
Date: October 13, 2025

To: Eric Cartledge
Cartledge Contracting, LLC.
304 S Hughes St.
Apex, NC 27502

Re: 25-FRM-222
Roof Truss Repairs
9006 Christian Light Rd.
Fuquay Varina, NC 27526
Permit No.: SFD2411-0036

Mr. Cartledge:

At your request, a site visit was made to the above referenced address to inspect drilled roof trusses within the detached garage being converted to living space.

Observations:

1. The 7th and 8th roof trusses from the front exterior wall had three $+/-1$ " holes drilled through the bottom chord $+/-5'-10$ " from the right exterior wall.
2. The 8th-11th roof trusses from the front exterior wall had two $+/-1$ " holes drilled through the bottom chord $+/-9'-0$ " from the right exterior wall.
3. The 9th roof truss from the front exterior wall had four $+/-1$ " holes drilled through the bottom chord $+/-12"-24$ " from the left exterior wall.
4. Additional holes were observed in the following locations:
 - a. The 1st-6th roof trusses from the front exterior wall had one $+/-1$ " hole drilled through the bottom chord $+/-7$ " from the right exterior wall.
 - b. The 7th roof truss had four additional $+/-1$ " holes drilled through the bottom chord, aside from the holes noted in Item 1. The holes are located between 7'-0" to 16'-0" from the right exterior wall.
 - c. The 10th and 11th roof truss from the front exterior wall had one $+/-1$ " hole drilled through the bottom chord $+/-14$ " from the left exterior wall.

Analysis and Recommendations:

1. Reinforce both sides of the bottom chord of the noted roof trusses with a 2x6x3' long scab, extending from the right exterior wall. Fasten the scabs with (3) rows of 10d nails spaced 4" o.c. Stagger nails from each side to avoid interference.
2. Reinforce both sides of the bottom chord of the noted roof trusses with a 2x6x4' long scab, centered over the drilled holes. Fasten the scabs with (3) rows of 10d nails spaced 4" o.c. Stagger nails from each side to avoid interference.
3. Reinforce both sides of the bottom chord of the noted roof truss with a 2x6x4' long scab, extending from the left exterior wall. Fasten the scabs with (3) rows of 10d nails spaced 4" o.c. Stagger nails from each side to avoid interference.
4. The drilled holes noted above are not a structural concern and require no reinforcement.

Lumber for scabs is to be SPF #2 or SYP #2. The drilled roof truss bottom chords reinforced in the prescribed manners above will provide the required support for all imposed loads.

Please contact us if you have any questions.

Respectfully submitted,
Hayes Structural Consulting & Design, PLLC



Digitally signed by
Zachary H. Hayes,
PE
Date: 2025.10.13
16:39:02 -04'00'

Garrett Scott
Structural Engineering Technician
(919) 980-2756
garrett@hayesstructural.com

Zachary H. Hayes, PE
President & Principal Engineer
(919) 210-3480
zach@hayesstructural.com