

May 19, 2021

Brenda Alarco 80 Doonbeg Dr Fuquay-Varina, NC bkennedy90@gmail.com

Project# 21-1146

Dear Brenda,

At your request, a structural inspection of a deck of the house located at 80 Doonbeg Dr Fuquay-Varina, NC was performed on 05/14/2021 to evaluate the as-built deck in the rear side of the house.

Following repairs are needed to meet the NCRC 2018 requirements:

- 1. The right rear corner post of the elevated deck shall be removed and two 6x6 posts shall be installed at a minimum distance required by the town for septic line. We recommend that you install two posts on the two sides of the deck, 18 inches away from the current position. The footing shall be 18"x18"x16" concrete for each post. (2) 2x beam may be left as is making cantilever. The beam(s) shall be connected to new posts using 2 thru bolts. See attached picture for reference.
- 2. The ledger board at the building wall shall be attached using 2 rows of 4" LedgerLok, staggered for the full length. See attached picture for reference.
- 3. Since the deck is more than 4 feet height, install 2x6 bracing on the elevated deck post lines and outmost deck posts using a 5/8" diameter thru bolts. See attached picture for reference.
- 4. The rear right corner post of the lower deck shall be removed and two 6x6 posts shall be installed about 3 feet to maintain minimum distance from the septic line. Install Knee brace on both sides to support deck beams. See attached picture for reference.
- 5. 4x4 rail post cannot be notched. Replace all notched rail posts by 4x6 post ensuring the bolted post side is 4" (nominal).
- 6. The single beam(2x) for the lower deck is inadequate for the provided deck span. We recommend that you install a (2)2x10 girder in the mid span bolted through the two existing posts and new 6c6 posts in the middle. Footing shall be 18"x18"x16" concrete.

Above evaluation is based on the current condition of the deck. Means, methods, sequences, and safety precautions in connection with the repair work shall be the contractor's responsibility. A final engineer's verification is required.



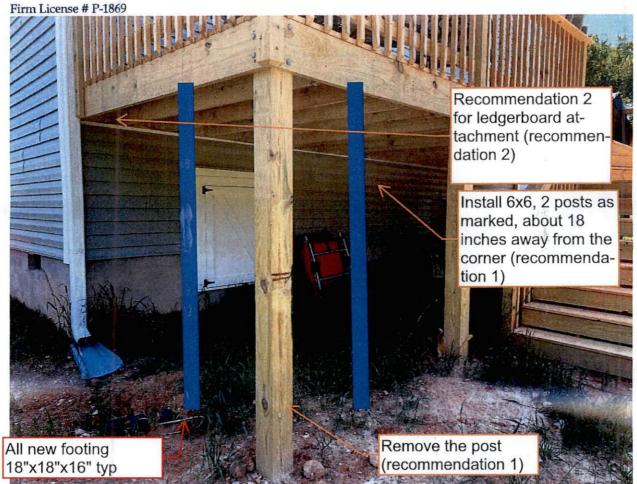
Please let us know if you have any questions.

Best regards,



Moti KC, PE 919.444.5442 Moti.kc@equagen.com







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Provide 2 knee braces to support 3 cantilever deck (recommendation 4)

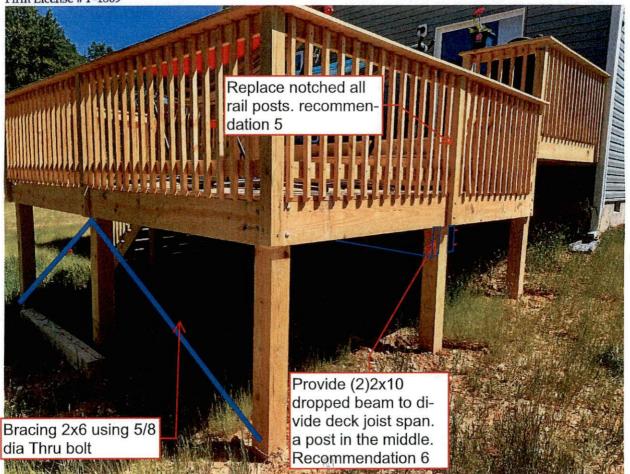
Install two posts about 3' away from the corner (recommendation 4)

Remove post (recommendation 4)



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