



Project Number: #26-046
Date of Inspection: 5/15/2026 and 5/19/2026
Recipient: Makenna Parker
Email: Makennaparker99@gmail.com
Client Address: 1134 Manchester Drive, Cary, NC 27511
Report Date: 5/19/2026

RE: Structural Observation – 1134 Manchester Drive, Cary, NC, 27511 (Site Address)

INTRODUCTION

To whom it may concern,

At the request of Makenna Parker, David Hughes, PE of Triangle Structural Engineering (TSE) conducted an on-site, limited, non-invasive visual assessment of accessible structural components to evaluate observed conditions at the time of our inspection, as it relates to the following scope:

Scope of Services:

- Visual observation of readily accessible structural components related to the evaluation of the recently completed crawl space structural repairs at the site address noted above.

The house was constructed in 1973 per the Wake County tax records and consists of 2,400 sf of heated space. The house is a two story stick framed structure with a crawlspace consisting of a perimeter masonry foundation wall system and interior masonry piers and girders (see *picture 1*).

CODE COMPLIANCE

In accordance with Section 101.4.2 of the 2018 North Carolina Existing Building Code (NCEBC), the legal occupancy of any building existing at the time of the code's adoption is permitted to continue without modification, except where specifically required by the NCEBC, the International Fire Code, or where deemed necessary by the code official to protect the health, safety, and welfare of the occupants and the public. Accordingly, existing buildings are not

required to be upgraded to current building code standards provided the structure remains unaltered and the occupancy classification does not change.

Furthermore, Section 606.2.1 of the 2018 NCEBC permits building elements sustaining less than substantial structural damage to be repaired and restored to their pre-damage condition.

Where damaged elements are reinforced rather than replaced, such reinforcement is required to comply with the applicable provisions of the 2018 North Carolina Residential Code (NCRC).

SITE OBSERVATIONS AND EVALUATIONS

Based on our visual observation of the above noted scope items, the following observations were made while on site. For reference, we will consider the “front” of the home as the side of the home facing Manchester Drive.

1. New concrete footings and piers (approximately 24” x 24” x 12”) were observed installed throughout the crawl space to support newly installed girders and piers. Structural girders were installed and reinforced to strengthen the floor framing system. Support piers were installed beneath the girders to provide long-term stabilization. An additional 6x6 support post was installed to reduce deflection. All footings and piers appeared to be adequately sized and properly bearing on existing grade.
2. Previously damaged and overspanned 2x8 framing members were observed to have been replaced or reinforced. Improperly installed framing members had been removed and corrected. Framing repairs appeared adequate and consistent with standard residential construction practices.
3. Floors were noted to be sloping in some areas, but the framing members were noted to be in contact with supporting foundation elements, such that load path is continuous to the supporting soils.

STRUCTURAL ANALYSIS

1. Based on our visual observation, the crawl space structural repairs performed by the contractor were completed in a workmanlike manner and appear to be adequate for the intended residential loading conditions. The newly installed footings, girders, piers, and supplemental support members are consistent with standard residential structural repair practices.

STRUCTURAL RECOMMENDATIONS

Crawl Space Repairs

1. No additional changes to the completed structural repairs are recommended at this time. The completed crawl space repairs were observed to be adequate and consistent with the scope of work provided by the contractor. The floor system should continue to be monitored for any future signs of deflection or movement. If additional signs of structural distress are observed, the structure shall be re-evaluated at that time.

CONCLUSION

Triangle Structural Engineering conducted a site visit to observe the recently completed crawl space structural repairs at the site address noted above. Upon observing existing structural conditions, the completed repairs were determined to be adequate and consistent with standard residential structural repair practices.

The conclusions presented herein are based on generally accepted engineering practices and the intent of the 2018 North Carolina Residential Building Code. This report does not address construction sequencing, procedures, or the means and methods of construction, which are the sole responsibility of the contractor. Prior to the alteration, cutting, or removal of any structural load-bearing elements, a qualified contractor shall provide and maintain adequate temporary shoring as required to ensure structural stability. All work shall be performed in accordance with the applicable provisions of the currently adopted building codes, standards, and local jurisdictional requirements. Should you have any questions regarding the contents of this report, please contact our office.

TERMS AND CONDITIONS

Limitation of Liability

This report does not express or imply any warranty of the structure but only addresses the condition of the portion which was readily accessible and observable at the time of observation. The report is based upon visual observations only (no physical testing was performed) of the recently completed repairs and there is no claim, either stated or implied, that all conditions were observed. Conditions may exist in concealed or inaccessible areas that were not observable at the time of inspection and are outside the scope of this evaluation.

Ownership of Documents

All documents produced by Triangle Structural Engineering, PLLC under this Agreement shall remain the property of Triangle Structural Engineering, PLLC and may not be used by Makenna Parker for any other endeavor without the written consent of Triangle Structural Engineering, PLLC

AUTHENTICATION

Sealed By: _____

David L. Hughes, PE – Principal Engineer

Triangle Structural Engineering, PLLC



Date: 05/19/26

TSE FIRM # : P-3406