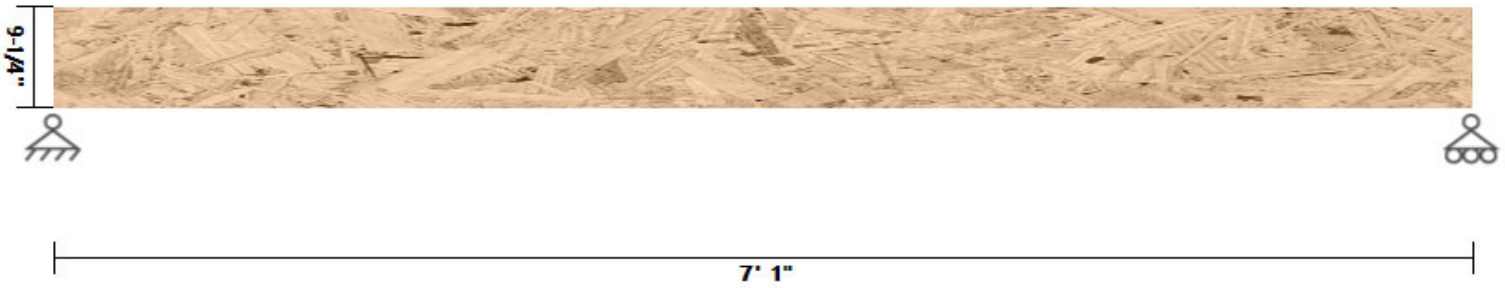
PASS

DATE:	2/28/2022	COMPANY:	Schumacher Homes
VITRUVIUS BUILD:	StruCalc	DESIGNED BY:	Dan Fishtorn
CUSTOMER:	Santoni DU700 022 0108	REVIEWED BY:	Dan Fishtorn
PROJ. ADDRESS:	--	PROJECT NAME:	Santoni DU700 022 0108
	--		
LEVEL:	Main Floor	LOADING:	LRFD
MEMBER NAME:	LVL over kitchen	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Louisiana Pacific	2.0E LVL	(2) 1.75 X 9.25	DRY		

LVL over kitchen DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 7.083 Member Slope: 0/12 Actual Length (ft): 7.08

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
32.38	230.84	8.26	9.22	2	9	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥ (psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2900	1800	285	3200	750	2000	1000
Adjusted Values	6261	3888	616	6912	1127	2000	1496
$K_F*\phi$	2.16	2.16	2.16	2.16	1.5	1	1.5
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

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	7.083	0	7.083	0	1.00	0.75	1.00	1.00

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	TIME EFFECT λ
Shear Stress Y (psi)	PASS (66.7%)	163.9	492.5	7.08	1.2D+1.6L+0.5Lr	0.8
Bending Stress Y (psi)	PASS (70.8%)	1506.3	5155.8	3.54	1.2D+1.6L+0.5Lr	0.8
Deflection (in)	PASS (73.0%)	0.064 (=L/1332)	0.236 (=L/360)	3.54	L	
Bearing Stress (psi)	PASS (83.7%)	183.8	1127.3	0	1.2D+1.6L+0.5Lr	0.8

REACTIONS

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

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	WIND +	WIND -	SEISMIC +	SEISMIC -	ICE	RAIN	EARTH
A	493	1842	0	0	0	0	0	0	0	0	0
B	493	1842	0	0	0	0	0	0	0	0	0

Reaction Location

A B

LOAD LIST

Type	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	520	520	0	7.083	Live	Y
Uniform (lbf/ft)	130	130	0	7.083	Dead	Y
Self Weight (lbf/ft)	9.22	9.22	0	7.083	Dead	Y

PASS

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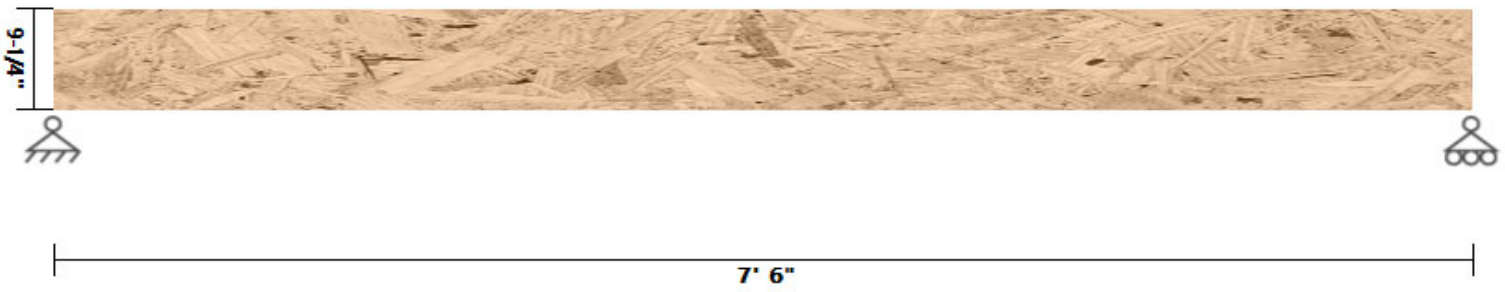
VITRUVIUS BUILD:	StruCalc	DESIGNED BY:	Dan Fishtorn
CUSTOMER:	Santoni DU700 022 0108	REVIEWED BY:	Dan Fishtorn
PROJ. ADDRESS:	--	PROJECT NAME:	Santoni DU700 022 0108
	--		
LEVEL:	Main Floor	LOADING:	LRFD
MEMBER NAME:	LVL over Foyer-Great Room	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Louisiana Pacific	2.0E LVL	(2) 1.75 X 9.25	DRY		

