



Client Rufus Deering Lumber

Address Home Ave
Portland, ME

Project Name: Home Ave

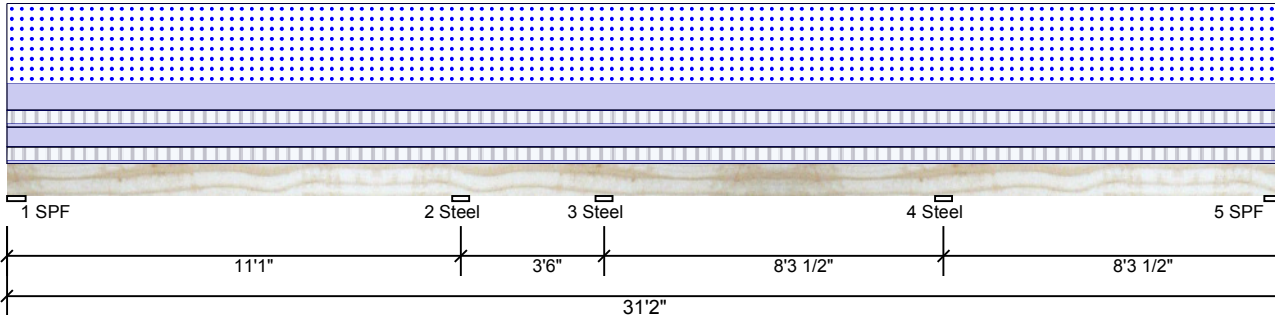
Job#:

Quantity 1 (3pcs.)

Description:
Main Beam Basement

Beam 1-B1 2.0E CP-LAM 1.75" X 9.5" 3-Ply

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Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
Temperature:	Temp <= 100°F		

Reactions					
Brg	Live	Dead	Snow	Wind	Const
1	4219	1708	1049	0	0
2	11844	4189	2760	0	0
3	7537	1066	1268	0	0
4	9432	3828	2348	0	0
5	3307	1177	773	0	0

Analysis	Actual	Location	Allowed	Capacity	Load Comb.	Ld. Case
Neg Moment	-15455 ft-lb	10'8 7/8"	21093 ft-lb	0.733 (73%)	D+L	LL_L
Pos Moment	12981 ft-lb	4'4 9/16"	21093 ft-lb	0.615 (62%)	D+L	L_L_
Shear	7633 lb	10'3 1/2"	9476.3 lb	0.805 (81%)	D+L	LL_L
LL Defl inch	0.219 (L/589)	5'2 5/8"	0.358 (L/360)	0.610 (61%)	L	L_L_
TL Defl inch	0.305 (L/423)	5'2 7/16"	0.537 (L/240)	0.570 (57%)	D+L	L_L_

Bearings							
Bearing	Input Length	In Analysis	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	2.750"	97%	1708 / 4219	5927	L_L_	D+L
2 - Steel	5.000"	5.000"	72%	4189 / 11844	16033	LL_L	D+L
3 - Steel	5.000"	5.000"	39%	1066 / 7537	8603	_LL_	D+L
4 - Steel	5.000"	5.000"	59%	3828 / 9432	13260	L_LL	D+L
5 - SPF	5.500"	2.250"	89%	1177 / 3307	4484	_L_L	D+L

Design OK.
Design Notes
1 Girders are designed to be supported on the bottom edge only.
2 Multiple plies must be fastened together as per manufacturer's details.
3 Top loads must be supported equally by all plies.
4 Tie-down connection required at bearing 3 for uplift 3868 lb.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Const.	Comments
1	Uniform		12-0-0	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
2	Uniform			Top	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
3	Uniform		12-0-0	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
4	Uniform			Top	80 PLF	0 PLF	240 PLF	0 PLF	0 PLF	
	Self Weight									12.95 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
1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or

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

6. For flat roofs provide proper drainage to prevent ponding

COASTAL FOREST PRODUCTS
34 Dunklee Rd
Bow, NH
Brit Chagnon

