



June 9, 2023

Chuck Michno
David Weekley Homes
1901 Harrison Avenue, Suite 200
Cary, NC 27513
Email: cmichno@dwhomes.com

Reference: Engineering Services
Serenity - Lot 55
114 Serendipity Dr.
Fuquay-Varina, NC 27526
TE&D Project No.: 2301-020472_A

To Whom It May Concern;

As requested by the client, a representative of Tyndall Engineering & Design, PA (TE&D) was on-site to observe the following items:

1. Inspect and analyze the cut pre-engineered roof truss. We understand the truss was cut at the bottom chords to accommodate an LVL beam.

The following conclusions and recommendations were noted:

1. We observed roof truss "A" was cut at bottom chords 24-25, 23-26, as well as web 23-24. Based on our observations and analysis, the existing truss is not suitable as installed due to the anticipated compression and tension loads associated with the damaged members. The truss is to be repaired and reinforced with the following recommendations:
 - a. Each side of the LVL beam is to be furred out with 7/16" OSB sheets as needed. Sheets are to be fastened to the beam with (3) rows of 8d nails at 4" o.c. Sheets are to extend to adjacent intersecting members on each side of the damaged truss.
 - b. The bottom chord (floor portion) of the truss, from point 16 to 33 is to be fully sheathed with OSB sheets. OSB is to be a minimum 7/16" and is to be fastened to all members with (2) rows of 8d nails at 4" o.c. OSB is only required on (1) face of the truss.
 - c. Face mount truss hangers are then to be installed to support the bottom of the truss on both sides of the LVL. Hangers are to be installed on the OSB and fastened per the manufacturer's specifications.
 - d. Both sides of the cut truss are then to be reinforced to resist anticipated tension loads. The top and bottom chords of the "floor section" are to be reinforced with a Simpson LTTP2 Tension Tie (or equivalent). Ties are to be fastened with 10d nails or SD screws at all holes. The base is to be fastened to the LVL beam with a minimum 3" long x 1/2" diameter SDWS screw (or equivalent).

See attached photos for approximate locations of repairs.



Upon completion, the modified roof truss will provide the required support for the anticipated loading conditions. We appreciate being able to assist you during this phase of the project. If you need further assistance or require additional information, please do not hesitate to contact us.

Sincerely,
Tyndall Engineering & Design

Tripp Amos
TA | 2301-020472_A

Prentice Tyndall Jr., P.E.





Furr out LVL w/ OSB to fill gap between truss and LVL.





Fully sheathe (1) side of bottom “floor section” of truss

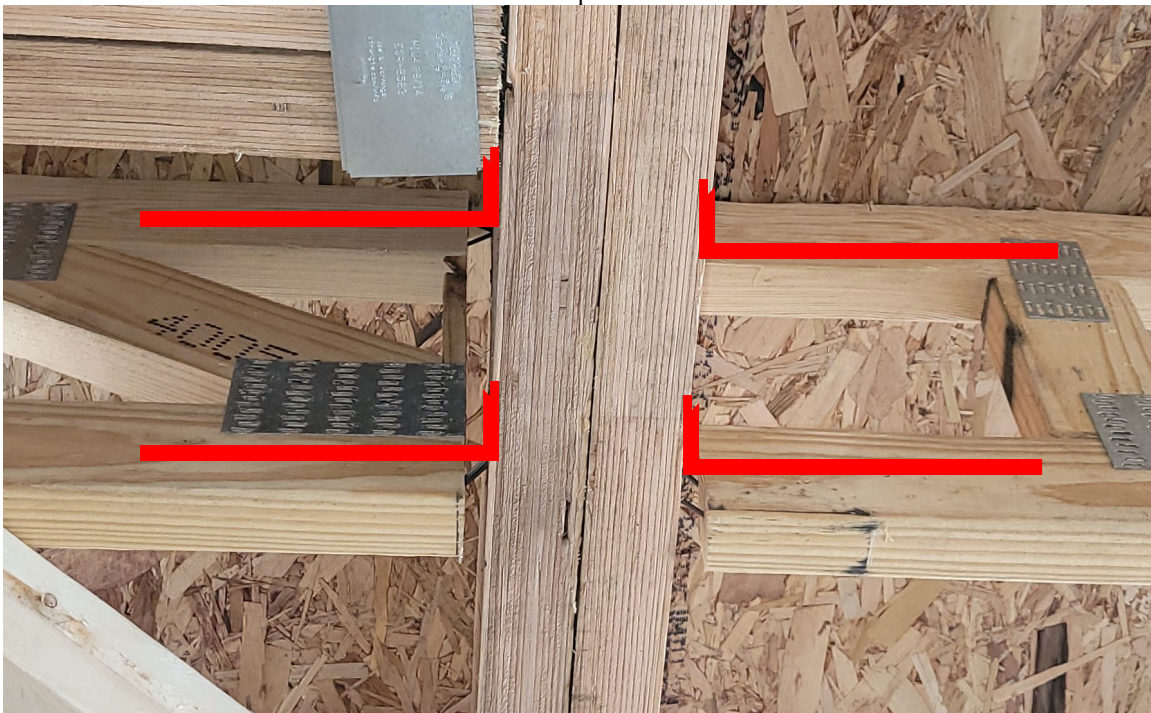




Install Hangers



Install tension ties at top and bottom of each side of cut section. (4) total. Ties may be alternated between truss faces as needed due to space constrictions.





Example illustration of Simpson LTP2 Tension Tie

