



HEDDERMAN SERVICES

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STRUCTURAL INSPECTION

11003 Riverview Dr
Houston, TX 77042

Jimmy McLean & Elyse McLean

JULY 6, 2022



Inspector

Eddy Rodriguez

Engineer & TREC#23614

281-355-9911

office@hedderman.com

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1: COVER LETTER

Information



HEDDERMAN ENGINEERING, INC.

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07/06/2022

TO: Jimmy McLean & Elyse McLean

REF: CONDITION OF PROPERTY SURVEY

Dear Jimmy McLean & Elyse McLean:

At your request, a visual survey of the house located at 11003 Riverview Dr, Houston, TX 77042 was performed by Eddy Rodriguez. 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

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 were 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. 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. 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. 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. 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.

Sprinkler: Control panel, solenoid valves, backflow prevention device(s), piping, and sprayer heads.

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 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

In Attendance

Structural Inspector, Mechanical
Inspector, Owner

Weather

Clear, Temperature - 80-90
degrees

Occupancy

Occupied

Age of Home - Public Records

According to public records, the
house was built in 1972.

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 Available

The Sellers Disclosure Statement was 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

Description: FOUNDATION OBSERVATIONS AND CONCLUSIONS:

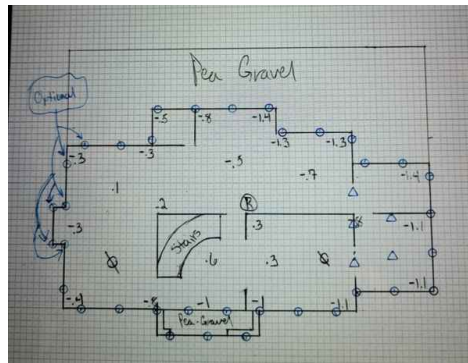
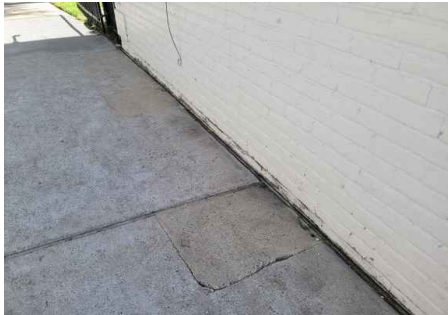
The following items were inspected, with our Observations and Conclusions noted.

Description: Concrete Rebar slab

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

Description: Previous repairs w/Sketch

It was observed/disclosed that the foundation of this house has been repaired previously in 2017. The scope of the repairs reportedly included piers installed as shown in the sketch below provided to HEI. It is pointed out that HEDDERMAN ENGINEERING, INC. cannot and does not take any responsibility for the adequacy and/or future performance of the repair work. Any opinions given in this report concerning the levelness of the house are for the day of the inspection only, and are not a warranty against future foundation movement of the house. It is recommended that you obtain all available information and warranties from the homeowner relating to the foundation repair(s).



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 - Multi Story

The floors were checked with an electronic level, and were observed to be acceptably level throughout the house.

First Floor:

The difference in elevation between the high point and low point was 0.5 of an inch. The high point was located at the foyer, and the low point was located at the kitchen. The unlevelness takes place over a horizontal distance of approximately 20 feet.

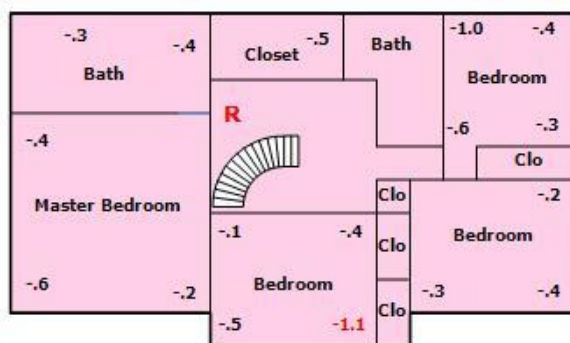
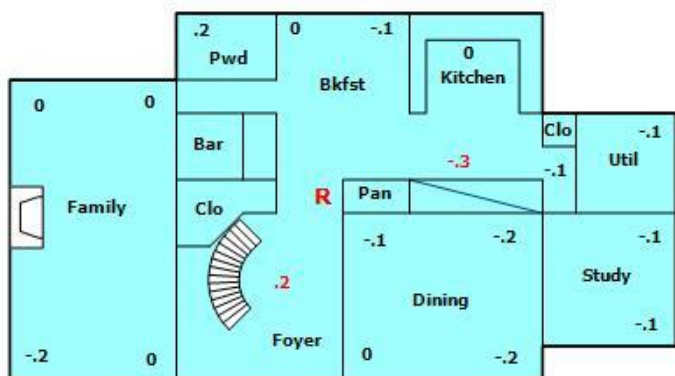
Second Floor:

The difference in elevation between the high point and low point was 1.1 inches. The high point was located at the hallway, and the low point was located at the northeast bedroom. The unlevelness takes place over a horizontal distance of approximately 25 feet.

