

Date: February 25, 2022

Attention: StrucSure Home Warranty

Subject: Structural Foundation Inspection Report for Inspection Completed 01/11/2022
Slab Foundation
16902 Kilgarth Dr., Richmond, TX 77407

Good Afternoon:

Crosstown Engineering (CE) was retained to inspect and assess the performance of the subject foundation in relation to the StrucSure Express Limited Warranty. This report has been prepared in accordance with the requirements of a "Level B" survey as defined by the Texas Chapter of the American Society of Civil Engineers and the Texas Board of Professional Engineers.

This report provides our reasonable professional opinion of the condition of the foundation on the date of our inspection and does not take into consideration any changes in the condition of the foundation or soils after that date. For the purposes of this report, directions will be described using the terms left, right, front, and back with the front referring to the side of the structure indicated on Appendix A: Elevation Map.

Scope of Work Limitations:

This report is for informational purposes only and is not intended to provide a detailed inventory of defects or a technical evaluation of the property. The inspection excludes the framed superstructure, detached buildings, privacy or retaining walls, general site drainage away from the structure, material and soil sampling/testing, and verification of concrete reinforcement or knowledge of the location of interior grade beams, boxed structural members not in plain sight or previous repair work. Removal of floor coverings or performance of invasive tests or procedures is not included. Visual inspection of the structure is limited to the areas that are accessible and uncovered by curtains, couches or other elements within the structure. It should be noted that this analysis has not taken into consideration construction tolerances which will only improve the numbers such that the worst-case tilt and deflection will fall further within acceptable tolerances.

Document Review:

The following documents were provided for review:

1. StrucSure Express Limited Warranty Coverage Booklet 12.22.11ae.
2. StrucSure Home Warranty Notice of Major Structural Defect Claim Form dated 12/10/2021.
3. StrucSure Texas MSD Questions with ASCE Guidelines.

Floor Elevation Discussion:

A relative elevation floor survey was performed using a Zipllevel Pro-2000B to map the surface topography of the floor of the living area and garage (if present). The elevations in the living area were adjusted based on the flooring type encountered to be on the same plane as the base point flooring type. Garage floors are designed to slope and are not as effective in measuring foundation movement: therefore, if a garage is present, the garage ceiling was measured, and elevations were adjusted to be on the same plane as the base point flooring type. The floor plan and the elevations are illustrated on Appendix A: Elevation Map.

Property Description:

The structure is two stories tall with a slab-on-grade foundation. The primary structural system of the structure is a wood framed system with exterior brick and stone veneers and interior drywall surfaces. The foundation was covered with tile flooring and was not exposed in the living spaces during our inspection.

Photograph Descriptions:

We observed the following notable damages (See Appendix A for Photograph Locations and Appendix C for Site Photographs):

1. Overall front view.
2. Left side slope.
3. Right side view from front-right side.
4. Front perimeter/slope from right to left.
5. Front perimeter slope from left to right.
6. Front slope from left to right.
7. Front slope from right to left.
8. Horizontal brick crack. Minor mortar crack at lintel corner of window.
9. Inside bath on the other side of wall of from the lower expansion joint separation outside -no damage noted.
10. Minor, long sheetrock crack along the sheetrock tape line.
11. Corner pop.
12. Corner pop.
13. Window separation.
14. Lower expansion joint separation.
15. Rear perimeter from right to left.
16. Rear from right to left from further back.
17. Right perimeter from the rear.
18. Rear perimeter from left side to right.
19. Left right from the rear for further back.
20. Left perimeter from the rear.
21. Mortar crack on left rear corner of home/master.
22. Rear left yard area, near fence at left, of home runs water back toward left rear corner of home.

Grading, Drainage, Erosion, and Vegetation Observations:

The guttering system is fully functioning and adequately directs stormwater runoff away from the foundation. The drainage surrounding the foundation is generally in good condition and working order. Some trees and shrubbery are located near the foundation.

Major Structural Defect Determination:

Is the overall deflection from the original construction elevations greater than the overall length over which the deflection occurs divided by 360 (L/360)?

- No, the overall deflection does not exceed the L/360 criteria.

If the answer is yes, is there more than one associated symptom of distress as described in Section 5.3 of the ASCE Guidelines?

- Not applicable.

Have the associated symptoms resulted in actual observable physical damage to the home?

- Not applicable.

Does the slab tilt in excess of 1% across any overall dimension of the home?

- No, slab tilt does not exceed 1%.

Has slab tilt caused a structural component of the home or masonry veneer rotate into a structurally unstable position such that the weight vector of the component part or veneer falls outside the middle third of its bearing area?

- No rotation observed.

Does the floor over pier and beam foundation deflect more than 1/360 from the original construction elevations?

