JDS Consulting
ENGINEERING • DESIGN • ENERGY

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Date: 01/23/2025

To: **John Cratch**
TriPointe Homes
5440 Wade Park Blvd
Raleigh, NC 27607
John.Cratch@tripointehomes.com
919-961-6024

Re: **Truss Issues**
Location: Lot 279 Altis at Serenity 68 Serenity Crossing (Fuquay-Varina, NC)
JDS Project No.: RDU2500730
Date of Inspection: 01/23/2025

A representative of JDS Consulting arrived on site to observe the issues reported to us by the client, which are presented, along with our recommendations, in this report.

Observations
The client requested an evaluation of issues on the premises, the observed items are as follows:

1. The porch beam at the right side of the porch is not flush with the right corner of the house. The beam is approximately 11” short of the edge. Client wishes to extend trusses such that the trusses are flush with the right side of the building.
2. The drag truss at the rear of the garage does not bear on the rear wall, it bears to the front of the wall by approximately 12”. The client wants to extend the slab and move the wall to bear directly under the drag truss.
3. The mechanical room in the 2nd floor was assessed for adequate clearance for installation and serviceability. The mechanical room is approximately 76”x 76”

Recommendations
Based on our observations and review:

1. Complete the following:
    a. Note: plans call for a front to back (2) 2x6 dropped beam to be installed at the right side of the front porch.
    b. At each truss, install a horizontal left-to-right 2x6 member from the porch beam to the end of the room, attach the member to the porch beam with a Simpson L50 angle.
    c. Install a vertical 2x4 member from the top of the 2x6 member at the end and flush with the bottom edge of the top chord.
    d. Install a 36” xfull height x 7/16 OSB gusset on both sides of the assembly cut to the profile of the truss and flush with the outer edge of the vertical 2x4. Attach the OSB with (2) rows of 10d nails spaced at 4” o.c.

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2. Extend the slab and footing with the following steps:
   a. Excavate at the front of the existing wall down to the bottom of the footing, creating a clean-cut face.
   b. Remove all loose dirt and debris from the slab extension area.
   c. Ensure the footing depth is maintained and installed per detail SD1.0-8.
   d. Where the slab is cut (approximately 4"+ off the face of the new wall) prepare a minimum 4" thick slab with 6 MIL vapor barrier. Tape the vapor barrier to the existing one where possible.
   e. On all sides of the repair area, dowel and epoxy (1) row of 8" long #4 rebar horizontally at the mid depth of the slab spaced 16" o.c. The rebar is to embed approximately 4" into the existing slab and have approximately 4" projection into the new slab area. At the footing install an additional (2) rows spaced at 16" o.c. with a minimum 6" of projection into the extension area.
   f. Prior to epoxy, clean all dowel holes with compressed air and/or a wire brush. Ensure enough 2-part structural epoxy (Simpson SET-3G or equivalent) is used so it is visible after rebar is installed for inspection.
   g. Before placing a minimum of 3,000 psi concrete, the client shall ensure the repair preparation has been inspected and approved.
3. The Mechanical room has been constructed per the plans provided no repairs are required.

If you have any questions or if I can be of further assistance to you on this project, please contact me at 980-240-5681.

Respectfully Submitted,
Elisha Harris

Reviewing Engineer:
Maxwell C. Danskin, PE