7.6.22

HEI

McLean



Elevation Readings
11003 Riverview Road



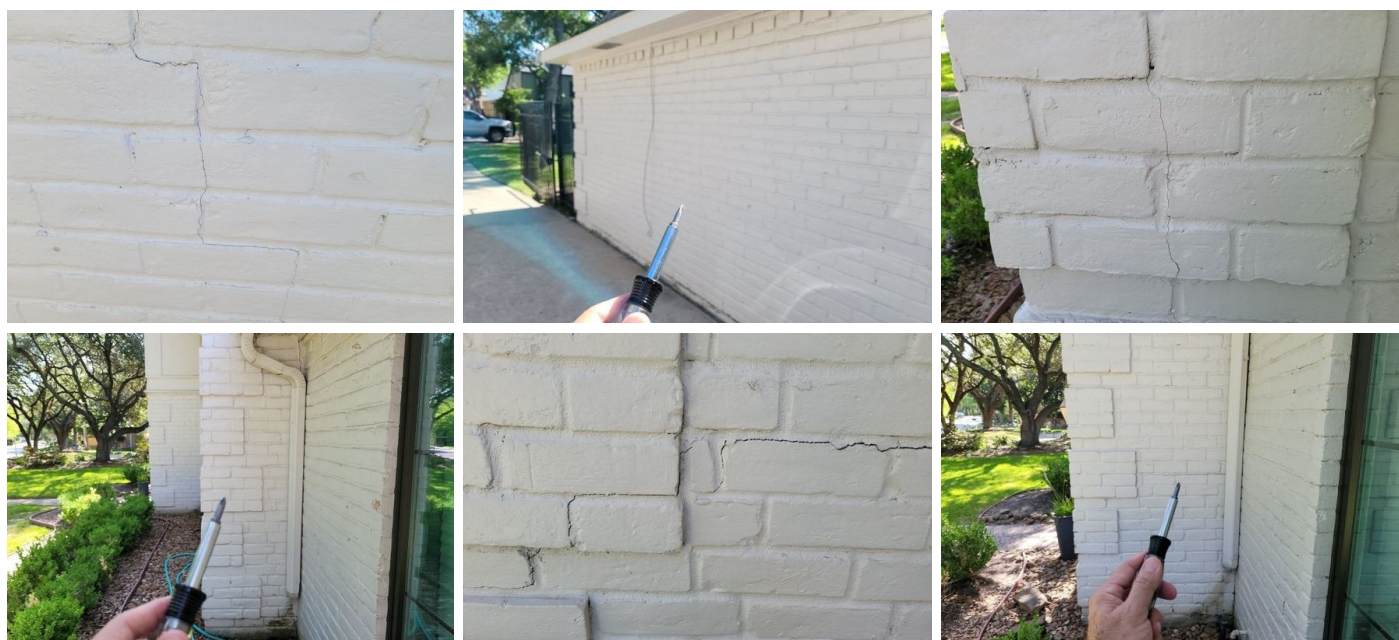
Veneer - Cracks/Patches

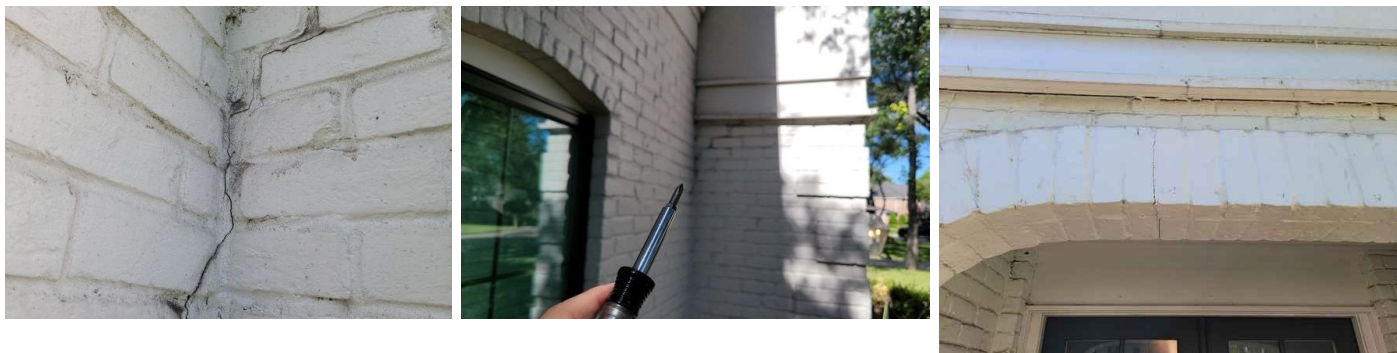
repaired

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

Obtain Cost Estimate





Veneer - Painted

It is pointed out that the veneer was painted, and some cracks and patches in the veneer may not be visible.

