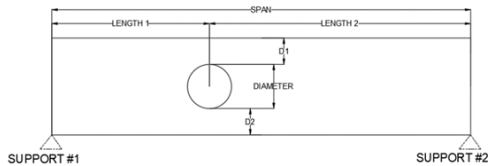


January 2, 2023

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

RE: Field Issue of Holes in Floor Joist for Lot # 143 Cobey Creek – 3537 SE Corbin Dr. Lee's Summit MO 64082 – Permit # PRRES20220641

Findings:



1. Holes in floor joist under Great room near electoral panel:

- D1 – 4.5"
- D2 – 4.75"
- Number of Holes – 10, <2 "apart
- Length 1 – 10'
- Length 2 – 4' 5"
- Span – 14' 5" clear
- Support #1 – Exterior Wall
- Support #2 – W8x10 Steel Beam
- Location – Under Great Room
- Loading -
 - Dead = 10 psf @ 16" oc
 - Live = 40 psf @ 16" oc

| Model No. | Total L | Ga. | DF/SP | | SPF/HF | | Allowable Tension Loads (150) | Code Ref. |
|-----------|---------|-----|-----------------|------------|-----------------|------------|-------------------------------|-----------|
| | | | Fasteners | End Length | Fasteners | End Length | | |
| CMST12 | 40' | 12 | (76) 16d | 33" | (84) 16d | 38" | 8,215 | H, L3, FL |
| | | | (88) 10d | 39" | (98) 10d | 44" | 8,215 | |
| CMST14 | 52 1/2' | 14 | (88) 16d | 36" | (98) 16d | 37" | 6,490 | |
| | | | (88) 10d | 30" | (76) 10d | 34" | 6,490 | |
| CMSTC16 | 54' | 16 | (50) 16d sinker | 20" | (58) 16d sinker | 25" | 4,585 | |
| | | | (26) 10d | 15" | (30) 10d | 16" | 2,490 | |
| CS14 | 100' | 14 | (38) 8d | 16" | (38) 8d | 19" | 2,490 | |
| | | | (22) 10d | 11" | (22) 10d | 13" | 1,705 | |
| CS16 | 150' | 16 | (22) 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 | (10) 8d | 7" | (10) 8d | 9" | 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: CMSTC16 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 1/2" 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.

Recommendations:

- Install a 48" length of CS-16 strap centered beneath the holes.
- Install with fasteners per manufacturer's specs.

We would like to thank you for the opportunity to consult you on your home. Please feel free to contact us if you have any questions regarding this report or need any further consultation.

Sincerely,



Bradley A. Huxol, PE



Everstead Terms and Conditions

1. SCOPE

The Client warrants that he or she has made all necessary arrangements with the owner of the property for the Engineer to enter, review the property, and offer findings and opinions about the property. All opinions and conclusions by the Engineer, whether written or oral, and any plans, specifications, reports, or other documents and services provided by the Engineer are for the sole use and benefit of the Client. Nothing within the scope of this review shall create a contractual relationship with or cause of action in favor of any third party against either the Engineer or the Client.

NO EXPRESSED WARRANTY IS GIVEN CONCERNING THE BUILDING(S) AND EQUIPMENT FOR THEIR FUTURE USEFULNESS. Client or agent authorization of the scope of work contained in the bid and signing of this document constitutes acceptance of this agreement, the fees charged and authorizes Residential Engineering Services, LLC dba Everstead ("Everstead"). and its representatives to disclose information, within the reports, to sellers, agents, lenders, and insurers intimate to this transaction for the purposes of clarification or facilitation of repairs. Areas/Items not in the report or stated not observed/not applicable were not inspected, inaccessible, or otherwise totally disclaimed.

3. REPORT

It is important to understand that predicting future changes in the condition of the building or its components is impossible. The report is intended to provide an overview of existing conditions only and should not be used as an indicator or predictor of future performance. No expressed or implied warranty or guarantee of any kind of any future performance, condition or suitability is given.

