1st Floor			
Member Name	**Results (Max UTIL %)**	**Current Solution**	**Comments**
1H-3 (i3434)	Passed (34% V)	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
1H-5 (i3503)	Passed (27% V)	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
1H-2 (i3387)	Passed (56% R)	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
1H-2 (i3431)	Passed (82% R)	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
1H-6 (i3504)	Passed (16% V)	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
1H-1 (i3433)	Passed (50% V)	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	

ForteWEB Software Operator	Job Notes
Scott Poston Universal Forest Products (706) 367-2781 sposton@ufpi.com	

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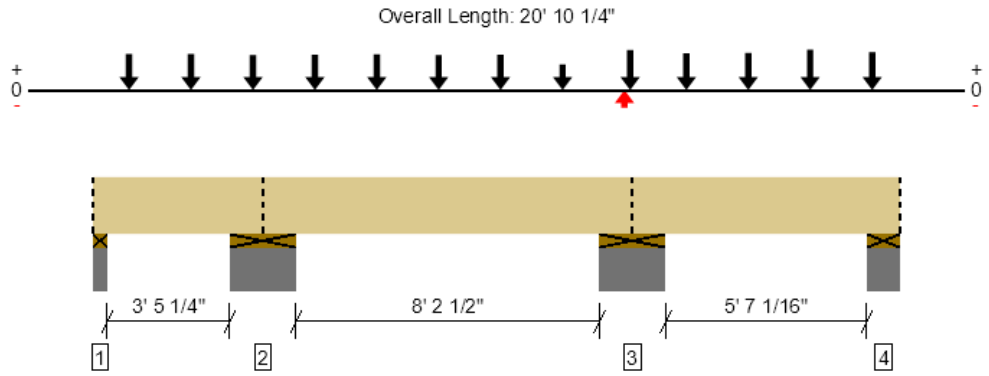
1st Floor, 1H-3 (i3434)

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3336 @ 13' 4 11/16"	11900 (8.00")	Passed (28%)	--	1.0 D + 1.0 L (Adj Spans)
Shear (lbs)	2078 @ 5' 9 15/16"	6151	Passed (34%)	1.00	1.0 D + 1.0 L (Adj Spans)
Moment (Ft-lbs)	-2673 @ 13' 4 11/16"	11204	Passed (24%)	1.00	1.0 D + 1.0 L (Adj Spans)
Live Load Defl. (in)	0.053 @ 9' 3 1/16"	0.282	Passed (L/999+)	--	1.0 D + 1.0 L (Adj Spans)
Total Load Defl. (in)	0.060 @ 8' 11 3/16"	0.423	Passed (L/999+)	--	1.0 D + 1.0 L (Adj Spans)

Member Length : 20' 10 1/4"
System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Plate on concrete - SPF	3.44"	3.44"	1.50"	210	599/-326	810/-143	Blocking
2 - Plate on concrete - SPF	16.00"	16.00"	16.00"	804/-168	3916/-538	5156/-39	Blocking
3 - Plate on concrete - SPF	16.00"	16.00"	16.00"	1418	3621/-17	5581	Blocking
4 - Plate on concrete - SPF	8.00"	8.00"	1.50"	651	1321/-185	1905	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	20' 10" o/c	
Bottom Edge (Lu)	20' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 20' 10 1/4"	N/A	9.4	--	
1 - Point (lb)	11 3/16" (Top)	N/A	193	649	Imported Load
2 - Point (lb)	2' 6 3/8" (Top)	N/A	193	649	Imported Load
3 - Point (lb)	4' 1 5/8" (Top)	N/A	129	669	Imported Load
4 - Point (lb)	5' 8 13/16" (Top)	N/A	143	669	Imported Load
5 - Point (lb)	7' 4" (Top)	N/A	166	653	Imported Load
6 - Point (lb)	8' 11 3/16" (Top)	N/A	115	669	Imported Load
7 - Point (lb)	10' 6 3/8" (Top)	N/A	135	669	Imported Load
8 - Point (lb)	12' 1 5/8" (Top)	N/A	30	335	Imported Load
9 - Point (lb)	13' 8 13/16" (Top)	N/A	-19	-	Imported Load
10 - Point (lb)	13' 10 9/16" (Top)	N/A	690	326	Imported Load
11 - Point (lb)	15' 4" (Top)	N/A	173	704	Imported Load
12 - Point (lb)	16' 11 3/16" (Top)	N/A	149	739	Imported Load
13 - Point (lb)	18' 6 3/8" (Top)	N/A	293	739	Imported Load
14 - Point (lb)	20' 1 5/8" (Top)	N/A	371	551	Imported Load

