



November 3, 2023

Wood Brothers Inc.  
Attn: Jud Wood

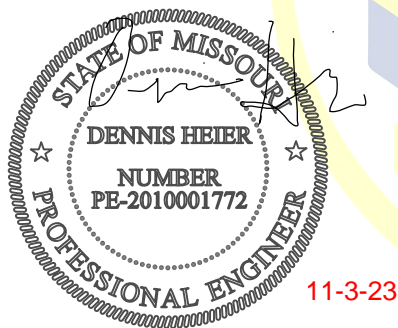
RE: Structural Letter – SVF075 Spec Lot 75 2302 SW Serena Pl., Lee's Summit, Missouri

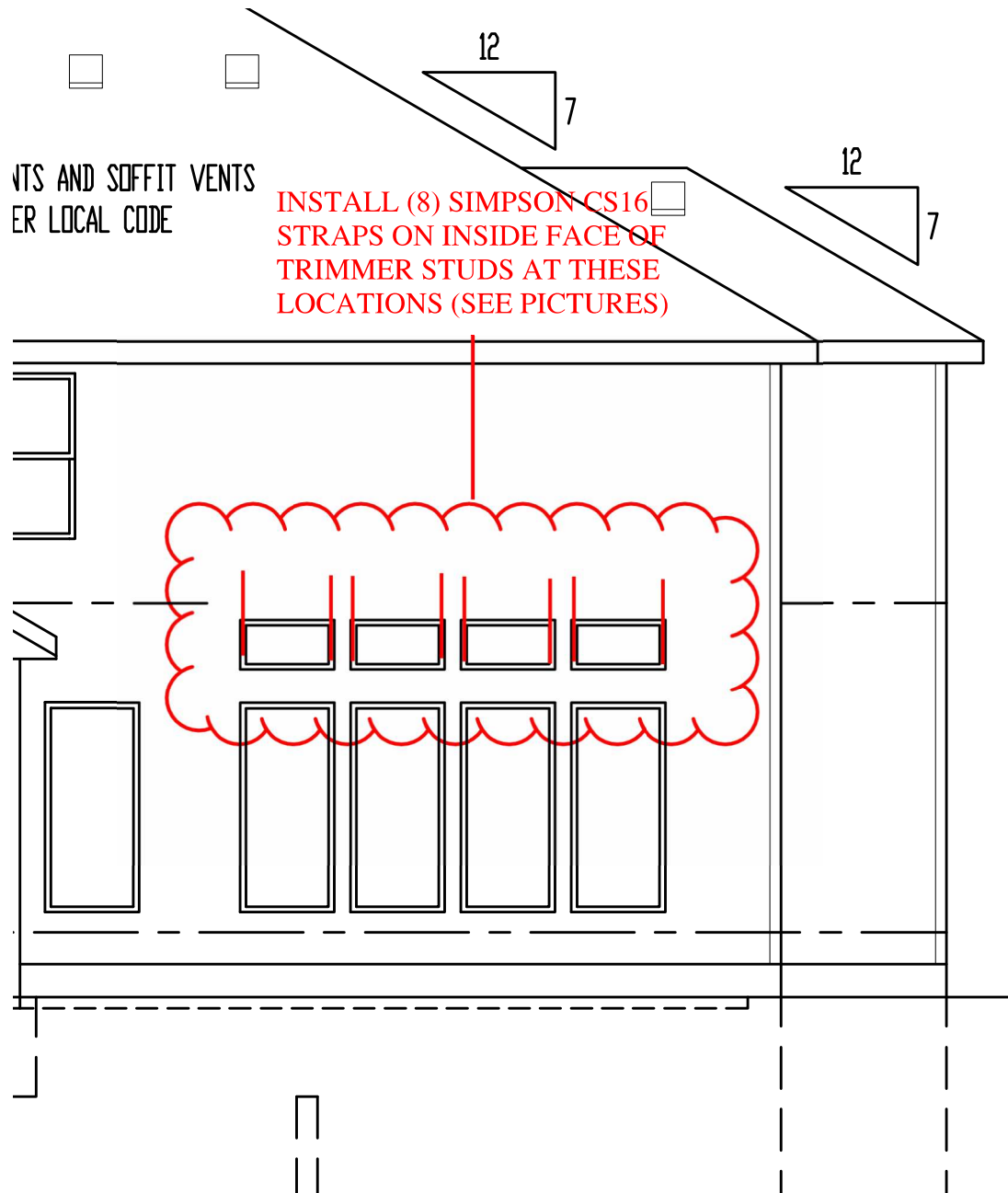
Vista Structural Engineering, LLC was asked to address the single king studs used for the openings at the rear wall of the Great Room. Please see the following response with attached elevation marks, calculations, and site photos for reference.

**VSE's response:** GC to strap adjacent trimmer studs w/ Simpson CS16 and provide 13" end length above and below hinge. Fasten strap w/ (11) 8d nails into each end length. (Re. elevation marks on pg. 2, calculations on pg. 3, and site photo marks on pg. 4).

Our firm appreciates the opportunity to serve you. If you have any questions or if you need anything further, please feel free to contact us.

Sincerely,  
Vista Structural Engineering, LLC  
Dennis Heier, P.E.





