
Dead Load	733	lb	733	lb
Total Load	2323	lb	2323	lb
Bearing Length	0.89	in	0.89	in

BEAM DATA	Center	
Span Length	6	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	6	ft
Live Load Duration Factor	1.00	
Notch Depth	0.00	

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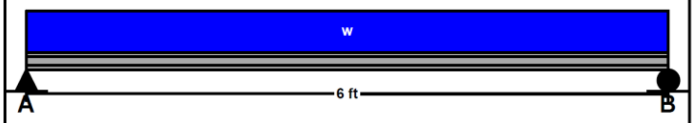

UNIFORM LOADS	Center	
Uniform Live Load	530	plf
Uniform Dead Load	235	plf
Beam Self Weight	9	plf
Total Uniform Load	774	plf

MATERIAL PROPERTIES
Versa-Lam 3100 Fb - Boise Cascade

	Base Values		Adjusted	
Bending Stress:	Fb = 3100	psi	Fb' = 3191	psi
	Cd=1.00 CF=1.03			
Shear Stress:	Fv = 285	psi	Fv' = 285	psi
	Cd=1.00			
Modulus of Elasticity:	E = 2000	ksi	E' = 2000	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 750	psi	Fc - ⊥' = 750	psi

Controlling Moment: 3485 ft-lb
3.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: 2323 lb
At left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	13.11 in3	49.91 in3
Area (Shear):	12.23 in2	32.38 in2
Moment of Inertia (deflection):	38.63 in4	230.84 in4
Moment:	3485 ft-lb	13272 ft-lb
Shear:	2323 lb	6151 lb

Project: 210801B Mt Olive

Location: FL1 Header bed 4 window
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 7.25 IN x 6.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 21.5%
Controlling Factor: Moment

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CAUTIONS
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DEFLECTIONS	Center	
Live Load	0.03	IN L/2127
Dead Load	0.05	in
Total Load	0.09	IN L/845

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B
Live Load	453 lb	453 lb
Dead Load	689 lb	689 lb
Total Load	1142 lb	1142 lb
Bearing Length	0.67 in	0.67 in

BEAM DATA	Center
Span Length	6 ft
Unbraced Length-Top	0 ft
Unbraced Length-Bottom	6 ft
Live Load Duration Factor	1.00
Notch Depth	0.00

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb =	925 psi	Fb' =	925 psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv =	175 psi	Fv' =	175 psi
	Cd=1.00			
Modulus of Elasticity:	E =	1400 ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565 psi	Fc - ⊥' =	565 psi

Controlling Moment: 1668 ft-lb
3.0 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: -1142 lb
At right support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	21.64 in3	26.28 in3
Area (Shear):	9.78 in2	21.75 in2
Moment of Inertia (deflection):	27.07 in4	95.27 in4
Moment:	1668 ft-lb	2026 ft-lb
Shear:	-1142 lb	2538 lb

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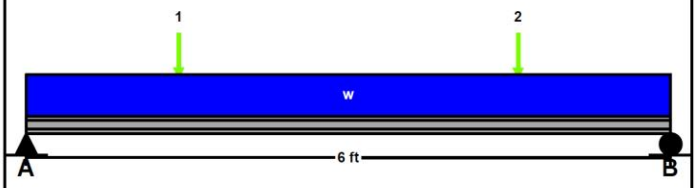

UNIFORM LOADS	Center
Uniform Live Load	75 plf
Uniform Dead Load	115 plf
Beam Self Weight	5 plf
Total Uniform Load	195 plf

POINT LOADS - CENTER SPAN

Load Number	One *	Two *
Live Load	228 lb	228 lb
Dead Load	328 lb	328 lb
Location	1.42 ft	4.58 ft

* Load obtained from Load Tracker. See Summary Report for details.

Project: 210801B Mt Olive

Location: FND Girder at under family (floor only)
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(3) 1.5 IN x 9.25 IN x 8.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 6.7%
Controlling Factor: Moment

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CAUTIONS
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DEFLECTIONS	Center	
Live Load	0.10	IN L/955
Dead Load	0.03	in
Total Load	0.13	IN L/751

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B
Live Load	1813 lb	1813 lb
Dead Load	493 lb	493 lb
Total Load	2306 lb	2306 lb
Bearing Length	0.91 in	0.91 in

BEAM DATA	Center
Span Length	8 ft
Unbraced Length-Top	0 ft
Floor Duration Factor	1.00
Notch Depth	0.00

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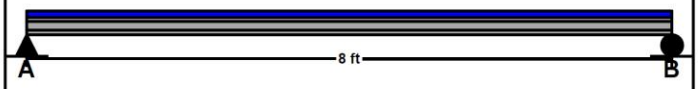

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb =	800 psi	Fb' =	920 psi
	Cd=1.00 CF=1.00 Cr=1.15			
Shear Stress:	Fv =	175 psi	Fv' =	175 psi
	Cd=1.00			
Modulus of Elasticity:	E =	1400 ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565 psi	Fc - ⊥' =	565 psi

Controlling Moment: 4611 ft-lb
4.0 ft from left support
Created by combining all dead and live loads.
Controlling Shear: 2306 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	60.15 in3	64.17 in3
Area (Shear):	19.76 in2	41.63 in2
Moment of Inertia (deflection):	111.86 in4	296.79 in4
Moment:	4611 ft-lb	4920 ft-lb
Shear:	2306 lb	4856 lb

FLOOR LOADING

		Side 1	Side 2
Floor Live Load	FLL =	40 psf	40 psf
Floor Dead Load	FDL =	10 psf	10 psf
Floor Tributary Width	FTW =	5.1 ft	6.3 ft
Wall Load	WALL =	0 plf	

