



HEDDERMAN SERVICES

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## STRUCTURAL INSPECTION

902 Rolling Mill Dr  
Sugar Land, TX 77498

FEBRUARY 7, 2023



Inspector

**Deja Roberts**

Engineer

281-355-9911

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# 1: COVER LETTER

## Information

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### **HEDDERMAN ENGINEERING, INC.**

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02/07/2023

TO:

REF: CONDITION OF PROPERTY SURVEY

Dear :

At your request, a visual survey of the house located at 902 Rolling Mill Dr, Sugar Land, TX 77498 was performed by Deja Roberts. Transmitted herewith is the inspection report stating our professional opinions on whether the items of construction included in the survey are functional on the day of the inspection, or are 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

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#### **INTRODUCTION**

The purpose and scope of the inspection are detailed below, as well as in the executed Service Agreement at the end of this report. Also included are the limitations of the inspection.

#### **PURPOSE**

The purpose of the inspection was to view the components of the house included in the inspection and to give our opinions on whether or not these specific items were functioning at the time 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, design specifications, and/or legal requirements is specifically excluded. This also applies to all non-code making bodies, including but not limited to, the Brick Institute of America and the Texas Lathing and Plastering Contractors Association and their respective recommendations of building construction details. We do not perform "code" inspections, and 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 are functioning at the time of the inspection, or if they are in need of repair.** This is particularly applicable to Home Warranty policies, where the standards of the Home Warranty service company may differ than the scope of our stated performance standard for judging whether a piece of equipment is functional or in need of repair. If you intend to rely on a Home Warranty policy, then it is recommended that you contact the Home Warranty company of your choice for a more in-depth analysis of what may be required to meet their standards should a claim be made against their policy. It has been our experience that Home Warranty companies may require the equipment to be in total compliance with current code (even if it was installed before the current code was adopted) to be covered under their policy, and if so, it is recommended that you contact the appropriate service companies for a code compliance certification inspection. 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 to perform the inspection. If a third party chooses to use this inspection report, they do so without HEDDERMAN ENGINEERING, INC. permission or authorization, and they do so at their own risk. It is our purpose to provide information on the condition of the house on the day of the inspection. It is not our purpose to provide discussions or recommendations concerning the future maintenance of any part of the house, or 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** from qualified contractors. 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 contacting 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. In the performance of this inspection, HEDDERMAN ENGINEERING, INC. has acted as an engineering consultant subject to the standards of the State Board for Professional Engineers.

#### **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 are included in this report. Any items causing visual obstruction, including, but not limited to furniture, furnishings, floor or wall coverings, pictures, foliage, registers and grills on HVAC ductwork, soil, appliances, insulation, etc., were not moved. Due to COVID 19 restrictions, our inspectors are sometimes required to wear masks indoors. This restricts the inspector from using his full set of senses that are needed during the inspection process by inhibiting the inspector from possibly detecting odors that may be indicative of a problem, including but not limited to, mold, musty odors, natural or LP gas odors, pet odors, urine or fecal odors, etc. 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, mechanical equipment, plumbing equipment, or electrical equipment is beyond the scope of this inspection. 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. The components of the house included in scope of the inspection, if present and applicable, include:

Structural: Foundation, primary load-carrying framing members, roof surface, water penetration, and miscellaneous items related to the house.



Mechanical: Air conditioning and heating systems, water heaters, built-in kitchen appliances, and garage door openers.

Plumbing: Water and gas supply lines, sinks, toilets, tubs, showers, visible drain lines inside the house, and vents.

Electrical: Service entrance conductors, electric meter, distribution panel, visible wiring, light fixtures, switches, and receptacle outlets.

Items specifically excluded from our inspection include:

Tainted and Corrosive sheetrock (Chinese Sheetrock).

All pests, wood destroying insects, conducive conditions, ants, or rodents.

All equipment related to mosquito control.

All items related to major geological conditions such as faults or subsidence.

All underground piping, including water, sewer, and gas piping.

Water softening and water treatment systems.

Identifying products that have been recalled.

Pressure testing of gas system.

All low voltage lighting systems and/or photocells.

All low voltage data systems such as telephone, cable TV or data lines.

All fire detection, carbon monoxide, smoke alarms and/or security alarm systems.

All environmental hazards, or any toxic/hazardous materials including, but not limited to: radon gas, lead, formaldehyde, electromagnetic, any and all items related to asbestos.

A backup generator and transfer switch panel.

Any electrical load analysis on the electrical system to determine adequacy of the service or any branch circuit.

If you desire information or inspections concerning the items listed above, or any other items, then it is recommended that you contact the appropriate service companies. Also excluded from the scope of the inspection are any and all items related to mold and/or all microbial substances. Due to the current limitations of coverage on most homes by the insurance industry in Texas, where damages due to mold and/or other microbial substances may not be covered, we routinely recommend that you have a mold inspection by a qualified professional before you close on the house. Built-in appliances and mechanical equipment were operated in at least one, but not all, of their operating modes, where possible. If you desire for every operating mode of each piece of equipment to be operationally checked, then it is recommended that you contact a service company. Equipment and materials that are not visible, including structural components, underground plumbing and gas lines, and all other items not normally available for ready viewing, are excluded from the scope of this inspection. If you desire an inspection on the underground plumbing pipes or a hydrostatic test to determine if the plumbing pipes are leaking under the house, then it is recommended that you contact a plumber. No electrical circuit or load analysis will be performed on the electrical system. We make no representation regarding the condition of this house other than as contained in this written report. Any verbal discussions concerning this house that were made at the time of the inspection, and not contained in this written report, are not to be relied upon. Although the structural portion of this inspection was made by an engineer, it cannot be considered to be a formal engineering study since no calculations, structural analysis, or physical material testing were performed. If engineering drawings/specifications have been made available during this inspection and, if they have been viewed, it is pointed out that all such viewing is strictly cursory, and in no way should our cursory examination be construed as providing engineering judgments concerning the adequacy or acceptability of the drawings/specifications. It is pointed out that it is possible for latent defects to exist in the structure and its related equipment, underground piping, and systems that are not visible at the time of the inspection, and may not be able to be viewed during a limited visual inspection. This is particularly applicable in items relating to water, such as roof leaks, water penetration conditions, etc., where the condition may exist, but not be visible at the time of the inspection (e.g. where it has not rained for a period of time, allowing materials time to dry out). HEDDERMAN ENGINEERING, INC. does not claim or warrant that the observations listed in this report represent every condition that may exist. In using the information supplied by this inspection, one must recognize the limitations of a limited, visual inspection conducted at a single point in time, and accept the inherent risk involved. 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 design 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, flood or discharge of water remediation, additions or other such activities have taken place at this house.

