

June 8, 2022

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

RE: Field Issue of holes in floor joist and top plate connection for Lot #140 Cobey Creek – 3549 SE CORBIN DR, Lee's Summit, MO 64082 Permit # PRRES20220427

City of Lee's Summit Comment:

address floor joists bored for pex less than 2" from end of joist and bores for pex less than 2" apart, see north basement wall left of stairs.

Recommendations:

Install (1) CS-16 Strap per floor joist with holes located within 2" apart and 2" from the bottom. Strap shall be 2' in length with 1' on either side, centered under holes. Install per manufacturer's specs.

Model No.	Total L	Ca.	DF/SP		SPF/HF		Allowable Tension Loads (160)	Code Ref.
			Fasteners	End Length	Fasteners	End Length		
CMST12	40'	12	(74) 16d	33"	(84) 16d	36"	9,215	I4, L3, FL
			(86) 10d	39"	(98) 10d	44"	9,215	
CMST14	52'6"	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	
CS16	150'	16	(20) 10d	11"	(22) 10d	13"	1,705	
			(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.
 2. Use half of the required nails in each member being connected to achieve the listed loads.
 3. Calculate the connector value for a reduced number of nails as follows:

$$\text{Allowable Load} = \frac{\text{No. of Nails Used}}{\text{No. of Nails in Table}} \times \text{Table Load}$$

Example: CMSTC16 in DF/SP with 40 nails total.
 (half of the nails in each member being connected)

$$\text{Allowable Load} = \frac{40 \text{ Nails (Used)}}{50 \text{ Nails (Table)}} \times 4,585 \text{ lb.} = 3,668 \text{ lb.}$$

4. Tension loads apply for uplift when installed vertically.
 5. Nails: 16d = 0.162" dia. x 3 1/4" long, 10d = 0.148" dia. x 3 1/4" long, 8d = 0.148" dia. x 2" long. See pp. 26-27 for other nail sizes and information.




City of Lee's Summit Comment:

address top plate to top plate corner lap connection, see exterior wall left of sliding glass door, different wall heights

Recommendations:

- Install 24" CS-16 strap per manufacturer's specs to each top plate above sliding glass door.
- Attach strap to nearest structural member – adjacent top plate, jack/king studs, or blocking.

Sincerely,



Bradley Huxol, PE

