

June 2, 2021

IQ Homebuilders Attn: Brett Shelton

Re: 2614 SW Farmfield Road (Lot 36, Homestead at Hook Farms)

Vista Structural Engineering, LLC, was asked to address the following framing inspection items for the house being built at 2614 SW Farmfield Road:

Garage Portal built per PFH detail and not per PFG detail called out on plans. The PFH option is stronger than the PFG option. We recommend approval of the current installation, with hold-down straps. A picture of the hold-down straps at the left side of the garage has been attached on the following page.

Rafters are bearing on flat 2x blocks. Provide solution. Because the roof framing members were designed with gravity support at both ends, including purlins, struts, and hip/valley/ridge posts at the upper ends, there is no concern regarding outward thrust of the rafters. The flat 2x blocking between ceiling joists provides an adequate bearing point for the rafters, and the struts at the purlins, hips, valleys, and ridges provide the vertical support needed to avoid an outward thrust at the exterior wall plates. This addresses the gravity design forces on the roof. If there were no vertical support at the higher elevations of the roof framing (i.e. only collar-ties), then resistance to outward thrust would have been required. However, in this case, the existing framing is adequate for support of gravity forces. For uplift resistance, we recommend nailing each ceiling joist to the adjacent rafter with a minimum of (2) 10d nails. The combined 20 psf dead load of the roof and ceiling is sufficient to resist wind uplift forces. Once it has been verified that the rafters are adequately fastened to the ceiling joists, we recommend approval of the rafter framing/bearing condition. Pictures of the framing have been attached to this report, for reference.

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



VISTA STRUCTURAL ENGINEERING, LLC





2614 SW Farmfield Road - Garage Portal Frame – Installed as PFH (with hold-down straps)

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2614 SW Farmfield Road - Rafters Bearing on flat 2x blocks.

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