## 3: SITE CONDITIONS

### Information

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#### Occupancy

Occupied

#### In Attendance

Structural Inspector, Mechanical Inspector, Termite Inspector, Buyer & Family, Buyers Agent

#### Weather

Dry, Partly Cloudy, Temperature - 60-70 degrees

#### Age of Home - Public Records

According to public records, the house was built in 1981.

#### North-Front

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

#### Sellers Disclosure not available

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

#### 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

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### 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.



#### 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. Height adjustments were made for variations in the height or thickness of the various floor coverings. 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.

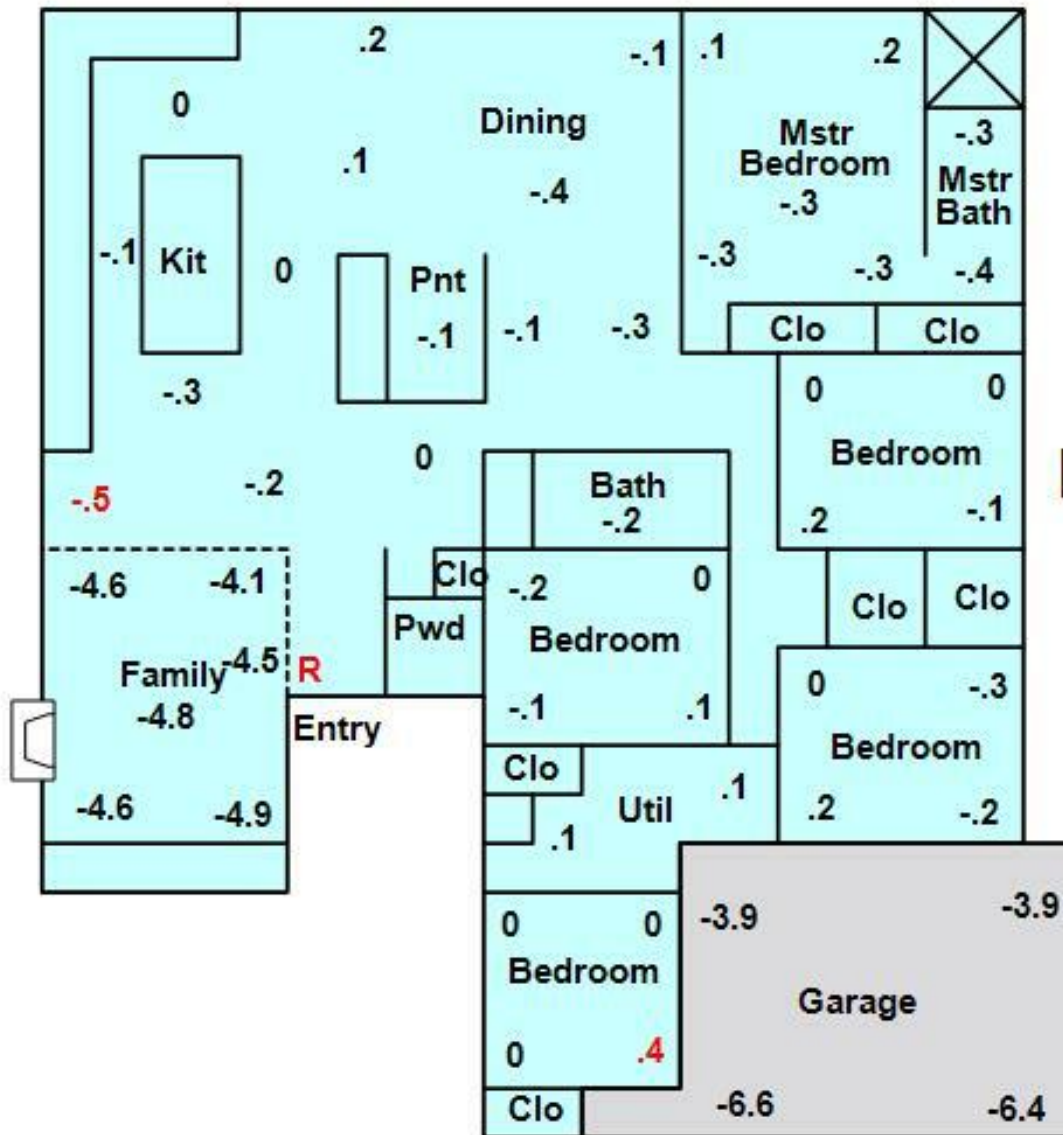
#### Levelness - Acceptable

The floors were checked with an electronic level, and were observed to be acceptably level throughout the house. The difference in elevation between the high point and low point was 0.9 of an inch. The high point was located at the northeast bedroom, and the low point was located at the kitchen. The unlevelness takes place over a horizontal distance of approximately 40 to 45 feet.

