



Client Hillside

Shipping Portland, ME

Project Name: Caleb Project

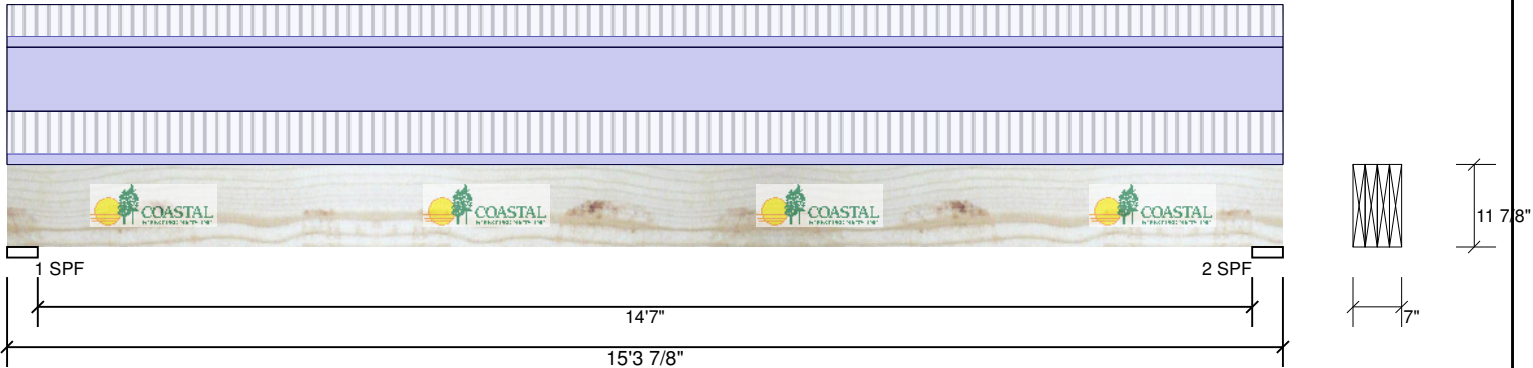
Job#:

Quantity 1 (4pcs.)

Description:

1st floor support beam 2.0E CP-LAM 1.750" X 11.875" 4-Ply - PASSED

6/21/2016 10:03 AM
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Designer: ML



Type:	Girder	Application:	Floor
Plies:	4	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2012
Deflection LL:	360	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	35 PSF		

Reactions					
Brg	Live	Dead	Snow	Wind	Const
1	6436	2459	0	0	0
2	6436	2459	0	0	0

Bearings						
Bearing	Input Length	In Analysis	Cap. React	D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF	4.438"	3.000"	100%	2459 / 6436	8894 L	D+L
2 - SPF	4.438"	3.000"	100%	2459 / 6436	8894 L	D+L

Analysis	Actual	Location	Allowed	Capacity	Load Comb.	Ld. Case
Moment	31948 ft-lb	7'7 15/16"	44293 ft-lb	0.721 (72%)	D+L	L
Unbraced	31948 ft-lb	7'7 15/16"	43761 ft-lb	0.730 (73%)	D+L	L
Shear	7466 lb	1'2 13/16"	15794 lb	0.473 (47%)	D+L	L
LL Defl inch	0.468 (L/380)	7'8"	0.494 (L/360)	0.950 (95%)	L	L
TL Defl inch	0.648 (L/275)	7'8"	0.742 (L/240)	0.870 (87%)	D+L	L

Design OK.
Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		12-0-0	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	1st Floor
2	Uniform			Top	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	bearing wall
3	Uniform		12-0-0	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	2nd Floor
	Self Weight				22 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or

corrosive chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

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