

Date: 10/01/2025

To: **Tucker Carlson**
KB Home
4506 S Miami Blvd
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919-417-1742

Re: Rear Deck Specifications
Location: Lot 83 Birchwood Trails (Fuquay-Varina, NC)
JDS Project No.: RDU2510139
Date of Inspection: 09/30/2025

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 design specifications for a 24'-0" long by 10'-0" wide rear deck to be located on the rightmost rear side of the mono slab foundation, beginning approximately 2'-0" from the right corner. This deck is to be installed in place of the patio slab shown in the structural building plans and will be covered by roof trusses spanning left to right over the entire deck area.

Recommendations

Based on our on-site evaluation and review, the contractor shall do the following:

Footings

- Install a minimum of 20" x 20" x 8" footings spaced a maximum of 8'-0" o.c.

Deck Post

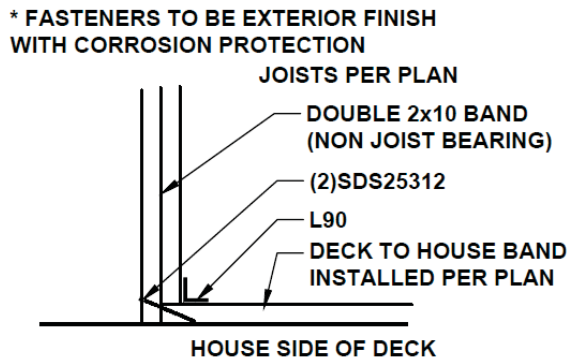
- Install (1) Simpson ABU66Z post bases centered on each footing per the manufacturer's installation instructions.
- Install PT 6x6 posts. Secure to the post bases per the manufacturer's installation instructions.
- Install 4x4 Y-braces on both sides of each intermediate post and (1) side of each end post that extends a minimum of 1/3rd the total posts height and are angled between 45° to 60° from the deck band. Attach the bottom of the braces into the deck beam with (1) galvanized 5/8" diameter through bolt with nuts and washers. Attach the top of the braces into the beam with (1) galvanized 5/8"x 8" lag screw. Ensure a minimum of 4" end distance from the Y-brace at both ends.

Deck Framing

- Install PT #2 SYP (2) 2x10 beams on all (3) perimeters of the deck addition. All seams shall terminate over the center of the post. Ensure only (1) of the (2) beam plies seams over the post. Attach with (4) 10d galvanized nails spaced 12" o.c.



- Install (1) 2x10 PT band secured to the foundation with (1) 5/8" x 7" wedge anchors spaced 16" o.c. and 4" from the edge of the ledger. The anchors shall have a minimum 2-1/2" edge distance from the top of the slab.
- On each side, attach the left and right side (2) 2x10 beams to the (1) 2x10 house band per the detail below:



TYPICAL EACH SIDE OF DECK BAND CONNECTION

DECK SIDE BAND ATTACHMENT | 1/2" = 1'-0" |

- Install (1) PT #2 SYP 2x8 joist spaced 16" o.c. spanning front-to-back and with a maximum span of 12'-0", Attach each end to the ledger and deck beams with (1) Simpson LUS28Z hanger per manufacturer's installation instructions.

Notes:

- Footings are designed based on the assumed 2,000 psf soil bearing capacity and 3,000 psi concrete capacity.
- The deck railings shall conform to all specifications cited in Appendix M of the 2018 NCRC.

If you have any questions or if I can be of further assistance to you on this project, please contact me at 919-818-8717.

Respectfully Submitted,
Oreste Montoya



Reviewing Engineer:
Maxwell C. Danskin, PE