



HEDDERMAN SERVICES

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FOUNDATION INSPECTION

14418 Ardwell Dr
Sugar Land, TX 77498

Ribbon Home SPV II LLC C/O Cole Dickenson

MARCH 13, 2023



Inspector

Eddy Rodriguez

Engineer & TREC#23614

281-355-9911

office@hedderman.com

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1: COVER LETTER

Information



HEDDERMAN ENGINEERING, INC.

www.heddermanengineering.com Office 281-355-9911 Fax 281-355-9903 office@heddermanengineering.com

03/13/2023

TO: Ribbon Home SPV II LLC C/O Cole Dickenson

REF: CONDITION OF PROPERTY SURVEY

Dear Ribbon Home SPV II LLC C/O Cole Dickenson:

At your request, a visual survey of the house located at 14418 Ardwell Dr, Sugar Land, TX 77498, was made by Eddy Rodriguez.

Transmitted herewith is the inspection report stating my professional opinion on whether the foundation is functional or is in need of repair. The scope of our inspection and other important information, particularly in the area of dispute resolution should a question arise, is contained in our Service Agreement, which has been included at the end of this report.

Thank you for asking HEDDERMAN ENGINEERING, INC. to perform this important inspection work for you. If you have any questions after reviewing this report, please feel free to call me at my office.

At your service,

HEDDERMAN ENGINEERING, INC.

Tim Hedderman, President

2: PURPOSE/SCOPE

Information

INTRODUCTION

PURPOSE

The purpose of the inspection was to view the evidences of differential movement of the foundation, and give our professional opinion on whether or not the foundation was functional at the time of the inspection, or was in need of repair. It is pointed out that, due to the subjective nature of interpretation of the evidences of foundation movement, it is possible for other professionals to have a differing opinion. This report is provided for the use of the person to whom this report is addressed, and is in no way intended to be used by a third party, who may have different requirements. It is our purpose to provide information on the condition of the foundation on the day of the inspection, and not to provide discussions or recommendations concerning the future maintenance of the foundation. Items that we find that in our opinion are in need of repair will typically include the recommendation to **Obtain a Cost Estimate**. The scope and cost of the actual repairs can vary significantly from company to company, and it is your responsibility to see that the scope of work needed and actual cost of repairs is confirmed by one or more qualified service companies.

SCOPE

The scope of the inspection included limited, visual observations at the interior and exterior of the structure. Only those items readily visible and accessible at the time of the inspection were viewed, and any items causing visual obstruction, including, but not limited to, furniture, furnishings, floor or wall coverings, foliage, soil, appliances, insulation, etc., were not moved. Also excluded from the scope of this inspection is any discussion of or condition relating to geological faults and/or subsidence. The basis of our opinions will be the apparent performance of that portion of the house readily visible at the time of the inspection. Disassembly or removal of any portion of the structure is beyond the scope of this inspection. We make no representation regarding the condition of this property other than as contained in this written report. Any verbal discussions concerning this property that were made at the time of the inspection, and not contained in this written report, are not to be relied upon. There is no warranty or guarantee, either expressed or implied, regarding the habitability, future performance, life, insurability, merchantability, workmanship, and/or need for repair of any item inspected.

3: SITE CONDITIONS

Information

Occupancy

Vacant

In Attendance

Structural Inspector

Weather

Cloudy, Temperature - 60-70 degrees

Age of Home - Available public records

According to available public records, the house was built in 1992.

North-Rear

For the purpose of the inspection and report, NORTH will be assumed to be from the front of the house towards the rear.

Note when reviewing the report

It is pointed out that when reviewing the report, the reader should be aware that photos and comments regarding specific issues are typically a **REPRESENTATIVE SAMPLE** of what we observed at the time of the inspection, and are not necessarily an exhaustive list of all instances of that item/condition on the property.

4: FOUNDATION

Information

Description: FOUNDATION OBSERVATIONS AND CONCLUSIONS:

The following items were inspected, with our Observations and Conclusions noted.

Description: Concrete PT slab

The foundation was a concrete slab on grade, and was reinforced with post tensioned cables.

Differential Movement: Reference point

See our field sketch below showing the elevation readings for this structure. Note that the "R" on the sketch is our randomly chosen starting reference point, where the elevation is 0, and all other elevation readings are taken relative to the reference point, and are measured in inches to the nearest 1/10 inch. If there is a step up or a step down into an area such as a garage, sunken room, balcony/patio area, or raised rooms, the elevation readings will have larger numbers due to the amount of the step.

We typically point out that foundations are rarely constructed perfectly level, so most properties have some unlevelness (typically ¾ to 1-1/2 inches) built into the foundation as part of original construction. We have no knowledge as to how much unlevelness was built into this house foundation during original construction.

Note that it is not HEI's purpose to exhaustively document each and every evidence that may be related to foundation movement, but rather to document a representative sample and/or the most significant evidences of movement upon which we base our opinion on the condition of the foundation.