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

ForteWEB Software Operator	Job Notes
Scott Poston Universal Forest Products (706) 367-2781 sposton@ufpi.com	

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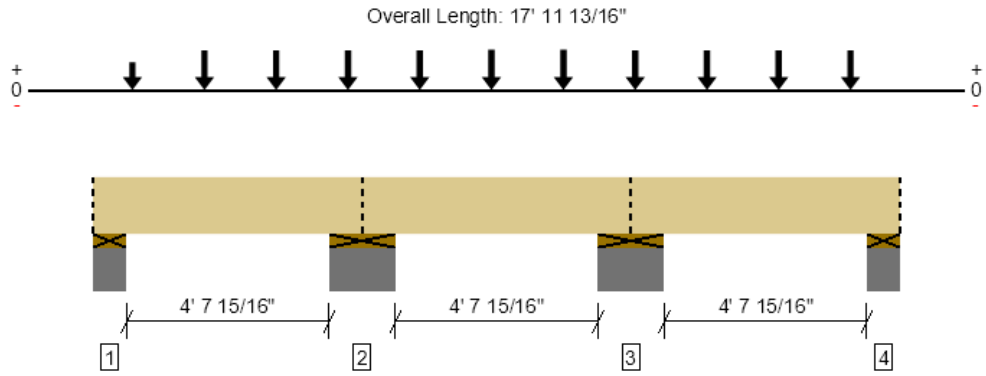
The product application, input design loads, dimensions and support information have been provided by Import from Sapphire software

1st Floor, 1H-5 (i3503)

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3103 @ 12' 6 3/8"	11900 (8.00")	Passed (26%)	--	1.0 D + 1.0 L (Adj Spans)
Shear (lbs)	1658 @ 13' 5 1/8"	6151	Passed (27%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	1546 @ 15' 3 3/8"	11204	Passed (14%)	1.00	1.0 D + 1.0 L (Adj Spans)
Live Load Defl. (in)	0.016 @ 15' 3 3/8"	0.164	Passed (L/999+)	--	1.0 D + 1.0 L (Adj Spans)
Total Load Defl. (in)	0.019 @ 15' 3 3/8"	0.246	Passed (L/999+)	--	1.0 D + 1.0 L (Adj Spans)

Member Length : 17' 11 13/16"
System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Plate on concrete - SPF	8.00"	8.00"	1.50"	307	1081/-83	1329	Blocking
2 - Plate on concrete - SPF	16.00"	16.00"	16.00"	1343	2686/-531	4869/-87	Blocking
3 - Plate on concrete - SPF	16.00"	16.00"	16.00"	1391	2780/-492	4952/-73	Blocking
4 - Plate on concrete - SPF	8.00"	8.00"	1.50"	343	1197/-81	1478	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	18' o/c	
Bottom Edge (Lu)	18' o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 17' 11 13/16"	N/A	9.4	--	
1 - Point (lb)	10 9/16" (Top)	N/A	136	554	Imported Load
2 - Point (lb)	2' 5 13/16" (Top)	N/A	199	810	Imported Load
3 - Point (lb)	4' 1" (Top)	N/A	199	810	Imported Load
4 - Point (lb)	5' 8 3/16" (Top)	N/A	199	810	Imported Load
5 - Point (lb)	7' 3 3/8" (Top)	N/A	203	808	Imported Load
6 - Point (lb)	8' 10 9/16" (Top)	N/A	221	807	Imported Load
7 - Point (lb)	10' 5 13/16" (Top)	N/A	220	808	Imported Load
8 - Point (lb)	12' 1" (Top)	N/A	201	809	Imported Load
9 - Point (lb)	13' 8 3/16" (Top)	N/A	201	809	Imported Load
10 - Point (lb)	15' 3 3/8" (Top)	N/A	201	809	Imported Load
11 - Point (lb)	16' 10 9/16" (Top)	N/A	201	809	Imported Load

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

ForteWEB Software Operator	Job Notes
Scott Poston Universal Forest Products (706) 367-2781 sposton@ufpi.com	