2.7.23

HEI

Lee



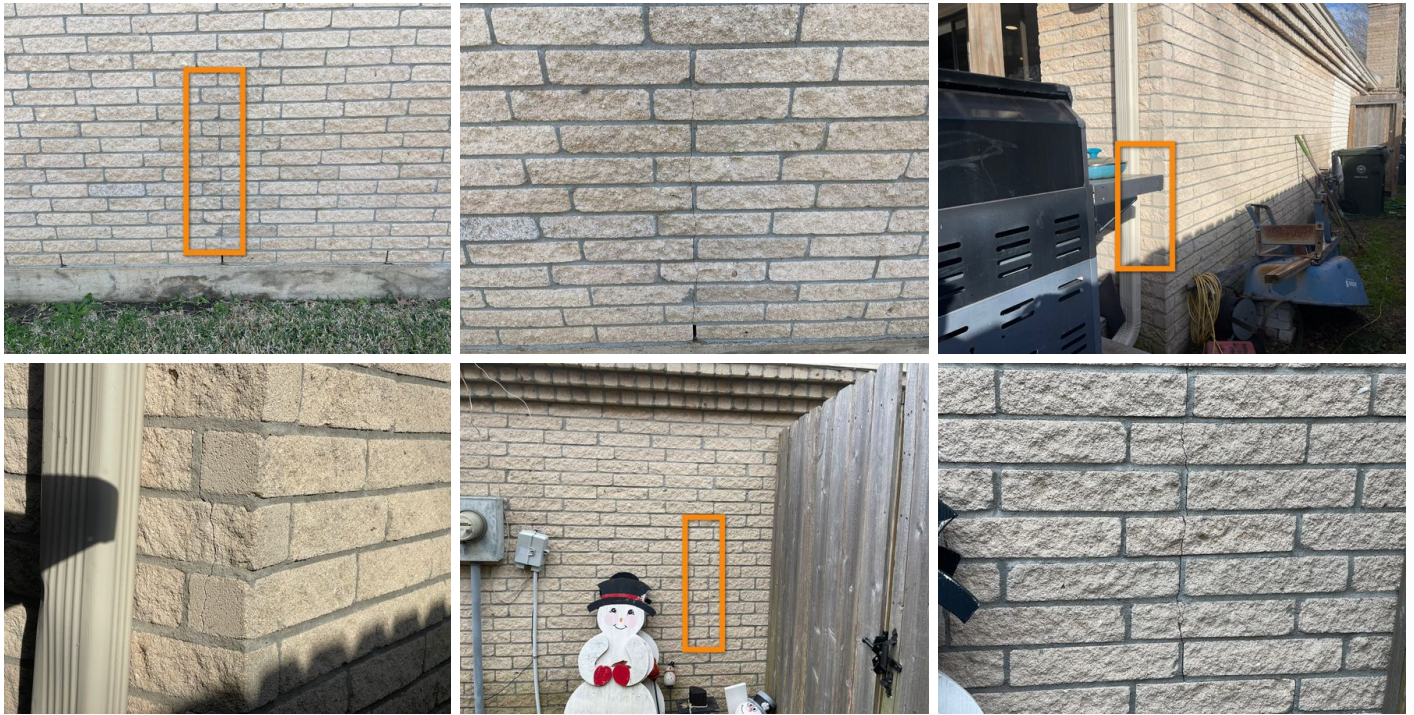
## Elevation Readings 902 Rolling Mill Drive

### 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. It is recommended that the cracks be repaired for cosmetic purposes.



**Obtain Cost Estimate**



**Sheetrock Cracks/Patches/Compression ridges**

Sheetrock cracks, patches, and/or compression ridges were observed in the house during the inspection, including at the specified locations. It is recommended that the cracks be repaired.

**Obtain Cost Estimate**



**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.

**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.





**Separation of Materials: "Ghost" doors**

Southwest Bedroom Closet

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

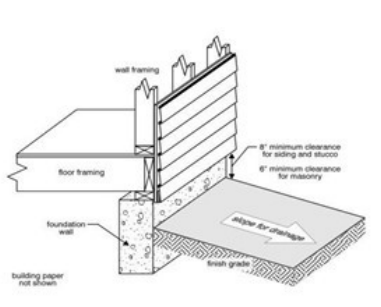
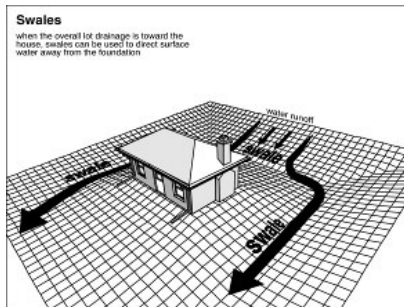
**FOUNDATION CONCLUSIONS: Levelness Normal/Acceptable**

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 movement. The overall degree of the foundation movement for this structure is within an acceptable amount for a house of this age and type construction. The foundation is, at this time, functional and is not in need of releveling. 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.

**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.



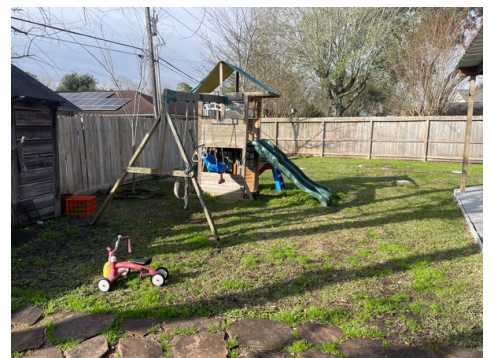
**Recommendations/repair**

4.6.1 Perimeter Grading/Drainage

**GRADING POOR**

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**



## 5: ROOF

### Information

#### Roof Description: ROOF OBSERVATIONS AND CONCLUSIONS

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

#### Roof Description: Composition Shingles

The pitched roof surface was constructed of composition shingles. The life expectancy of a composition shingle roof has been observed to vary from 15 to 20 years, with most requiring replacement at about 17-20 years.



#### Age of Roof from Buyer: Age of Roof: 3 years

The age of the roof, according to the buyer, was three years.

#### Roof viewed from: Drone due to height and/or pitch

Due to the height and/or steep pitch on the roof, the roof was not viewed from its surface due to safety concerns, but was viewed from photographs taken by a drone.

#### Roof Ventilation: Roof Vents

Continuous Ridge Vent

The ventilation for the attic space was observed to include the following vents listed above.





**Roof Details: Good sealant details**

Good sealant details were observed throughout the roof surface. It should be noted that these sealants will periodically deteriorate and need to be reapplied.



**Roof Leaks: Attic stains appear to be from previous leaks**

After observing the interior of the structure, evidences of current roof leaks were not visible. The absence of evidences of roof leaks does not guarantee that roof leaks were not present; rather, that no evidences of leaking were visible at the time of the inspection. Some stains were visible in the attic, but the stains appeared to be related to previous roof leaks. It is recommended that you check with the owner and/or a service company concerning the stains.





## Limitations

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Roof viewed from

### LIMITATIONS OF ROOF INSPECTION

It is pointed out that our roof inspection is limited to viewing the surface of the roof from only those areas determined by the inspector to safely accessible at the time and conditions of the inspection. If the height of the roof, steepness of the pitch, or surface conditions due to wear or weather are such that the inspector determines that he cannot safely access some or all of the roof, then we will use a drone if possible (subject to weather limitations and/or No Fly Zones) to take photos of the surface of the roof. The roof will also be viewed from the underside of the roof, from the readily accessible attic access decking. For areas of the attic/roof that are not readily accessible from the safety of secure access decking, the inspector is not required to walk off the decking across the attic framing members to access all portions of the attic. Therefore, it is pointed out that there may be deficient roof conditions present in the attic that are not visible on the day of the inspection due to the limitations imposed on the inspector. This emphasizes the need and responsibility of the client to do further investigations with a roofing contractor to determine all deficiencies with the roof before any option period ends.