BEAM LOADING

Beam Total Live Load:	wL =	453 plf
Beam Total Dead Load:	wD =	113 plf
Beam Self Weight:	BSW =	10 plf
Total Maximum Load:	wT =	576 plf

Project: 210801B Mt Olive

Location: FND Girder dining - foyer
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(3) 1.5 IN x 9.25 IN x 5.17 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 136.0%
Controlling Factor: Moment

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CAUTIONS
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DEFLECTIONS	Center	
Live Load	0.02	IN L/4010
Dead Load	0.01	in
Total Load	0.02	IN L/2571

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B
Live Load	1034 lb	1034 lb
Dead Load	579 lb	579 lb
Total Load	1613 lb	1613 lb
Bearing Length	0.63 in	0.63 in

BEAM DATA	Center
Span Length	5.17 ft
Unbraced Length-Top	0 ft
Floor Duration Factor	1.00
Notch Depth	0.00

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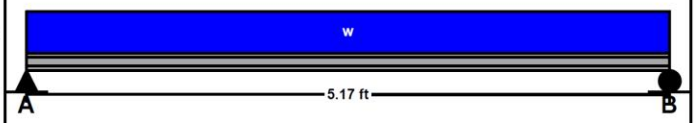

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb =	800 psi	Fb' =	920 psi
	Cd=1.00 CF=1.00 Cr=1.15			
Shear Stress:	Fv =	175 psi	Fv' =	175 psi
	Cd=1.00			
Modulus of Elasticity:	E =	1400 ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565 psi	Fc - ⊥' =	565 psi

Controlling Moment: 2085 ft-lb
2.585 ft from left support
Created by combining all dead and live loads.
Controlling Shear: -1613 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	27.19 in3	64.17 in3
Area (Shear):	13.82 in2	41.63 in2
Moment of Inertia (deflection):	27.71 in4	296.79 in4
Moment:	2085 ft-lb	4920 ft-lb
Shear:	-1613 lb	4856 lb

FLOOR LOADING

		Side 1	Side 2
Floor Live Load	FLL =	40 psf	40 psf
Floor Dead Load	FDL =	15 psf	15 psf
Floor Tributary Width	FTW =	6 ft	4 ft
Wall Load	WALL =	64 plf	

BEAM LOADING

Beam Total Live Load:	wL =	400 plf
Beam Total Dead Load:	wD =	214 plf
Beam Self Weight:	BSW =	10 plf
Total Maximum Load:	wT =	624 plf

Project: 210801B Mt Olive

Location: FND Tiple between dining and family
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(3) 1.5 IN x 9.25 IN x 6.33 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 72.7%
Controlling Factor: Moment

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DEFLECTIONS

	Center	
Live Load	0.03	IN L/2427
Dead Load	0.02	in
Total Load	0.05	IN L/1536

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS

	A		B	
Live Load	1139	lb	1139	lb
Dead Load	661	lb	661	lb
Total Load	1800	lb	1800	lb
Bearing Length	0.71	in	0.71	in

BEAM DATA

	Center	
Span Length	6.33	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

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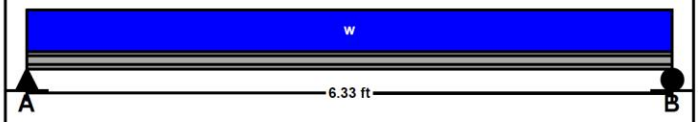

MATERIAL PROPERTIES
#2 - Southern Pine

		Base Values			Adjusted	
Bending Stress:	Fb =	800	psi	Fb' =	920	psi
	Cd=1.00 CF=1.00 Cr=1.15					
Shear Stress:	Fv =	175	psi	Fv' =	175	psi
	Cd=1.00					
Modulus of Elasticity:	E =	1400	ksi	E' =	1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565	psi

Controlling Moment: 2850 ft-lb
3.165 ft from left support
Created by combining all dead and live loads.
Controlling Shear: 1801 lb
At support.
Created by combining all dead and live loads.

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	40	psf	0	psf
Floor Dead Load	FDL =	15	psf	0	psf
Floor Tributary Width	FTW =	9	ft	0	ft
Wall Load	WALL =	64	plf		

BEAM LOADING

Beam Total Live Load:	wL =	360	plf
Beam Total Dead Load:	wD =	199	plf
Beam Self Weight:	BSW =	10	plf
Total Maximum Load:	wT =	569	plf

Comparisons with required sections:

	Req'd	Provided
Section Modulus:	37.17 in3	64.17 in3
Area (Shear):	15.43 in2	41.63 in2
Moment of Inertia (deflection):	46.37 in4	296.79 in4
Moment:	2850 ft-lb	4920 ft-lb
Shear:	1801 lb	4856 lb

Project: 210801B Mt Olive

Location: FND Girder Laundry - master closet
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(4) 1.5 IN x 9.25 IN x 6.17 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 12.2%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS Center

Live Load	0.05	IN L/1430
Dead Load	0.02	in
Total Load	0.07	IN L/1024

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS

	A		B	
Live Load	2715	lb	2715	lb
Dead Load	1074	lb	1074	lb
Total Load	3789	lb	3789	lb
Bearing Length	1.12	in	1.12	in

BEAM DATA Center

Span Length	6.17	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

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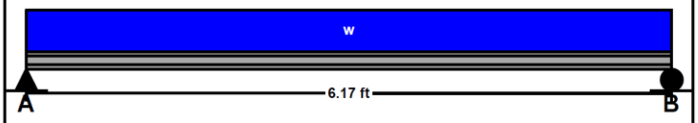

