



HEDDERMAN SERVICES

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FOUNDATION INSPECTION

3806 Knollcrest Dr
Montgomery, TX 77356

Tonya Walker

JUNE 4, 2022



Inspector

Javier Almodovar

Engineer

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

06/04/2022

TO: Tonya Walker

REF: CONDITION OF PROPERTY SURVEY

Dear Tonya Walker:

At your request, a visual survey of the house located at 3806 Knollcrest Dr, Montgomery, TX 77356, was made by Javier Almodovar.

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 nor to verify the adequacy and/or design of any component of the house. It is pointed out that other engineers/inspectors may have contrasting opinions to those given in this report. 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 before your option period ends or before closing on the property. This report may also contain informational items which are included as a courtesy to help you become more aware of the condition of the house.

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. It is recommended that you obtain as much history as is available concerning this house. 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 house, knowledge of any drainage problems, 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, renovation, remodeling, additions or other such activities have taken place at this house.

3: SITE CONDITIONS

Information

Occupancy

Occupied

In Attendance

Owner

Weather

Dry, Clear, Temperature - 80-90 degrees

Age of Home - Available public records

According to available public records, the house was built in 1983.

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.

Sellers Disclosure not available

The Sellers Disclosure Statement was NOT made available to the inspector(s) at the inspection.

4: FOUNDATION

Information

Description: FOUNDATION OBSERVATIONS AND CONCLUSIONS:

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

Description: Concrete Rebar slab

The foundation was a concrete slab on grade, and appeared to be reinforced with steel reinforcing rods (rebar).

Description: Monolithic with adjoining units

The foundation of this unit is monolithic with the foundation of adjoining units and can be affected by foundation movement occurring at those units.

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 $\frac{3}{4}$ 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.

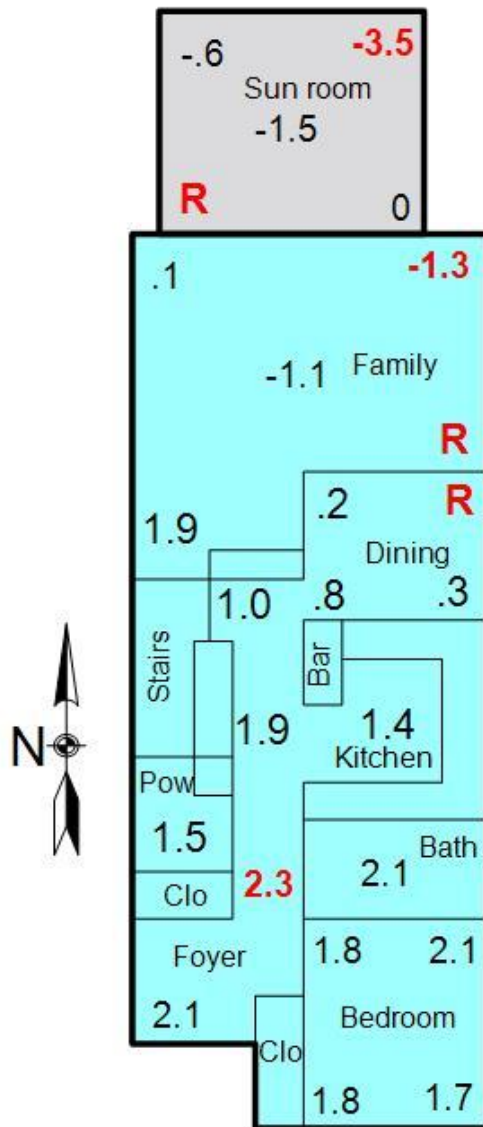
Note that it is not HEI's purpose to exhaustively document each and every evidence that may be related to foundation movement, but rather to document a representative sample and/or the most significant evidences of movement upon which we base our opinion on the condition of the foundation.

Differential Movement: Levelness - Some Sloping

The floors were checked with an electronic level, and were observed to be sloping towards the rear of the house. The difference in elevation between the high point and low point was 3.6 inches. The high point was located at the hallway near the foyer, and the low point was located at the rear of the family room. The unlevelness takes place over a horizontal distance of approximately 40-50 feet.

The sun room was sloping 3.5 inches in approximately 15 feet. It is pointed out that the sun room is a separate foundation that appeared to be added at some point.