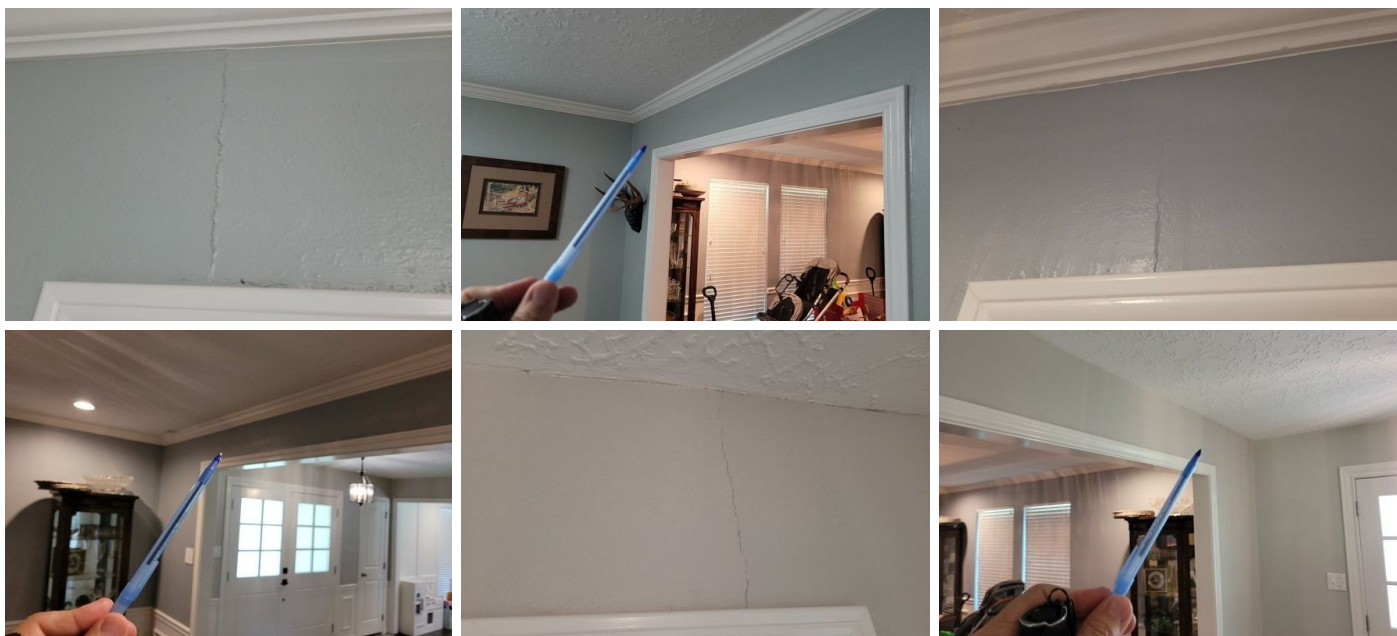
Sheetrock Cracks/Patches/Compression ridges

repaired

Study Dining Room

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.

Slab not Visible - Patio

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



Separation of Materials: Window frame

caulked & painted

Front

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



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 movement. However, the foundation showed evidences of some differential movement.

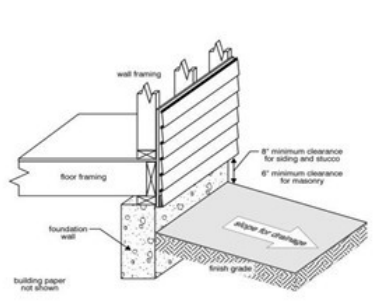
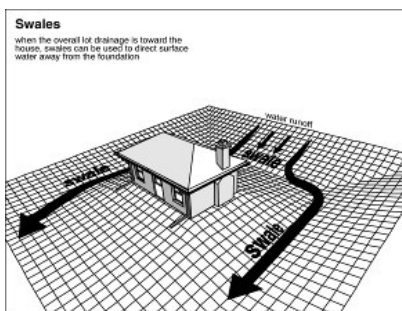
After careful examination, it is our opinion that the overall degree of the existing foundation movement for this structure is moderate, and is acceptable for a house of this age and type construction. The foundation is, in our opinion, functional and is not in need of releveling.

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.

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

HIGH GRADING/FLOWER BED

The perimeter grading and/or flower beds 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**

