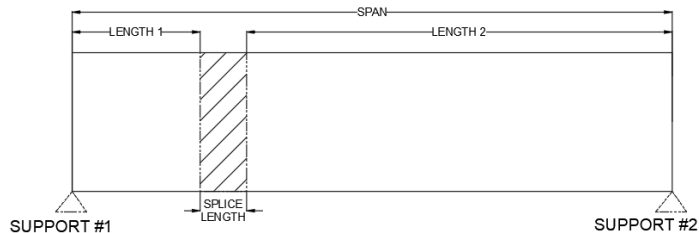


July 18, 2022

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

RE: Field Issues for Lot #143 Hawthorne Ridge – 3201 SW Arboridge Dr. Lee's Summit, MO 64082 – Permit # PRRES20216304

Comment #1: Floor joist cut for DWV at south basement:

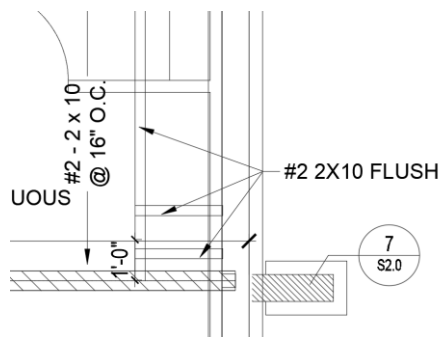


SIMPLE SPAN

- Splice length – 6"
- Length 1- 1'
- Length 2- 14'-7"
- Span – 15'-7"
- Support #1 – W10 x26 steel beam continuous
- Support #2 – W8x21 steel beam
- Location – under bath #1

Recommended modifications:

- Install header as shown in image below:



Comment #2: Floor joist cut for DWV at north basement:

- Splice length – 9"
- Length 1- 3.5'
- Length 2- 3.5'
- Span – 7'
- Support #1 – W8x10 steel beam continuous
- Support #2 – stair load bearing wall
- Location – under bath #4

Recommended modifications:

- Sister spliced floor joist with full length of DFL #2 2x10. Install glue and 4 fasteners per linear ft. in a "W" pattern.

Comment #3: Address top plate corner lap connection at great room to kitchen wall, double girder truss landing on 2x4 blocks above top plate, lateral restraint and uplift resistance.

Recommended modifications:

- Install 24" CS-16 strap per manufacturer's specs at each top plate with splice staggered less than 24" oc.
- Install CS-16 strap per manufacturer's specs wrapped around blocks supporting double GT and adjacent studs for pony wall.
- Install 24" length CS-16 vertically from top of blocks to bottom of header below.
- Install truss hangers per truss layout.

Model No.	Total L	Ga.	DF/SP		SPF/HF		Allowable Tension Loads (160)	Code Ref.
			Fasteners	End Length	Fasteners	End Length		
CMT12	40'	12	(74) 16d	33"	(84) 16d	38"	9,215	14, 13, FL
			(86) 10d	39"	(98) 10d	44"	9,215	
CMT14	52W	14	(56) 16d	26"	(66) 16d	30"	6,490	
			(66) 10d	30"	(76) 10d	34"	6,490	
CMT16	54'	16	(50) 16d 16d sinker	20"	(58) 16d 16d sinker	25"	4,585	
			(28) 10d	15"	(33) 10d	16"	2,490	
CS14	100'	14	(30) 8d	16"	(36) 8d	19"	2,490	
			(20) 10d	11"	(22) 10d	13"	1,705	
CS16	150'	16	(27) 8d	13"	(26) 8d	14"	1,705	
			(16) 10d	9"	(18) 10d	11"	1,370	
CS18	200'	18	(18) 8d	11"	(22) 8d	12"	1,370	
			(12) 10d	6"	(14) 10d	9"	1,030	
CS20	250'	20	(14) 8d	9"	(16) 8d	9"	1,030	
			(10) 10d	7"	(12) 10d	7"	845	
CS22	300'	22	(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:

Allowable Load = $\frac{\text{No. of Nails Used}}{\text{No. of Nails in Table}} \times \text{Table Load}$
Example: CMT16 in DF/SP with 40 nails total.
(half of the nails in each member being connected)
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 sinker = 0.148" dia. x 3 1/4" long.
10d = 0.148" dia. x 3" long. See pp. 26-27 for other nail sizes and information.



Sincerely,

Bradley Huxol, PE