6.4.22 HEI Walker



Elevation Readings 3806 Knollcrest Drive

Differential Movement: Veneer - Cracks/Patches

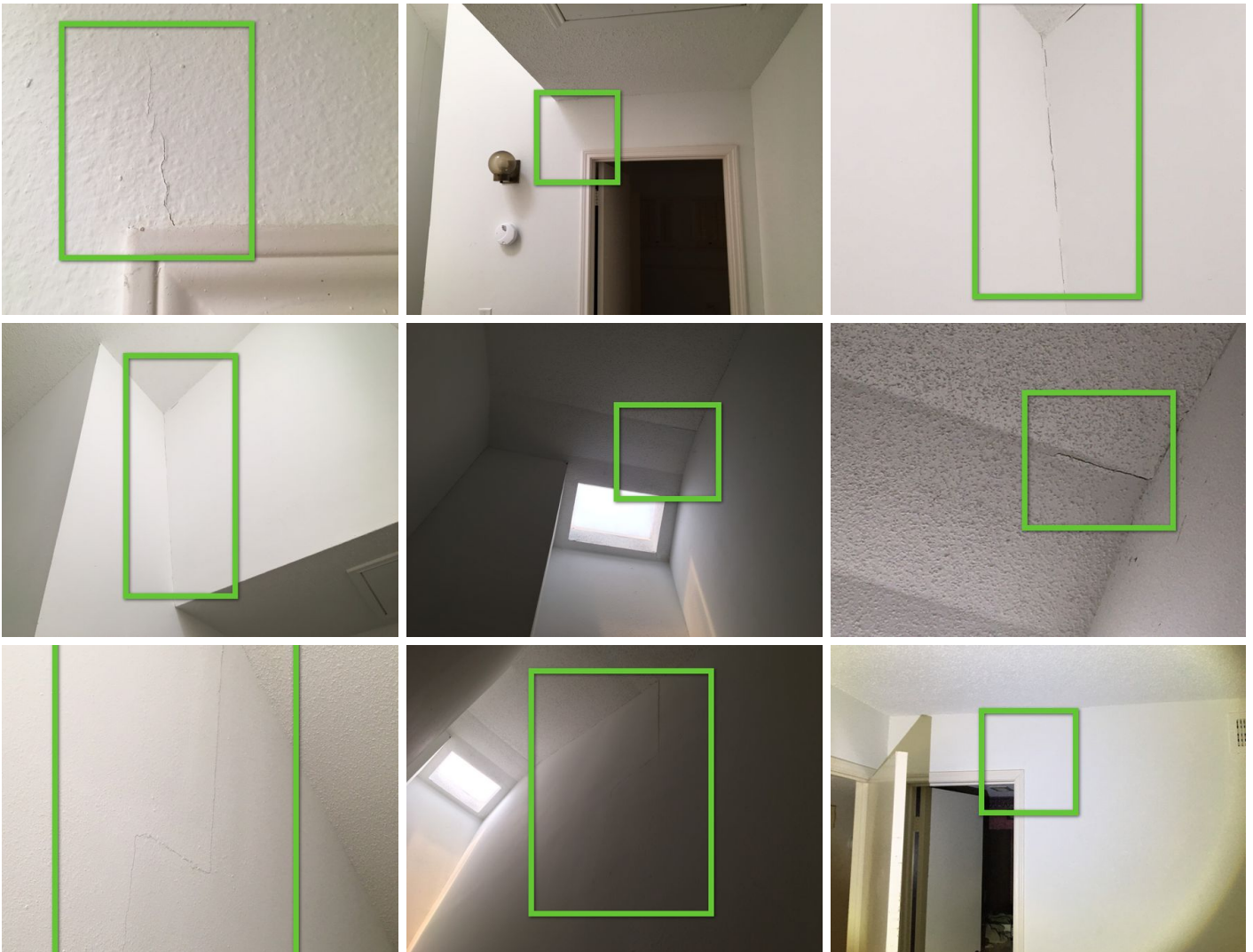
Cracks and/or patches were observed in the exterior veneer at the time of the inspection, including at the locations shown in the photos.