5: ROOF

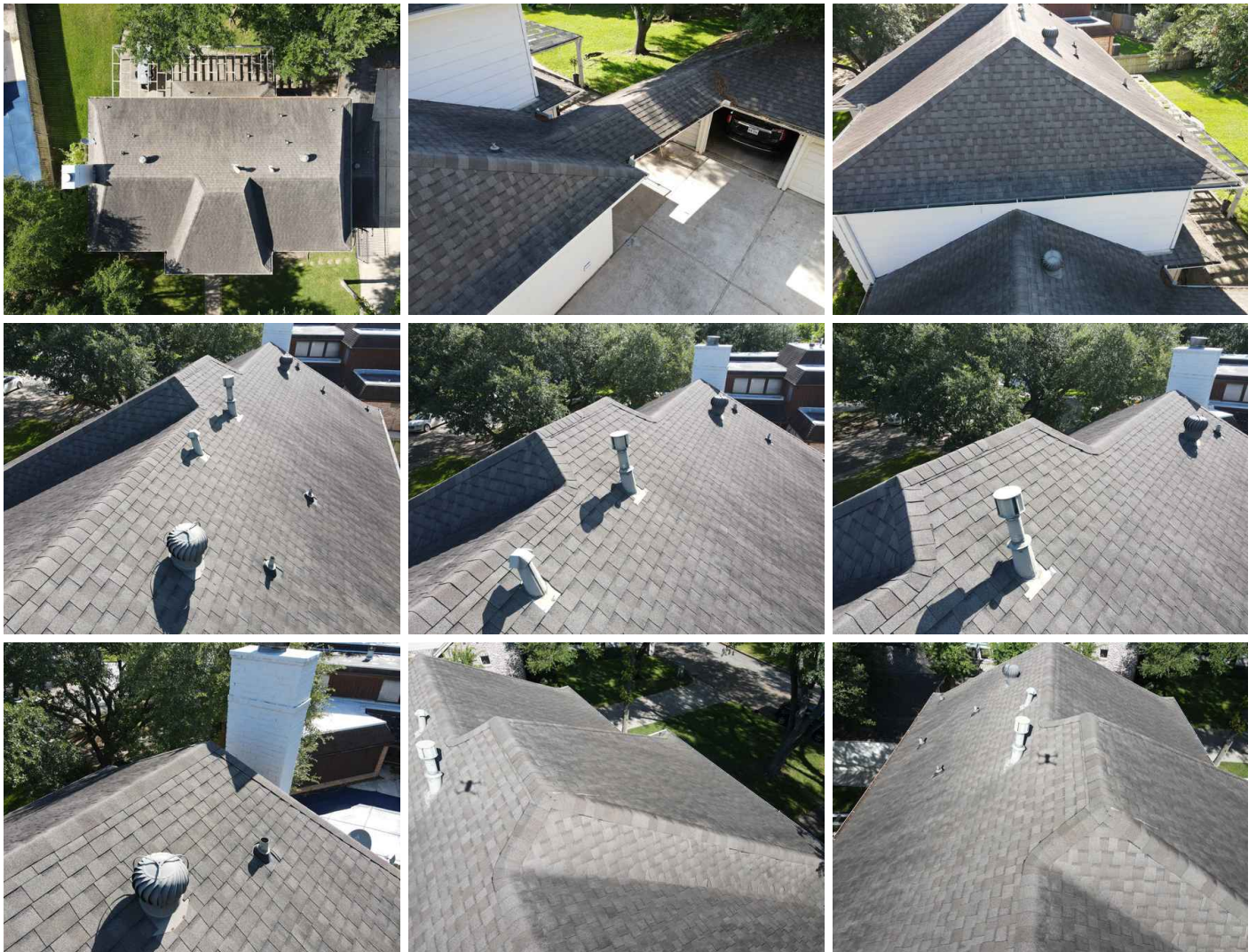
Information

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 Sellers Disclosure: Age of Roof: 6 years

The age of the roof, according to the sellers disclosure statement, was six 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.

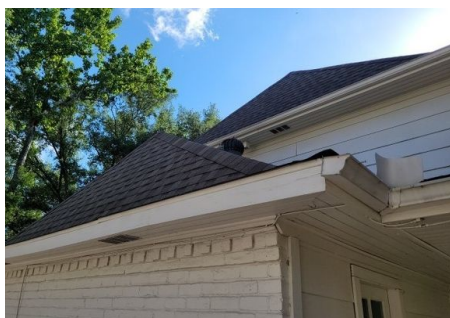
Roof viewed from: Ground and Lower Roof

The roof was viewed from the ground and from the lower roof at the rear of the house.

Roof Ventilation: Roof Vents

Whirlybird Vents, Screened Soffit Vents

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



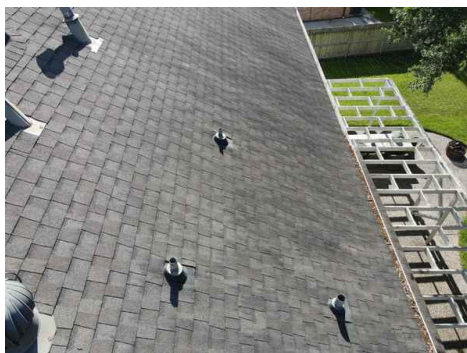
Wear and Deterioration: Composition - Some

Discolored, Nail Heads not Sealed, Rusted flashing details

The composition roof surface was showing evidences of some deterioration of the roof surface as described above and shown below.



breezway



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

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

5.6.1 Roof Ventilation

MINIMAL SOFFIT VENTS

The ventilation for the attic was very poor due to a minimal number 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. It is recommended that additional soffit vents be installed to allow for proper air flow through the attic.

Obtain Cost Estimate

5.8.1 Roof Details

ROOF: MISCELLANEOUS

Debris on Roof, Tree limbs on Roof

debris removed & limbs trimmed from roof

We observed some miscellaneous items related to the surface of the roof, including the items listed above. Have a roofing contractor provide a cost estimate to make any needed repairs.

Obtain Cost Estimate



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

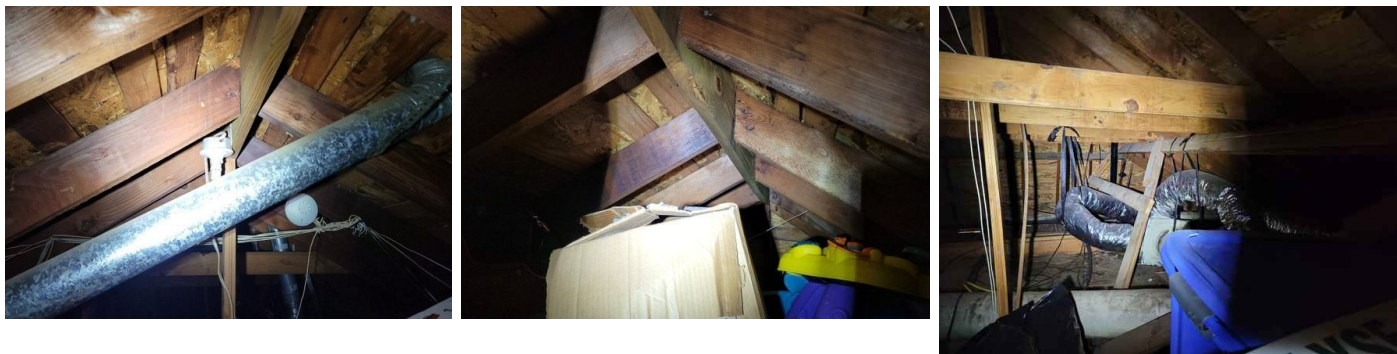
Information

Framing Description: OBSERVATIONS AND CONCLUSIONS

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

Framing Description: Two story house wood frame

The house was observed to be a two 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.

