

## PROFESSIONAL ENGINEERING & DRAFTING SERVICES

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May 16, 2018

Routt County Regional Building Department 136 6<sup>th</sup> Street Steamboat Springs, CO 80487

Reference: Dowski Residence, 33250 Ravenswood Lane

Subject: LVL Rafter Hole

To whom it may concern:

Please note that I have reviewed the 4" hole in the LVL rafter in the garage roof, and the LVL will still have sufficient capacity to carry the associated loads. The hole is located 27" from the bearing at the Glulam ridge beam, and placed such that 5 ½" of the LVL remains below and 2 ½" remains above the hole. The location of the hole near the bearing places it in the zone where shear is the main concern. My calculations show that a minimum of 6 ½" of the LVL is required to handle the shear forces. The 8" of the beam that remains provides sufficient capacity. Thank you for your attention to this item, and please contact me with any questions or concerns.

Sincerely,

Craig Frithsen, PE

