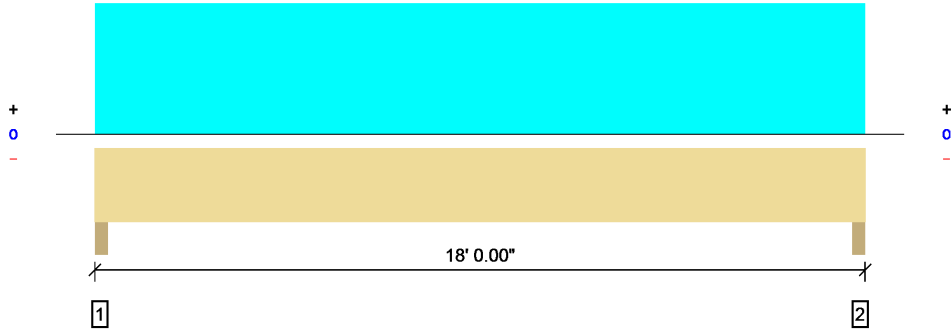


01: Level			
Member Name	Results	Current Solution	Comments
Floor: eave side Beam	Passed	3 Piece(s) 1 3/4" x 14" 2.0E Microllam® LVL	
Floor: Gable Beam	Passed	2 Piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL	
Floor: Joist	Passed	1 Piece(s) 9 1/2" TJI® 110 @ 16" OC	

Forte Software Operator	Job Notes
Guy Poisson Hammond Lumber (207) 495-3303 gpoisson@hammondlumber.com	Abdullah Ahmed 18 x 16 Addition Portland, Me

Overall Length: 18' 0.00"



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	4850 @ 2.00"	13322 (3.50")	Passed (36%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	4053 @ 1' 5.50"	13965	Passed (29%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	20968 @ 9'	36387	Passed (58%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.312 @ 9' 0.00"	0.589	Passed (L/680)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.523 @ 9' 0.00"	0.883	Passed (L/405)	--	1.0 D + 1.0 L (All Spans)

System : Floor
 Member Type : Flush Beam
 Building Use : Residential
 Building Code : IBC 2009
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Top Edge Bracing (Lu): Top compression edge must be braced at 15' 7.00" o/c unless detailed otherwise.
- Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 18' 0.00" o/c unless detailed otherwise.

Supports	Bearing			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Total	
1 - Column - HF	3.50"	3.50"	1.50"	1970	2880	31	4881	None
2 - Column - HF	3.50"	3.50"	1.50"	1957	2880	-	4837	None

Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 18' 0.00"	N/A	21.5			
1 - Uniform (PSF)	0 to 18' 0.00" (Front)	8' 0.00"	12.0	40.0	-	Residential - Living Areas
2 - Uniform (PLF)	0 to 18' 0.00" (Top)	N/A	100.0	-	-	Wall Load
3 - Uniform (PSF)	0 (Top)	8' 0.00"	20.0	-	46.2	Roof Load - Portland 60# GSL

Weyerhaeuser Notes

Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC ES under technical reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library.

The product application, input design loads, dimensions and support information have been provided by Forte Software Operator

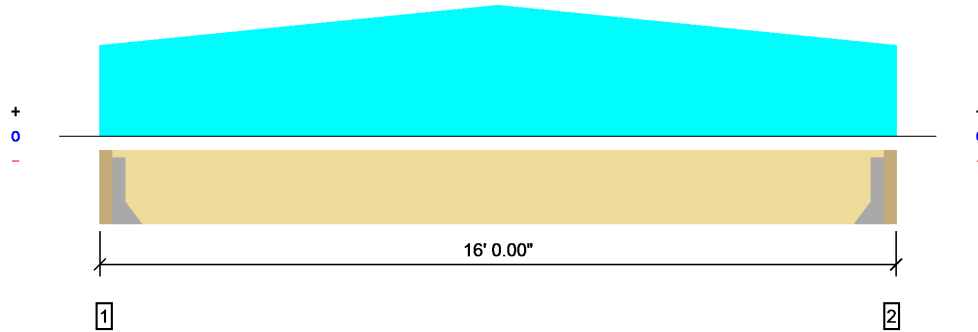


Forte Software Operator	Job Notes
Guy Poisson Hammond Lumber (207) 495-3303 gpoisson@hammondlumber.com	Abdullah Ahmed 18 x 16 Addition Portland, Me

7/7/2017 3:31:23 PM
 Forte v5.3, Design Engine: V7.0.0.5
 Ahmed.4te

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

Overall Length: 16' 0.00"



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1021 @ 15' 8.50"	3938 (1.50")	Passed (26%)	--	1.0 D (All Spans)
Shear (lbs)	932 @ 1' 1.00"	5686	Passed (16%)	0.90	1.0 D (All Spans)
Moment (Ft-lbs)	4146 @ 8' 0.00"	10597	Passed (39%)	0.90	1.0 D (All Spans)
Live Load Defl. (in)	0.000 @ 3.50"	0.385	Passed (L/999+)	--	1.0 D (All Spans)
Total Load Defl. (in)	0.366 @ 8' 0.00"	0.771	Passed (L/505)	--	1.0 D (All Spans)

 System : Floor
 Member Type : Flush Beam
 Building Use : Residential
 Building Code : IBC 2009
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Top Edge Bracing (Lu): Top compression edge must be braced at 15' 5.00" o/c unless detailed otherwise.
- Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 15' 5.00" o/c unless detailed otherwise.