Attic Framing: Roof Framing Less than Current Standards - Functional

The roof framing in the attic was observed to be less than the current construction standards for roof framing. Typical differences between older structures and current code requirements can include purlins that are not the same size as the rafters; the vertical bracing for the purlins being spaced more than four feet apart; ridge beams not sized large enough for the miter cuts on the rafters, etc. However, the framing was adequate when the house/garage was constructed, and has performed satisfactorily these many years. Houses/garages that are built to previous code requirements are grandfathered, and are not required by the building code to be updated every time the code is revised. The framing is, in our opinion, functional and no repairs are recommended to the roof framing.

Limitations

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.

Recommendations/repair

6.2.1 Attic Framing

FIRESTOP MISSING BETWEEN GARAGE AND HOUSE

No firestop has been provided in the garage at the breezeway to prevent a fire from spreading between the garage and house.

Obtain Cost Estimate



installed

6.20.1 STRUCTURAL FRAMING CONCLUSION

REPAIRS NEEDED

The primary load carrying members of the structural framing that were accessible and viewed at the time of the inspection were generally functional with the exception of the item(s) listed above as in need of repair. Have a contractor determine the cause of the condition and confirm the scope of repairs needed, along with a cost estimate for all repairs.

Obtain Cost Estimate

7: WATER PENETRATION

Information

Water Penetration: OBSERVATIONS AND CONCLUSIONS

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

Recommendations/repair

7.1.1 Water Penetration

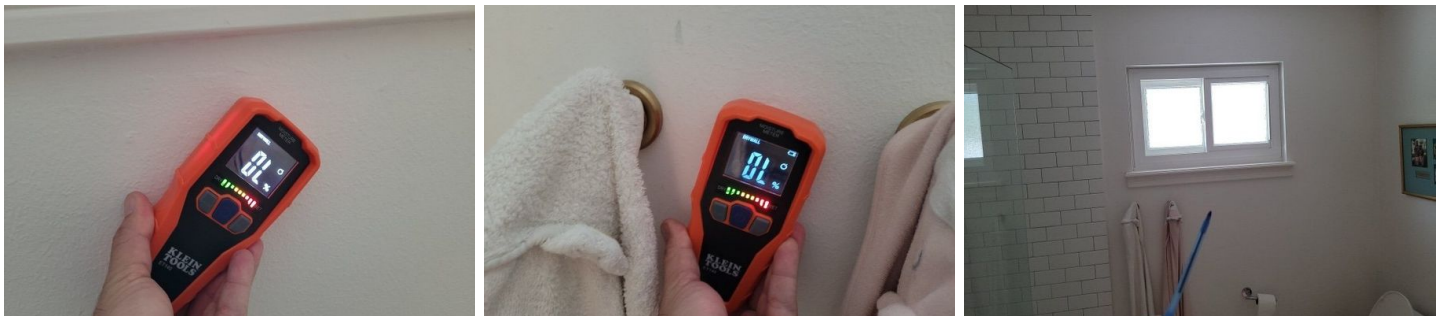
MOISTURE METER - HIGH READING

2ND FLOOR BATHROOM

Evidences of possible water penetration to the interior of the structure were observed, including the following conditions shown below. Further investigation is recommended with service companies to determine the source(s) of the water penetration along with any secondary damages, and also to provide a cost estimate for any needed repairs.

Our moisture meter showed a higher than normal reading.

Obtain Cost Estimate



7.1.2 Water Penetration

VULNERABILITY TO WATER PENETRATION

Light Fixtures, Hose Bibb, Dryer Vent, Electrical Box, Electrical Disconnect

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

FIREPLACE OBSERVATIONS AND CONCLUSIONS

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

Metal Fireplace: Location

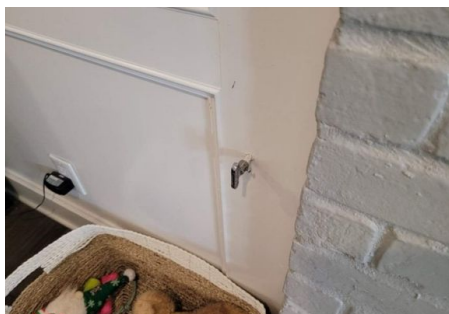
Family Room



Metal Fireplace: Description-Metal Fireplace

Metal Chimney Flue Through Roof, Gas log lighter, Manual shut off valve

The fireplace was a prefabricated metal fireplace that vented by a metal flue pipe to the outside of the house.



Metal Fireplace: Chimney flue not visible for entire flue

It should be noted that the inside of the chimney flue is not visible due to the construction of the chimney, and was not inspected. The chimney flue extends from just above the fireplace opening inside the house to the top of the chimney. If this a concern to you, we recommend that a fireplace service company be contacted.