VENTS AND SOFFIT VENTS  
PER LOCAL CODE

INSTALL (8) SIMPSON CS16  
STRAPS ON INSIDE FACE OF  
TRIMMER STUDS AT THESE  
LOCATIONS (SEE PICTURES)

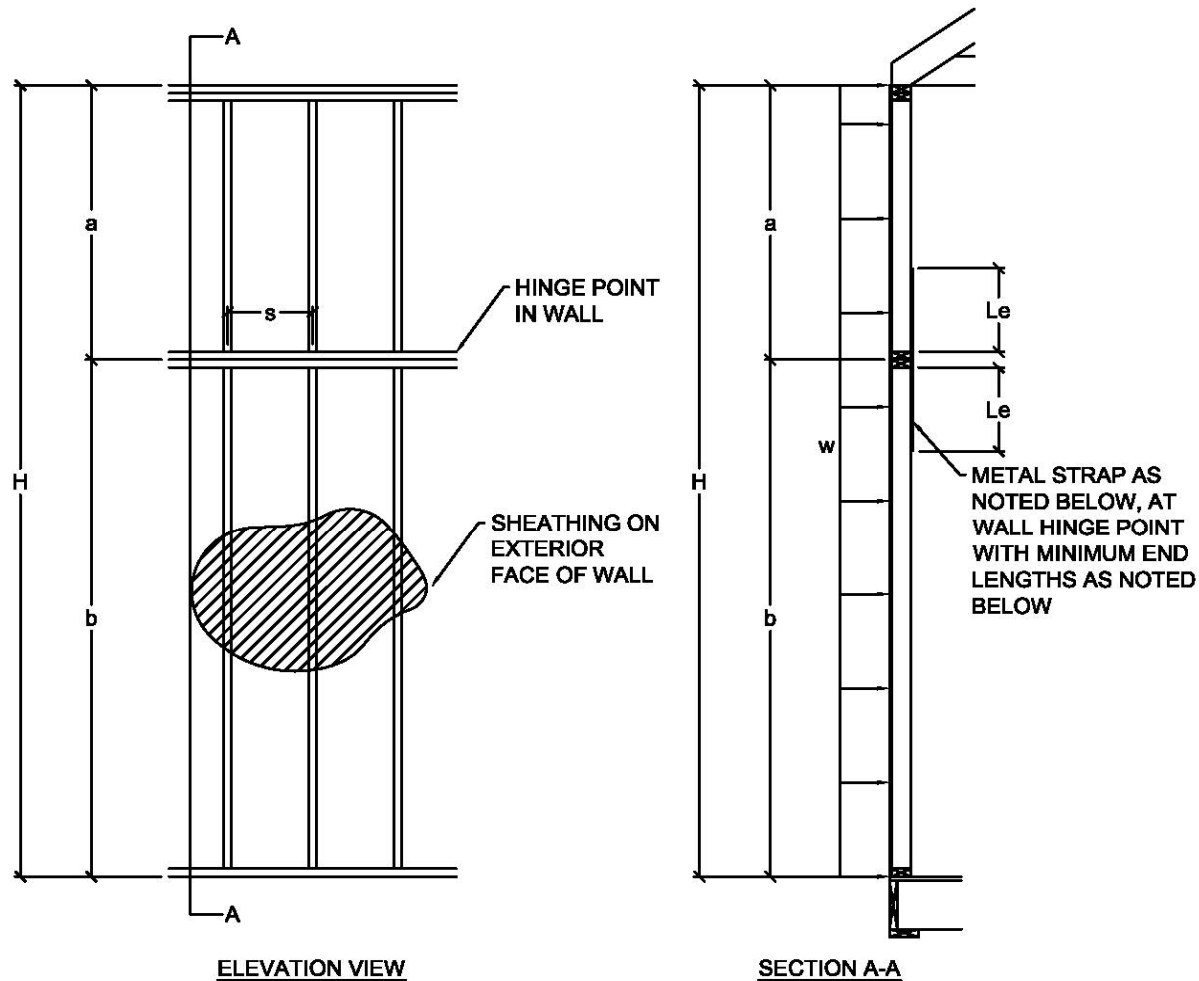
PARTIAL REAR ELEVATION (AT GREAT ROOM)



Vista Structural Engineering, LLC  
[www.vistastructural.com](http://www.vistastructural.com)

(971) 233 - 6099

Client: Wood Brothers  
Job Description: 2302 SW Serena Pl.  
Jurisdiction: Lee's Summit, MO



**STUD WALL WITH HINGE AT MID-HEIGHT**

Wall height, H	18 ft	=	216 inches
a	8 ft	=	96 inches
b	10 ft	=	120 inches
Wind pressure	16 psf	(per ASCE7-10)	
Stud spacing, s	12 inches o.c.	(36" spacing, but three studs)	
Maximum Moment, M	7776 in-lbs		
Moment at Hinge, M <sub>h</sub>	7680 in-lbs		
Depth of stud	5.5 inches		
Tension force of strap	1396 pounds		

Use Simpson steel strap or equivalent, model number:	<b>CS16</b>
With the following end lengths above and below hinge, Le:	<b>13</b> inches
With the following quantity and size of nails in each end length:	<b>(11) 8d</b>



**SITE PHOTO 1: INTERIOR SIDE OF REAR GREAT ROOM WALL**