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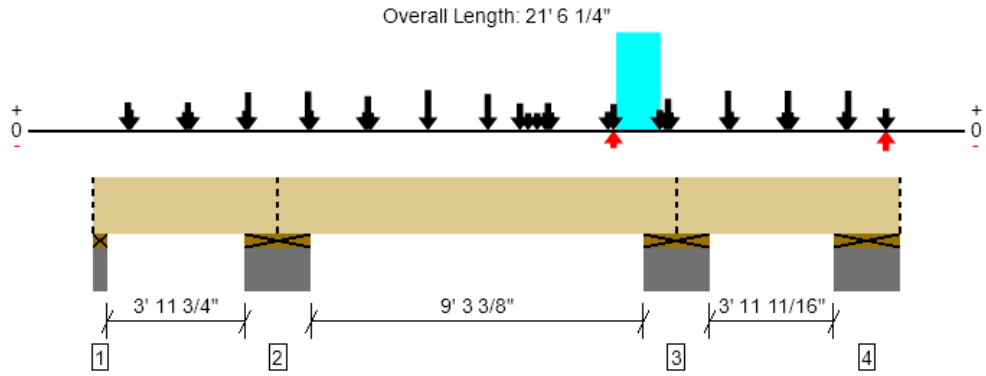
The product application, input design loads, dimensions and support information have been provided by Import from Sapphire software

1st Floor, 1H-2 (i3387)

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern) [Group]
Member Reaction (lbs)	6696 @ 5' 5 11/16"	11900 (8.00")	Passed (56%)	--	1.0 D + 1.0 L (Adj Spans) [1]
Shear (lbs)	3112 @ 6' 4 7/16"	6151	Passed (51%)	1.00	1.0 D + 1.0 L (Adj Spans) [1]
Moment (Ft-lbs)	-5144 @ 15' 1/16"	11204	Passed (46%)	1.00	1.0 D + 1.0 L (Adj Spans) [1]
Live Load Defl. (in)	0.119 @ 9' 8 1/8"	0.318	Passed (L/965)	--	1.0 D + 1.0 L (Adj Spans) [1]
Total Load Defl. (in)	0.151 @ 9' 11 9/16"	0.477	Passed (L/759)	--	1.0 D + 1.0 L (Adj Spans) [1]

Member Length : 21' 6 1/4"
System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- -203 lbs uplift at support located at 1 15/16". Strapping or other restraint may be required.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Plate on concrete - SPF	3.44"	3.44"	1.50"	392	539/-426	931/-203	Blocking
2 - Plate on concrete - SPF	16.00"	16.00"	16.00"	3431/-1157	6343/-653	7579	Blocking
3 - Plate on concrete - SPF	16.00"	16.00"	16.00"	3129/-1161	6303/-947	7884	Blocking
4 - Plate on concrete - SPF	16.00"	16.00"	16.00"	830	1282/-387	2095	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- Uplift constraint has been released at support location 1 15/16".

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	21' 6" o/c	
Bottom Edge (Lu)	21' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 21' 6 1/4"	N/A	9.4	--	
1 - Point (lb)	11 3/16" (Top)	N/A	126	510	Imported Load
2 - Point (lb)	1' 1/16" (Top)	N/A	192	-	Imported Load
3 - Point (lb)	2' 5 1/2" (Top)	N/A	73	-	Imported Load
4 - Point (lb)	2' 6 3/8" (Top)	N/A	126	510	Imported Load
5 - Point (lb)	2' 7 1/4" (Top)	N/A	73	-	Imported Load
6 - Point (lb)	4' 3/4" (Top)	N/A	145	-	Imported Load
7 - Point (lb)	4' 1 5/8" (Top)	N/A	311	912	Imported Load
8 - Point (lb)	5' 8 13/16" (Top)	N/A	279	980	Imported Load
9 - Point (lb)	5' 9 11/16" (Top)	N/A	146	-	Imported Load
10 - Point (lb)	7' 3 1/8" (Top)	N/A	73	-	Imported Load
11 - Point (lb)	7' 4" (Top)	N/A	426	552	Imported Load
12 - Point (lb)	7' 4 7/8" (Top)	N/A	12	-	Imported Load
13 - Point (lb)	8' 11 3/16" (Top)	N/A	359	979	Imported Load
14 - Point (lb)	10' 6 3/8" (Top)	N/A	293	815	Imported Load
15 - Point (lb)	11' 4 5/8" (Top)	N/A	337	233	Imported Load
16 - Point (lb)	11' 7 1/4" (Top)	N/A	8	-	Imported Load
17 - Point (lb)	11' 10 1/8" (Top)	N/A	10	-	Imported Load
18 - Point (lb)	12' 3/4" (Top)	N/A	11	-	Imported Load
19 - Point (lb)	12' 1 5/8" (Top)	N/A	283	302	Imported Load
20 - Point (lb)	12' 2 1/2" (Top)	N/A	47	-	Imported Load
21 - Point (lb)	13' 8 13/16" (Top)	N/A	93	-	Imported Load
22 - Point (lb)	13' 10 9/16" (Top)	N/A	252	268/-17	Imported Load
23 - Uniform (PLF)	13' 11 7/16" to 15' 1 5/8" (Top)	N/A	54.6	-	Imported Load
24 - Point (lb)	15' 1 3/8" (Top)	N/A	44	146	Imported Load
25 - Point (lb)	15' 3 1/8" (Top)	N/A	11	-	Imported Load
26 - Point (lb)	15' 4" (Top)	N/A	212	617	Imported Load
27 - Point (lb)	15' 4 7/8" (Top)	N/A	51	-	Imported Load
28 - Point (lb)	16' 11 3/16" (Top)	N/A	321	978	Imported Load
29 - Point (lb)	17' 1/16" (Top)	N/A	80	-	Imported Load
30 - Point (lb)	18' 5 1/2" (Top)	N/A	44	-	Imported Load
31 - Point (lb)	18' 6 3/8" (Top)	N/A	312	978	Imported Load
32 - Point (lb)	18' 7 1/4" (Top)	N/A	44	-	Imported Load
33 - Point (lb)	20' 3/4" (Top)	N/A	75	-	Imported Load
34 - Point (lb)	20' 1 5/8" (Top)	N/A	497	799	Imported Load
35 - Point (lb)	21' 1 3/4" (Top)	N/A	-92	281/-99	Imported Load