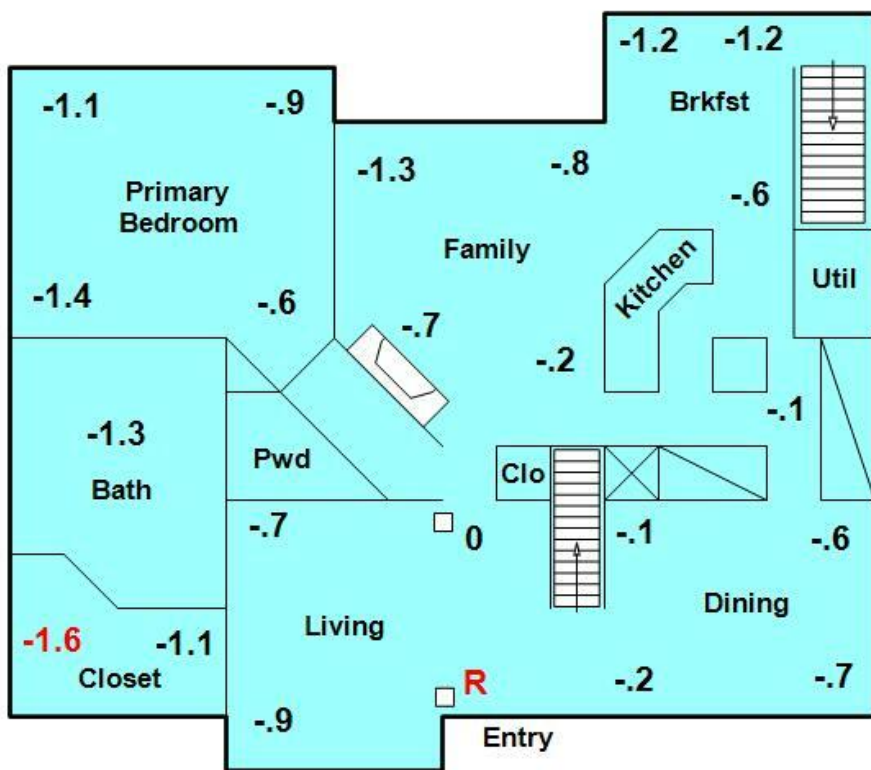
Differential Movement: Levelness - Some Sloping

The floors were checked with an electronic level, and were observed to be sloping towards the west side of the house. The difference in elevation between the high point and low point was 1.6 inches. The high point was located at the entry, and the low point was located at the primary closet. The unlevelness takes place over a horizontal distance of approximately 30 feet.

3.13.23

HEI

Dickenson



Elevations Readings 14418 Ardwell Drive



Differential Movement: Veneer - Cracks/Patches

East Front

Cracks and/or patches were observed in the exterior veneer at the time of the inspection, including at the locations shown in the photos.





Differential Movement: Sheetrock Cracks/Patches/Compression ridges

2nd Floor Hallway Game Room

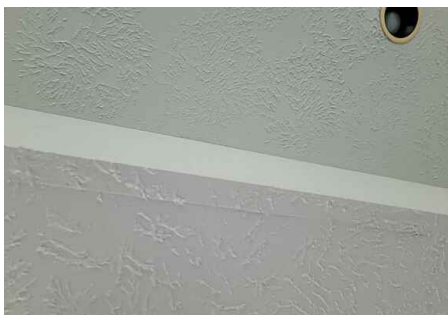
Sheetrock cracks, patches, and/or compression ridges were observed in the house during the inspection, including at the above locations.



Differential Movement: Sheetrock/Wrinkled Tape

Game Room

The sheetrock tape was observed to be wrinkled at some locations during the inspection including at the above locations.



Differential Movement: Concrete cracks - None Observed

Cracking of the foundation concrete exists in virtually all foundations. Although no cracks were observed in this foundation, it is probably not an exception. It is pointed out that cracking is a normal property of concrete and other brittle materials, and Hedderman Engineering, Inc. assumes no responsibility should cracks be found that are not mentioned in this report.

Differential Movement: Corner Chipped

Southwest Southeast

The corner of the foundation was observed to be chipped at the above locations. This condition is typically caused by differences in thermal expansion between the brick veneer and the concrete foundation. Also, this condition can be caused by a lack of reinforcement in the corner of the foundation during original construction. In our opinion, this condition does not affect the overall structural integrity of the foundation.



Differential Movement: Slab Not visible - High Soil

It is pointed out that a portion of the foundation concrete could not be viewed due to soil that was graded near or above the top of the foundation and/or heavy foliage growing against the house. The soil and/or foliage should be removed, and 3-4 inches of foundation concrete exposed.

