## VAN DEURZEN AND ASSOCIATES, P.A.

CONSULTING STRUCTURAL ENGINEERS 11011 KING STREET, SUITE 130 COMMERCE TERRACE BUILDING D OVERLAND PARK, KANSAS 66210 (913) 451 - 6305 FAX (913) 451 - 1021

May 5, 2021

Mr. Jordan Jackson JFE Construction Inc. 1314 SW Market St Lee's Summit, MO 64081

Re: 1904 SW River Rund Driv e – Framing Evaluation Report

Lee's Summit, MO

Bldg. Permit No.: PRRES2020-0317

Dear Mr. Jackson,

This letter is in regard to our evaluation of the framing discrepancies noted by the city during a rough-in framing inspection of the above mentioned residence. The following are the noted discrepancies which required engineering evaluation.

- Braced wall method CS-PF framing and fastening per detail. Wall between dining and four seasons. At the time of our inspection, we had noted that the exterior of the wall located between the dining and the four seasons room had been sheathed with Zip sheathing but had not been extended through to the rim joist in order to make the CS-PF connection. The braced wall system for the residence was re-evaluated by our office. Based on our evaluation, sufficient wall bracing is provided in other portions of the residence to allow the elimination of the CS-PF portal frame at the wall located between the dining and the four seasons room. The wall as framed is acceptable.
- Provide engineered solution for rafters bearing on blocks throughout. At the time of our inspection, we had noted that 2x blocks had been installed on top of the exterior framed walls in order to raise the heel height of the rafters which in turn does not allow for adequate connection of the rafters to the ceiling joists in order to develop the required tie connection. In order to provide for adequate connection of the roof rafters to the ceiling joists, we recommend that the rafters be furred out with a 2x wood block to allow them to be flush with the side of the ceiling joists and a 2x block or a piece of wood sheathing be installed on the side of the roof rafter and ceiling joist to provide for the required connection of the two components.
- Provide engineered solution for cut top plate at HVAC duct out the basement wood framed wall, also address minimum exterior sheathing fastening at this location. At the time of our inspection, we had noted that the double top plate of the basement framed wall had been removed at the location where the HVAC supply deck exited the basement to supply the four seasons room. We had noted that the rim joist had not been cut and was continuous over the top of the cut double top plate. Based on our evaluation of the modified framing at this location, the rim installed continuous over the top of the cut double top plate is adequate to provide for the tie and continuity at the discontinued top

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plate. In addition, the lack of sheathing fasteners at this location will not impact the performance of the wall sheathing. The framing as installed is acceptable.

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• Rafters not to offset more than 1" at ridge connections. At the time of our inspection, we had noted one location at the main ridge where a roof rafter was offset from the rafter located on the opposite side of the ridge by more than one inch. The roof framing and corresponding ridge in this area have been vertically braced with purlins and ridge braces which significantly reduces the thrust forces in the rafters. The offset present will not adversely impact the performance of the rafters. The rafters as installed at this location are acceptable. No corrective action is required.

We trust this report will meet your needs. If you need any additional information, please contact this office.

Sincerely,

VAN DEURZEN AND ASSOCIATES, P.A.

Chad M. Streeter, P.E.