The written report constitutes the sole representations by the Engineer and any discussions that may have occurred during or after the review shall be considered informal in nature and shall be superseded by this report. The review is not an exhaustive technical or comprehensive engineering evaluation and, unless otherwise mentioned in the report, includes no detailed engineering design work, calculations, or soil tests. An exhaustive technical or comprehensive engineering evaluation which may include design, calculations, elevation readings, invasive testing, subsurface exploration, laboratory testing and analysis of soils, and evaluation of contractor bids and proposals to perform corrective work, can be provided but would be done under a separate scope of services and fee agreement.

4. LIEN

Company retains all right to file an engineer lien pursuant to relevant statutes, including, without limitation, those liens provided for under Chapter 429 RS.MO.

5. INDEMNITY

This report is intended for the exclusive use of the client only and is not intended to benefit any third parties, including the current owner (seller) of the home, unless the seller is our client. By signing these terms, the client agrees to hold Everstead and its representative harmless, and indemnified and defended, from and against ANY AND ALL claims, loss, liability or expense, including legal fees, arising out of the services provided by this review and subsequent report. No review will be made nor will warranties or guarantees, either expressed or implied, be given for (a) a services provided by Company. Warranties can be obtained from various sources. Everstead recommends you consult with your realtor or legal counsel regarding the availability and purchase of any warranties.

6. ARBITRATION CLAUSE

Any dispute, controversy, interpretation or claim including claims for, but not limited to, breach of contract, any form of negligence, fraud or misrepresentation, arising out of, from or related to, this contract or arising out from or related to the services provided shall be submitted to final and BINDING arbitration under the Rules and Procedures of the AAA. The decision of the Arbitrator appointed there under shall be final and binding and judgment on the award may be entered in any Court of Competent jurisdiction.

To the extent allowed by law, it is understood and agreed by and between the parties hereto that the Engineer's/Engineering Company's and it officers', agents' or employees LIMITATION OF LIABILITY for errors or omissions in the services provided is limited and fixed to a refund of the fee paid for the services provided. This limitation of liability is specifically negotiated and by signing this agreement Client is entitled to a \$100 credit against the cost of the services rendered.

Any arbitration, legal action, or proceeding of any kind, including those sounding in tort or contract, against the engineer/engineering company's and its officers', agents' or employees must be brought within one (1) year from the date the services were rendered will be deemed waived and forever barred. Any costs for attorneys, legal fees, and/or court costs to defend the engineer/engineering company, its officers, agents or employees will be the responsibility of the Client. Any costs of arbitration are the responsibility of the client until such time as determined by the arbitrator that the engineer should be responsible. Time is expressly of the essence herein.

7. DEFAULT

It is understood and agreed to by the client, that in the event legal action or the filing of liens and/or other means of collections is necessary by Everstead, the cost for outside services (legal fees and/or collections services) are the responsibility of the client or recipient of this report and the time involved by Everstead staff will also be charged to the client. Everstead time, if applicable, will be charged at the rate of \$150 per hour for professional staff and \$50 per hour for office staff. Non-payment of invoices within 30 days without written approval otherwise by Everstead staff will be cause for immediate collections action by Everstead. Interest on unpaid invoices will be charged at the rate of 2% compounded monthly. Charges which may be assessed may include but not limited to the following: clerical time, travel time, court fees, attorney fees, collection agency fees, file review time or any other time necessary for Everstead personnel to collect money owed for services rendered to the client. It is illegal to pass a check with insufficient funds. In the event a check is returned due to insufficient funds, Everstead will contact the client by telephone, and provide the client verbal notice that no more than 48 hours will be allowed to make payment to Everstead. Payment will include any of the above mentioned fees, but will be no less than \$50. In the event payment by cash or cashier's check is not received by Everstead, the client understands that Everstead will prosecute to the fullest extent allowed by law.

Acceptance of the written report shall constitute acceptance of the above terms and conditions.