Differential Movement: Slab not visible - Wood Deck

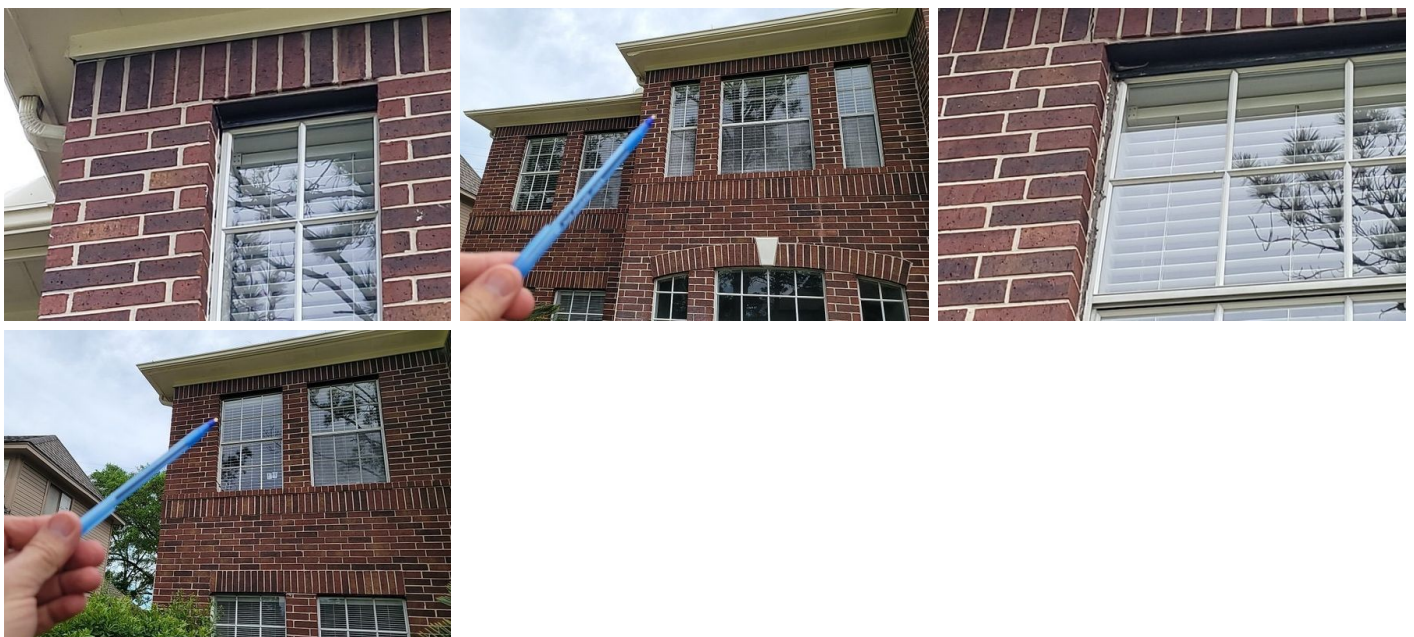
It is pointed out that a portion of the foundation concrete could not be viewed at the rear of the house due to the wood deck that adjoined the foundation.



Separation of Materials: Window frame

Front

The window frame was separated from the exterior brick veneer apparently due to movement.



Separation of Materials: Sticking doors

2nd Floor East Bedroom East Bathroom

Doors that were sticking due to movement of the house were observed at the time of the inspection.

Separation of Materials: Non latching doors

Master Bedroom Front Door

Doors that would not latch due to misalignment of the striker plate and the locking mechanism were observed.

Separation of Materials: Door triangles at top

Master Bath 2nd Floor Southeast Bedroom

Door frames that were out of square, leaving a triangular separation between the door and the door frame at the top of the door were observed.

Separation of Materials: "Ghost" doors

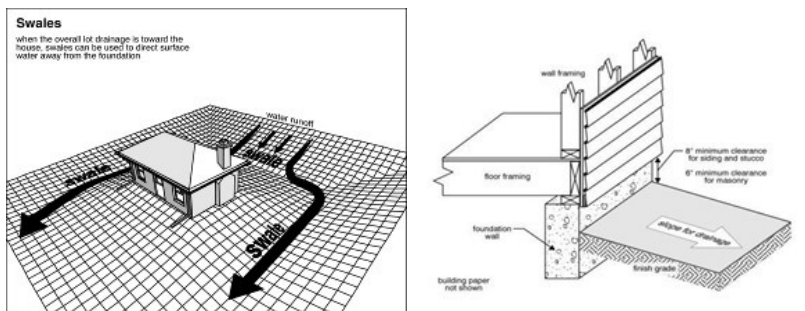
Master Bedroom 2nd Floor West Bathroom

"Ghost" doors, where the door swings open and/or shut by itself due to unlevelness were observed.

Perimeter Grading/Drainage: FLOOD PLAIN

100 Year Floor Plain

This inspection does not include determining if the property is in the 100 year flood plain. For further information regarding the elevation of this lot, check with your survey and/or a land surveyor.



Observations

4.6.1 Perimeter Grading/Drainage

HIGH FLOWER BED/GRADING

The flower bed and/or perimeter grading was too high at some areas, and was graded near or above the top of the foundation. It is recommended that the beds/soil be regraded as needed to prevent water penetration into the house, and to allow for proper drainage.

R401.3

Obtain Cost Estimate

Recommendation

Contact a qualified landscaping contractor

4.6.2 Perimeter Grading/Drainage

GRADING FLAT, FURTHER INVESTIGATION RECOMMENDED

The grade was essentially flat, and it appears that water may pool at some areas after a rain. Further investigation with the homeowner is recommended to determine if water pools for a significant time after a rain. If so, an underground drainage system may need to be installed, and you should contact a company specializing in underground drainage system for a cost estimate.