- Not applicable.

If the answer is yes, has that movement created actual observable physical damage to the components of the home as described in Section 5.3 of the attached ASCE Guidelines?

- Not applicable.

Has a structural component cracked, bowed, become distorted or deteriorated to the point that it compromises the structural integrity of the home or compromised the performance of a structural system of the home that results in actual observable physical damage to a component of the home?

- No compromising physical damage observed.

Has a structural component deflected more than the ratio allowed by the applicable building code?

- No extensive deflection observed.

Has a structural component been so damaged that it compromises the structural integrity of the affected structural system?

- No extensive structural component damage observed.

Has a structural component separated from a supporting member more than $\frac{3}{4}$ of an inch for such that it compromises the structural integrity of the performance of the system?

- No structural separation exceeding $\frac{3}{4}$ of an inch observed.

Is a structural component not functioning as required by the applicable building code?

- No, all structural components were functioning appropriately.

If the answer is yes, identify the component, the applicable building code and the applicable provision of that code.

- Not applicable.

Conclusions:

Regarding the guidelines outlined in both the StrucSure Warranty Booklet and the ASCE Guidelines for Foundation Repair:

- The measured deflection falls inside the guidelines. .
- The measured tilt falls inside the guidelines.

Recommendations:

No foundation repairs recommended at this time.

Disclaimer:

We do not warrant the future performance of the subject foundation and the reader is urged to review the Disclosure & Disclaimer for other limitations and standard recommendations. The limit of liability is limited to the fee paid for this opinion. No further agreement shall be made, altered, or varied except by written instrument.

The above referenced inspection was completed to provide an opinion regarding the performance of the foundation. If foundation repair work was completed, neither Crosstown Engineering nor Adam Green, P.E., are responsible for liability to the owner or others for acts or omissions of the foundation repair contractors to carry out the repairs in accordance with their agreement or for the construction means, methods, techniques, sequences, procedures or the safety precautions incident thereto.

Please see the appendices for more information.

Sincerely,

Crosstown Land Development Services
Texas Engineering Firm (F-15944)

Adam Green, P.E., MBA
Professional Engineer (TX #116597)

Adam Green
02/25/22



Appendices:

Appendix A: Elevation Map
Appendix B: Cross-Sections
Appendix C: Site Photographs



DISCLOSURE & DISCLAIMER

It is known to knowledgeable professional engineers that the soils in this area are subject to movement due to expansion, contraction or densification of the soils etc.

NO WARRANTY IS EXPRESSED OR IMPLIED BY THIS ENGINEER AS TO THE PERFORMANCE OF THIS FOUNDATION OR THE REPAIRS THERETO. Seasonal moisture variations, water leaks, erosion and other factors may affect the stability of the foundation and put it in danger of further damage.

REPORT LIMITATIONS

THERE IS NO WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THIS ENGINEERING REPORT.

The information in this report supersedes any verbal comments, expressed or implied, made by Crosstown Land Development Services or its principals, agents or employees. The client agrees that neither CLDS nor its employees or owners will be responsible for:

1. Knowledge of the subsurface conditions without extensive geotechnical data obtained from onsite drilling and testing of the recovered samples,
2. Knowledge of cracks, vertical differential displacement of floors without uncovering of the floor by the client; and
3. Any other element such as joists or beams and other structural members that is boxed or otherwise not readily available to CE for viewing, and releases CE from any liability attributable to such knowledge or conditions.

Compliance with any code or specification other than as expressly noted is specifically excluded.

The provided Floor Elevation Map is based on conditions as they now exist and DOES NOT IMPLY OR WARRANT THAT OTHER PROBLEMS AND OR AREAS MAY NOT MANIFEST IN THE FUTURE.

This report was prepared expressly for the client and expressly for the purposes indicated by the client. Permission for use by any other person for any purpose, or by the client for different purpose is denied unless otherwise stated in writing by CE.