## Recommendations/repair

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### 5.6.1 Roof Ventilation

#### LACK OF SOFFIT VENTS

The ventilation for the attic was minimal due to a lack of soffit vents in the eaves, and the lack of air flow through the attic could cause higher utility bills, as well as condensation and accelerated deterioration of the roof shingles/roof decking. Further investigation with a roofing specialist is recommended to install the proper amount of roof vents as specified in the building code.

**Obtain Cost Estimate**

**R806**

### 5.10.1 ROOF CONCLUSION

#### SERVICEABLE CONDITION - SOME REPAIRS NEEDED

The roof appears to be in generally serviceable condition at this time with some repairs needed for the item(s) shown above. Have a roofing contractor provide a cost estimate to make all necessary repairs to bring the roof into a completely serviceable condition.

**Obtain Cost Estimate**



## 6: STRUCTURAL FRAMING

### Information

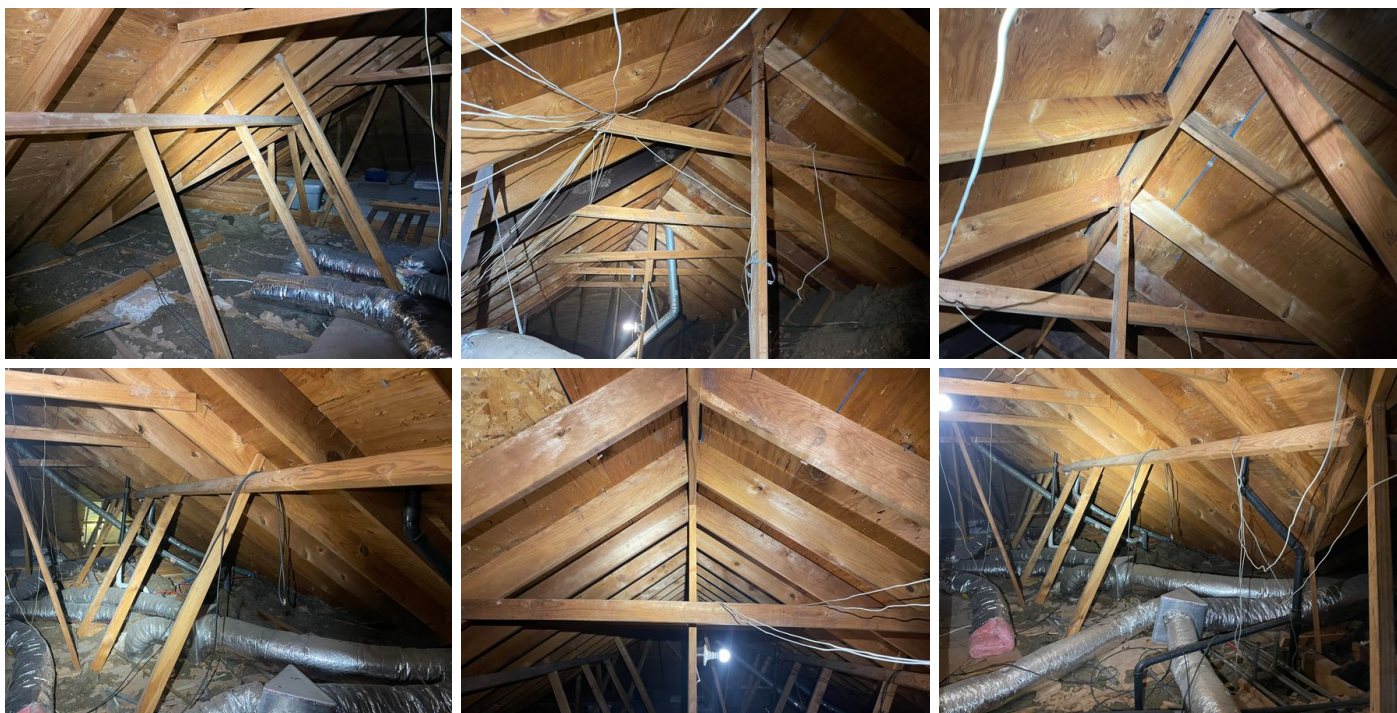
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#### Framing Description: OBSERVATIONS AND CONCLUSIONS

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

#### Framing Description: One story house wood frame

The house was observed to be a one story wood frame structure that includes the standard major framing components, including wall framing and ceiling joists, and roof framing.



#### Attic Framing: Viewed from attic access walkway

The attic space was viewed only from the areas determined by the inspector to be safely accessible from the access walkway.

#### Hurricane Clips/Straps: Clips/straps - None Visible

We did not observe metal hurricane clips/straps installed at the attic framing members. These clips/straps provide a stronger structure that will be more resistant to wind uplift from hurricane and tornadoes.

#### STRUCTURAL FRAMING CONCLUSION: Framing Functional, Single Story

The primary load carrying members of the structural framing that were accessible and viewed at the time of the inspection, including the roof framing, load bearing walls, ceilings, and floors were functional at the time of the inspection, and no repairs are recommended. No significant deflections were observed in the roof framing as we were able to look up the plane of the roof from the different sides of the house.

### Limitations

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Framing Description

**INACCESSIBLE FRAMING NOT VIEWED**

It is pointed out that framing members in the wall, ceiling, floor, and/or roof that were covered with finish construction materials were not accessible and were not viewed at the time of the inspection. HEI performs limited, visual inspection in accordance with industry standards and does not remove finish construction materials to view framing members that are not readily accessible and viewable.

## 7: WATER PENETRATION

### Information

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#### **Water Penetration: OBSERVATIONS AND CONCLUSIONS**

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

#### **Water Penetration: Moisture Meter - No High Readings**

We checked around window and door openings, bathrooms, and other locations susceptible to moisture intrusion with a moisture meter, and found no evidence of elevated moisture at the time of the inspection.