R401.3

Obtain Cost Estimate

Recommendation

Contact a qualified professional.

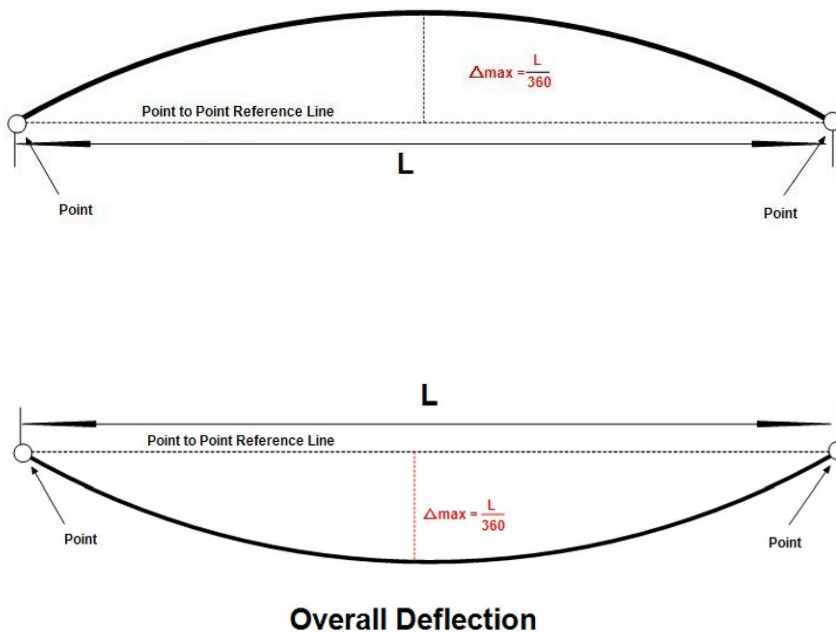
5: SLAB ANALYSIS

Information

Slab Analysis: Deflection Condition Analysis - Multiple Deflection Conditions - OK

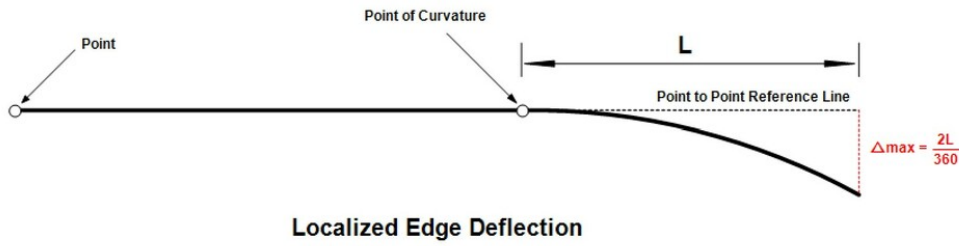
In accordance with the "Guidelines for the Evaluation and Repair of Residential Foundations" Version 3 by the Texas Section of the American Society of Civil Engineers (ASCE), we looked at our graphs of the actual shape of the foundation and determined that the deflection curve of the slab most closely resembles the overall slab deflection in the east-west direction, described in the ASCE Guidelines rather than localized edge deflection or tilt deflection. Therefore, our analysis of this slab in the east-west direction will use the recommended Guidelines for overall slab deflection. Additionally, we looked at our graphs of the actual shape of the foundation and determined that the deflection curve of the slab in the north-south direction most closely resembles the localized edge-condition deflection described in the ASCE Guidelines rather than overall slab deflection or tilt deflection. Therefore, our analysis of this slab in the north-south direction will use the recommended Guidelines for localized edge-condition deflection.

According to the ASCE Guidelines, the evaluation of overall slab deflections shall have a maximum deflection of $L/360$.



From the master closet, to the dining room ($L = 48$ feet), the maximum allowable deflection is 1.6 inches. We measured a deflection of 1.15 inches at the time of inspection across this span, which is less than the maximum allowable deflection, and is acceptable. This observation can be observed along the red line in the sketch below.

Additionally, according to the ASCE Guidelines, the evaluation of localized localized edge-condition deflections shall be evaluated as a cantilevered member (allowable deflection = one inch deflection in a 15-foot horizontal distance ($2L/\Delta = 360$ per the building code)).