MATERIAL PROPERTIES
#2 - Southern Pine

		Base Values			Adjusted	
Bending Stress:	Fb =	800	psi	Fb' =	920	psi
	Cd=1.00 CF=1.00 Cr=1.15					
Shear Stress:	Fv =	175	psi	Fv' =	175	psi
	Cd=1.00					
Modulus of Elasticity:	E =	1400	ksi	E' =	1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565	psi

Controlling Moment: 5845 ft-lb
3.085 ft from left support
Created by combining all dead and live loads.
Controlling Shear: 3789 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	76.24 in3	85.56 in3
Area (Shear):	32.48 in2	55.5 in2
Moment of Inertia (deflection):	99.64 in4	395.73 in4
Moment:	5845 ft-lb	6560 ft-lb
Shear:	3789 lb	6475 lb

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	80	psf	80	psf
Floor Dead Load	FDL =	25	psf	25	psf
Floor Tributary Width	FTW =	4.7	ft	6.3	ft
Wall Load	WALL =	60	plf		

BEAM LOADING

Beam Total Live Load:	wL =	880	plf
Beam Total Dead Load:	wD =	335	plf
Beam Self Weight:	BSW =	13	plf
Total Maximum Load:	wT =	1228	plf

Project: 210801B Mt Olive

Location: FND Girder master bath - bed rear span
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(4) 1.5 IN x 9.25 IN x 6.33 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 13.8%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.05	IN L/1523
Dead Load	0.03	in
Total Load	0.08	IN L/1012

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	2421	lb	2421	lb
Dead Load	1222	lb	1222	lb
Total Load	3643	lb	3643	lb
Bearing Length	1.07	in	1.07	in

BEAM DATA	Center	
Span Length	6.33	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

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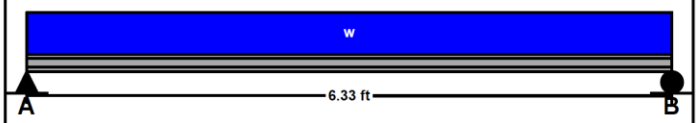

MATERIAL PROPERTIES
#2 - Southern Pine

		Base Values		Adjusted	
Bending Stress:	Fb =	800	psi	Fb' =	920 psi
	Cd=1.00 CF=1.00 Cr=1.15				
Shear Stress:	Fv =	175	psi	Fv' =	175 psi
	Cd=1.00				
Modulus of Elasticity:	E =	1400	ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565 psi

Controlling Moment: 5765 ft-lb
3.165 ft from left support
Created by combining all dead and live loads.
Controlling Shear: 3643 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	75.19 in3	85.56 in3
Area (Shear):	31.22 in2	55.5 in2
Moment of Inertia (deflection):	93.82 in4	395.73 in4
Moment:	5765 ft-lb	6560 ft-lb
Shear:	3643 lb	6475 lb

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	60	psf	60	psf
Floor Dead Load	FDL =	25	psf	25	psf
Floor Tributary Width	FTW =	5.8	ft	6.9	ft
Wall Load	WALL =	54	plf		

BEAM LOADING

Beam Total Live Load:	wL =	765	plf
Beam Total Dead Load:	wD =	373	plf
Beam Self Weight:	BSW =	13	plf
Total Maximum Load:	wT =	1151	plf

Project: 210801B Mt Olive

Location: FND Girder master bath - bed center spans
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(3) 1.5 IN x 9.25 IN x 4.5 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 69.4%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS

	Center	
Live Load	0.02	IN L/3179
Dead Load	0.01	in
Total Load	0.03	IN L/2119

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

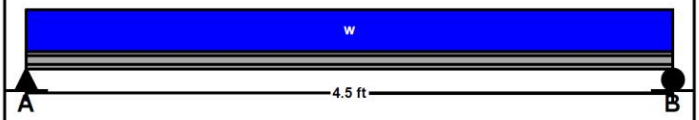
REACTIONS

	A	B
Live Load	1721 lb	1721 lb
Dead Load	861 lb	861 lb
Total Load	2582 lb	2582 lb
Bearing Length	1.02 in	1.02 in

BEAM DATA

	Center
Span Length	4.5 ft
Unbraced Length-Top	0 ft
Floor Duration Factor	1.00
Notch Depth	0.00

LOADING DIAGRAM



MATERIAL PROPERTIES
#2 - Southern Pine

		Base Values		Adjusted	
Bending Stress:	Fb =	800	psi	Fb' =	920 psi
	Cd=1.00 CF=1.00 Cr=1.15				
Shear Stress:	Fv =	175	psi	Fv' =	175 psi
	Cd=1.00				
Modulus of Elasticity:	E =	1400	ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565 psi

Controlling Moment: 2905 ft-lb
2.25 ft from left support
Created by combining all dead and live loads.
Controlling Shear: -2582 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	37.89 in3	64.17 in3
Area (Shear):	22.13 in2	41.63 in2
Moment of Inertia (deflection):	33.61 in4	296.79 in4
Moment:	2905 ft-lb	4920 ft-lb
Shear:	-2582 lb	4856 lb

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	60	psf	60	psf
Floor Dead Load	FDL =	25	psf	25	psf
Floor Tributary Width	FTW =	5.8	ft	6.9	ft
Wall Load	WALL =	54	plf		

BEAM LOADING

Beam Total Live Load:	wL =	765	plf
Beam Total Dead Load:	wD =	373	plf
Beam Self Weight:	BSW =	10	plf
Total Maximum Load:	wT =	1148	plf

Project: 210801B Mt Olive

Location: FL1 Header window side of master
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 3.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 93.5%
Controlling Factor: Shear

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DEFLECTIONS		Center
Live Load	0.01	IN L/4109
Dead Load	0.01	in
Total Load	0.02	IN L/2058

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A		B	
Live Load	420	lb	420	lb
Dead Load	575	lb	342	lb
Total Load	995	lb	762	lb
Bearing Length	0.59	in	0.45	in

BEAM DATA	Center
Span Length	3 ft
Unbraced Length-Top	0 ft
Floor Duration Factor	1.00
Notch Depth	0.00

MATERIAL PROPERTIES

#2 - Southern Pine

		Base Values		Adjusted	
Bending Stress:	Fb =	1000	psi	Fb' =	1000 psi
	Cd=1.00 CF=1.00				
Shear Stress:	Fv =	175	psi	Fv' =	175 psi
	Cd=1.00				
Modulus of Elasticity:	E =	1400	ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565 psi

Controlling Moment: 619 ft-lb
1.5 ft from left support
Created by combining all dead and live loads.