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

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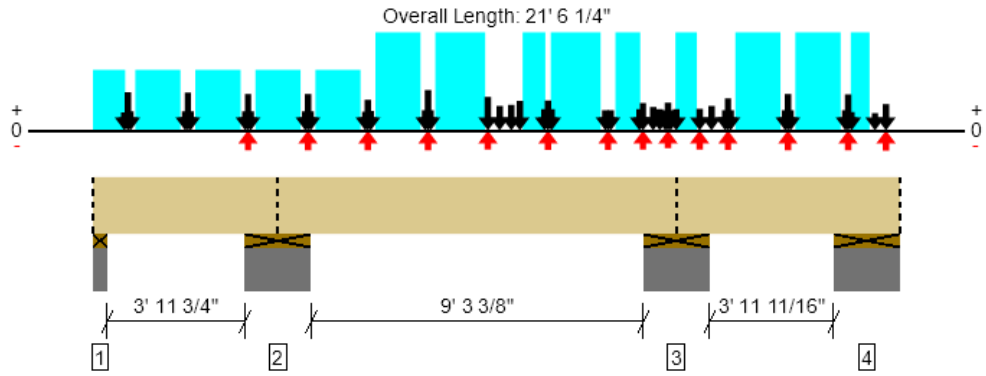
The product application, input design loads, dimensions and support information have been provided by Import from Sapphire software

1st Floor, 1H-2 (i3431)

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern) [Group]
Member Reaction (lbs)	9709 @ 15' 1/16"	11900 (8.00")	Passed (82%)	--	1.0 D + 0.75 L + 0.75 Lr (Adj Spans) [1]
Shear (lbs)	3850 @ 6' 4 7/16"	6151	Passed (63%)	1.00	1.0 D + 1.0 L (Adj Spans) [1]
Moment (Ft-lbs)	-6480 @ 15' 1/16"	11204	Passed (58%)	1.00	1.0 D + 1.0 L (Adj Spans) [1]
Live Load Defl. (in)	0.100 @ 10' 1 15/16"	0.318	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 Lr (Adj Spans) [1]
Total Load Defl. (in)	0.210 @ 10' 2 11/16"	0.477	Passed (L/544)	--	1.0 D + 0.75 L + 0.75 Lr (Adj Spans) [1]

