March 11, 2019

John Turner
U.S. Lumber
3312 North Berkeley Lake Road
Duluth, GA 30096

Client: Peak Truss – Holly Springs
Project: Garage Header
Address: 170 Clover Ridge, Angier, NC

TO WHOM IT MAY CONCERN:

I have reviewed attached Design Report created by U.S. Lumber for the client and project listed above. This member calculation for the EverEdge™ member was prepared using the isDesign™ software package based on design information and conditions provided by the client.

The report reflects the EverEdge™ product, depth, and size that can structurally support the loads shown. My professional engineer's seal on this letter verifies that the analyses presented conform to accepted engineering practices and use code-accepted product design values.

My review is limited to the building components shown in this report. I have not verified the applicability of components with the project plans or jobsite conditions. All notes and design load information shown in this report should be reviewed with the building designer and/or the local code official to ensure that the loads, spans, and other conditions are correct and acceptable for the specific application. Verification of end use conditions is the responsibility of the building designer and/or local code official.

Alternate materials shall not be substituted for the product shown on the attached isDesgin™ report. Product substitution renders my review null and void.

This PDF document containing a cover letter and attached design report has been digitally signed, dated and certified as indicated by my seal and signature below and a certification banner when viewed electronically. A printed copy of this electronic document is suitable for archival purposes but it is not considered to be an original signed, dated, and sealed document.

Sincerely,

c=US, st=Pennsylvania, l=Leola, o=Glyn Boone,
cn=Glyn Boone, email=glynboone@myerhill.com
2019.03.11 12:28:38 -04'00'

Glyn R. Boone, P.E.
Owner/Principal
Myer Hill Consulting
NC PE# 17046 - NC COA# P-1898

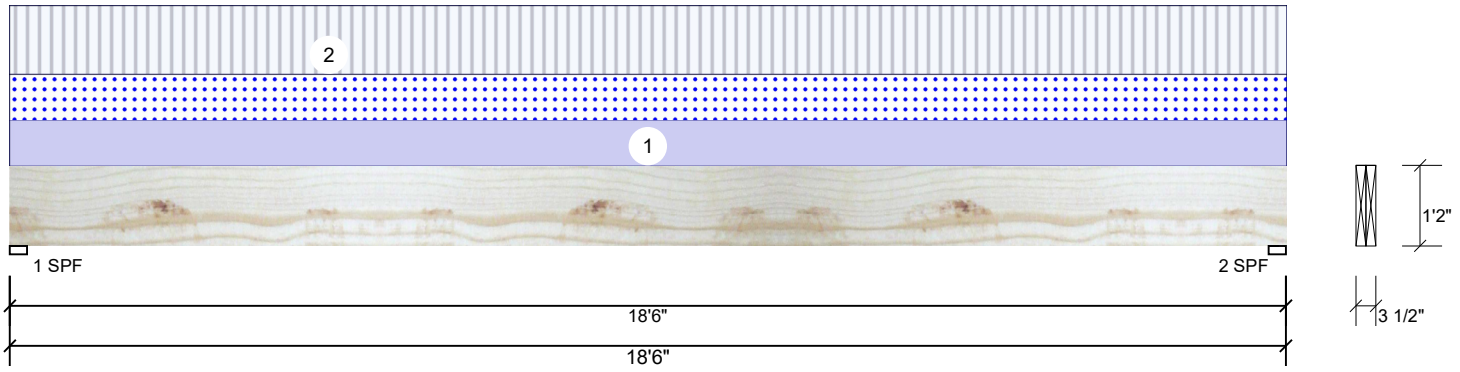
Attachments: Member Design Reports dated 3/11/19 (2 pages total – including this cover letter).

isDesign™

Client:	Peak Truss-Holly Springs	Date:	3/11/2019
Project:		Designer:	James Burch
Address:	170 Clover Ridge Angier, NC	Job Name:	Garage Header
		Project #:	

B1 2.0E EverEdge™ LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	278	2075	1943	0	0
2	278	2075	1943	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.000"	90%	2075 / 1943	4017	L	D+S
2 - SPF	3.000"	90%	2075 / 1943	4017	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	17834 ft-lb	9'3"	31116 ft-lb	0.573 (57%)	D+S	L
Unbraced	17834 ft-lb	9'3"	17910 ft-lb	0.996 (100%)	D+S	L
Shear	3429 lb	1'4 1/4"	10707 lb	0.320 (32%)	D+S	L
LL Defl inch	0.339 (L/642)	9'3 1/16"	0.453 (L/480)	0.750 (75%)	S	L
TL Defl inch	0.701 (L/310)	9'3 1/16"	0.906 (L/240)	0.770 (77%)	D+S	L

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 Top must be laterally braced at a maximum of 5'4 1/2" o.c.
5 Bottom braced at bearings.
6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		10-6-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	
2	Uniform			Top	0 PLF	30 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				14 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

This design is valid until 11/15/2021

Manufacturer Info

Weyerhaeuser
Seattle, WA
www.weyerhaeuser.com/everedge/

U.S. LUMBER