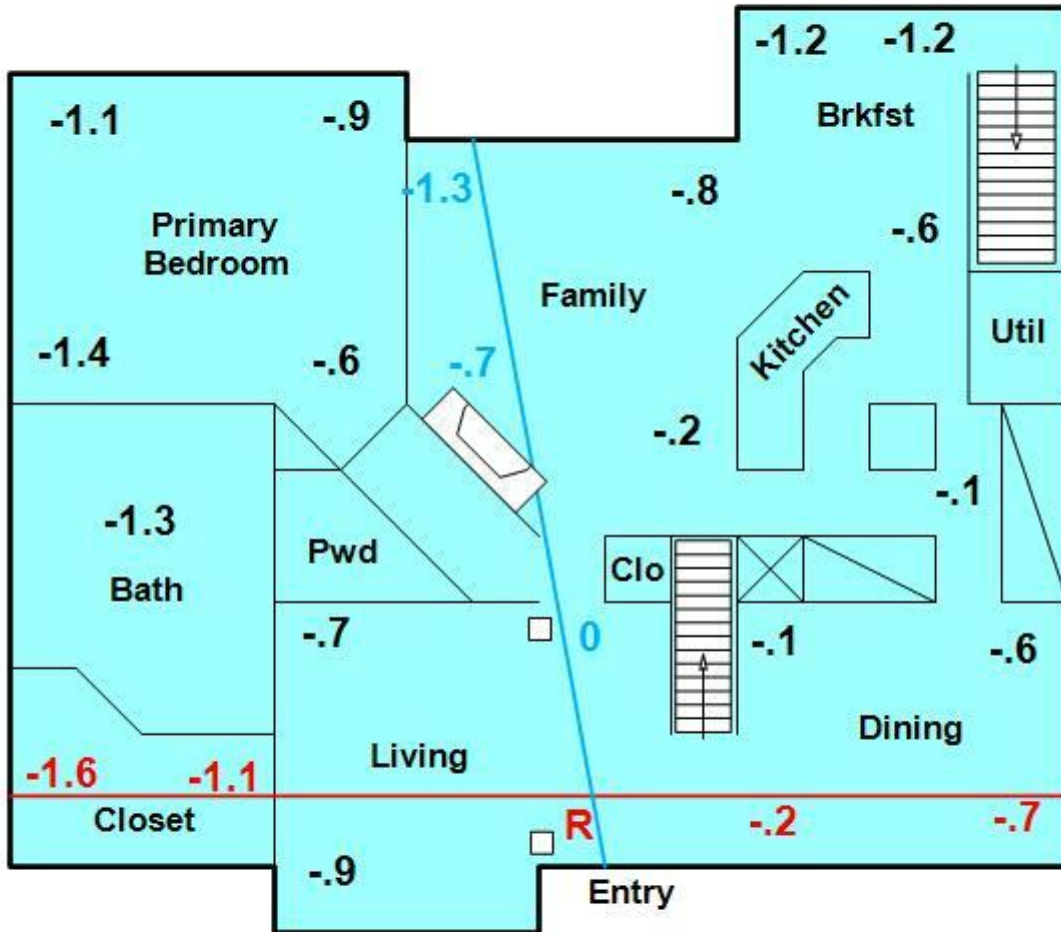


From the point of curvature located at the entryway, to the north wall of the family room ($L' = 22.5$ feet), the maximum allowable deflection is 1.5 inches. We measured a deflection of 1.3 inches at the time of inspection across this span, which is less than the maximum allowable deflection, and is acceptable. This observation can be observed along the **blue line** in the sketch below.