Member Length : 21' 6 1/4"
System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Roof Live	Factored	
1 - Plate on concrete - SPF	3.44"	3.44"	1.50"	606	1008/-376	314/-54	1614	Blocking
2 - Plate on concrete - SPF	16.00"	16.00"	16.00"	4460	3577/-131	2044	8633	Blocking
3 - Plate on concrete - SPF	16.00"	16.00"	16.00"	4889	2901/-58	2683	9899	Blocking
4 - Plate on concrete - SPF	16.00"	16.00"	16.00"	1079	1139/-331	667	2442	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	18' 7" o/c	
Bottom Edge (Lu)	15' 4" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (1.25)	Comments
0 - Self Weight (PLF)	0 to 21' 6 1/4"	N/A	9.4	--	--	
1 - Uniform (PLF)	0 to 10 5/16" (Top)	N/A	270.9	-	180.0	Imported Load
2 - Point (lb)	10 1/16" (Top)	N/A	20	-	13	Imported Load
3 - Point (lb)	11 3/16" (Top)	N/A	339	673	-	Imported Load
4 - Point (lb)	1' 1/16" (Top)	N/A	54	-	36	Imported Load
5 - Uniform (PLF)	1' 1 9/16" to 2' 4" (Top)	N/A	270.9	-	180.0	Imported Load
6 - Point (lb)	2' 5 1/2" (Top)	N/A	54	-	36	Imported Load
7 - Point (lb)	2' 6 3/8" (Top)	N/A	309	674	-	Imported Load
8 - Point (lb)	2' 7 1/4" (Top)	N/A	54	-	36	Imported Load
9 - Uniform (PLF)	2' 8 3/4" to 3' 11 1/4" (Top)	N/A	270.9	-	180.0	Imported Load
10 - Point (lb)	4' 3/4" (Top)	N/A	54	-	36	Imported Load
11 - Point (lb)	4' 1 5/8" (Top)	N/A	254	670/-124	-	Imported Load
12 - Point (lb)	4' 2 1/2" (Top)	N/A	54	-	36	Imported Load
13 - Uniform (PLF)	4' 4" to 5' 6 7/16" (Top)	N/A	270.9	-	180.0	Imported Load
14 - Point (lb)	5' 7 15/16" (Top)	N/A	54	-	36	Imported Load
15 - Point (lb)	5' 8 13/16" (Top)	N/A	229	689/-124	-	Imported Load

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Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (1.25)	Comments
16 - Point (lb)	5' 9 11/16" (Top)	N/A	54	-	36	Imported Load
17 - Uniform (PLF)	5' 11 3/16" to 7' 1 5/8" (Top)	N/A	270.9	-	180.0	Imported Load
18 - Point (lb)	7' 3 1/8" (Top)	N/A	40	-	22	Imported Load
19 - Point (lb)	7' 4" (Top)	N/A	163	478/-126	-	Imported Load
20 - Point (lb)	7' 4 7/8" (Top)	N/A	58	-	40	Imported Load
21 - Uniform (PLF)	7' 6 3/8" to 8' 8 13/16" (Top)	N/A	410.9	-	320.0	Imported Load
22 - Point (lb)	8' 10 5/16" (Top)	N/A	81	-	63	Imported Load
23 - Point (lb)	8' 11 3/16" (Top)	N/A	422	690/-124	-	Imported Load
24 - Point (lb)	9' 1/16" (Top)	N/A	81	-	63	Imported Load
25 - Uniform (PLF)	9' 1 9/16" to 10' 5 1/2" (Top)	N/A	410.9	-	320.0	Imported Load
26 - Point (lb)	10' 6 3/8" (Top)	N/A	227	509/-90	47	Imported Load
27 - Point (lb)	10' 10 1/8" (Top)	N/A	195	-	152	Imported Load
28 - Point (lb)	11' 1 7/8" (Top)	N/A	169	161	62	Imported Load
29 - Point (lb)	11' 4 5/8" (Top)	N/A	296	234	61	Imported Load
30 - Uniform (PLF)	11' 5 1/2" to 12' 3/4" (Top)	N/A	410.9	-	320.0	Imported Load
31 - Point (lb)	12' 1/2" (Top)	N/A	44	146	-	Imported Load
32 - Point (lb)	12' 1 5/8" (Top)	N/A	236	331/-96	47	Imported Load
33 - Uniform (PLF)	12' 2 1/2" to 13' 6 7/16" (Top)	N/A	410.9	-	320.0	Imported Load
34 - Point (lb)	12' 2 3/4" (Top)	N/A	44	146	-	Imported Load
35 - Point (lb)	13' 7 15/16" (Top)	N/A	81	-	63	Imported Load
36 - Point (lb)	13' 8 13/16" (Top)	N/A	54/-12	-89	-	Imported Load
37 - Point (lb)	13' 9 11/16" (Top)	N/A	81	-	63	Imported Load
38 - Uniform (PLF)	13' 11 3/16" to 14' 7 1/8" (Top)	N/A	410.9	-	320.0	Imported Load
39 - Point (lb)	14' 6 7/8" (Top)	N/A	44	146	-	Imported Load
40 - Point (lb)	14' 8" (Top)	N/A	299	138/-86	48	Imported Load
41 - Point (lb)	14' 11 1/4" (Top)	N/A	163	-	127	Imported Load
42 - Point (lb)	15' 1 3/8" (Top)	N/A	44	146	-	Imported Load
43 - Point (lb)	15' 3 1/8" (Top)	N/A	81	-	63	Imported Load
44 - Point (lb)	15' 4" (Top)	N/A	156	350/-12	-	Imported Load
45 - Point (lb)	15' 4 7/8" (Top)	N/A	81	-	63	Imported Load
46 - Uniform (PLF)	15' 6 3/8" to 16' 1 1/4" (Top)	N/A	410.9	-	320.0	Imported Load
47 - Point (lb)	15' 6 5/8" (Top)	N/A	44	146	-	Imported Load
48 - Point (lb)	16' 2 1/8" (Top)	N/A	17	138/-80	48	Imported Load
49 - Point (lb)	16' 5 15/16" (Top)	N/A	200	-	156	Imported Load
50 - Point (lb)	16' 10 5/16" (Top)	N/A	81	-	63	Imported Load
51 - Point (lb)	16' 11 3/16" (Top)	N/A	170/-5	547/-94	-	Imported Load
52 - Point (lb)	17' 1/16" (Top)	N/A	81	-	63	Imported Load
53 - Uniform (PLF)	17' 1 9/16" to 18' 4" (Top)	N/A	410.9	-	320.0	Imported Load
54 - Point (lb)	18' 5 1/2" (Top)	N/A	81	-	63	Imported Load
55 - Point (lb)	18' 6 3/8" (Top)	N/A	227	694/-124	-	Imported Load
56 - Point (lb)	18' 7 1/4" (Top)	N/A	81	-	63	Imported Load
57 - Uniform (PLF)	18' 8 3/4" to 19' 11 1/4" (Top)	N/A	410.9	-	320.0	Imported Load
58 - Point (lb)	20' 3/4" (Top)	N/A	81	-	63	Imported Load
59 - Point (lb)	20' 1 5/8" (Top)	N/A	344	566/-122	-	Imported Load
60 - Uniform (PLF)	20' 2 1/2" to 20' 8 1/2" (Top)	N/A	410.9	-	320.0	Imported Load
61 - Point (lb)	20' 2 3/4" (Top)	N/A	30	-	23	Imported Load
62 - Point (lb)	20' 10 1/4" (Top)	N/A	8	-	-	Imported Load
63 - Point (lb)	21' 1 3/4" (Top)	N/A	234/-56	209/-75	-	Imported Load