### Recommendations/repair

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7.1.1 Water Penetration

**VULNERABILITY TO WATER PENETRATION**

Sealants deteriorated/missing, Electrical Wiring, Electrical Box, Hose Bibb, Light Fixtures, Electric outlet

A substantial vulnerability to water penetration was observed at penetrations/openings through the exterior building envelope, and it is recommended that all penetrations/openings be sealed against water penetration. Typical examples on a structure may include light fixtures, air conditioning refrigerant lines, water piping, gas piping, vent caps, windows, doors, expansion joints, etc. Below is a representative sample of locations and/or photographs showing some, but not necessarily all, locations where there is a vulnerability to water penetration. Have a contractor provide a cost estimate to seal all vulnerable areas on the exterior building envelope against water penetration and/or open up any clogged weepholes in the veneer.

**Obtain Cost Estimate**





## 8: FIREPLACE/CHIMNEY

### Information

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#### FIREPLACE OBSERVATIONS AND CONCLUSIONS

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

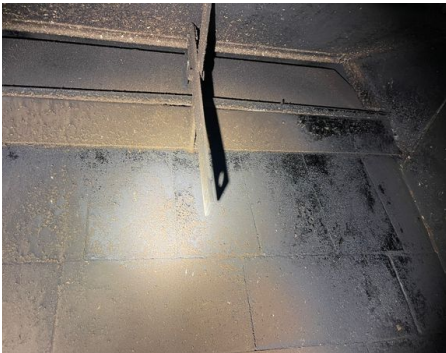
#### Masonry fireplace: Location

Family Room

#### Masonry fireplace: Description-Masonry Fireplace

Gas log lighter, Manual Gas Shut-off Valve

The fireplace was a masonry fireplace that vented up a chimney through the roof.



#### Masonry fireplace: Damper Functional

The damper was operationally checked at the time of the inspection, and opened and closed properly, with no repairs needed to the operation of the damper.

### Recommendations/repair

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8.1.1 Masonry fireplace

**DAMPER - C CLAMP MISSING**

The damper was not equipped with a C-Clamp device to prevent closing the damper completely to allow the hazardous combustion gases a path to escape up the chimney.

**Obtain Cost Estimate**



HEI file photo showing c-clamp in masonry fireplace



HEI file photo showing c-clamp in metal fireplace

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8.1.2 Masonry fireplace

**LOG LIGHTER - DAMAGED**

The gas log lighter was damaged and it is recommended that it be replaced. You may also consider installed a ceramic gas log instead of the log lighter.

**Obtain Cost Estimate**



## 9: ATTIC

### Information

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#### OBSERVATIONS AND CONCLUSIONS

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

##### Ladder: Original ladder - Not rated

The access ladder into the attic appeared to be the original installation ladder, and the ladder was not labeled to indicate the rated capacity of the ladder. The ladder does not meet current code requirements for ladders into attics. Consideration should be given to replacing the ladder with a ladder that meets current code requirements.

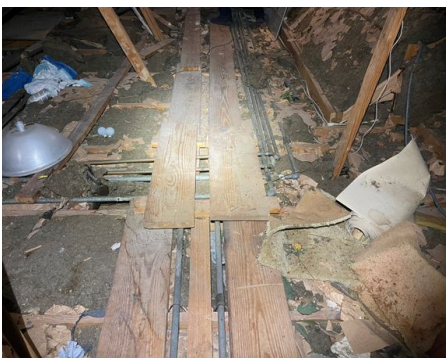


##### Viewed from attic decking

The attic was entered and was viewed from the access decking provided in the attic. It is pointed out that the inspector is not required to access areas of the attic without the safety of adequate walkway decking.

##### Service decking/platform decking: Adequate decking

The attic had adequate service decking to the equipment, with a walkway that was a minimum of 24 inches wide. In addition, the attic had adequate platform decking at the equipment, with a working platform that was a minimum of 30 inches wide.



##### Roof Decking: Description

Spacer Clips Present, Plywood

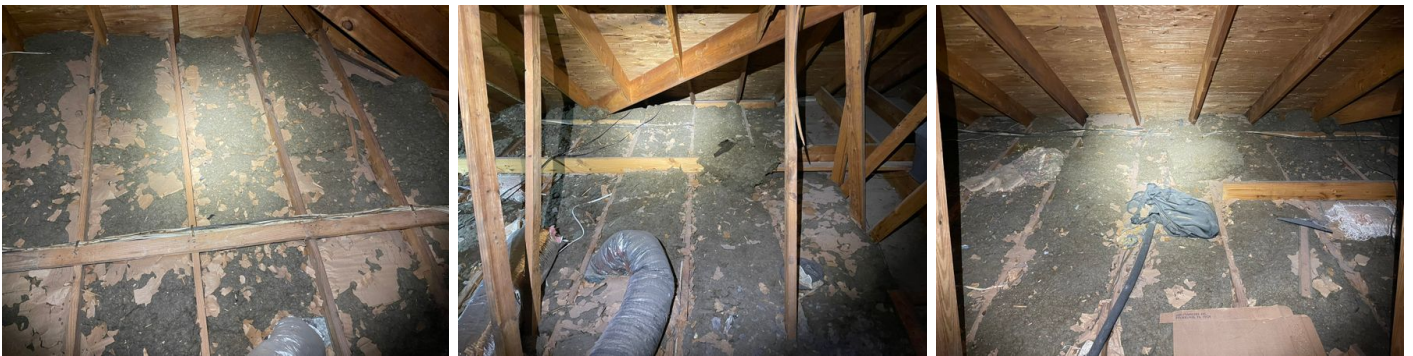
The roof decking was observed from the attic space to be as described above.



### Insulation: Batt 9"-10"

The insulation in the attic was average by the standard for the age of the house. The insulation appeared to be approximately 9-10" thick, which would be an R30 energy rating. It is pointed out that the insulation requirements according to the latest standard for new houses in this area is an R38 energy rating.

**Table 1102.1.1**



## Limitations

Attic Viewed From

### ATTIC NOT ALL ACCESSIBLE

The entire attic space was not accessible from the decking provided, and if remote areas were viewed at all, it would be from the safety of the access decking. Note that it is our policy to not walk off the access decking nor climb over equipment to walk across framing members due to safety hazards and the potential for damaging equipment/ductwork and/or slipping off the framing members and falling through the ceiling. It is pointed out that there may be deficiencies in the attic and/or for the roof that were not viewed at the time of the inspection due to a lack of access walkway decking.

