



## CIVIL ENGINEERING CONSULTANTS

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April 13, 2022

Steve Froehlich  
322 NW Ambersham Dr.  
Lee's Summit, MO 64081

RE: R.E.O. Project 20-002-53  
MD2 Designs Plan SF-7014  
Permit #: PRRES20204940  
322 NW Ambersham Dr., Lee's Summit, MO  
Inspection Items - miscellaneous

Dear Mr. Froehlich,

We are providing herewith statement regarding February 25th inspection items at the above reference address. Items and any corrective action are described in no particular order.

A plumbing drain is over-notched into the top of the floor joist adjacent to a supporting LVL beam near the front entry. At this location provide solid blocking adjacent to drain pipe approximately three inches to the exterior end. At an additional location, a diagonal bore notches the joist through the top. At this location, the remaining section of the joist is adequate to support the applied load; minimal compression at the top of the joist is adequately supported by the subfloor.

A number of locations throughout the structure have electrical and plumbing holes (~3/4" diameter bored closer than two inches to adjacent holes. For a series of four holes adjacent to each other, no modifications are required for the joists to remain adequate for applied loads.

In several locations throughout the structure, rafters are supported on flat blocking or vertical blocking between short ceiling joists, with continuous exterior sheathing to the rafter seat. In all locations with vertical or on-edge blocking, double blocking is required. In all blocking locations, provide steel straps at 48 inches on center where rafters are constructed on blocking above the top plate of the wall, including the short knee-wall construction. Straps shall be 1-1/4"x22 gauge and extend from the top of the rafter to 8 inches below the base of the main wall top plate aligned with a stud in the wall construction. Seven (7) ~ 8d fasteners shall be connected to the stud with an additional seven (7) ~ 8d distributed between the rafter, blocking plates, and top plates.



In addition to vertical ties above, several locations with blocks are constructed without rafter ties. The wall with short ceiling joists between the wall and double LVL to the interior is considered adequately tied. At the short kneewall location provide ties above ceiling joists to opposing rafters or to the top of the nearest perpendicular interior framed wall. These ties are in tension only and will not support any attic or equipment loads.

At the face of the garage, a rafter support beam is notched into the overhead door header, continuous as part of a double Portal Frame with Hold-Downs. The framing width between the overhead door opening and interior strapping across the continuous LVL is adequate to meet the portal frame requirements. The notched-in header does not reduce lateral capacity of the assembly nor require any vertical support below the notch location. No modifications are required for this item.

The above described modifications will be adequate to support applied loads. For any questions regarding this analysis please contact our Offices.

Very Truly Yours,

R.E.O. ENGINEERING, P.C.

By: , President  
Aaron D. Obermiller, P.E.