Controlling Shear: 995 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	7.42 in3	15.13 in3
Area (Shear):	8.53 in2	16.5 in2
Moment of Inertia (deflection):	4.85 in4	41.59 in4
Moment:	619 ft-lb	1260 ft-lb
Shear:	995 lb	1925 lb

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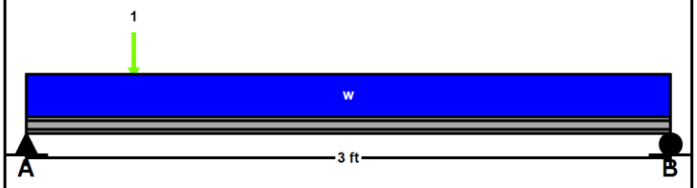

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	40	psf	0	psf
Floor Dead Load	FDL =	15	psf	0	psf
Floor Tributary Width	FTW =	7	ft	0	ft
Wall Load	WALL =	80	plf		

BEAM LOADING

Beam Total Live Load:	wL =	280	plf
Beam Total Dead Load:	wD =	185	plf
Beam Self Weight:	BSW =	4	plf
Total Maximum Load:	wT =	469	plf

POINT LOADS - CENTER SPAN

Load Number	One
Live Load	0 lb
Dead Load	350 lb
Location	0.5 ft

Project: 210801B Mt Olive

Location: FL1 Beam master entry
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 4.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 97.6%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS	Center	
Live Load	0.01	IN L/4440
Dead Load	0.00	in
Total Load	0.02	IN L/3199

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B
Live Load	1040 lb	1040 lb
Dead Load	403 lb	403 lb
Total Load	1443 lb	1443 lb
Bearing Length	0.85 in	0.85 in

BEAM DATA	Center
Span Length	4 ft
Unbraced Length-Top	0 ft
Floor Duration Factor	1.00
Notch Depth	0.00

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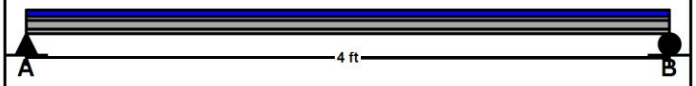

MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values	Adjusted
Bending Stress:	Fb = 800 psi	Fb' = 800 psi
	Cd=1.00 CF=1.00	
Shear Stress:	Fv = 175 psi	Fv' = 175 psi
	Cd=1.00	
Modulus of Elasticity:	E = 1400 ksi	E' = 1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565 psi	Fc - ⊥' = 565 psi

Controlling Moment: 1443 ft-lb
2.0 ft from left support
Created by combining all dead and live loads.
Controlling Shear: 1443 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	21.65 in3	42.78 in3
Area (Shear):	12.37 in2	27.75 in2
Moment of Inertia (deflection):	16.04 in4	197.86 in4
Moment:	1443 ft-lb	2852 ft-lb
Shear:	1443 lb	3238 lb

FLOOR LOADING

		Side 1	Side 2
Floor Live Load	FLL =	40 psf	40 psf
Floor Dead Load	FDL =	15 psf	15 psf
Floor Tributary Width	FTW =	6 ft	7 ft
Wall Load	WALL =	0 plf	

BEAM LOADING

Beam Total Live Load:	wL =	520 plf
Beam Total Dead Load:	wD =	195 plf
Beam Self Weight:	BSW =	7 plf
Total Maximum Load:	wT =	722 plf

Project: 210801B Mt Olive

Location: FL1 Header master bath - bed
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 3.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 55.8%
Controlling Factor: Moment

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DEFLECTIONS Center

Live Load	0.02	IN L/2212
Dead Load	0.01	in
Total Load	0.02	IN L/1600

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS

	A		B	
Live Load	780	lb	780	lb
Dead Load	298	lb	298	lb
Total Load	1078	lb	1078	lb
Bearing Length	0.64	in	0.64	in

BEAM DATA Center

Span Length	3	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

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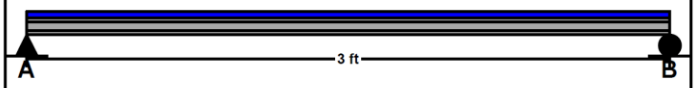

MATERIAL PROPERTIES

#2 - Southern Pine

		Base Values		Adjusted	
Bending Stress:	Fb =	1000	psi	Fb' =	1000 psi
	Cd=1.00 CF=1.00				
Shear Stress:	Fv =	175	psi	Fv' =	175 psi
	Cd=1.00				
Modulus of Elasticity:	E =	1400	ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565 psi

Controlling Moment: 809 ft-lb
1.5 ft from left support
Created by combining all dead and live loads.