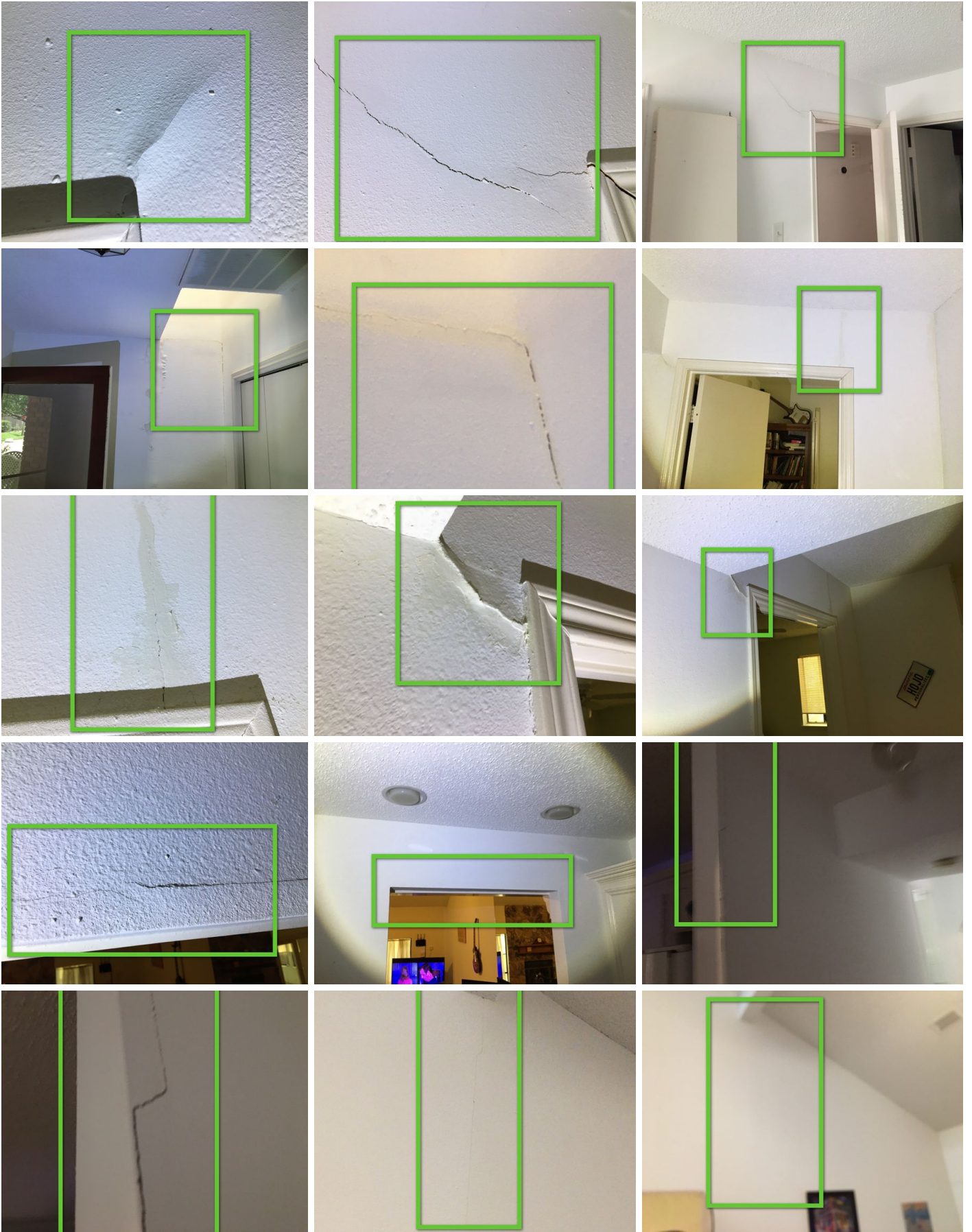


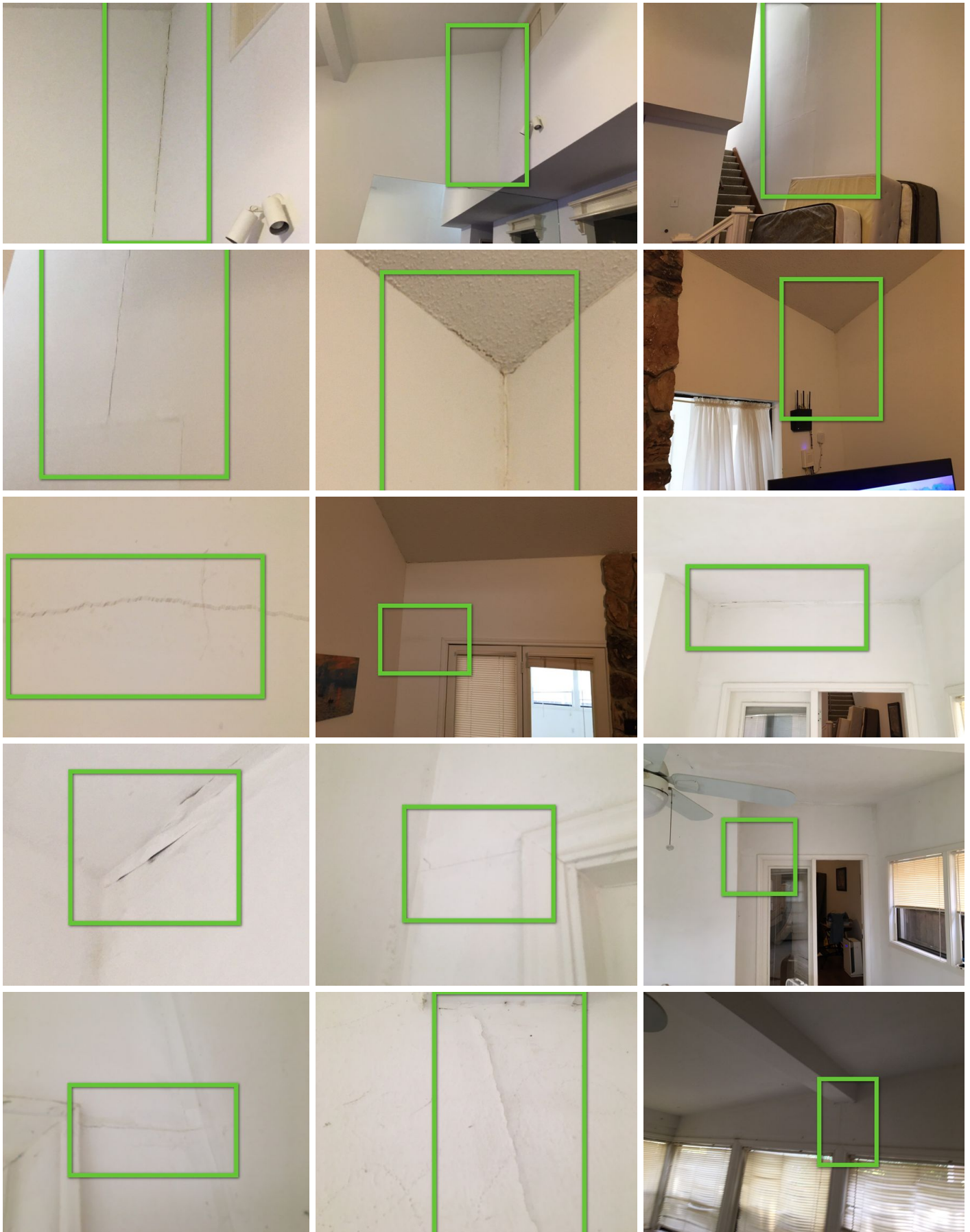


Differential Movement: Sheetrock Cracks/Patches/Compression ridges

Family room, first floor hallway, kitchen, foyer, front bedroom, second floor front bedroom, and the second floor hallway