## Recommendations/repair



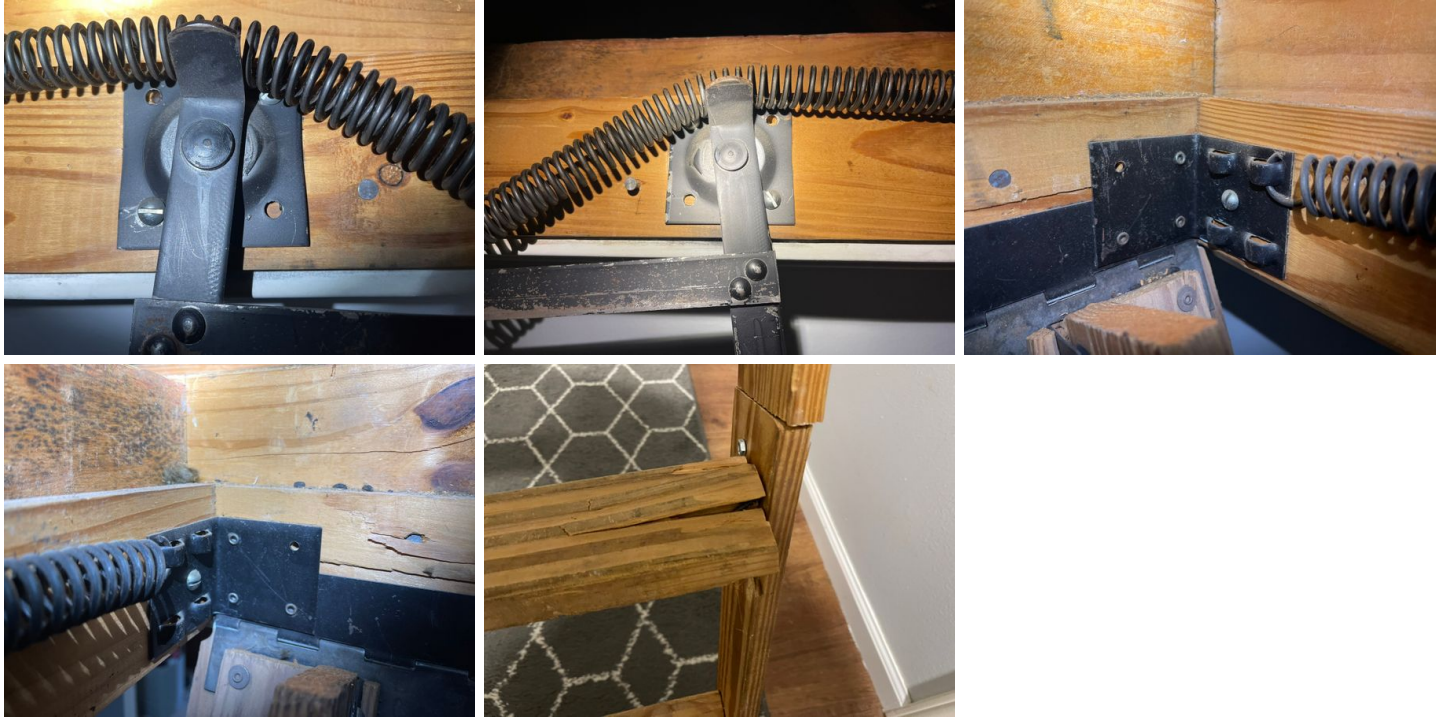
9.1.1 Ladder

**LADDER ATTACHMENT IMPROPER**

Nail(s) missing in corner bracket(s), Nail(s) missing in spring arm pivot(s), Step broken

The stair assembly was not properly installed or secured to the framing members, and repair is needed for safety purposes. The condition(s) can be a safety hazard, and repair is needed, as an improperly installed stair assembly can possibly collapse.

**Obtain Cost Estimate**



9.4.1 Insulation

**INSULATION MISSING - BETWEEN JOISTS**

The insulation in the attic was missing from between some of the joists. Have a service company provide a cost estimate for repairs.

**Obtain Cost Estimate**



9.4.2 Insulation

**INSULATION LOOSE/MISSING - WALLS**

The insulation in the attic was loose/missing at some of the vertical walls, and needs to be repaired.

**Obtain Cost Estimate**



9.7.1 Miscellaneous

**RODENTS, BIRDS, BEES, OR OTHER PESTS**

Rodent traps, Rodent remains/skeleton

We observed evidence of rodent infestation in the attic. Although HEI disclaims inspections for rodents and other pests, it is recommended that further investigation be done to find the source of entry of the pests into the attic, and to make all needed repairs to remove the pests, clean and sanitize the attic from any fecal/urine material and nesting materials. It is recommended that you contact a pest control company concerning this condition.

**Obtain Cost Estimate**





# 10: EXTERIOR CLADDING

## Information

### Descriptions:

The materials, styles, and components present and observable at the time of the inspection are as follows:

### Cladding Material

Brick Veneer



### Brick/Stone Veneer: Weepholes observed

We observed weepholes at the bottom of the exterior wall veneer, which is a good detail to allow moisture a drainage path out of the wall.



## Recommendations/repair

10.1.1 Brick/Stone Veneer

**EXPANSION JOINTS - NEED SEALANT**

The expansion joints/control joints in the brick veneer need to be sealed to prevent water penetration into the wall cavity/building interior.

**Obtain Cost Estimate**





# 11: EXTERIOR ITEMS

## Information

### OBSERVATIONS AND CONCLUSIONS

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

#### Flatwork Concrete/Patios/Walkways: Flatwork Concrete OK

Driveway, Sidewalk

The flatwork concrete listed above was in generally good condition at the time of the inspection with no significant repairs needed. Note that there may be some small cracks in the concrete, but in the opinion of the inspector, the concrete is still functional.



#### Flatwork Concrete/Patios/Walkways: Cracks Driveway

Cracks and some separations were observed in the driveway concrete. In our opinion, the driveway is still in serviceable condition at this time.



#### Gutters and Downspouts: Gutters and Downspouts - OK with some repairs needed

They gutters and downspouts were generally OK with some repairs needed as noted below.







**Gates and Fences: Description**

Wood fence/gate

We observed the following types of gates and/or fences at this property as described above.



**Gates and Fences: Gates and Fences - Some Repairs**

The gates and fences were in generally good condition at the time of the inspection with some repairs observed to be needed as shown below under Recommendations/Repairs.

**Sheds/Playground Equipment: Playground Equip.**

The playground equipment is omitted from the scope of the inspection, and was not inspected.



**Recommendations/repair**

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11.2.1 Gutters and Downspouts

**DEBRIS**

The gutters were observed to have debris in them and are in need of cleaning.

