

# Sean Corcoran, PE Engineering Consultant

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P.O. Box 672 • New Bern, North Carolina 28563 • 252-637-6667

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To: Jean & Jan Harvard  
From: Sean Corcoran, PE  
Subj: 3420 Mansfield Dr., Rocky Mount: Evaluation of Brick Veneer Cracking  
Date: 7-5-24

An inspection was performed at the above residence to evaluate all settlement-related brick cracking and previous cosmetic repairs performed.

## Observations:

### *Interior:*

- The interior floors exhibit general unevenness, particularly at the right rear corner.

### *Exterior/Brick Veneer:*

- A large vertical & stair-step cracking (with separation of ½" -1") with outward rotation, was observed in the brick veneer at the rear right corner. Additional separation/gapping is present at the affected windows. *See photo #1.*
- The frieze trim and boxing at the rear right corner is displaced outward.
- Laser level measurements, taken across the rear right portion of the foundation perimeter, indicate a drop in elevation of up to 2", occurring at the rear right corner.
- This portion of the foundation was represented as having been repaired by 'under-pinning' (the process of excavating the soil out below the footing and installing additional concrete) performed from the crawlspace door along the rear wall. The previous crack and displacement were subsequently cosmetically repaired by the homeowner. The repair exhibits no further indication of cracking.
- The left front corner exhibits multiple vertical cracks with separation/gapping of approximately 3/8".
- The brick & frieze board trim are displaced at both left corners, with an outward rotation away from the home of ¾".
- Laser lever measurements along the front failed to establish any measurable variance.

## Commentary:

The brick veneer cracking associated with the rear right corner is sufficient in magnitude to justify the performance of formal foundation repair procedures. Address the area surrounding the right rear corner, using a total of (6) galvanized helical anchors, to support and attempt restoration of the affected area.

The installation of helical anchors at this location are restricted by:

1. the deck installation and
2. the excess concrete poured (under-pinning) of the foundation.
3. substantial removal & replacement of the affected/displaced brick veneer.

The cracking/displacement of the brick veneer at the right rear requires the partial removal and reinstallation of numerous bricks to promote restoration and restore a more uniform appearance.

The brick veneer cracking & corner rotation, associated with the front left side, is sufficient in magnitude to justify the performance of formal foundation repair procedures. Address the front left corner, using a total of (2) galvanized helical anchors to stabilize the affected area.

Following the stabilization process, the brick & mortar crack sites, associated with the front left corner can be addressed, by extraction/replacement, using like-kind masonry materials.

Be aware that the clay soils in this area are subject to seasonal expansion & contraction characteristics, which can contribute to minor/cyclical movement & cracking.

## Recommendations/Cost Basis:

### 1. *Foundation repair/address brick veneer cracking:*

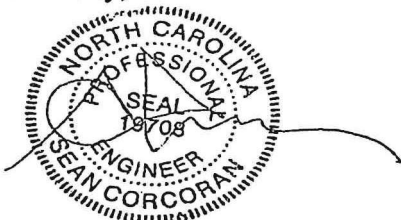
- Contact NO-CUTS. **No Charge.**
- Remove the split rail fence. Restore following restoration. **\$200.**
- Remove a portion of the rear deck to facilitate repairs to the foundation. Restore following restoration. **\$800.**
- Install a total of (6) galvanized helical anchor supports, surrounding the rear right corner, to stabilize/support and attempt restoration. (6) @ \$1,500 = **\$9,000.** *Note: Some vegetation may be required to be removed/cut back to gain access. The deck will have to be deconstructed to gain access.*
- Provide an allowance to demolish the previous underpinning repairs which prevent the proper installation of the helical anchor. **\$1,200.**
- Install an additional (2) galvanized helical anchor supports, surrounding the front left corners, to stabilize/support and attempt restoration. (2) @ \$1,500 = **\$3,000.** *Note: Some vegetation may be required to be removed/cut back, along the left-side.*

- Perform local brick & mortar extraction and replacement/improvements, associated with the cracking at the left/right-sides. **\$1,600.**
- Extract/replace the caulking at (4) windows & (1) sliding glass door. **\$300.**
- Allowance to address floor system shims present at the right rear. **\$300.**
- Mobilization Fee: **\$1,600.**

*Notes:*

- *If not tax exempt, NC Sales Tax also applies.*
- *This report is the property of the client referenced above and is not intended for use by others.*
- *The cost of the repair/remediation of the items outlined in this report is based upon the completion of all of the items listed above. With the exception of items noted as an 'option', electing not to perform specific repairs will result in an increase in cost for remaining line items.*
- *The structural repair process is likely to cause cracking, to interior drywall, tile & trim-related surfaces. All resulting cosmetic repairs are to be performed by others.*
- *Any concealed damage to the sub-floor is not considered in this proposal and is best addressed from above (by others) during the next floor covering change.*
- *Any proposed repairs/alterations to the floor system are intended to improve the structural integrity of the floor system, but are not likely to restore the original floor level of the home.*
- *An additional fee of \$15/ft/anchor is applied for installations that exceed 35' in depth.*
- *The pricing outlined in this proposal is valid for 120 days.*

Sincerely,



Sean Corcoran, PE



# Sean Corcoran, PE Engineering Consultant

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## Statement

DATE: 7-5-24

TO: Jean & Jan Harvard

FROM: Sean Corcoran

REFERENCE: 3420 Mansfield Dr., Rocky Mount:

- Evaluation of Brick Veneer

**FEE: \$395.00**

DATE PAID:

Carolina Foundation Repairs, Inc.  
 PO Box 672  
 New Bern, NC 28563  
 252-637-6667

Owner: Sean Corcoran, PE  
 email@carolinafoundationrepairs.com

Date	Invoice #
9/11/2024	84392

Bill To
Gene & Jan Harvard 3420 Mansfield Dr Rocky Mount, NC 27801

Job Address
3420 Mansfield Dr Rocky Mount, NC 27801

Terms **Due on receipt**

Description	Amount	
•Removed the split rail fence. Restored following restoration.	200.00	
•Installed a total of (6) galvanized helical anchor supports, surrounding the rear right corner, to stabilize/support and attempt restoration. (6) @ \$1,500.	9,000.00	
•Demolished the previous underpinning repairs which prevented the proper installation of the helical anchors.	1,200.00	
•Installed an additional (2) galvanized helical anchor supports, surrounding the front left corners, to stabilize/support and attempt restoration. (2) @ \$1,500.	3,000.00	
•Performed local brick & mortar extraction and replacement/improvements, associated with the cracking at the left/right-sides.	1,600.00	
•Extracted/replaced the caulking at (4) windows & (1) sliding glass door.	300.00	
Addressed floor system shims present at the right rear.	300.00	
•Mobilization Fee:	1,600.00	
Thank you for your business.	<b>Subtotal</b>	<b>\$17,200.00</b>
	<b>Sales Tax (6.75%)</b>	<b>\$1,161.00</b>
PAST DUE AMOUNTS ARE SUBJECT TO CHARGE OF 1.5% OR MAXIMUM PERMITTED BY LAW	<b>Total Due</b>	<b>\$18,361.00</b>