Sheetrock cracks, patches, and/or compression ridges were observed in the house 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: 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 - Patio

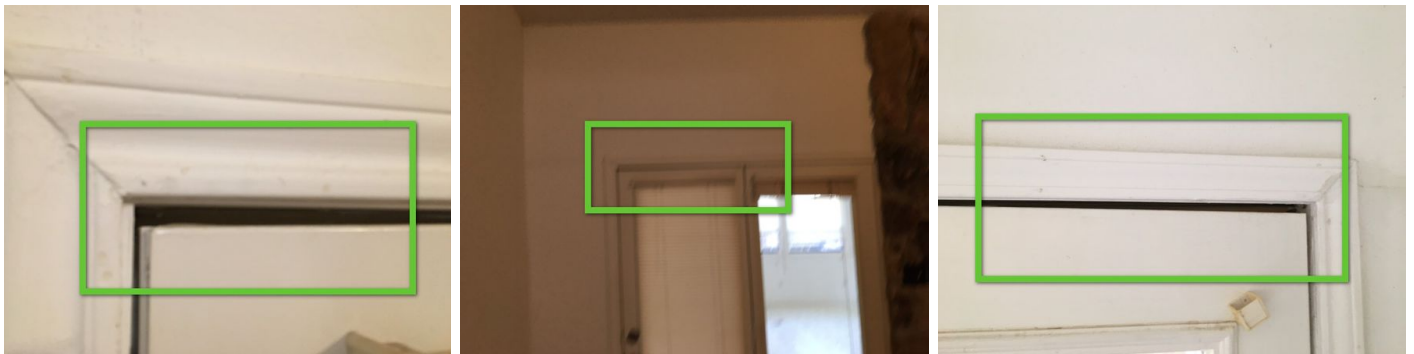
It is pointed out that a portion of the foundation concrete could not be viewed due to the sun room that adjoined the foundation.