Obtain Cost Estimate

Metal Fireplace: Log lighter functional

The gas log lighter was operationally checked, and was functional at the time of the inspection.

Metal 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

8.1.1 Metal Fireplace

DAMPER C CLAMP MISSING **installed**

It is pointed out that the damper was not equipped with a spacer device to prevent the damper from closing completely. This device keeps the damper open slightly, even when it is in the closed position, to prevent combustion gases from building up in the living space should the gas log be operated when the damper is closed. It is recommended that the clamp be installed for safety purposes.

Obtain Cost Estimate



HEI file photo showing c-clamp in masonry fireplace



HEI file photo showing c-clamp in metal fireplace

9: ATTIC

Information

OBSERVATIONS AND CONCLUSIONS

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

Ladder: Ladder - 250 Lb. rating

The ladder was labeled to indicate the rated capacity of the ladder into the attic is 250 pounds. 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.

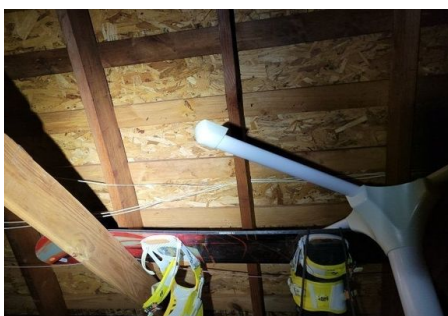
Service decking/platform decking: Adequate decking

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

OSB

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



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

Less than sixteen 16d nails or 1/4 X 3" lag screws, Nail(s) missing in spring arm pivot(s), Nail(s) missing in corner bracket(s)

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



repaired

9.1.2 Ladder

WEATHERSTRIPPING MISSING AT ATTIC ACCESS DOOR

The weatherstripping was missing around the access door. It is recommended that a foam rubber weatherstrip with a mastic backing be placed around the outer edge of the access door to prevent the energy loss from the conditioned air spaces.

Obtain Cost Estimate

9.1.3 Ladder

APPLIANCES IN ATTIC, NEED PULL DOWN LADDER

The attic space contained one or more appliances that require access for servicing and/or replacement, and a pull down stairway should be provided that is rated at a minimum of 350-pound capacity.

Obtain Cost Estimate**M1305.1.3 Appliances in attics**

Attics containing appliances requiring access shall be provided with a pull down stairway with a clear opening not less than 22 inches in width and a load capacity of not less than 350 pounds and a clear and unobstructed passageway large enough to allow removal of the largest appliance, but not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous solid flooring in accordance with Chapter 5 not less than 24 inches (610 mm) wide.

A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present along all sides of the appliance where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), where such dimensions are large enough to allow removal of the largest appliance.

9.4.1 Insulation

THIN 4-6 INCHES

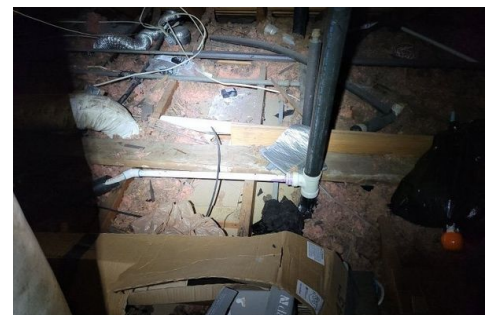
The insulation in the attic was thin by today's standards. This attic appeared to have approximately 4-6 inches of insulation in the ceiling. It is recommended that consideration be given to installing additional insulation. Current construction standards for new homes have insulation that is a minimum of an R-38 rating.

Table 1102.1.1

9.4.2 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

10: EXTERIOR CLADDING

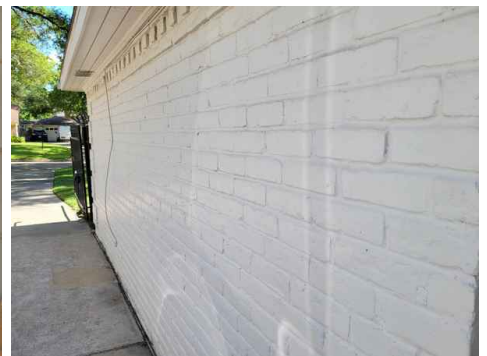
Information

Descriptions:

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

Cladding Material

Brick Veneer, Cement Siding, Wood



Recommendations/repair

10.1.1 Brick/Stone Veneer

WEEPHOLES CLOGGED

WEST

The weepholes at the bottom of the brick wall were clogged with mortar. Weepholes are intended to be gaps left in the bottom course of bricks on a brick wall, typically every second or third brick (approximately 33 inches), to allow moisture behind the bricks a path to exit the wall cavity, and also to allow for some ventilation inside the wall cavity. However, it has been our experience that during the original installation of the brick veneer, enough brick mortar falls off the back sides of the brick into the wall cavity to clog the weepholes and inhibit their proper function. It is recommended that further investigation and repairs be done by a contractor to provide functional weepholes.

Obtain Cost Estimate

10.8.1 Wood Siding

LOOSE

replaced

GARAGE

The wood siding was loose and needs to be resecured. Have a contractor provide a cost estimate to make all needed repairs.