3.13.23

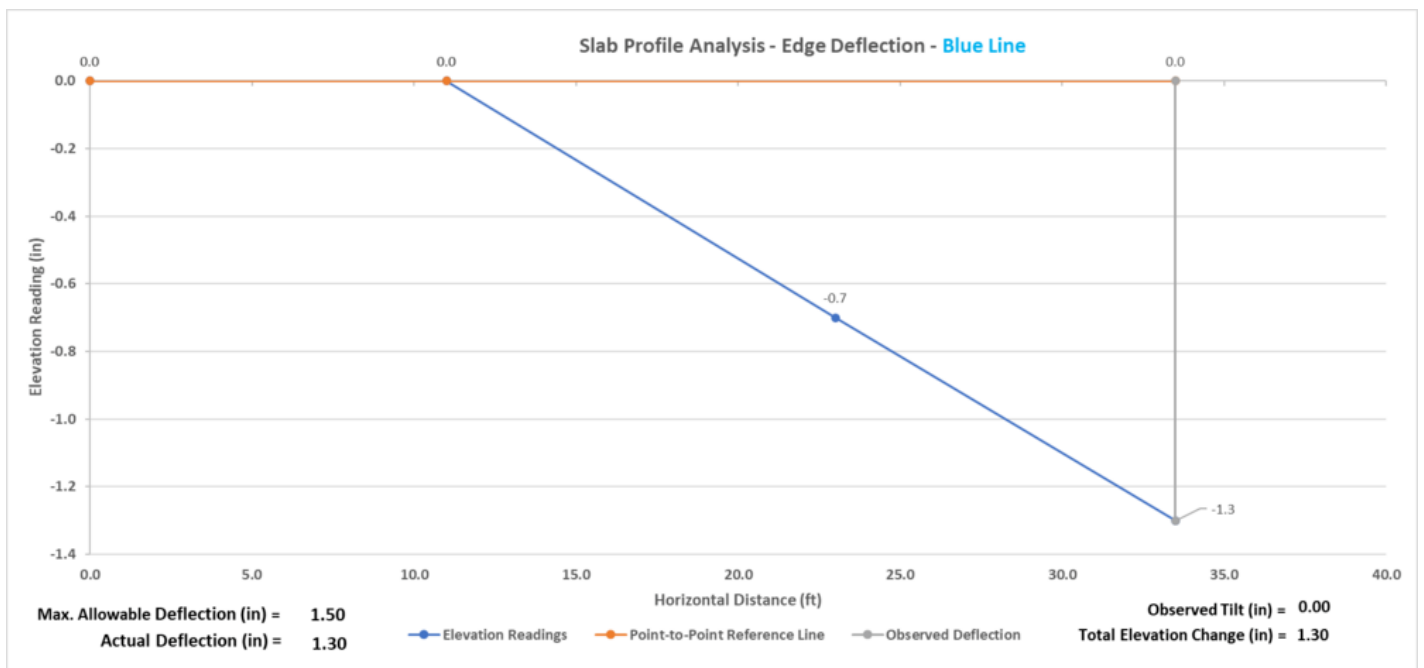
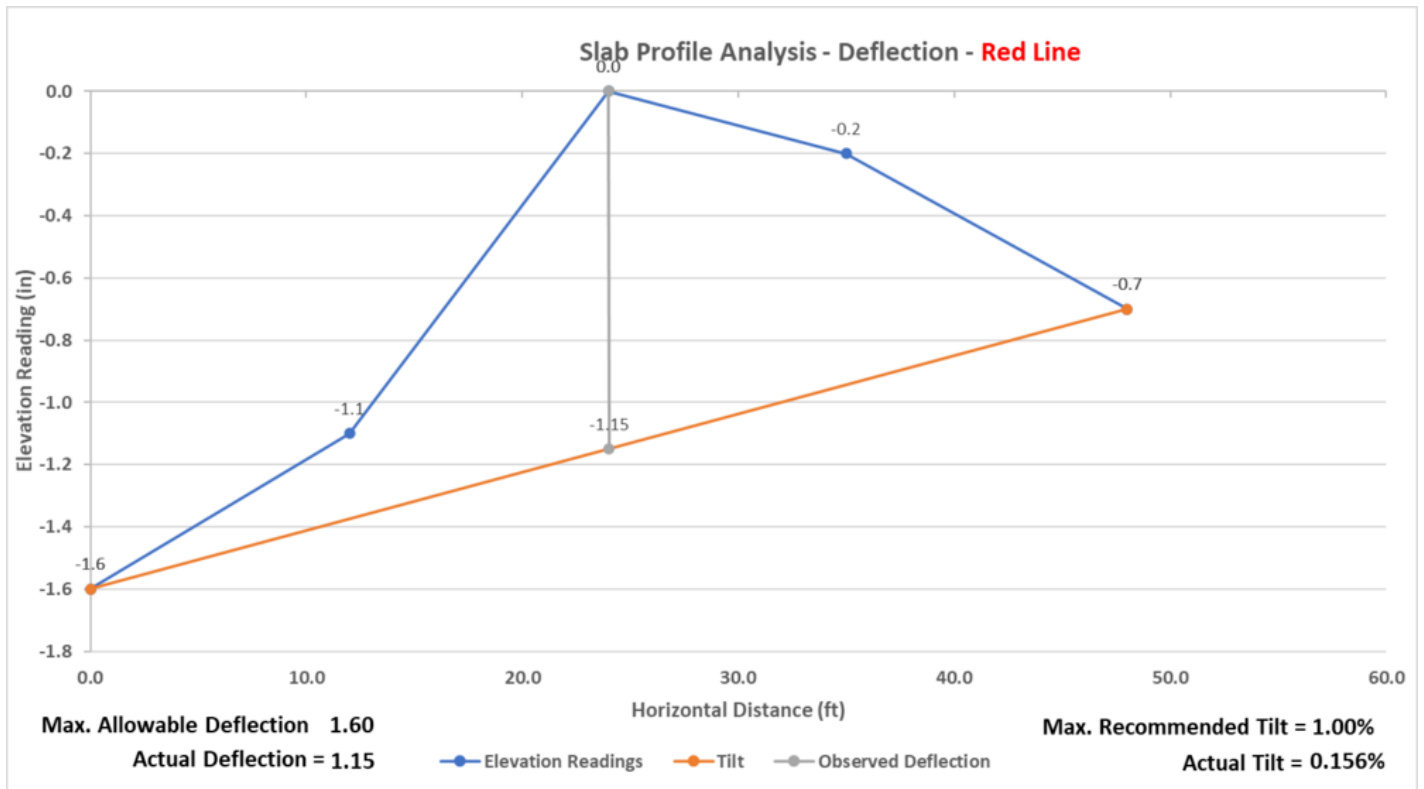
HEI

Dickenson



Elevations Readings 14418 Ardwell Drive





FOUNDATION CONCLUSIONS: Moderate Movement

Most of the structures previously inspected by this firm have experienced some degree of differential foundation movement, and this structure was no exception. After careful examination, it is our opinion that the evidences of movement observed do not indicate excessive or unusual foundation settlement. However, the foundation showed evidences of some differential movement at the west side of the house.

After careful examination, it is our opinion that the overall degree of the existing foundation movement for this structure is moderate, and is acceptable for a house of this age and type construction. The foundation is, in our opinion, functional and is not in need of releveling.