Controlling Shear: -1078 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	9.71 in3	15.13 in3
Area (Shear):	9.24 in2	16.5 in2
Moment of Inertia (deflection):	6.77 in4	41.59 in4
Moment:	809 ft-lb	1260 ft-lb
Shear:	-1078 lb	1925 lb

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	40	psf	40	psf
Floor Dead Load	FDL =	15	psf	15	psf
Floor Tributary Width	FTW =	6	ft	7	ft
Wall Load	WALL =	0	plf		

BEAM LOADING

Beam Total Live Load:	wL =	520	plf
Beam Total Dead Load:	wD =	195	plf
Beam Self Weight:	BSW =	4	plf
Total Maximum Load:	wT =	719	plf

Project: 210801B Mt Olive

Location: FL1 Header kitchen - back hall
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 3.17 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 95.2%
Controlling Factor: Moment

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DEFLECTIONS

	Center	
Live Load	0.01	IN L/4063
Dead Load	0.01	in
Total Load	0.02	IN L/2033

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS

	A		B	
Live Load	380	lb	380	lb
Dead Load	286	lb	302	lb
Total Load	666	lb	682	lb
Bearing Length	0.39	in	0.40	in

BEAM DATA

	Center	
Span Length	3.17	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

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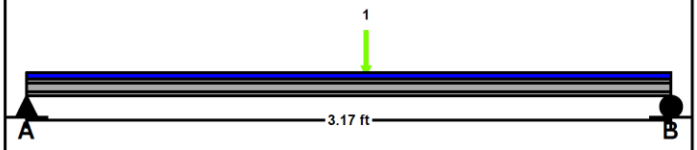

MATERIAL PROPERTIES

#2 - Southern Pine

		Base Values		Adjusted	
Bending Stress:	Fb =	1000	psi	Fb' =	1000 psi
	Cd=1.00 CF=1.00				
Shear Stress:	Fv =	175	psi	Fv' =	175 psi
	Cd=1.00				
Modulus of Elasticity:	E =	1400	ksi	E' =	1400 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565 psi

Controlling Moment: 646 ft-lb
1.585 ft from left support
Created by combining all dead and live loads.

Controlling Shear: -682 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	7.75 in3	15.13 in3
Area (Shear):	5.85 in2	16.5 in2
Moment of Inertia (deflection):	4.91 in4	41.59 in4
Moment:	646 ft-lb	1260 ft-lb
Shear:	-682 lb	1925 lb

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	0	psf	40	psf
Floor Dead Load	FDL =	0	psf	15	psf
Floor Tributary Width	FTW =	0	ft	6	ft
Wall Load	WALL =	0	plf		

BEAM LOADING

Beam Total Live Load:	wL =	240	plf
Beam Total Dead Load:	wD =	90	plf
Beam Self Weight:	BSW =	4	plf
Total Maximum Load:	wT =	334	plf

POINT LOADS - CENTER SPAN

Load Number	One
Live Load	0 lb
Dead Load	290 lb
Location	1.67 ft

Project: 210801B Mt Olive

Location: FL1 Header window breakfast
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 9.51 FT (3.2 + 3.2 + 3.2)
#2 - Southern Pine - Dry Use
Section Adequate By: 366.4%
Controlling Factor: Shear

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DEFLECTIONS	Left		Center		Right	
Live Load	0.00	IN L/MAX	0.00	IN L/MAX	0.00	IN L/MAX
Dead Load	0.00	in	0.00	in	0.00	in
Total Load	0.01	IN L/7042	0.00	IN L/MAX	0.01	IN L/7042

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS	A	B	C	D
Live Load	157 lb	418 lb	418 lb	157 lb
Dead Load	132 lb	362 lb	362 lb	132 lb
Total Load	289 lb	780 lb	780 lb	289 lb
Bearing Length	0.17 in	0.46 in	0.46 in	0.17 in

BEAM DATA	Left	Center	Right
Span Length	3.17 ft	3.17 ft	3.17 ft
Unbraced Length-Top	0 ft	0 ft	0 ft
Unbraced Length-Bottom	3.17 ft	3.17 ft	3.17 ft
Live Load Duration Factor	1.00		
Notch Depth	0.00		

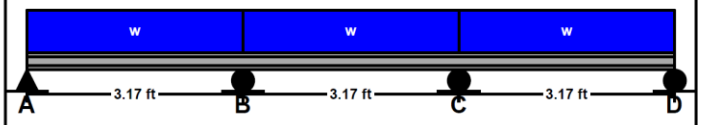
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 1000 psi		Fb' = 996 psi	
	Cd=1.00 Cl=1.00 CF=1.00			
Shear Stress:	Fv = 175 psi		Fv' = 175 psi	
	Cd=1.00			
Modulus of Elasticity:	E = 1400 ksi		E' = 1400 ksi	
Comp. ⊥ to Grain:	Fc - ⊥ = 565 psi		Fc - ⊥' = 565 psi	

Controlling Moment: -233 ft-lb
Over right support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2, 3
Controlling Shear: 413 lb
At left support of span 3 (Right Span)
Created by combining all dead loads and live loads on span(s) 2, 3

Comparisons with required sections:	Req'd	Provided
Section Modulus:	2.81 in3	15.13 in3
Area (Shear):	3.54 in2	16.5 in2
Moment of Inertia (deflection):	1.42 in4	41.59 in4
Moment:	-233 ft-lb	1255 ft-lb
Shear:	413 lb	1925 lb

LOADING DIAGRAM



UNIFORM LOADS	Left		Center		Right	
Uniform Live Load	110	plf	110	plf	110	plf
Uniform Dead Load	100	plf	100	plf	100	plf
Beam Self Weight	4	plf	4	plf	4	plf
Total Uniform Load	214	plf	214	plf	214	plf

Project: 210801B Mt Olive

Location: FL1 Header fireplace and windows at side of family
Roof Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 5.5 IN x 4.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 359.2%
Controlling Factor: Moment