Obtain Cost Estimate

10.8.2 Wood Siding

UNSEALED VERTICAL JOINTS

The wood siding was unsealed at the vertical joints which can allow water to enter the living space and also to damage the ends of the siding. Have the vertical joints sealed.

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: 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.



Gates and Fences: Description

Wrought Iron fence/gate, Wood fence

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

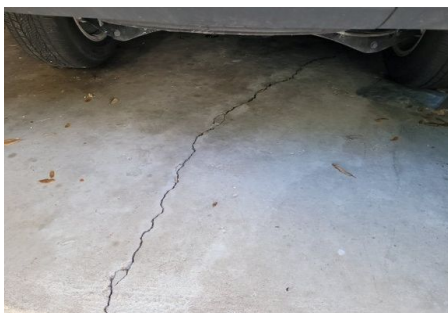


Gates and Fences: Gates and Fences - Some Repairs

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.

Garage: Foundation cracks

We observed cracks in the garage foundation. The foundation was still functional at the time of the inspection and not in need of repair.



Miscellaneous Exteriors: Pergola OK

The pergola was in generally good condition, with no significant repairs needed. Some minor repairs are recommended at the joints with the fascia.



Recommendations/repair

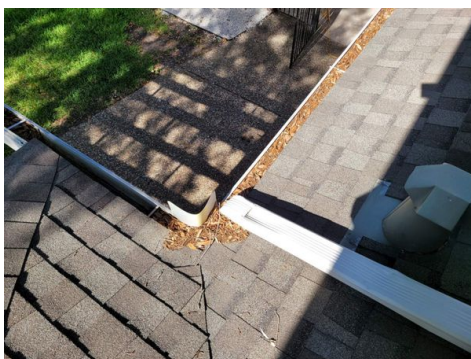
11.2.1 Gutters and Downspouts

GUTTERS

Debris, Damaged, Leaking/Jts., Screens missing

The gutters had item(s) in need of repair.

Obtain Cost Estimate



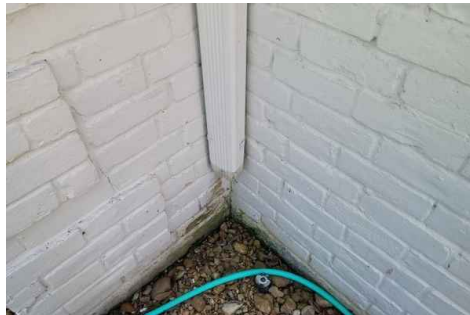
11.2.2 Gutters and Downspouts

DOWNSPOUTS

installed

Splash block missing

The downspouts had item(s) in need of repair.

Obtain Cost Estimate

11.2.3 Gutters and Downspouts

MINIMAL

Minimal gutters have been installed on this house, and it is recommended that additional be installed to help control differential foundation movement and prevent wood rot and water entry.

Obtain Cost Estimate

11.3.1 Gates and Fences

ELECTRIC GATE STICKING

repaired

The electric gate was operational but sticking and not fully opening / closing at the time of the inspection. Have a service company find the source of the problem, and make any necessary repairs.

Obtain Cost Estimate

11.3.2 Gates and Fences

WROUGHT IRON GATE

repainted

Rusted

The wrought iron gate was in need of some repairs.

