

PROFESSIONAL ENGINEERING SERVICES

3212 Mill Run, Raleigh NC 27612
North Carolina License 021195

CONSULTING.DESIGN
P (919) 749.5151

ottel@yahoo.com

April 29, 2026

Ref: Structural Evaluation of:
Truss Steel Plate Defect

Address: 713 Peakland Place
Raleigh, NC 27604

To: Doug Burton
/Whom it may concern

I performed Visual structural inspection to the previously repaired roof trusses on April 23, 2026.

The property is two stories townhome, and was built in 2019.

OBSERVATION and Recommendation:

Three trusses in the attic had previously been repaired due to loosening of the upper steel plate between the web and chord. The existing repair consisted of a single 2x4 member, approximately four feet in length, fastened to one side of each affected roof truss (see Fig 1).

The separation of the truss steel plates occurred at both the front and rear sections of the attic. Based on my assessment, the repair performed was inadequate due to the materials and nails chosen, and the workmanship itself was substandard.

The repair procedure shall involve the removal of the 2x4 wood member from each affected truss, to be replaced with a 0.75 inch thick OSB board that covers both the web and chord on both sides, as illustrated in Figure 2.

Two dimensions have been added to Figure 2 to regulate the size of the gusset. The OSB gusset will be secured over the steel plate on both sides of the compromised trusses, following the application of construction adhesive between the OSB and truss members.

The contractor has received updated repair instructions as depicted in the schematic in Figure 2. The existing repair should be removed, and two gusset plates—either plywood

PROFESSIONAL ENGINEERING SERVICES

3212 Mill Run, Raleigh NC 27612
North Carolina License 021195

CONSULTING.DESIGN
P (919) 749.5151

ottel@yahoo.com

or OSB, each with a thickness of 0.75 inches—must be installed to fully encompass all webs and chords in the area of the defect. Furthermore, the contractor is required to fasten the gussets using 8d nails at 4-inch intervals along both chords and webs on each side.

Limitation:

This report is an assessment of the noted conditions based on visual evidence and limited destructive investigation. All comments and conclusions are considered accurate to a reasonable degree of engineering certainty based on the evidence available at the time the report was issued. All opinions and conclusions are subject to revision based on receipt of new additional information.

Should you have any questions or concerns regarding the information contained in this report, please contact me at: 919-749-5151.

Sincerely,

Kamal Essaid PE



PROFESSIONAL ENGINEERING SERVICES

3212 Mill Run, Raleigh NC 27612
North Carolina License 021195

CONSULTING.DESIGN
P (919) 749.5151

ottel@yahoo.com



Figure 1

