

August 25, 2021

Summit Homes 120 SE 30<sup>th</sup> St. Lee's Summit, MO 64082

## RE: Field Issue of 1.5" diameter hole bored within bottom 2" of floor joist under master bedroom for Lot #52 Woodside Ridge – 202 NW Joshua Dr. Lee's Summit, MO 64081 – Permit # PRRES20210882

This letter addresses the 1.5" hole bored within bottom 2" of floor joist under master bedroom for 52 Woodside Ridge.

- Hole is 1.5" diameter with an additional .5" diameter hole adjacent to hole.
- Hole is approximately 1" from bottom of floor joist.
- Floor joists span approximately 10'-4" and are #2 2x10 at 16" oc. Floor joists have standard D=10 psf and L=40 psf loading.
- Install a 24" length of CS-16 coil strap centered over hole. Install with fasteners per manunfacturer's specs.

For SI: 1 inch = 25.4 mm.

FIGURE R502.8CUTTING, NOTCHING AND DRILLING

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 be one-fourth the depth of the members. The diameter of holes bored or cut into members shall not exceed one-shird the depth of the depth of the member shall not be located in the member. The tension side of members shall not exceed one-shird the depth of the depth of the member shall not be located in the member. The diameter of holes bored or cut into members shall not exceed one-shird the depth of the member shall not exceed shall not be consert than 2 inches (51 mm) to the not.

SD Connector screw. See pp. 39-40 for more information.

[	Madal	Total L	Ga.	DF/SP		SPF/HF		Allowable	
	Model No.			Fasteners	End Length	Fasteners	End Length	Tension Loads (160)	Code Ref.
	CMST12	40'	12 -	(74) 16d	33"	(84) 16d	38"	9,215	14, L3, FL
				(86) 10d	39"	(98) 10d	44"	9,215	
	CMST14	521⁄2'	14	(56) 16d	26"	(66) 16d	30"	6,490	
				(66) 10d	30"	(76) 10d	34"	6,490	
	CMSTC16	54'	16	(50) 16d sinker	20"	(58) 16d sinker	25"	4,585	
	CS14	100'	14	(26) 10d	15"	(30) 10d	16"	2,490	
				(30) 8d	16"	(36) 8d	19"	2,490	
SS	CS16	150'	16	(20) 10d	11"	(22) 10d	13"	1,705	
55				(22) 8d	13"	(26) 8d	14"	1,705	
	CS18	200'	18	(16) 10d	9"	(18) 10d	11"	1,370	
				(18) 8d	11"	(22) 8d	12"	1,370	
	CS20	250'	20	(12) 10d	6"	(14) 10d	9"	1,030	
				(14) 8d	9"	(16) 8d	9"	1,030	
	CS22	300'	22 -	(10) 10d	7"	(12) 10d	7"	845	
				(12) 8d	7"	(14) 8d	8"	845	

1. Fastener quantities and end lengths are calculated using an increase for wind or seismic loading.

Sincerely,

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Bradley Huxol, PE