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DEFLECTIONS Center

Live Load	0.01	IN L/8575
Dead Load	0.01	in
Total Load	0.02	IN L/3075

Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180

REACTIONS

	A		B	
Live Load	113	lb	113	lb
Dead Load	202	lb	202	lb
Total Load	315	lb	315	lb
Bearing Length	0.19	in	0.19	in

BEAM DATA

Span Length	4	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	0	ft
Roof Pitch	0	:12
Roof Duration Factor	1.15	

MATERIAL PROPERTIES

#2 - Southern Pine

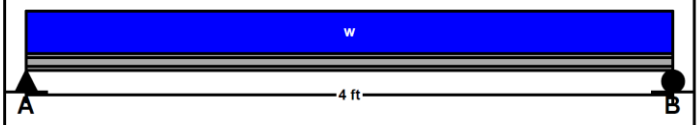
	Base Values		Adjusted	
Bending Stress:	Fb = 1000	psi	Fb' = 1150	psi
	Cd=1.15 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 201	psi
	Cd=1.15			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 316 ft-lb
2.0 ft from left support
Created by combining all dead and live loads.

Controlling Shear: 316 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	3.29 in3	15.13 in3
Area (Shear):	2.35 in2	16.5 in2
Moment of Inertia (deflection):	2.43 in4	41.59 in4
Moment:	316 ft-lb	1449 ft-lb
Shear:	316 lb	2214 lb

LOADING DIAGRAM



ROOF LOADING

Side One:

Roof Live Load:	LL =	30	psf
Roof Dead Load:	DL =	20	psf
Tributary Width:	TW =	1	ft

Side Two:

Roof Live Load:	LL =	20	psf
Roof Dead Load:	DL =	10	psf
Tributary Width:	TW =	1.3	ft
Wall Load:	WALL =	64	plf

SLOPE/PITCH ADJUSTED LENGTHS AND LOADS

Adjusted Beam Length:	Ladj =	4	ft
Beam Self Weight:	BSW =	4	plf
Beam Uniform Live Load:	wL =	57	plf
Beam Uniform Dead Load:	wD_adj =	101	plf
Total Uniform Load:	wT =	158	plf

Project: 210801B Mt Olive

Location: FL1 Header rear porch worst case
Roof Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 11.25 IN x 8.33 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 21.0%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS Center

Live Load	0.05	IN L/2000
Dead Load	0.04	in
Total Load	0.09	IN L/1061

Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180

REACTIONS

	A		B	
Live Load	958	lb	958	lb
Dead Load	847	lb	847	lb
Total Load	1805	lb	1805	lb
Bearing Length	1.06	in	1.06	in

BEAM DATA

Span Length	8.3	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	0	ft
Roof Pitch	10	:12
Roof Duration Factor	1.15	

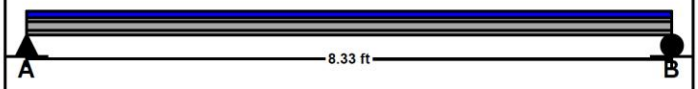
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 750	psi	Fb' = 863	psi
	Cd=1.15 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 201	psi
	Cd=1.15			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 3758 ft-lb
4.165 ft from left support
Created by combining all dead and live loads.
Controlling Shear: -1805 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	52.29 in3	63.28 in3
Area (Shear):	13.45 in2	33.75 in2
Moment of Inertia (deflection):	60.37 in4	355.96 in4
Moment:	3758 ft-lb	4548 ft-lb
Shear:	-1805 lb	4528 lb

LOADING DIAGRAM



ROOF LOADING

Side One:			
Roof Live Load:	LL =	30	psf
Roof Dead Load:	DL =	20	psf
Tributary Width:	TW =	7	ft
Side Two:			
Roof Live Load:	LL =	20	psf
Roof Dead Load:	DL =	10	psf
Tributary Width:	TW =	1	ft
Wall Load:	WALL =	0	plf

SLOPE/PITCH ADJUSTED LENGTHS AND LOADS

Adjusted Beam Length:	Ladj =	8.33	ft
Beam Self Weight:	BSW =	8	plf
Beam Uniform Live Load:	wL =	230	plf
Beam Uniform Dead Load:	wD_adj =	203	plf
Total Uniform Load:	wT =	433	plf

Project: 210801B Mt Olive

Location: FND Girder rear porch
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(2) 1.5 IN x 9.25 IN x 7.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 18.9%
Controlling Factor: Moment

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CAUTIONS
* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS

	Center	
Live Load	0.05	IN L/1539
Dead Load	0.02	in
Total Load	0.08	IN L/1100

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

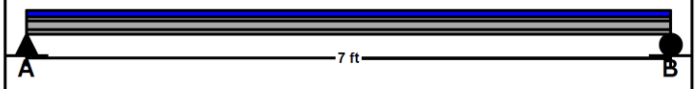
REACTIONS

	A		B	
Live Load	980	lb	980	lb
Dead Load	391	lb	391	lb
Total Load	1371	lb	1371	lb
Bearing Length	0.81	in	0.81	in

BEAM DATA

	Center
Span Length	7 ft
Unbraced Length-Top	0 ft
Floor Duration Factor	1.00
Notch Depth	0.00

LOADING DIAGRAM



MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 800	psi	Fb' = 800	psi
	Cd=1.00 CF=1.00			
Shear Stress:	Fv = 175	psi	Fv' = 175	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 2399 ft-lb
3.5 ft from left support
Created by combining all dead and live loads.
Controlling Shear: -1371 lb
At support.
Created by combining all dead and live loads.