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

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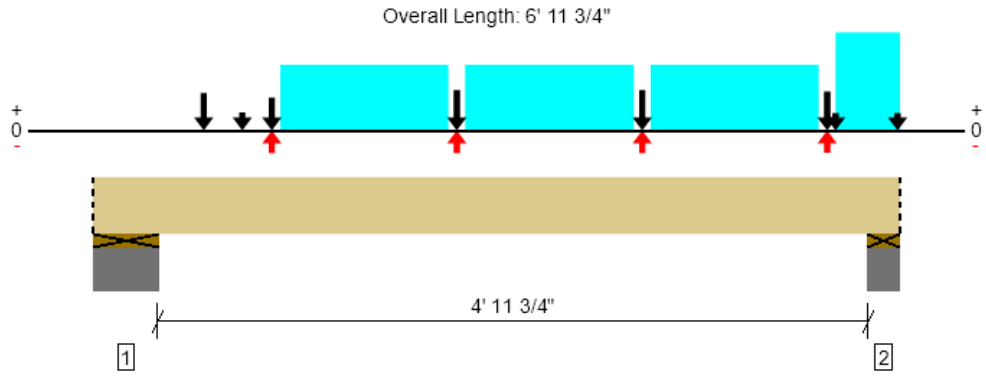
The product application, input design loads, dimensions and support information have been provided by Import from Sapphire software

1st Floor, 1H-6 (i3504)

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern) [Group]
Member Reaction (lbs)	1794 @ 6' 5 1/4"	11900 (8.00")	Passed (15%)	--	1.0 D + 1.0 L (All Spans) [1]
Shear (lbs)	990 @ 2' 1 1/4"	6151	Passed (16%)	1.00	1.0 D + 1.0 L (All Spans) [1]
Moment (Ft-lbs)	1748 @ 3' 1 3/4"	11204	Passed (16%)	1.00	1.0 D + 1.0 L (All Spans) [1]
Live Load Defl. (in)	0.018 @ 3' 9 3/4"	0.174	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans) [1]
Total Load Defl. (in)	0.025 @ 3' 9 3/4"	0.261	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans) [1]

