

Date: 09/02/2025

To: **Tucker Carlson**
KB Home
4506 S Miami Blvd
Durham, NC 27703
tcarlson@kbhome.com
919-417-1742

Re: **Over-Sized Turndown Footing Specifications**
Location: Lot 85 Birchwood Trails (163 Rockwood Dr. Fuquay-Varina, NC)
JDS Project No.: RDU2509145
Date of Inspection: 09/02/25

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 requests an oversized footing specifications for the foundation at the rear. The max height of the grade measures approximately 33" to the subgrade.

Recommendations

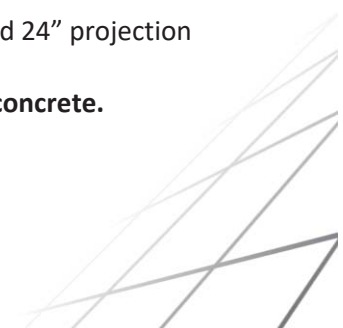
Based on our observation and review, the below specifications are for 4' maximum unbalanced fill and 6', maximum unbalanced fill.

4' Maximum unbalanced fill:

1. The turndown footing will have maximum 48" unbalanced fill, with minimum 12" below grade.
2. Maintain turndown thickness consistent with the plans.
3. Install (1) #4 rebar continuous centered at the bottom of the footing.
4. Install (1) vertical #4 rebar spaced 24" on center with 3" cover from the edge. Rebar will be bent 90° and extend minimum 3' into the mid-depth of the slab. Additionally, install horizontal #4 rebar spaced 24" on center, in the footing and in the slab, tied into the vertical rebar.
5. **Ensure that footing prep is approved prior to placement of minimum 3000 psi concrete.**

6' Maximum unbalanced fill:

1. The footing will be constructed as a stem wall.
2. Excavate a 4' wide by 12" thick footing with 8" toe projection. Bottom of footing will be 2' below finished grade, with 12" of soil over the toe at finished grade.
3. The footing will have (3) #4 rebar evenly spaced in the footing with 3" clear cover from the bottom.
4. Install a vertical #4 rebar spaced 16" on center with an 8" hook at the bottom, and 24" projection into the center of the 8" thick CIP wall (see step 6.)
5. **Ensure that footing prep is approved prior to placement of minimum 3000 psi concrete.**
6. Form an 8" thick CIP wall with 8" projection from the end of the toe.



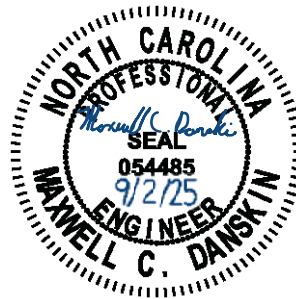
7. Splice in vertical #4 rebar spaced 16" on center into the rebar noted in step 3. The rebar will extend to the top of the wall and bend 90° into the mid-depth of the slab. Additionally, install horizontal #4 rebar spaced 18" on center into the wall, tied into the vertical rebar.
8. **Ensure that wall prep is approved prior to placement of minimum 3000 psi concrete.**
9. The vertical rebar noted in step 7 will be 90° bent into the mid-depth of the slab and be tied into a 16" x 16" rebar grid that extends a minimum of 3' over undisturbed soil. All disturbed soil behind the wall shall be removed and the wall should be backfilled with clean washed crushed stone.

General notes:

- All rebar shall maintain 3" clear cover.
- Forms and temporary shoring to be provided by contractor.
- Tie all rebar within 4" of each end, 12" tie max spacing, minimum 24" tie lap.
- Follow all other plans requirements.

If you have any questions or if I can be of further assistance to you on this project, please contact me at 984-344-4691.

Respectfully Submitted,
Patrick Ruff



Reviewing Engineer:
Maxwell C. Danskin, PE