Obtain Cost Estimate



11.4.1 Wood Rot

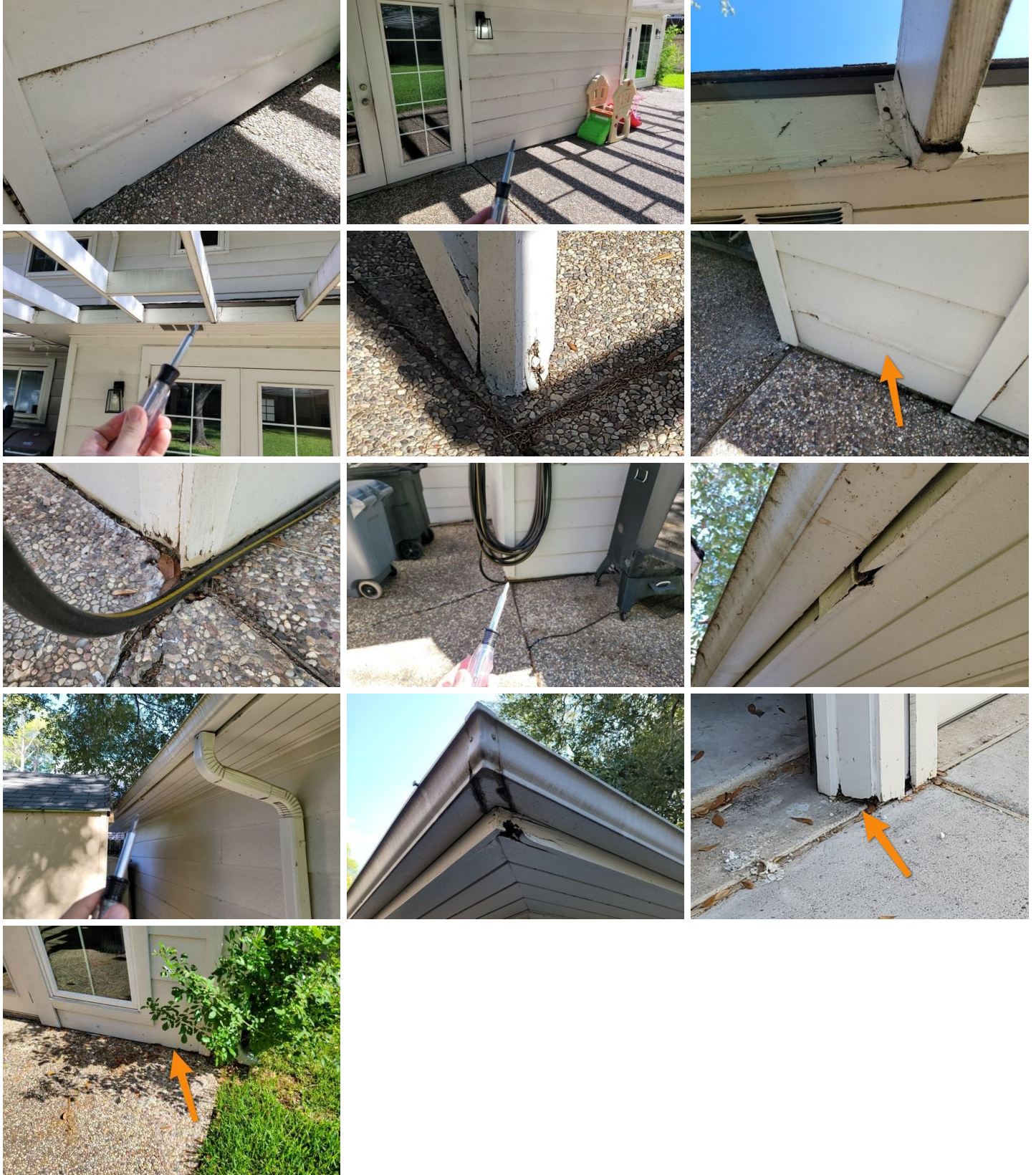
WOOD ROT

most rotten wood replaced

Door Trim at Garage, Columns, Fascia, Siding

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



12: INTERIOR ITEMS

Information

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: Most operational

No items requiring repair were observed concerning the operation of most of the windows that were checked. Most of the windows that were accessible at the time of the inspection were opening and closing properly with exceptions listed below.

Windows: Windows are double pane

The windows in the house were observed to be double pane windows.

Floor coverings: No repairs

No items requiring repair were observed concerning the floor coverings in the house.

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

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.

Recommendations/repair

12.1.1 Doors

NON-LATCHING AT STRIKER PLATE

MASTER BEDROOM CLOSET

We observed non-latching doors that were in need of adjustment to the striker plate on the door frame.

Obtain Cost Estimate

12.1.2 Doors

WEATHERSTRIPPING MISSING

installed

UTILITY ROOM

Doors that were missing weatherstripping were observed. Contact a service company to make the needed repairs.

Obtain Cost Estimate

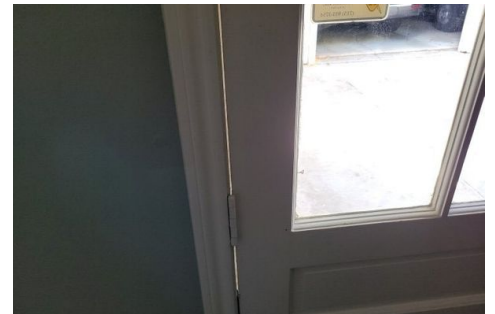
12.1.3 Doors

DAYLIGHT VISIBLE AT EXTERIOR DOOR

UTILITY ROOM

We observed daylight at the exterior door when in the closed position, and the condition needs to be repaired.

Obtain Cost Estimate



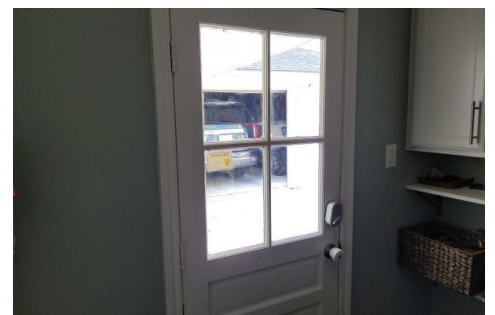
12.1.4 Doors

GLASS NOT SAFETY GLASS

UTILITY ROOM

The glass in the door was not marked as being safety glass as required. Contact a service company to make the needed repairs.

Obtain Cost Estimate



12.2.1 Windows

WINDOWS STUCK-HARD TO OPEN

repaired

DINING ROOM FAMILY ROOM

Windows that were stuck and hard to open were observed.

Obtain Cost Estimate



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.

12.7.1 Sheetrock

DAMAGED

repaired

2ND FLOOR SOUTHWEST BEDROOM

The sheetrock was damaged and needs to be repaired.

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 <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
 Registered Professional Engineer #141672
 Texas Firm Number: 7942




14: RECEIPT PAGE

Information



HEDDERMAN ENGINEERING, INC.

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

07/06/2022

TO: Jimmy McLean & Elyse McLean

REF: Inspection of the property at 11003 Riverview Dr, Houston, TX 77042.

Total cost of inspection: \$775.00

Total Paid: \$775.00

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 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): Jimmy McLean & Elyse McLean

DATE OF INSPECTION: 07/06/2022

PROPERTY ADDRESS: 11003 Riverview Dr, Houston, TX 77042

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.

LIMITATION OF LIABILITY: In any event the inspector fails to fulll 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.

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