Member Length : 6' 11 3/4"
System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Factored	
1 - Plate on concrete - SPF	16.00"	16.00"	16.00"	801/-326	1013/-654	2093	Blocking
2 - Plate on concrete - SPF	8.00"	8.00"	1.50"	490	1304/-300	1794	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	7' o/c	
Bottom Edge (Lu)	7' o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 6' 11 3/4"	N/A	9.4	--	
1 - Point (lb)	11 1/2" (Top)	N/A	421	260	Imported Load
2 - Point (lb)	1' 3 1/2" (Top)	N/A	20	-	Imported Load
3 - Point (lb)	1' 6 9/16" (Top)	N/A	85	436/-177	Imported Load
4 - Uniform (PLF)	1' 7 7/16" to 3' 7/8" (Top)	N/A	54.6	-	Imported Load
5 - Point (lb)	3' 1 3/4" (Top)	N/A	144	636/-185	Imported Load
6 - Uniform (PLF)	3' 2 5/8" to 4' 8 1/8" (Top)	N/A	54.6	-	Imported Load
7 - Point (lb)	4' 9" (Top)	N/A	144	636/-185	Imported Load
8 - Uniform (PLF)	4' 9 7/8" to 6' 3 5/16" (Top)	N/A	54.6	-	Imported Load
9 - Point (lb)	6' 4 3/16" (Top)	N/A	137	596/-167	Imported Load
10 - Point (lb)	6' 5 1/16" (Top)	N/A	1	2	Imported Load
11 - Uniform (PLF)	6' 5 1/16" to 6' 11 3/4" (Top)	N/A	60.9	20.9	Imported Load
12 - Point (lb)	6' 11 1/2" (Top)	N/A	-	-	Imported Load

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

ForteWEB Software Operator	Job Notes
Scott Poston Universal Forest Products (706) 367-2781 sposton@ufpi.com	

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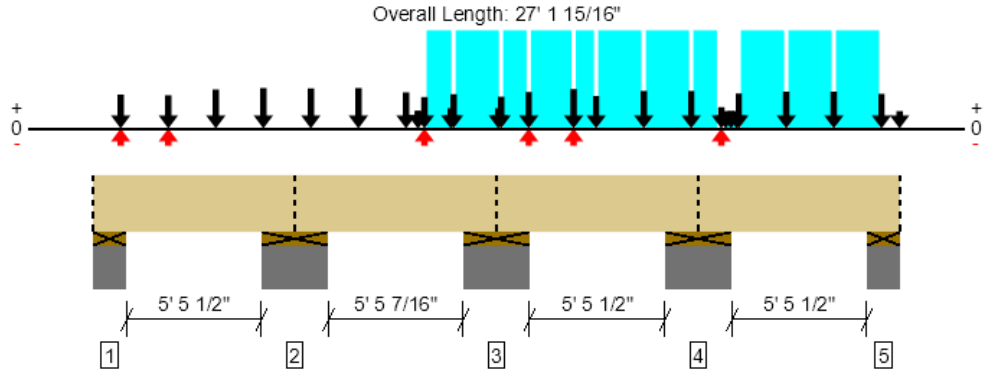
The product application, input design loads, dimensions and support information have been provided by Import from Sapphire software

1st Floor, 1H-1 (i3433)

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern) [Group]
Member Reaction (lbs)	5718 @ 14' 1 7/16"	11900 (8.00")	Passed (48%)	--	1.0 D + 1.0 L (Adj Spans) [1]
Shear (lbs)	3092 @ 12' 1 11/16"	6151	Passed (50%)	1.00	1.0 D + 1.0 L (Adj Spans) [8]
Moment (Ft-lbs)	-2871 @ 6' 3"	11204	Passed (26%)	1.00	1.0 D + 1.0 L (Adj Spans) [1]
Live Load Defl. (in)	0.030 @ 23' 10 13/16"	0.190	Passed (L/999+)	--	1.0 D + 1.0 L (Adj Spans) [1]
Total Load Defl. (in)	0.038 @ 23' 11 13/16"	0.285	Passed (L/999+)	--	1.0 D + 1.0 L (Adj Spans) [1]

