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PROPERTY INSPECTION REPORT

Prepared For: Paul Mims & Kathy Crooks
(Name of Client)

Concerning: 2816 Newman Street, Houston, TX 77098
(Address or Other Identification of Inspected Property)

By: Samuel H. Sahagian, TREC #7669 06/03/2018
(Name and License Number of Inspector) (Date)

(Name, License Number of Sponsoring Inspector)

PURPOSE, LIMITATIONS AND INSPECTOR / CLIENT RESPONSIBILITIES

This property inspection report may include an inspection agreement (contract), addenda, and other information related to property conditions. If any item or comment is unclear, you should ask the inspector to clarify the findings. It is important that you carefully read ALL of this information.

This inspection is subject to the rules ("Rules") of the Texas Real Estate Commission ("TREC"), which can be found at www.trec.texas.gov.

The TREC Standards of Practice (Sections 535.227-535.233 of the Rules) are the minimum standards for inspections by TREC-licensed inspectors. An inspection addresses only those components and conditions that are present, visible, and accessible at the time of the inspection. While there may be other parts, components or systems present, only those items specifically noted as being inspected were inspected. The inspector is NOT required to turn on decommissioned equipment, systems, utility services or apply an open flame or light a pilot to operate any appliance. The inspector is NOT required to climb over obstacles, move furnishings or stored items. The inspection report may address issues that are code-based or may refer to a particular code; however, this is NOT a code compliance inspection and does NOT verify compliance with manufacturer's installation instructions. The inspection does NOT imply insurability or warrantability of the structure or its components. Although some safety issues may be addressed in this report, this inspection is NOT a safety/code inspection, and the inspector is NOT required to identify all potential hazards.

In this report, the inspector shall indicate, by checking the appropriate boxes on the form, whether each item was inspected, not inspected, not present or deficient and explain the findings in the corresponding section in the body of the report form. The inspector must check the Deficient (D) box if a condition exists that adversely and materially affects the performance of a system or component or constitutes a hazard to life, limb or property as specified by the TREC Standards of Practice. General deficiencies include inoperability, material distress, water penetration, damage, deterioration, missing components, and unsuitable installation. Comments may be provided by the inspector whether or not an item is deemed deficient. The inspector is not required to prioritize or emphasize the importance of one deficiency over another.

Some items reported may be considered life-safety upgrades to the property. For more information, refer to Texas Real Estate Consumer Notice Concerning Recognized Hazards or Deficiencies below.

THIS PROPERTY INSPECTION IS NOT A TECHNICALLY EXHAUSTIVE INSPECTION OF THE STRUCTURE, SYSTEMS OR COMPONENTS. The inspection may not reveal all deficiencies. A real estate inspection helps to reduce some of the risk involved in purchasing a home, but it cannot eliminate these risks, nor can the inspection anticipate future events or changes in performance due to changes in use or occupancy. It is recommended that you obtain as much information as is available about this property, including any seller's disclosures, previous inspection reports, engineering reports, building/remodeling permits, and reports performed for or by relocation companies, municipal inspection departments, lenders, insurers, and appraisers. You should also attempt to determine whether repairs,

renovation, remodeling, additions, or other such activities have taken place at this property. It is not the inspector's responsibility to confirm that information obtained from these sources is complete or accurate or that this inspection is consistent with the opinions expressed in previous or future reports.

ITEMS IDENTIFIED IN THE REPORT DO NOT OBLIGATE ANY PARTY TO MAKE REPAIRS OR TAKE OTHER ACTIONS, NOR IS THE PURCHASER REQUIRED TO REQUEST THAT THE SELLER TAKE ANY ACTION. When a deficiency is reported, it is the client's responsibility to obtain further evaluations and/or cost estimates from qualified service professionals. Any such follow-up should take place prior to the expiration of any time limitations such as option periods.

Evaluations by qualified tradesmen may lead to the discovery of additional deficiencies which may involve additional repair costs. Failure to address deficiencies or comments noted in this report may lead to further damage of the structure or systems and add to the original repair costs. The inspector is not required to provide follow-up services to verify that proper repairs have been made.

Property conditions change with time and use. For example, mechanical devices can fail at any time, plumbing gaskets and seals may crack if the appliance or plumbing fixture is not used often, roof leaks can occur at any time regardless of the apparent condition of the roof, and the performance of the structure and the systems may change due to changes in use or occupancy, effects of weather, etc. These changes or repairs made to the structure after the inspection may render information contained herein obsolete or invalid. This report is provided for the specific benefit of the client named above and is based on observations at the time of the inspection. If you did not hire the inspector yourself, reliance on this report may provide incomplete or outdated information. Repairs, professional opinions or additional inspection reports may affect the meaning of the information in this report. It is recommended that you hire a licensed inspector to perform an inspection to meet your specific needs and to provide you with current information concerning this property.