**Obtain Cost Estimate**



11.2.2 Gutters and Downspouts

**HOLDING WATER**

The gutters were observed to be holding water and are in need of adjustment.

**Obtain Cost Estimate**

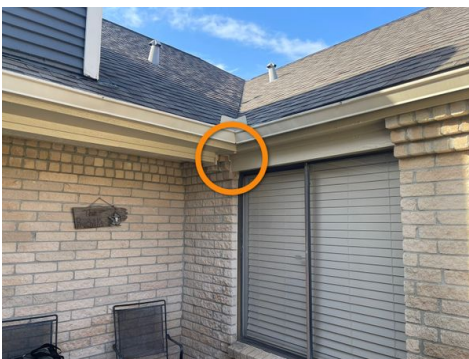


11.2.3 Gutters and Downspouts

**LEAKING**

The gutter was leaking at the joints and needs to be sealed and made watertight.

**Obtain Cost Estimate**





11.2.4 Gutters and Downspouts

**ELBOW DIVERTERS**

Some of the elbow diverters were missing/damaged at the bottom of the downspouts. It is recommended to install the missing/damaged elbows.

**Obtain Cost Estimate**



11.3.1 Gates and Fences

**WOOD FENCE**

Damaged, Starting to rot

The wood fence was in need of some repairs.

**Obtain Cost Estimate**



#### 11.4.1 Wood Rot

### **WOOD ROT**

#### Door trim

We observed evidences of wood rot and it is recommended that all rotted wood be replaced. Have a contractor provide a cost estimate to determine the entire scope of the wood rot, and provide a cost estimate to replace all rotted wood in the house.

**Obtain Cost Estimate**



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#### 11.8.1 Miscellaneous Exteriors

### **GROUND SOGGY**

The ground was soggy and further investigation is recommended to determine the cause of the condition, and to make any needed repairs.

**Obtain Cost Estimate**

# 12: INTERIOR ITEMS

## Information

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### OBSERVATIONS AND CONCLUSIONS

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

#### Doors: Most operating OK

No items requiring repair were observed concerning the operation of most of the doors, with exceptions listed below. The doors opened and closed properly, and the doors with locks were locking properly.

#### Windows: Operational - No repairs

No items requiring repair were observed concerning the operation of the windows. The windows that were accessible at the time of the inspection were opening and closing properly.

#### Smoke alarms: Installed at some locations

Smoke alarms were observed to be installed at some of the required locations in the house as set forth in the 2012 International Residential Code. The current code gives the Locations required, the Power Source, and the Interconnectivity requirements.

##### R314.3 Location.

Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

##### R314.4 Power source.

Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

##### R314.5 Interconnection.

Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

## Limitations

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Windows

### **NOT ALL WINDOWS ARE ACCESSIBLE**

Not all of the windows in the house were accessible to be operationally checked at the time of the inspection. Note that HEI does not move/remove furniture, stored items, etc. to gain access to windows. If the window is not readily accessible, then HEI does not make access to check it.

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Smoke alarms

### **SMOKE ALARMS NOT OPERATIONALLY CHECKED**

We could not determine if the smoke alarms are connected to a security alarm system as is common practice, therefore, to avoid possibly triggering a security alarm we did not operationally check each device, nor did we check the interconnectivity of the alarms. For safety purposes, it is recommended that smoke detectors and carbon monoxide detectors be replaced every ten years.

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Carbon monoxide detector

### **NOT CHECKED**

Homes are required to be protected by carbon monoxide alarms as set forth in the 2012 International Residential Code. Note that checking alarm systems is beyond the scope of our inspection and is excluded from the inspection. For safety purposes, it is recommended that smoke detectors and carbon monoxide detectors be replaced every ten years.

## **Recommendations/repair**

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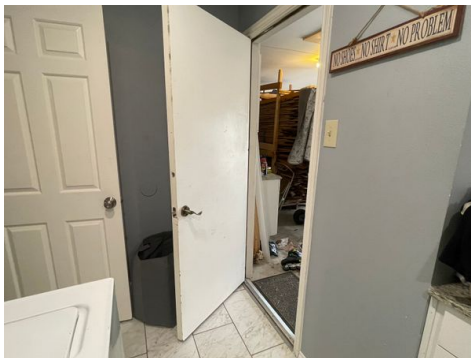
12.1.1 Doors

### **GARAGE DOOR NO SELF-CLOSING HINGES**

The door to the attached garage did not have self-closing hinges, and the hinges need to be installed.

**Obtain Cost Estimate**

R302.5.1



12.1.2 Doors

### **"GHOST" DOORS**

SOUTHWEST BEDROOM CLOSET

We observed a "ghost" door that opens/closes by itself, and the door needs to be adjusted. Contact a service company to make the needed repairs.

**Obtain Cost Estimate**





12.1.3 Doors

**DRAGS ON CARPET**

SOUTHEAST BEDROOM CLOSET

The door(s) was dragging on the carpet, and should be trimmed on the bottom. A one inch gap between the bottom of the door and the carpet is recommended to allow for proper air flow for the HVAC system.

**Obtain Cost Estimate**



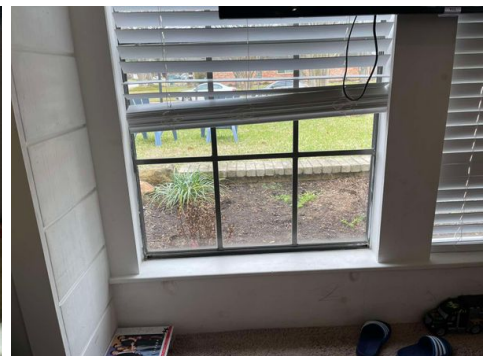
12.2.1 Windows

**WINDOW SCREENS DAMAGED/MISSING**

THROUGHOUT THE HOUSE

Window screens were observed to be damaged and missing.

**Obtain Cost Estimate**





12.3.1 Floor coverings

**FLOOR CUPPING**

FAMILY ROOM, DINING ROOM

The vinyl floor was observed to be cupped, with the edges of the boards curling downwards into a “cupping” effect. This condition is typically caused when the floors have excessive moisture. Further investigation with a floor specialist and/or a service company is recommended to determine the source of the condition, and to provide a cost estimate for any needed repairs.

**Obtain Cost Estimate**



12.3.2 Floor coverings

**CARPET STAINED**

MASTER BEDROOM

The carpet was observed to be stained, and it is recommended that it be cleaned or replaced.