LVL over Foyer-Great Room DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 7.5 Member Slope: 0/12 Actual Length (ft): 7.5

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
32.38	230.84	8.26	9.22	2	9	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2900	1800	285	3200	750	2000	1000
Adjusted Values	6261	3888	616	6912	1127	2000	1496
$K_F*\phi$	2.16	2.16	2.16	2.16	1.5	1	1.5
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

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	7.5	0	7.5	0	1.00	0.72	1.00	1.00

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	TIME EFFECT λ
Shear Stress Y (psi)	PASS (79.5%)	101.0	492.5	7.5	1.2D+1.6L+0.5Lr	0.8
Bending Stress Y (psi)	PASS (80.9%)	982.3	5155.8	3.75	1.2D+1.6L+0.5Lr	0.8
Deflection (in)	PASS (81.5%)	0.046 (=L/1944)	0.250 (=L/360)	3.75	L	
Bearing Stress (psi)	PASS (90.0%)	113.2	1127.3	0	1.2D+1.6L+0.5Lr	0.8

REACTIONS

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

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	WIND +	WIND -	SEISMIC +	SEISMIC -	ICE	RAIN	EARTH
A	316	1125	0	0	0	0	0	0	0	0	0
B	316	1125	0	0	0	0	0	0	0	0	0

Reaction Location

A B

LOAD LIST

Type	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	300	300	0	7.5	Live	Y
Uniform (lbf/ft)	75	75	0	7.5	Dead	Y
Self Weight (lbf/ft)	9.22	9.22	0	7.5	Dead	Y

PASS

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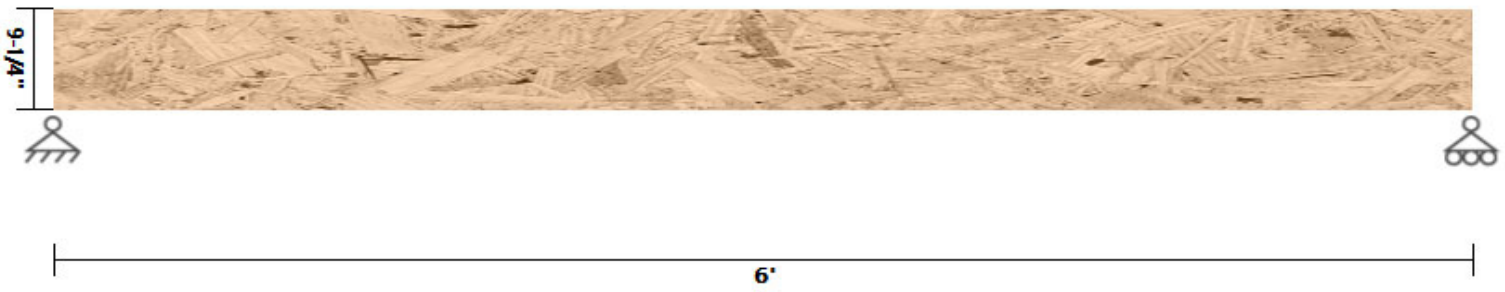
VITRUVIUS BUILD:	StruCalc	DESIGNED BY:	Dan Fishtorn
CUSTOMER:	Santoni DU700 022 0108	REVIEWED BY:	Dan Fishtorn
PROJ. ADDRESS:	--	PROJECT NAME:	Santoni DU700 022 0108
	--		
LEVEL:	Main Floor	LOADING:	LRFD
MEMBER NAME:	LVL over Foyer	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Louisiana Pacific	2.0E LVL	(2) 1.75 X 9.25	DRY		

LVL over Foyer 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
32.38	230.84	8.26	9.22	2	9	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2900	1800	285	3200	750	2000	1000
Adjusted Values	6261	3888	616	6912	1127	2000	1496
$K_F*\phi$	2.16	2.16	2.16	2.16	1.5	1	1.5
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

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	0	6	0	1.00	0.89	1.00	1.00

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	TIME EFFECT λ
Shear Stress Y (psi)	PASS (16.9%)	409.2	492.5	0	1.2D+1.6L+0.5Lr	0.8
Bending Stress Y (psi)	PASS (59.4%)	2094.5	5155.8	1.02	1.2D+1.6L+0.5Lr	0.8
Deflection (in)	PASS (78.0%)	0.066 (=L/1093)	0.300 (=L/240)	2.64	D+L	
Bearing Stress (psi)	PASS (59.3%)	458.8	1127.3	0	1.2D+1.6L+0.5Lr	0.8