Separation of Materials: Door triangles at top

Family back door, sunroom east patio door, second floor south bedroom, on the second floor south bathroom.

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

First floor bedroom

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

Separation of Materials: Door trim separation

We observed door trim that had separations at the trim joints at some locations.



Separation of Materials: Rafter separation

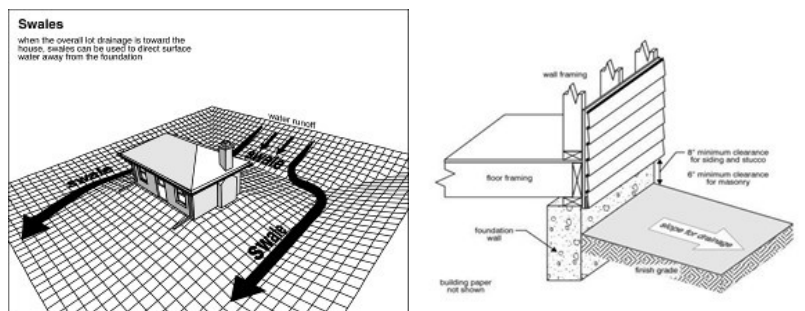
Several rafters were observed to be separated from the ridge beam in the attic, which can be an evidence of movement.



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.



FOUNDATION CONCLUSIONS: REPAIR RECOMMENDED

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 degree of the

foundation movement is more than what is acceptable. The most significant movement was located at the rear of the house.

Due to the more than acceptable amount of movement of the foundation of this structure, it is our opinion that releveling of the foundation is needed at the house and the sunroom. It is recommended that at least three foundation repair contractors be contacted in order that they may make their own assessment of the scope and cost of the work needed to bring this foundation back to an acceptable degree of levelness.

Obtain Cost Estimate

FOUNDATION CONCLUSIONS: Recommend sewer leak test

It is recommended that a plumber be contacted to perform camera observation or leak testing on the underground sewer piping to determine if the underground piping is leaking. A leaking sewer pipe can contribute significantly to the instability of the supporting soils by introducing excessive moisture into the soils, thus weakening them, resulting in foundation settlement.

Obtain Cost Estimate

Observations

4.4.1 Crawlspace

INADEQUATE ACCESS

The crawlspace under the sun room did not have an adequate access opening, and the underside of the sun room was not entered at the time of the inspection. The International Residential Code, 2012, requires an access into all crawlspace areas and it is recommended that an adequate access be provided.

Obtain Cost Estimate

R408.4

Recommendation

Contact a qualified professional.

4.5.1 Perimeter Grading/Drainage

GRADING POOR

REAR PATIO AND UNDER THE CRAWLSPACE AREA AT THE SUN ROOM.

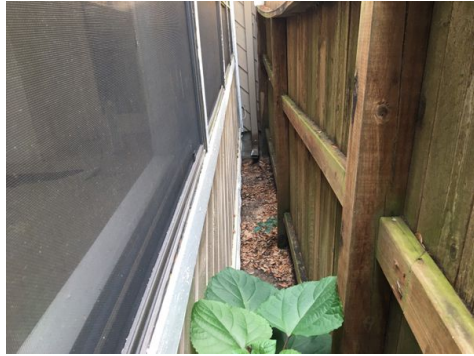
The perimeter drainage was observed to be poor at some areas where the lot is not sloped away from the house (6 inch drop in the first 10 feet) and water will pond. Poor drainage conditions near the foundation can contribute to foundation movement. It is recommended that a company specializing in drainage solutions be contacted to provide a recommended solution, along with a cost estimate to provide proper drainage.

R401.3

Obtain Cost Estimate

Recommendation

Contact a qualified landscaping contractor



5: 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,

Tim Hedderman

Registered Professional Engineer #51501

Texas Firm Number: 7942



6: RECEIPT

Information



HEDDERMAN ENGINEERING, INC.

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

06/04/2022

TO: Tonya Walker

REF: Inspection of the property at 3806 Knollcrest Dr, Montgomery, TX 77356.

Total cost of inspection: \$400.00

Total Paid: \$400.00

Total Due: - 0 -

7: 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): Tonya Walker

DATE OF INSPECTION: 06/04/2022

PROPERTY ADDRESS: 3806 Knollcrest Dr, Montgomery, TX 77356

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