As a routine recommendation, it is recommended that the evidences of differential movement be monitored in the future to determine if the condition is stabilized, or if the foundation is continuing to settle. It is pointed out for your information that, due to the nature of the soils in this area, it is reasonable to expect that some movement of the foundation will happen in the future. It is also recommended that the soil around the foundation be kept moist by a regular watering program as the condition of the soil indicates.

6: CLOSE

Information

CLOSE

Opinions and comments stated in this report are based on the apparent performance of the items included within the scope of the inspection, at the time of the inspection. Performance standards are based on the knowledge gained through the experience and professional studies of the inspector. There is no warranty or guarantee, either expressed or implied, regarding the habitability, future performance, life, merchantability, and/or need for repair of any item inspected. It is suggested that it would be a prudent thing to purchase a Home Warranty Policy to protect the appliances and equipment against unforeseen breakdowns during the first year and for preexisting conditions. It is recommended that you research the various options available and protect yourself with a policy. Check with your agent for details and please read our comments concerning Home Warranty policies on page 2 of this report.

As an additional service, we recommend using a new tool we have on our website that can quickly turn your inspection report into an easy-to-read estimate of repairs for a nominal fee. These pricing reports from a third party company called **RepairPricer** not only make the inspection report easy to understand in terms of dollars and cents, but they are also useful negotiation tools. Just visit the page below on our website and upload your report into **RepairPricer**. If you have any questions when you receive your report, you can contact them at info@repairpricer.com

<http://www.heddermanengineering.com/repair-cost-estimates>

Thank you again for asking HEDDERMAN ENGINEERING, INC. to perform this inspection for you. If you have any questions after reviewing this report, please feel free to call the office. It is emphasized that the executed Service Agreement contract, which has been included at the end of this report, contains a provision under "Dispute Resolution" for you to contact HEI to resolve any disputes.

At your service,

Kyle Kuhl

Texas Licensed Professional Engineer #141672

Texas Firm Number: 7942



7: RECEIPT

Information



HEDDERMAN ENGINEERING, INC.

www.heddermanengineering.com Office 281-355-9911 Fax 281-355-9903 office@heddermanengineering.com

03/13/2023

TO: Ribbon Home SPV II LLC C/O Cole Dickenson

REF: Inspection of the property at 14418 Ardwell Dr, Sugar Land, TX 77498.

Total cost of inspection: \$500.00

Total Paid: \$500.00

Total Due: - 0 -

8: SERVICE AGREEMENT

Information

For your records, following is the Service Agreement that you executed for this inspection.

HEDDERMAN ENGINEERING, INC.

Office: 281-355-9911 Fax: 281-355-9903

office@heddermanengineering.com www.heddermanengineering.com

Real Estate Inspection Service Agreement

NOTICE: THIS AGREEMENT IS INTENDED TO BE A LEGALLY BINDING CONTRACT - PLEASE READ IT CAREFULLY

NAME OF CLIENT(S): Ribbon Home SPV II LLC C/O Cole Dickenson

DATE OF INSPECTION: 03/13/2023

PROPERTY ADDRESS: 14418 Ardwell Dr, Sugar Land, TX 77498

Purpose of inspection

The purpose of the inspection is to view selected accessible components and/or systems, and to inform you, our client, of our observations and professional opinions from a NON-INVASIVE VISUAL SURVEY on whether or not those selected components and/or systems appear to be functioning on the day of the inspection, or appear to be in need of repair. Although this report may include observations of some building code violations, total compliance with structural, mechanical, plumbing, electrical codes, specifications, and/or legal requirements is specifically excluded. HEI does not perform Code inspections. Since building codes change every few years, our inspections are not done with the intention of bringing every item in the house into compliance with current code requirements. Rather, the standard of our inspections is a **PERFORMANCE STANDARD** to determine if the items inspected in the opinion of HEI appear to be functioning at the time of the inspection, or appear to be in need of repair. It is pointed out that other engineers/inspectors may have different opinions to those given in this report. It is also not our purpose to verify the adequacy and/or design of any component of the house.

It is also not within the purpose and/or scope of this report to determine the insurability, habitability, merchantability, future performance, suitability of use, economic life span, or deferred maintenance issues, and/or issues unnamed in this report. This report is not an insurance policy, neither is it an express or implied warranty or guarantee as to future life and/or continued performance of the items inspected. Our inspection and report are intended to express HEI's perceived impression of the apparent performance of the inspected components and systems viewed on the date of the inspection. HEI's intent is to reduce your risk associated with this transaction, however we cannot eliminate all risk, nor assume your risk. Any items pointed out as in need of repair or further investigation should be evaluated by a qualified repair specialist or service company who should provide estimated repair costs **PRIOR TO CLOSING ON THE PROPERTY**. By accepting this agreement, the Client understands that the services provided by HEI are the types of services described in the Professional Services Exemption of the Texas Deceptive Trade Practices-Consumer Protection Act ("DTPA) and agrees that no cause of action exists under the DTPA related to the services provided.

It is recommended that you obtain as much history as is available concerning this property. This historical information may include copies of any seller's disclosures, previous inspection or engineering reports, building drawings and/or specifications, bids to perform repair work on the property, receipts from repair work that has been performed, reports performed for or by relocation companies, municipal inspection departments, lenders, insurers, and appraisers. You should attempt to determine whether repairs, renovations, remodeling, additions or other such activities have taken place at this property.