TEXAS REAL ESTATE CONSUMER NOTICE CONCERNING HAZARDS OR DEFICIENCIES

Each year, Texans sustain property damage and are injured by accidents in the home. While some accidents may not be avoidable, many other accidents, injuries, and deaths may be avoided through the identification and repair of certain hazardous conditions. Examples of such hazards include:

- malfunctioning, improperly installed, or missing ground fault circuit protection (GFCI) devices for electrical receptacles in garages, bathrooms, kitchens, and exterior areas;
- malfunctioning arc fault protection (AFCI) devices;
- ordinary glass in locations where modern construction techniques call for safety glass;
- malfunctioning or lack of fire safety features such as smoke alarms, fire-rated doors in certain locations, and functional emergency escape and rescue openings in bedrooms;
- malfunctioning carbon monoxide alarms;
- excessive spacing between balusters on stairways and porches;
- improperly installed appliances;
- improperly installed or defective safety devices;
- lack of electrical bonding and grounding; and
- lack of bonding on gas piping, including corrugated stainless-steel tubing (CSST).

To ensure that consumers are informed of hazards such as these, the Texas Real Estate Commission (TREC) has adopted Standards of Practice requiring licensed inspectors to report these conditions as "Deficient" when performing an inspection for a buyer or seller, if they can be reasonably determined.

These conditions may not have violated building codes or common practices at the time of the construction of the home, or they may have been "grandfathered" because they were present prior to the adoption of codes prohibiting such conditions. While the TREC Standards of Practice do not require inspectors to perform a code compliance inspection, TREC considers the potential for injury or property loss from the hazards addressed in the Standards of Practice to be significant enough to warrant this notice.

Contract forms developed by TREC for use by its real estate licensees also inform the buyer of the right to have the home inspected and can provide an option clause permitting the buyer to terminate the contract within a specified time. Neither the Standards of Practice nor the TREC contract forms require a seller to remedy conditions revealed by an

inspection. The decision to correct a hazard or any deficiency identified in an inspection report is left to the parties to the contract for the sale or purchase of the home.
INFORMATION INCLUDED UNDER "ADDITIONAL INFORMATION PROVIDED BY INSPECTOR", OR PROVIDED AS AN ATTACHMENT WITH THE STANDARD FORM, IS NOT REQUIRED BY THE COMMISSION AND MAY CONTAIN CONTRACTUAL TERMS BETWEEN THE INSPECTOR AND YOU, AS THE CLIENT. THE COMMISSION DOES NOT REGULATE CONTRACTUAL TERMS BETWEEN PARTIES. IF YOU DO NOT UNDERSTAND THE EFFECT OF ANY CONTRACTUAL TERM CONTAINED IN THIS SECTION OR ANY ATTACHMENTS, CONSULT AN ATTORNEY.

ADDITIONAL INFORMATION PROVIDED BY INSPECTOR

Note:
This inspection was conducted to the standards of the Texas Real Estate Commissions Standards of Practice for real estate inspectors. Unless otherwise noted, this inspection was conducted within the limitations of a visual inspection, without the use of specialized tools, destructive testing or specialized procedures. This report is not intended to be exhaustive or technical in nature but rather provide an overview of the properties general condition. This leaves the possibility of undetected defects. Tests for any hazardous substances such as but not limited to mold, asbestos, high sulphur sheetrock were not conducted. Detection of hazardous substances are beyond the scope of this inspection and require a specialist in that field. Where questions exist, a trade's person specializing in that field should be consulted. Reporting of defects should only be expected as made reasonably detectable by the method of inspection employed.

The following words and terms when used in this report shall have no other meaning other than that described below.