Supports	Bearing			Loads to Supports (lbs)		Accessories
	Total	Available	Required	Dead	Total	
1 - Hanger on 9 1/2" HF beam	3.50"	Hanger ¹	1.50"	1050	1050	See note ¹
2 - Hanger on 9 1/2" HF beam	3.50"	Hanger ¹	1.50"	1051	1051	See note ¹

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- ¹ See Connector grid below for additional information and/or requirements.

Connector: Simpson Strong-Tie Connectors						
Support	Model	Seat Length	Top Nails	Face Nails	Member Nails	Accessories
1 - Face Mount Hanger	HHUS410	3.00"	N/A	30-16d common	10-16d double shear	
2 - Face Mount Hanger	HHUS410	3.00"	N/A	30-16d common	10-16d double shear	

Loads	Location (Side)	Tributary Width	Dead (0.90)	Comments
0 - Self Weight (PLF)	3.50" to 15' 8.50"	N/A	9.7	
1 - Tapered (PLF)	0 to 8' 0.00" (Top)	N/A	100.0 to 144.0	Gable Wall Load
2 - Tapered (PLF)	8' 0.00" to 16' 0.00" (Top)	N/A	144.0 to 100.0	Gable Wall Load

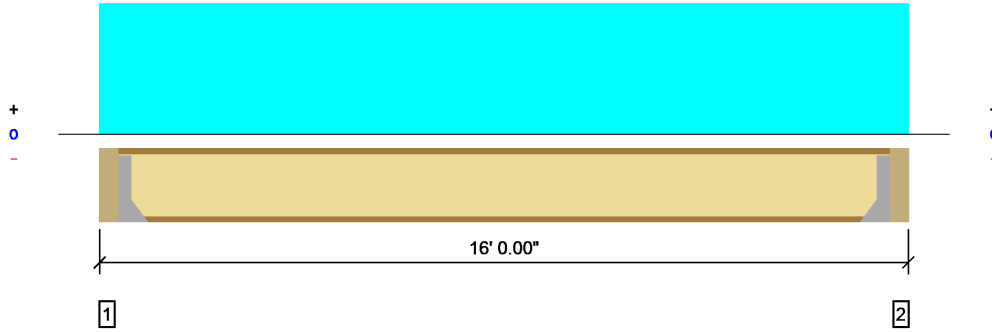
Weyerhaeuser Notes
Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC ES under technical reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library . The product application, input design loads, dimensions and support information have been provided by Forte Software Operator



Forte Software Operator	Job Notes
Guy Poisson Hammond Lumber (207) 495-3303 gpoisson@hammondlumber.com	Abdullah Ahmed 18 x 16 Addition Portland, Me

 7/7/2017 3:31:23 PM
 Forte v5.3, Design Engine: V7.0.0.5
 Ahmed.4te

Overall Length: 16' 0.00"



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	524 @ 5.25"	910 (1.75")	Passed (58%)	1.00	1.0 D + 1.0 L (All Spans)
Shear (lbs)	524 @ 5.25"	1220	Passed (43%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	1983 @ 8' 0.00"	2500	Passed (79%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.346 @ 8' 0.00"	0.378	Passed (L/524)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.450 @ 8' 0.00"	0.756	Passed (L/403)	--	1.0 D + 1.0 L (All Spans)
TJ-Pro™ Rating	35	35	Passed	--	--

System : Floor
 Member Type : Joist
 Building Use : Residential
 Building Code : IBC 2009
 Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Top Edge Bracing (Lu): Top compression edge must be braced at 3' 5.00" o/c unless detailed otherwise.
- Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 15' 2.00" o/c unless detailed otherwise.
- A structural analysis of the deck has not been performed.
- Deflection analysis is based on composite action with a single layer of 23/32" Panel (24" Span Rating) that is glued and nailed down.
- Additional considerations for the TJ-Pro™ Rating include: 1/2" Gypsum ceiling.

Supports	Bearing			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 9 1/2" HF beam	5.25"	Hanger ¹	1.75" / - ²	128	427	555	See note ¹
2 - Hanger on 9 1/2" HF beam	5.25"	Hanger ¹	1.75" / - ²	128	427	555	See note ¹

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- ¹ See Connector grid below for additional information and/or requirements.
- ² Required Bearing Length / Required Bearing Length with Web Stiffeners

Connector: Simpson Strong-Tie Connectors						
Support	Model	Seat Length	Top Nails	Face Nails	Member Nails	Accessories
1 - Face Mount Hanger	IUS1.81/9.5	2.00"	N/A	8-10d x 1-1/2	N/A	
2 - Face Mount Hanger	IUS1.81/9.5	2.00"	N/A	8-10d x 1-1/2	N/A	

Loads	Location (Side)	Spacing	Dead (0.90)	Floor Live (1.00)	Comments
1 - Uniform (PSF)	0 to 16' 0.00"	16"	12.0	40.0	Residential - Living Areas

Weyerhaeuser Notes

Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC ES under technical reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library.

The product application, input design loads, dimensions and support information have been provided by Forte Software Operator



Forte Software Operator	Job Notes
Guy Poisson Hammond Lumber (207) 495-3303 gpoisson@hammondlumber.com	Abdullah Ahmed 18 x 16 Addition Portland, Me