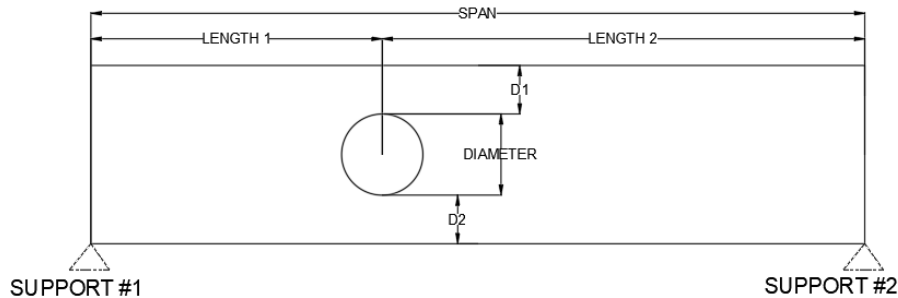




July 5, 2022

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

RE: Field Issue of overbored floor joist for Lot #122 Hawthorne Ridge – 1601 SW Arborway Terrace Lee's Summit, MO 64082 – Permit # PRRES20216029



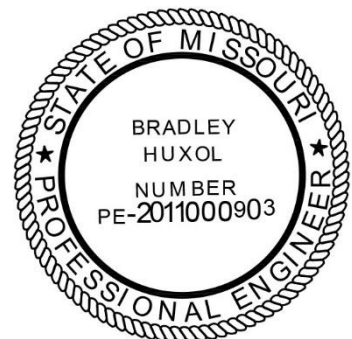
- D1 – 3.25"
- D2 – 2"
- Diameter of hole - 4"
- Length 1 – 14'6"
- Length 2 – 1'
- Span – 15'-6"
- Support #1 – W10x26 steel beam cont.
- Support #2 – W8x18 steel beam
- Location – under kitchen
- Loading -
 - Dead = 10 psf @ 16" oc
 - Live = 40 psf @ 16" oc

Recommended modifications:

- Install 3' length of CS-16 centered under the hole per manufacturer's spec's.

Model No.	Total	DFSP		SPRF		Allowable Tension Loads (lb)	Code Ref.
		Fasteners	End Length	Fasteners	End Length		
CMST12	40	12	(76) 16d	12"	(84) 16d	38"	9,215
CMST14	52W	14	(88) 16d	14"	(88) 16d	44"	9,215
CMST16	54	16	(98) 16d	16"	(88) 16d	30"	6,490
CMST18	54	18	(98) 16d	18"	(76) 16d	34"	6,490
CMST20	54	20	(98) 16d	20"	(58) 16d	25"	4,585
CS14	100	14	(108) 16d	14"	(108) 16d	16"	2,490
CS16	150	16	(108) 16d	16"	(108) 16d	12"	2,490
CS18	200	18	(108) 16d	18"	(108) 16d	11"	1,970
CS20	250	20	(108) 16d	20"	(108) 16d	9"	1,970
CS22	300	22	(108) 16d	22"	(108) 16d	7"	1,970

1. Fastener quantities and lengths are calculated using an inch/lbs. 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:
Allowable Load = No. of Nails in Table x Table Load
Example: CMST12 in DTP with 40 nails total.
Half of the nails in each member being connected.
Allowable Load = 40 Nails (9,215 lb.) x 0.5 = 4,608 lb.
4. Tension loads apply for uplift when installed vertically.
5. Nails: 16d = 0.162" dia. x 3 1/4" long, 18d = 0.187" dia. x 3 1/4" long, 20d = 0.187" dia. x 4" long, 22d = 0.187" dia. x 4 1/4" long. See pp. 29-37 for other nail sizes and information.



Sincerely,

Bradley Huxol, PE