Scope of inspection

The scope of the inspection includes limited, visual observations at the interior and exterior of the structure, the attic (if applicable) as viewed only from the areas determined by the inspector to be safely accessible, and the underside of the house (if applicable) as viewed only from the crawlspace areas determined by the inspector to be safely accessible. Only those items readily accessible and visible at the time of the inspection will be viewed and included in this report. Any items causing visual obstruction, including, but not limited to, furniture, furnishings, floor or wall coverings, registers and grills on HVAC ductwork,, foliage, soil, appliances, stored items, insulation, etc., will not be moved or removed. Disassembly or removal of any portion of the structure, mechanical equipment, plumbing equipment, or electrical equipment is beyond the scope of this inspection.

The components of the property included, if applicable, in the scope of the inspection:

Foundation: Foundation Investigation including elevation survey with sketch of house and elevation readings.

Reinspections:

HEI typically does not perform reinspections on the property. However, if we agree to return to the property, it is with the understanding that we are not certifying the adequacy of any repair work that has been done, and there will be an additional fee charged. This is also true for conditions that are beyond the control of the inspector and hinder the inspector during the inspection, such as inclement weather, lack of adequate access to attics, crawlspaces, or other areas, utilities that are off, non-functional equipment, etc. If a return trip to the house is requested to finish items that were not able to completed at the time of the originally scheduled inspection, then an additional fee will be charged.

Limitations of Inspection

A visual inspection method will generally produce a competent first impression assessment of the apparent performance of the structural, mechanical, plumbing, and electrical components, provided repairs have not been performed which would cover distress patterns normally produced by problems. Because the inspection procedure is visual only, and is not intended to be diagnostic and/or technically exhaustive, an inherent residual risk remains that undiscovered problems exist and/or future problems will develop.

This report is provided solely for the use of the person to whom this report is addressed, and is in no way intended or authorized to be used by a third party, who may have different requirements, and to whom we have not contracted with to perform an inspection. If a third party chooses to use this inspection report, they do so without HEI's permission or authorization, and they do so at their own risk.

LIMITATION OF LIABILITY:

In any event HEI fails to fulfill its obligations under this agreement, Client agrees that CLIENTS EXCLUSIVE REMEDY AT LAW OR IN EQUITY AGAINST HEI IS LIMITED TO AN AMOUNT EQUAL TO THE INSPECTION FEE PAID HEREIN. Client assumes the risk of losses greater than the refund of the fee paid herein. Client acknowledges that this limitation of liability is reasonable in view of the relatively small fee that HEI charges for making the inspections when compared with the potential of exposure that HEI might otherwise incur in the absence of such limitation of liability, and that a much higher fee would be charged if HEI were subject to greater liability.

Dispute Resolution

In the event of a complaint concerning the inspection services provided pursuant to this agreement, Client must notify HEI in writing of such complaint within ten (10) business days of the date of Client's actual discovery and thereafter allow a prompt re-inspection of the item relating to the claimed condition. Client further agrees that client and he/she/it's agents, employees or independent contractors **will make no alterations, repairs or replacements to the item complained about prior to a re-inspection by HEI as agreed above.** You agree that failure to comply with this procedure shall result in your express release of all claims Client may have against HEI, known and unknown, related to the item complained about and any related alleged act or omission by HEI.

Statute of Limitations

The parties agree that no claim, demand, or action, whether sounding in contract or in tort, may be brought to recover damages against HEI, or its officers, agents, or employees MORE THAN TWO YEARS AND ONE DAY AFTER THE DATE OF THE INSPECTION OR THE DATE ANY PURPORTED CAUSE OF ACTION ARISING OUT OF THE INSPECTION ACCRUES. TIME IS EXPRESSLY OF THE ESSENCE HEREIN. Client understands that this time period may be shorter that otherwise provided by law.

Acceptance of Report

By signing I confirm that I have read, understood, and agree to the above pre-inspection service agreement, and that I agree to be bound by these terms and conditions. In the absence of Client signing this service agreement prior to or at the time of the inspection, then acceptance of the report and/or payment for the inspection shall constitute agreement with all of the terms of this agreement. The report to be prepared by HEI shall be considered the final and exclusive findings of HEI regarding the inspection of the property which is the subject of this agreement. Client shall not rely on any oral statements made by HEI or its representatives prior to issuance of the printed report.

NOTE: IF THE INSPECTION IS CANCELLED LESS THAN ONE FULL BUSINESS DAY BEFORE THE SCHEDULED TIME, INCLUDING SATURDAYS, SUNDAYS, AND/OR HOLIDAYS, THE CLIENT WILL BE CHARGED ½ OF THE ORIGINAL INSPECTION FEE AND AGREES TO PAY SUCH PENALTY FEE. IF THE INSPECTION IS CANCELLED LESS THAN ONE HOUR BEFORE THE SCHEDULED TIME OF THE INSPECTION, THE CLIENT WILL BE CHARGED THE FULL INSPECTION FEE.



I HAVE READ AND ACCEPT THIS AGREEMENT