



November 8, 2021

Summit Homes
120 SE 30th St.
Lee's Summit, MO 64082

RE: Field Issue of over-bored holes in studs and notched floor joists for Lot # 157 Hawthorne Ridge – 3112 SW Arboridge Dr. Lee's Summit, MO 64082 – Permit # PRRES20212479

This letter addresses the following issues for Lot #157 Hawthorne Ridge:

- Intersecting corner stud notched at bedroom #2 corner
- Spliced floor joist for DWV under bath #1 toilet
- Overbored floor joist for DWV under bath #1 bathtub
- Spliced floor joist for DWV under bath #2 toilet

- Intersecting corner stud notched at bed #2 corner:
 - It is structurally acceptable to notch the corner stud at bed #2. Additional stud is installed as a nailer board for drywall and is not structural.

- Spliced floor joist for DWV under bath #1 toilet:
 - Header off spliced floor joist with Douglas Fir Larch #2 2x12 on each side of DWV for bath #1 toilet.
 - Floor joists are #2 2x12 Douglas Fir Larch spanning approximately 17' with standard dead=10 and live=40 psf loads.

- Overbored floor joist for DWV under bath #1 bathtub:
 - Hole is approximately 3.5" diameter.
 - Install a 24" length of CS-16 coil strap centered under over bored hole. Install with fasteners per manufacturer's specs.

- Spliced floor joist for DWV under bath #2 toilet:
 - Header off spliced floor joist with Douglas Fir Larch #2 2x12 on each side of DWV for bath #2 toilet.
 - Floor joists are #2 2x12 Douglas Fir Larch spanning approximately 15' -11.5" with standard dead=10 and live=40 psf loads.

Model No.	Total L	Ga.	DF/SP		SPF/HF		Allowable Tension Loads (160)	Code Ref.
			Fasteners	End Length	Fasteners	End Length		
CMST12	40'	12	(74) 16d (86) 10d	33" 39"	(84) 16d (98) 10d	38" 44"	9,215 9,215	14, L3, FL
CMST14	52 1/2'	14	(56) 16d (66) 10d	26" 30"	(66) 16d (76) 10d	30" 34"	6,490 6,490	
CMSTC16	54'	16	(50) 16d sinker	20"	(58) 16d sinker	25"	4,585	
CS14	100'	14	(26) 10d (30) 8d	15" 16"	(30) 10d (36) 8d	16" 19"	2,490 2,490	
CS16	150'	16	(20) 10d (22) 8d	11" 13"	(22) 10d (26) 8d	13" 14"	1,705 1,705	
CS18	200'	18	(16) 10d (18) 8d	9" 11"	(18) 10d (22) 8d	11" 12"	1,370 1,370	
CS20	250'	20	(12) 10d (14) 8d	6" 9"	(14) 10d (16) 8d	9" 9"	1,030 1,030	
CS22	300'	22	(10) 10d (12) 8d	7" 7"	(12) 10d (14) 8d	7" 8"	845 845	

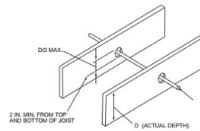


FIGURE R502.8 CUTTING, NOTCHING AND DRILLING

For SI: 1 inch = 25.4 mm.

R502.8.1 Sawn lumber.

Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of members 4 inches (102 mm) or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches (51 mm) to the top or bottom of the member, or to any other hole located in the member. Where the member is notched, the hole shall not be closer than 2 inches (51 mm) to the notch.

Sincerely,

Bradley Huxol, PE