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	0	psf	40	psf
Floor Dead Load	FDL =	0	psf	15	psf
Floor Tributary Width	FTW =	0	ft	7	ft
Wall Load	WALL =	0	plf		

BEAM LOADING

Beam Total Live Load:	wL =	280	plf
Beam Total Dead Load:	wD =	105	plf
Beam Self Weight:	BSW =	7	plf
Total Maximum Load:	wT =	392	plf

Comparisons with required sections:

	Req'd		Provided	
Section Modulus:	35.98	in3	42.78	in3
Area (Shear):	11.75	in2	27.75	in2
Moment of Inertia (deflection):	46.3	in4	197.86	in4
Moment:	2399	ft-lb	2852	ft-lb
Shear:	-1371	lb	3238	lb

Project: 210801B Mt Olive

Location: FND Girder foyer - bed4 worst case
Combination Roof And Floor Beam
[2015 International Building Code(2015 NDS)]
(3) 1.5 IN x 9.25 IN x 6.0 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 11.5%
Controlling Factor: Moment

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CAUTIONS
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DEFLECTIONS Center

Live Load	0.05	IN L/1480
Dead Load	0.03	in
Total Load	0.08	IN L/910

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS

	A		B	
Live Load	2793	lb	2080	lb
Dead Load	1769	lb	1304	lb
Total Load	4562	lb	3384	lb
Bearing Length	1.79	in	1.33	in

BEAM DATA Center

Span Length	6	ft
Unbraced Length-Top	0	ft
Roof Pitch	4	:12
Floor Duration Factor	1.00	
Roof Duration Factor	1.15	
Notch Depth	0.00	

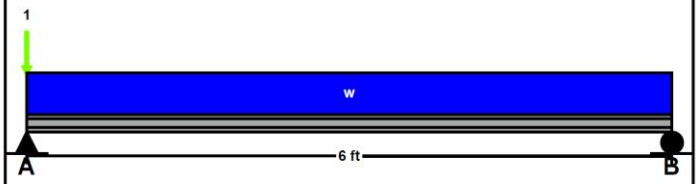
MATERIAL PROPERTIES
#2 - Southern Pine

	Base Values		Adjusted	
Bending Stress:	Fb = 800	psi	Fb' = 1058	psi
	Cd=1.15 CF=1.00 Cr=1.15			
Shear Stress:	Fv = 175	psi	Fv' = 201	psi
	Cd=1.15			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 565	psi	Fc - ⊥' = 565	psi

Controlling Moment: 5076 ft-lb
3.0 ft from left support
Created by combining all dead and live loads.
Controlling Shear: -3384 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	57.57 in3	64.17 in3
Area (Shear):	25.22 in2	41.63 in2
Moment of Inertia (deflection):	78.3 in4	296.79 in4
Moment:	5076 ft-lb	5658 ft-lb
Shear:	-3384 lb	5585 lb

LOADING DIAGRAM



ROOF LOADING

		Side 1		Side 2	
Roof Live Load	RLL =	0	psf	30	psf
Roof Dead Load	RDL =	0	psf	20	psf
Roof Tributary Width	RTW =	0	ft	6	ft

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	40	psf	60	psf
Floor Dead Load	FDL =	10	psf	25	psf
Floor Tributary Width	FTW =	3.8	ft	6	ft
Wall Load	WALL =	110	plf		

BEAM LOADING

Roof Uniform Live Load:	wL-roof =	180	plf
Roof Uniform Dead Load:	wD-roof =	126	plf
Floor Uniform Live Load:	wL-floor =	513	plf
Floor Uniform Dead Load:	wD-floor =	188	plf
Beam Self Weight:	BSW =	10	plf
Combined Uniform Live Load:	wL =	693	plf
Combined Uniform Dead Load:	wD =	435	plf
Combined Uniform Total Load:	wT =	1128	plf

POINT LOADS - CENTER SPAN

Load Number	One *
Live Load	713 lb
Dead Load	465 lb
Location	0 ft

* Load obtained from Load Tracker. See Summary Report for details.

Project: 210801B Mt Olive

Location: FND Girder bed4 - laundry
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(2) 1.75 IN x 9.25 IN x 7.0 FT
Versa-Lam 3100 Fb - Boise Cascade
Section Adequate By: 23.8%
Controlling Factor: Shear

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CAUTIONS
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DEFLECTIONS Center

Live Load	0.11	IN L/737
Dead Load	0.05	in
Total Load	0.17	IN L/506

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

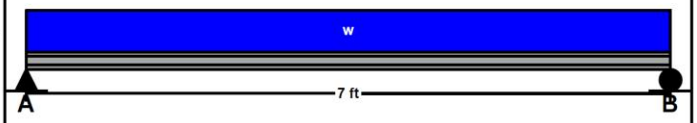
REACTIONS

	A	B
Live Load	3408 lb	3408 lb
Dead Load	1562 lb	1562 lb
Total Load	4970 lb	4970 lb
Bearing Length	1.89 in	1.89 in

BEAM DATA

	Center
Span Length	7 ft
Unbraced Length-Top	0 ft
Floor Duration Factor	1.00
Notch Depth	0.00

LOADING DIAGRAM



MATERIAL PROPERTIES
Versa-Lam 3100 Fb - Boise Cascade

		Base Values		Adjusted	
Bending Stress:	Fb =	3100	psi	Fb' =	3191 psi
	Cd=1.00 CF=1.03				
Shear Stress:	Fv =	285	psi	Fv' =	285 psi
	Cd=1.00				
Modulus of Elasticity:	E =	2000	ksi	E' =	2000 ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	750	psi	Fc - ⊥' =	750 psi