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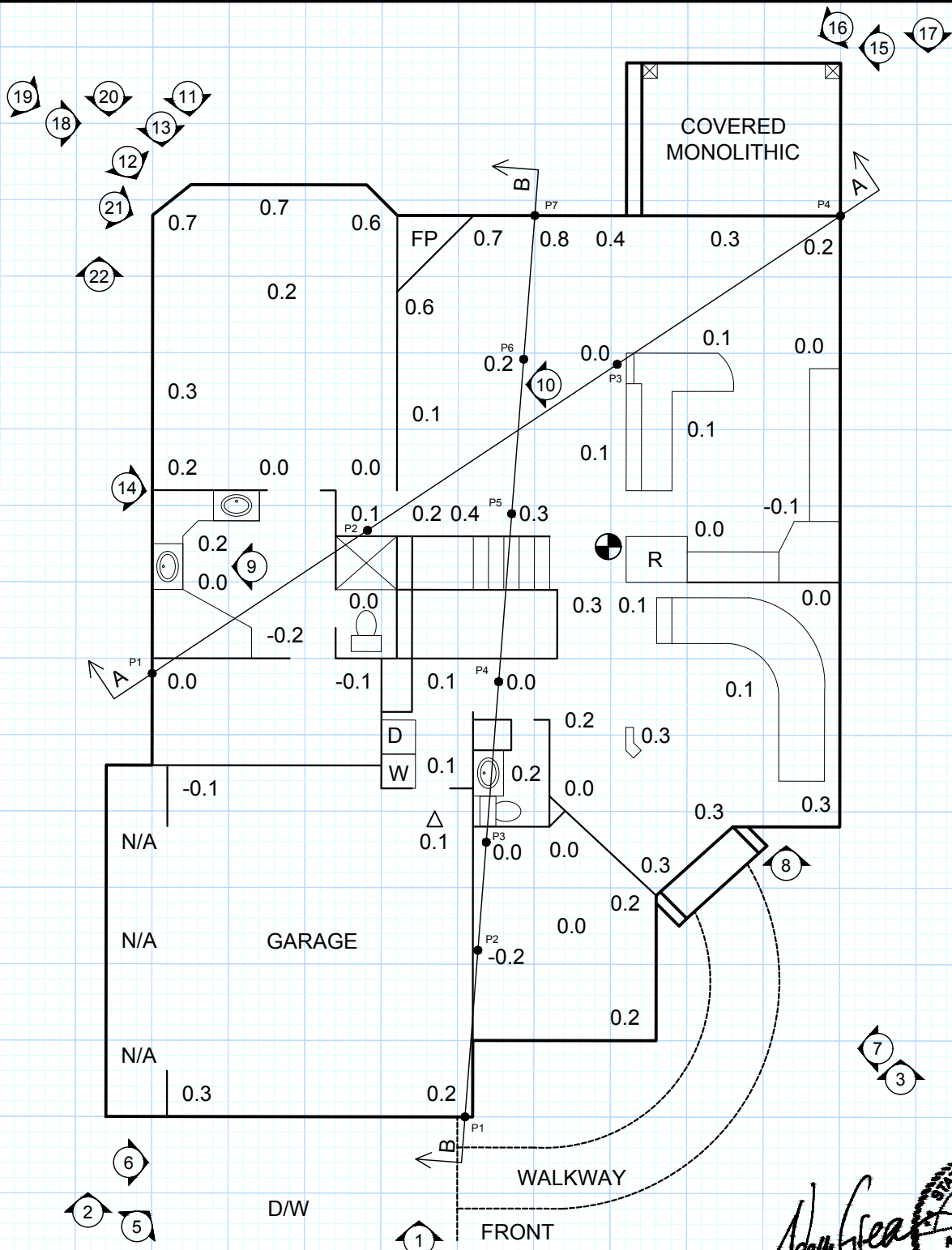
Adam A. Green, P.E. (FL & TX), MBA

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APPENDIX A

ELEVATION MAP



LEGEND ELEVATION BASEPOINT ELEVATIONS BY CE (01.11.22) 0.0 PHOTO LOCATION

02/25/2022

Adam Green

TITLE: ELEVATION MAP | SCALE: 1"=10'-0"



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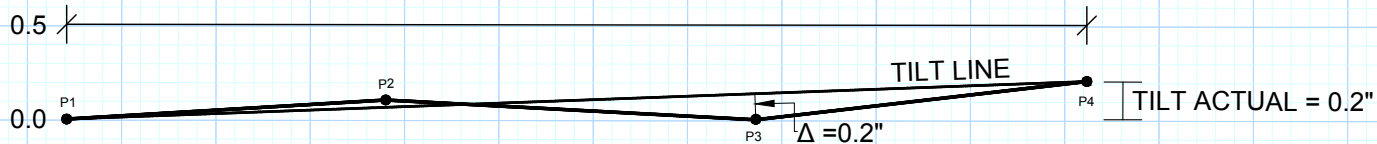
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APPENDIX B

CROSS-SECTIONS

SECTION A-A

$L = 54'-1.0" = 649.0"$



PERFORMANCE ANALYSIS

TILT:

