

CRITERIUM[®]

GILES ENGINEERS

October 10, 2016

Ms. Hong Pham

Re: Limited structural inspection
113 Stokesay Court
Cary, NC

7334 CHAPEL HILL ROAD
SUITE 200
RALEIGH, NC 27607
PHONE 919 465-3801
FAX 919 465-3802
NC LIC. NO.: C-2871

Dear Ms. Pham:

At your request, a limited structural re-inspection of the above property was performed on October 6, 2016. The report that follows has been prepared based on that inspection and previous inspections were performed on January 24, 2014 and November 17, 2014 performed by Robert C. Giles, PE. The report that follows has been prepared based on the October 6, 2016 inspection. The re-inspection was performed by James N. Chang, EI

The scope of this project was limited to inspection and evaluation of cracking in the masonry foundation. The report is intended to cover only those premises that may be examined visually without excavation, removing surface materials and disassembling components.

OBSERVATIONS

1. On the exterior, a repaired vertical crack noted in the brick veneer was observed at the right side foundation near the right rear corner of the home. This crack has been previously sealed and no widening of the crack since the January 2014 inspection was observed.
2. On the exterior, a significant crack (approximately 1/4-inch wide) with 1/4-inch out of plane displacement was observed in the brick veneer on the right perimeter wall. The crack had not expanded since the November 2014 inspection.
3. In the crawlspace, vertical crack (approximately 1/8-inch wide) with 3/8-inch displacement was noted on the right foundation wall. The crack had not expanded since the November 2014 inspection.

DISCUSSION

Our evaluation of the current conditions revealed no significant movement in the right side CMU foundation since our previous inspection in November.

These cracks on the right foundation wall are **not** considered significant structural deficiencies at this time. Monitoring cracks for additional settlement is an acceptable approach. If cracks widen significantly or additional significant cracks propagate then evaluation by a structural engineer and possible foundation stabilization may be needed at that time.

LICENSED
PROFESSIONAL
ENGINEERS

BUILDING DIAGNOSTICS
INSPECTIONS
ENVIRONMENTAL SERVICES
CONSTRUCTION MONITORING
DESIGN



Positive grade away from the foundation should be maintained to reduce moisture infiltration under the foundation. Additional soil consolidation and settlement can occur due to water infiltration into soils and subsequent drought conditions which dry out the soils below foundations. If conditions around the foundation remain relatively dry, the likelihood of future significant settlement is unlikely. However, we cannot accurately predict future movement in the foundation.

RECOMMENDATION

- 1) The right side cracking in the CMU foundation should be monitored. If additional widening (approximately 1/8-inch) of the foundation crack or propagation of additional cracks in the foundation is observed, additional foundation stabilization may be required.
- 2) If additional movement in the right side foundation is observed, we recommend hiring an experienced foundation contractor to stabilize the center area of the right side foundation. We believe (2) helical piers will be sufficient to stabilize the foundation. Locate (1) pier at the crack on the center of right perimeter wall. The remaining pier shall be installed up to 6-feet on the right perimeter wall toward the front right corner.

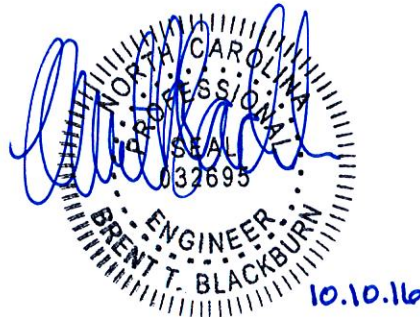
CONCLUSION

We trust that this report provides the information you require. Please contact us (919) 465-3801 if you have any questions. Thank you for the opportunity to be of assistance.

Sincerely,



James N. Chang, EI
Project Engineer
Criterium-Giles Engineers Inc.
NC License No. C-2871



Brent T. Blackburn, PE
Project Manager
Criterium-Giles Engineers Inc.

Photo log enclosed

Location:
113 Stokesay Court
Cary, NC

Photo Taken by:
James N. Chang, EI

Date:
October 6, 2016



Description:
Front elevation

Photo Number
1



Description:
Crack in the brick
veneer on right
perimeter wall

Photo Number
2

Location:
113 Stokesay Court
Cary, NC

Photo Taken by:
James N. Chang, EI

Date:
October 6, 2016



Description:
Crack in CMU
foundation in right
foundation wall

Photo Number
3