Controlling Moment: 8696 ft-lb
3.5 ft from left support
Created by combining all dead and live loads.
Controlling Shear: 4969 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	32.7 in3	49.91 in3
Area (Shear):	26.15 in2	32.38 in2
Moment of Inertia (deflection):	112.69 in4	230.84 in4
Moment:	8696 ft-lb	13272 ft-lb
Shear:	4969 lb	6151 lb

FLOOR LOADING

		Side 1	Side 2
Floor Live Load	FLL =	100 psf	80 psf
Floor Dead Load	FDL =	35 psf	25 psf
Floor Tributary Width	FTW =	6 ft	4.7 ft
Wall Load	WALL =	110 plf	

BEAM LOADING

Beam Total Live Load:	wL =	974 plf
Beam Total Dead Load:	wD =	437 plf
Beam Self Weight:	BSW =	9 plf
Total Maximum Load:	wT =	1420 plf

Project: 210801B Mt Olive

Location: FND Girder kitchen - master bath worst case
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(3) 1.5 IN x 9.25 IN x 6.17 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 10.9%
Controlling Factor: Moment

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CAUTIONS
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DEFLECTIONS

	Center	
Live Load	0.05	IN L/1506
Dead Load	0.02	in
Total Load	0.07	IN L/1012

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

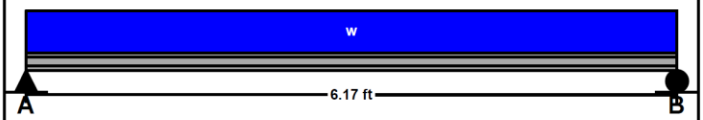
REACTIONS

	A		B	
Live Load	1932	lb	1932	lb
Dead Load	943	lb	943	lb
Total Load	2875	lb	2875	lb
Bearing Length	1.13	in	1.13	in

BEAM DATA

	Center	
Span Length	6.17	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

LOADING DIAGRAM



MATERIAL PROPERTIES
#2 - Southern Pine

		Base Values			Adjusted	
Bending Stress:	Fb =	800	psi	Fb' =	920	psi
	Cd=1.00 CF=1.00 Cr=1.15					
Shear Stress:	Fv =	175	psi	Fv' =	175	psi
	Cd=1.00					
Modulus of Elasticity:	E =	1400	ksi	E' =	1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565	psi

Controlling Moment: 4435 ft-lb
3.085 ft from left support
Created by combining all dead and live loads.
Controlling Shear: 2875 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd		Provided	
Section Modulus:	57.85	in3	64.17	in3
Area (Shear):	24.65	in2	41.63	in2
Moment of Inertia (deflection):	70.93	in4	296.79	in4
Moment:	4435	ft-lb	4920	ft-lb
Shear:	2875	lb	4856	lb

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	40	psf	80	psf
Floor Dead Load	FDL =	10	psf	25	psf
Floor Tributary Width	FTW =	4	ft	5.8	ft
Wall Load	WALL =	110	plf		

BEAM LOADING

Beam Total Live Load:	wL =	626	plf
Beam Total Dead Load:	wD =	296	plf
Beam Self Weight:	BSW =	10	plf
Total Maximum Load:	wT =	932	plf

Project: 210801B Mt Olive

Location: FND Girder family - kitchen
Uniformly Loaded Floor Beam
[2015 International Building Code(2015 NDS)]
(3) 1.5 IN x 9.25 IN x 5.17 FT
#2 - Southern Pine - Dry Use
Section Adequate By: 181.9%
Controlling Factor: Moment

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CAUTIONS
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DEFLECTIONS Center

Live Load	0.02	IN L/3912
Dead Load	0.00	in
Total Load	0.02	IN L/3070

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

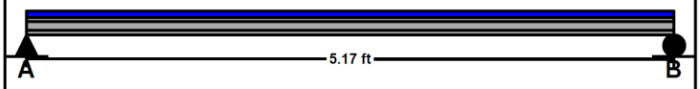
REACTIONS

	A		B	
Live Load	1060	lb	1060	lb
Dead Load	291	lb	291	lb
Total Load	1351	lb	1351	lb
Bearing Length	0.53	in	0.53	in

BEAM DATA Center

Span Length	5.17	ft
Unbraced Length-Top	0	ft
Floor Duration Factor	1.00	
Notch Depth	0.00	

LOADING DIAGRAM



MATERIAL PROPERTIES
#2 - Southern Pine

		Base Values			Adjusted	
Bending Stress:	Fb =	800	psi	Fb' =	920	psi
	Cd=1.00 CF=1.00 Cr=1.15					
Shear Stress:	Fv =	175	psi	Fv' =	175	psi
	Cd=1.00					
Modulus of Elasticity:	E =	1400	ksi	E' =	1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ =	565	psi	Fc - ⊥' =	565	psi

Controlling Moment: 1745 ft-lb
2.585 ft from left support
Created by combining all dead and live loads.
Controlling Shear: -1350 lb
At support.
Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
Section Modulus:	22.77 in3	64.17 in3
Area (Shear):	11.58 in2	41.63 in2
Moment of Inertia (deflection):	27.31 in4	296.79 in4
Moment:	1745 ft-lb	4920 ft-lb
Shear:	-1350 lb	4856 lb

FLOOR LOADING

		Side 1		Side 2	
Floor Live Load	FLL =	40	psf	40	psf
Floor Dead Load	FDL =	10	psf	10	psf
Floor Tributary Width	FTW =	6.3	ft	4	ft
Wall Load	WALL =	0	plf		

BEAM LOADING

Beam Total Live Load:	wL =	410	plf
Beam Total Dead Load:	wD =	103	plf
Beam Self Weight:	BSW =	10	plf
Total Maximum Load:	wT =	522	plf