EVERSTEAD
ENGINEERING & DESIGN

May 9, 2022

Clover & Hive
120 SE 30th St.
Lee's Summit, MO 64082

RE: Field Issue of discontinuous top plate and rim joist for HVAC and holes bored within 2" of each other above breaker box for Lot #16 Osage – 3744 SW Maryville Place Lee's Summit, MO 64082 – Permit # PRRES20213817

Discontinuous top plate and rim joist:

- **Top plate and rim joist are discontinuous in multiple locations at kitchen/ stair load bearing wall.**

Recommended modifications:

- **Install 16 gage steel strap at top plate per image below.**
- **Install solid 2x10 blocking in each bay adjacent to spliced rim joist.**

Holes bored within 2" of each other in floor joist:

- **Holes for electrical bored within 2" of each other above breaker box in basement.**
- **Holes are approx. 1" and 2" diameter and 1" apart from each other for electrical lines.**

Recommended modifications:

- Install 36" length of CS-16 per manufactuer's spec's centered underneath holes along bottom of floor joist.

Model No.	Total L	Ga.	DF/SP Fasteners	DF/SP End Length	SPF/HF Fasteners	SPF/HF End Length	Allowable Tension Loads (160)	Code Ref.
CMST12	40'	12	(74) 16d	33"	(84) 16d	38"	9,215	I4, L3, FL
			(86) 10d	39"	(98) 10d	44"	9,215	
CMST14	52½'	14	(56) 16d	26"	(66) 16d	30"	6,490	
			(68) 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 3½" long, 16d sinker = 0.148" dia. x 3¼" long, 10d = 0.148" dia. x 3" long. See pp. 26–27 for other nail sizes and information.

FIGURE R602.3(1)TYPICAL WALL, FLOOR AND ROOF FRAMING

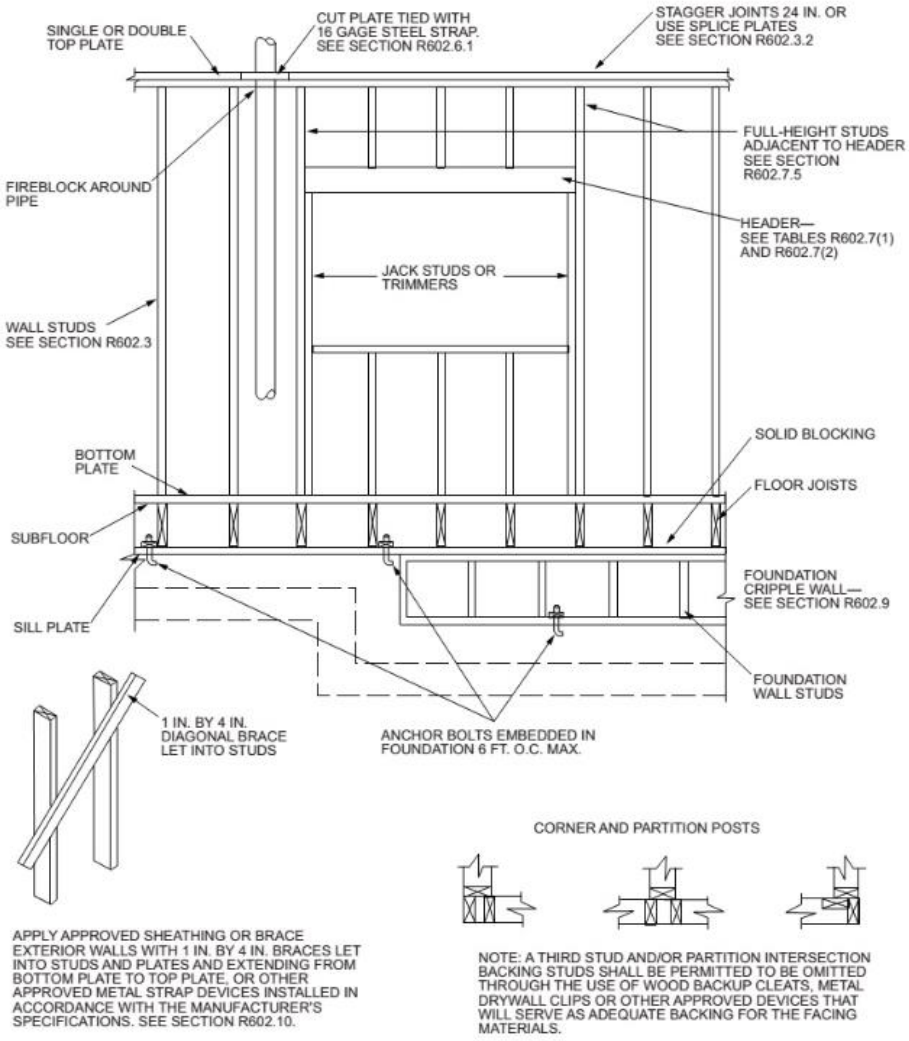

FIGURE R602.3(2)FRAMING DETAILS

Sincerely,

Bradley Huxol, PE