**Obtain Cost Estimate**



### 12.5.1 Smoke alarms

## **SMOKE ALARM(S) MISSING**

The house does not meet the current code concerning smoke alarms which can be a safety issue. If bringing the house up to current code standards is desired, the section below from the 2012 International Residential Code is the current requirements for smoke alarms in a home.

### **Obtain Cost Estimate**

#### R314.3 Location.

Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

#### R314.4 Power source.

Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

#### R314.5 Interconnection.

Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

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### 12.6.1 Carbon monoxide detector

## **MISSING**

The house does not meet the current code concerning carbon monoxide alarms which can be a safety issue. If bringing the house up to current code standards is desired, the section below from the 2012 International Residential Code is the current requirements for carbon monoxide alarms in a home.

### **Obtain Cost Estimate**

#### R315.1 Carbon monoxide alarms.

For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units within which fuel-fired appliances are installed and in dwelling units that have attached garages.

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12.10.1 Miscellaneous interiors

**MIRROR CRACKED/DAMAGED**

NORTHEAST BEDROOM

The mirror was cracked/damaged and needs to be replaced. Have a contractor provide a cost estimate at the above locations.

**Obtain Cost Estimate**



# 13: 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 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 4 of this report.

Items identified as being deficient and in need of repair along with our Recommendations are provided in the above report. Many, but not all, recommendations are highlighted in bold red text. It is our intention, and your responsibility, that you follow up on these deficiencies and recommendations as part of your due diligence by contacting the appropriate service contractor for **Further Investigation** and to **Obtain a cost estimate**. It is pointed out that other related and/or underlying conditions may be present, and which may not be apparent without further investigation. Items identified as being deficient and/or in need of repair along with our Recommendations are provided in the above report. Many, but not all, recommendations are highlighted in bold red text. It is our intention, and your responsibility, that you follow up on these deficiencies and recommendations as part of your due diligence by contacting the appropriate service contractor(s) for **Further Investigation, Obtain a cost estimate and/or Contact the Builder**. It is pointed out that other related and/or underlying conditions may be present, and which may not be apparent without further investigation by qualified service companies. It is emphasized how important it is for you if you intend to rely on our report(s), to continue to gather the in-depth information that will be obtained by further investigation with appropriate service technicians who will use their specialized knowledge of the component(s) and the related building codes along with their specialized diagnostic equipment to give you a **TOTAL PICTURE** of the condition of the property. Failure on your part to do your due diligence will constitute negligence on your part and result in an incomplete body of knowledge upon which you base your decisions regarding this property. We recommend that your further investigations be done before the expiration of your option period and before closing on the property.

We also recommend that you review the Service Agreement at the end of this report regarding any complaint concerning the inspection services provided pursuant to the service agreement, As agreed to, 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 reinspection 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 reinspection by HEI as agreed above.**

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](mailto: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




# 14: RECEIPT PAGE

## Information

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### **HEDDERMAN ENGINEERING, INC.**

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

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02/07/2023

TO:

REF: Inspection of the property at 902 Rolling Mill Dr, Sugar Land, TX 77498.

Total cost of inspection:

Total Paid: \_\_\_\_\_

Total Due: - 0 -



# 15: 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](mailto:office@heddermanengineering.com) [www.heddermanengineering.com](http://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): Kristopher Lee & Nicole Ngoc Lee**

**DATE OF INSPECTION: 02/07/2023**

**PROPERTY ADDRESS: 902 Rolling Mill 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, including the proper sizing and compatibility of HVAC, Electrical, and/or Plumbing components.

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, the underside of the house (if applicable) as viewed only from the crawlspace areas determined by the inspector to be safely accessible, and the roof as viewed from the ground and/or only from the locations on the roof **if the roof is 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. Only those electrical outlets that are readily accessible will be operationally checked. 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:

Structural:

Foundation, elevation survey including sketch of house and level readings, primary load-carrying framing members, roof surface, water penetration, grading and drainage, fireplace/chimney, and miscellaneous items related to the house.

Mechanical:

Air conditioning and heating systems, water heater, built-in appliances, and garage door opener.

Plumbing:

Water and gas supply lines that are visible, sinks, toilets, tubs, showers, visible drain lines, and vents.

Electrical:

Service entrance conductors, electric meter, distribution panel, visible wiring, light fixtures, switches, and accessible receptacle outlets.

Lawn Sprinkler:

Control panel, solenoid valves, backflow prevention device, visible piping, and sprayer heads.

Pool:

Basin, deck, waterline tiles, pumps, filters, piping, heater, timer, and electrical.

The following items, even if present in the subject property, are not inspected and do not constitute any part of the inspection services to be performed hereunder unless a specific notation is made on this report stating its condition:

Tainted and Corrosive drywall (Chinese Drywall), Clock Timers, Landscape Lighting, Sump Pumps, Wood Destroying Insects/Pests, Antennas, Environmental Hazards, Laundry Equipment, Water Filters, Geological faults/subsidence, Automatic Oven Cleaners, Fire Sprinklers System, Mold/Microbial, Water Wells, Mosquito Misting Systems, Buried/Concealed Plumbing, Fire/Smoke Alarm Systems, Septic Systems, Indoor Air Quality, Asbestos, Low Voltage and data Systems, Lights on Photo-cell/timers, Carbon Monoxide Alarms, and Water Softeners/Water Treatment systems/Reverse Osmosis systems with all related piping.

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.

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 reinspection 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.

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**LIMITATION OF LIABILITY:** In any event the inspector fails to fulfill the obligations under this agreement, CLIENTS EXCLUSIVE REMEDY AT LAW OR IN EQUITY AGAINST INSPECTOR IS LIMITED TO A MAXIMUM RECOVERY OF DAMAGES EQUAL TO THE INSPECTION FEE PAID HEREIN. CLIENT VOLUNTARILY AGREES TO WAIVE THEIR RIGHTS UNDER THE DECEPTIVE TRADE PRACTICES-CONSUMER PROTECTION ACT, SECTION 17.41 ET SEQ. BUSINESS & COMMERCE CODE. This limitation of liability applies to anyone, including client, who is damaged or has to pay expenses of any kind, including attorney fees and costs. 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 inspector charges for making the inspections when compared with the potential of exposure that inspector might otherwise incur in the absence of such limitation of liability, and that a much higher fee would be charged if the inspector were subject to greater liability.

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#### 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 than 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**