REACTIONS

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

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	WIND +	WIND -	SEISMIC +	SEISMIC -	ICE	RAIN	EARTH
A	2678	3512	0	0	0	0	0	0	0	0	0
B	687	875	0	0	0	0	0	0	0	0	0

Reaction Location

A B

LOAD LIST

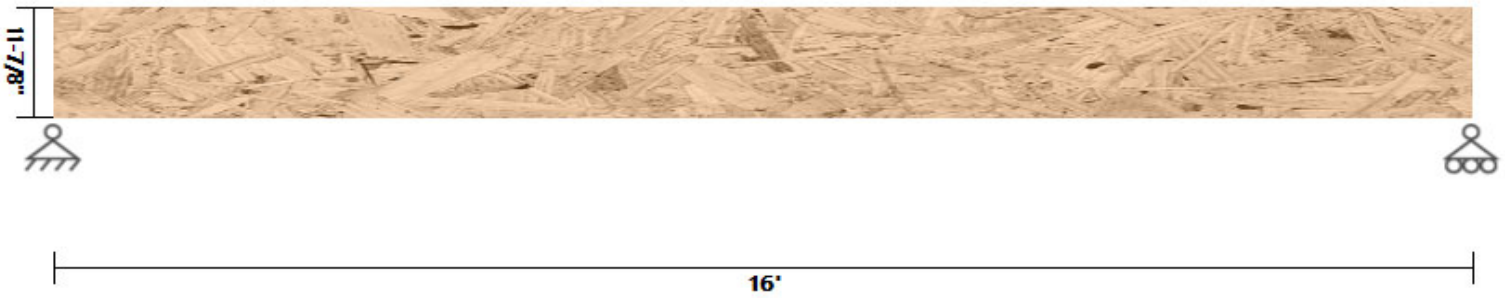
Type	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	72	72	0	6	Live	Y
Uniform (lbf/ft)	54	54	0	6	Dead	Y
Point (lbf)	3955	-	1	-	Live	Y
Point (lbf)	2986	-	1	-	Dead	Y
Self Weight (lbf/ft)	9.22	9.22	0	6	Dead	Y

PASS

DATE:	2/28/2022	COMPANY:	Schumacher Homes
VITRUVIUS BUILD:	StruCalc	DESIGNED BY:	Dan Fishtorn
CUSTOMER:	Santoni DU700 022 0108	REVIEWED BY:	Dan Fishtorn
PROJ. ADDRESS:	-- --	PROJECT NAME:	Santoni DU700 022 0108
LEVEL:	Main Floor	LOADING:	LRFD
MEMBER NAME:	Garage Door Header	CODE:	2018 International Building Code
MEMBER TYPE:	FLOOR BEAM	NDS:	2018 NDS
MATERIAL:	Structural Composite Lumber		

Louisiana Pacific	2.0E LVL	(2) 1.75 X 11.875	DRY		

Garage Door Header DIAGRAM



BEAM PROPERTIES

Start (ft): 0 End (ft): 16 Member Slope: 0/12 Actual Length (ft): 16

Area (in^2)	Ix (in^4)	Iy (in^4)	BSW (lbf/ft)	Lams	Cfn	Kcr Creep Factor
41.56	488.41	10.61	11.83	2	9	1

STRENGTH PROPERTIES

	Fb (psi)	Ft (psi)	Fv (psi)	Fc (psi)	Fc⊥(psi)	E (psi) x10^3	Emin (psi) x10^3
Base Values	2900	1800	285	3200	750	2000	1000
Adjusted Values	6261	3888	616	6912	1127	2000	1496
$K_F*\phi$	2.16	2.16	2.16	2.16	1.5	1	1.5
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

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	16	0	16	0	1.00	0.29	1.00	1.00

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOCATION (ft)	LOAD COMBO	TIME EFFECT λ
Shear Stress Y (psi)	PASS (88.6%)	56.1	492.5	0	1.2D+1.6L+0.5Lr	0.8
Bending Stress Y (psi)	PASS (81.9%)	906.6	5014.7	8	1.2D+1.6L+0.5Lr	0.8
Deflection (in)	PASS (74.0%)	0.208 (=L/923)	0.800 (=L/240)	8	D+L	
Bearing Stress (psi)	PASS (92.8%)	80.7	1127.3	0	1.2D+1.6L+0.5Lr	0.8

REACTIONS

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

Y axis	DEAD	LIVE	LIVE ROOF	SNOW	WIND +	WIND -	SEISMIC +	SEISMIC -	ICE	RAIN	EARTH
A	527	576	0	0	0	0	0	0	0	0	0
B	527	576	0	0	0	0	0	0	0	0	0

Reaction Location

A B

LOAD LIST

Type	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Uniform (lbf/ft)	72	72	0	16	Live	Y
Uniform (lbf/ft)	54	54	0	16	Dead	Y
Self Weight (lbf/ft)	11.83	11.83	0	16	Dead	Y