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Member Length : 27' 1 15/16"
System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Roof Live	Factored	
1 - Plate on concrete - SPF	8.00"	8.00"	1.50"	685	1366/-110	-	1971	Blocking
2 - Plate on concrete - SPF	16.00"	16.00"	16.00"	3578	6728/-1152	-1	10049	Blocking
3 - Plate on concrete - SPF	16.00"	16.00"	16.00"	5424	7039/-3433	-3	10310	Blocking
4 - Plate on concrete - SPF	16.00"	16.00"	16.00"	3843	4235/-702	1/-1	8912	Blocking
5 - Plate on concrete - SPF	8.00"	8.00"	1.74"	788	1950/-111	-	2593	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	27' 2" o/c	
Bottom Edge (Lu)	27' 2" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (1.25)	Comments
0 - Self Weight (PLF)	0 to 27' 1 15/16"	N/A	9.4	--	--	
1 - Point (lb)	11 3/16" (Top)	N/A	345	770/-10	-	Imported Load
2 - Point (lb)	2' 6 7/16" (Top)	N/A	300	769/-10	-	Imported Load
3 - Point (lb)	4' 1 5/8" (Top)	N/A	422	1052	-	Imported Load
4 - Point (lb)	5' 8 13/16" (Top)	N/A	506	1052	-	Imported Load
5 - Point (lb)	7' 4" (Top)	N/A	494	1052	-	Imported Load
6 - Point (lb)	8' 11 3/16" (Top)	N/A	512	1052	-	Imported Load
7 - Point (lb)	10' 6 7/16" (Top)	N/A	539	730	-	Imported Load
8 - Point (lb)	10' 11 1/4" (Top)	N/A	16	-	-	Imported Load
9 - Point (lb)	10' 11 5/16" (Top)	N/A	8	-	-	Imported Load
10 - Point (lb)	11' 1 7/8" (Top)	N/A	556	409	-1	Imported Load
11 - Uniform (PLF)	11' 2 3/4" to 12' 3/4" (Top)	N/A	54.6	-	-	Imported Load
12 - Point (lb)	12' 1/2" (Top)	N/A	44	146	-	Imported Load
13 - Point (lb)	12' 1 5/8" (Top)	N/A	333	807	-	Imported Load
14 - Uniform (PLF)	12' 2 1/2" to 13' 7 15/16" (Top)	N/A	54.6	-	-	Imported Load
15 - Point (lb)	13' 7 11/16" (Top)	N/A	44	146	-	Imported Load
16 - Point (lb)	13' 8 13/16" (Top)	N/A	293	683	-	Imported Load
17 - Uniform (PLF)	13' 9 11/16" to 14' 7 1/8" (Top)	N/A	54.6	-	-	Imported Load
18 - Point (lb)	14' 8" (Top)	N/A	460	842	-1	Imported Load
19 - Uniform (PLF)	14' 8 7/8" to 16' 1 1/4" (Top)	N/A	54.6	-	-	Imported Load
20 - Point (lb)	16' 2 1/8" (Top)	N/A	828	658	-1	Imported Load
21 - Uniform (PLF)	16' 3" to 16' 10 5/16" (Top)	N/A	54.6	-	-	Imported Load
22 - Point (lb)	16' 11 3/16" (Top)	N/A	335	686	-	Imported Load
23 - Uniform (PLF)	17' 1/16" to 18' 5 1/2" (Top)	N/A	54.6	-	-	Imported Load
24 - Point (lb)	18' 6 7/16" (Top)	N/A	323	1051	-	Imported Load
25 - Uniform (PLF)	18' 7 5/16" to 20' 3/4" (Top)	N/A	54.6	-	-	Imported Load
26 - Point (lb)	20' 1 5/8" (Top)	N/A	393	982	-	Imported Load
27 - Uniform (PLF)	20' 2 1/2" to 21' (Top)	N/A	54.6	-	-	Imported Load
28 - Point (lb)	21' 1 3/4" (Top)	N/A	164	102/-1	-	Imported Load
29 - Point (lb)	21' 5 11/16" (Top)	N/A	20	-	-	Imported Load
30 - Point (lb)	21' 8 13/16" (Top)	N/A	284	921	-	Imported Load
31 - Uniform (PLF)	21' 9 11/16" to 23' 3 1/8" (Top)	N/A	54.6	-	-	Imported Load
32 - Point (lb)	23' 4" (Top)	N/A	311	1010	-	Imported Load
33 - Uniform (PLF)	23' 4 7/8" to 24' 10 5/16" (Top)	N/A	54.6	-	-	Imported Load
34 - Point (lb)	24' 11 3/16" (Top)	N/A	311	1010	-	Imported Load
35 - Uniform (PLF)	25' 1/16" to 26' 5 1/2" (Top)	N/A	54.6	-	-	Imported Load
36 - Point (lb)	26' 6 7/16" (Top)	N/A	278	901	-	Imported Load
37 - Point (lb)	27' 1 3/4" (Top)	N/A	-	-	-	Imported Load
38 - Point (lb)	21' 3 1/2" (Top)	N/A	-	-	-	Imported Load
39 - Uniform (PLF)	21' 3 1/2" to 21' 7 15/16" (Top)	N/A	-	2.8	-	Imported Load
40 - Point (lb)	21' 7 15/16" (Top)	N/A	-	-	-	Imported Load

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

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