$TILT_{ALLOWABLE} = L \times 1\% = 649.0" \times 1\% = 6.4"$

$TILT_{ACTUAL} = 0.2" < 6.4" \therefore \text{DOES NOT EXCEED}$

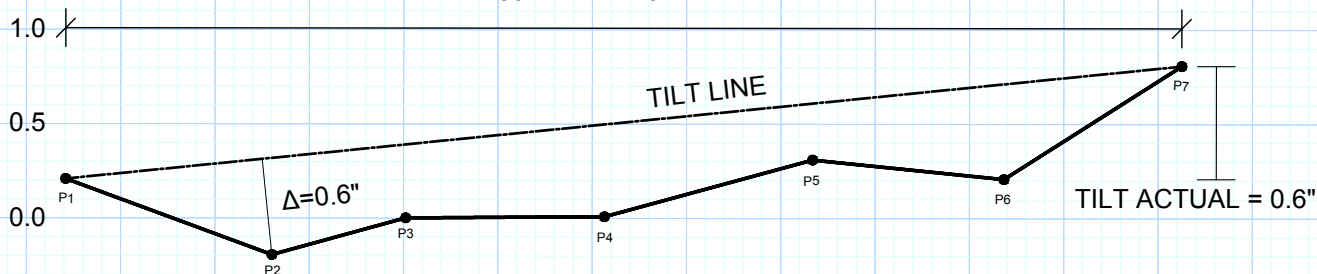
OVERALL DEFLECTION:

$\Delta_{ALLOWABLE} = L / 360 = 649.0" / 360 = 1.8"$

$\Delta_{ACTUAL} = 0.2" < 1.8" \therefore \text{DOES NOT EXCEED}$

SECTION B-B

$L = 59'-2.1" = 710.1"$



PERFORMANCE ANALYSIS

TILT:

$TILT_{ALLOWABLE} = L \times 1\% = 710.1" \times 1\% = 7.1"$

$TILT_{ACTUAL} = 0.6" < 7.1" \therefore \text{DOES NOT EXCEED}$

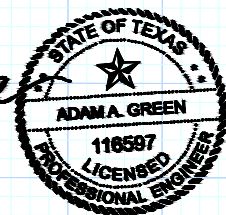
OVERALL DEFLECTION:

$\Delta_{ALLOWABLE} = L / 360 = 710.1" / 360 = 1.9"$

$\Delta_{ACTUAL} = 0.6" < 1.9" \therefore \text{DOES NOT EXCEED}$

Adam Green

02/25/2022



TITLE: CROSS-SECTIONS | SCALE: NONE

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APPENDIX C

SITE PHOTOGRAPHS



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



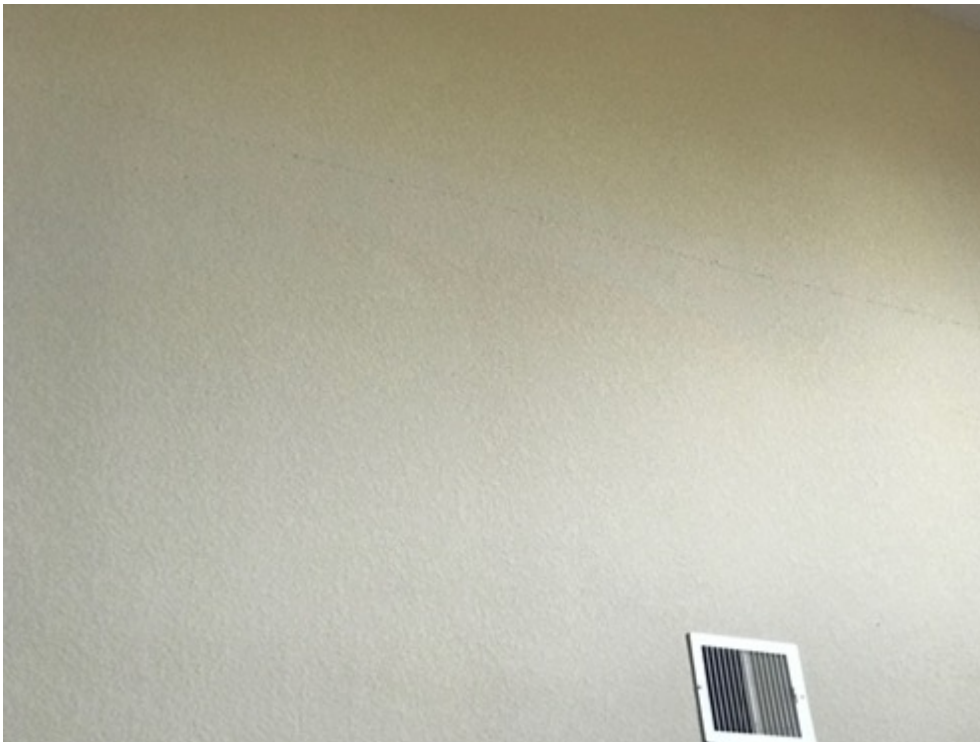
Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22