Accessible – In the reasonable judgment of the inspector, capable of being approached, entered, or viewed without:
(A) undue hazard to the inspector;
(B) moving furnishings or large, heavy, or fragile objects;
(C) using specialized tools or procedures;
(D) disassembling items other than covers or panels intended to be removed for inspection;
(E) damaging property; or
(F) using a ladder for portions of the inspection other than the roof or attic space

Chapter 1102 – Texas Occupations Code, Chapter 1102

Cosmetic – Related only to appearance or aesthetics, and not related to structural performance, operability, or water penetration

Deficiency – A condition that, in the inspector's reasonable opinion, adversely and materially affects the performance of a system or component or constitutes a hazard to life, limb, or property as specified by these standards of practice. General deficiencies include but are not limited to inoperability, material distress, water penetration, damage, deterioration, missing parts, and unsuitable installation

Deficient – Reported as having one or more deficiencies

Inspect – To look at and examine accessible items, parts, systems, or components and report observed deficiencies

Performance – Achievement of an operation, function, or configuration consistent with accepted industry practice

Report – To provide the inspector's opinions and findings on the standard inspection report form

Specialized tools – Tools such as thermal imaging equipment, moisture meters, gas leak detection equipment, environmental testing equipment and devices, elevation determination devices, and ladders capable of reaching surfaces over one story above ground surfaces

Specialized procedures – Procedures such as environmental testing, elevation measurement, and any method employing destructive testing that damages otherwise sound materials or finishes

Standards of practice – The standard of practice for real estate inspectors Mandated by the Texas Real Estate Commission, amended to be effective January 1, 2015, 39 TexReg 9669

Client – The person or persons and only the person or persons notated as client on page one of this document

Inspector – The person noted as inspector on page one of this report.

Note: Photographs accompanying comments in this report should be considered examples of the item(s) or condition being described. Not every instance of an item(s) or condition are necessarily represented with individual photographs.

Home is approximately 3,200 sq. ft., 3 story and faces S for inspection purposes

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I	NI	NP	D

I. STRUCTURAL SYSTEMS

☒ ☐ ☐ ☐ **A. Foundations**

Type of Foundation(s): Builders piers
Comments:

This type of foundation system is designed to be kept stable by the supporting soil. Some movement in the foundation system is typical for this type of construction; the foundation appears to be performing in my opinion.

- No visible excessive differential movement noted at interior or exterior of house, except as noted below. Note: Foundation inspections are limited to observation of accessible interior and exterior structural components.

Note: Assessment of foundation performance and condition is based solely upon this inspector's opinion, and his interpretation of the visually observed conditions at the time of inspection without prediction of future performance. Most foundation movement occurs over an extended period and this inspection is of a first impression nature without the opportunity to monitor possible movement. This opinion is formed without knowledge of design type or intent of the designer. Previous foundations repairs may not be detected by this inspection. The inspection does not include detection of fault lines, poor or deficient soil conditions, underground springs, water leaks, or any other condition not detectable within the scope of a visual only inspection. As there are not absolute criteria to judge foundation performance, other inspectors or foundation experts may form a different opinion when assessing this foundations performance. Additional information regarding foundations can be obtained at http://www.houston-slab-foundations.info/

☒ ☐ ☐ ☐ **B. Grading and Drainage**

Comments: Gutters observed around house.

Information: Be sure soil is graded at least 6" per 10' from house with 4 or more inches of slab exposed for proper drainage and observations. Do not install beds along fence line, as water is to drain across back fence line and down sides to front yard and street.

Information: Planting flowerbeds or shrubs next to the foundation and keeping these areas flooded will generally cause a net increase in soil moisture content and result in soil expansion around the foundation perimeter in that vicinity. Planting shade trees closer to the structure than a distance equal to half the mature height of the tree will allow the tree roots to penetrate beneath the foundation and withdraw moisture from the soil; the result will be soil shrinkage in the region of the roots.

- Note: Underground yard drainage system not checked/inspected at courtyard and at yard. Did not verify if drains operate properly and that there are no collapsed or clogged areas. Recommend observing performance during heavy rains and ensure system is maintained / cleaned

☒ ☒ ☐ ☒ **C. Roof Covering Materials**

Type(s) of Roof Covering: Roof is metal roof
Viewed From: Observed from roof through hatch.
Comments: Roof with no visible vents
Gutters: Gutters observed around house.

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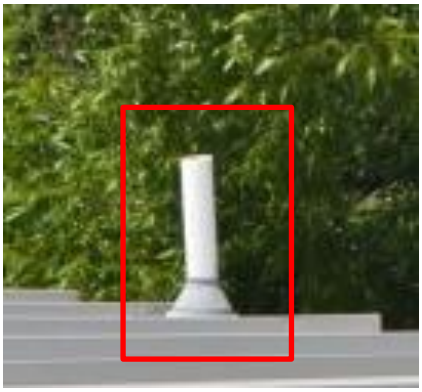
- Guardrails with drop-offs higher than 30 inches require 36" guardrails. This is a potential fall hazard. At a minimum, the client should be aware of this hazard on roof top hatch landing.
    - Information: Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads – ref. R312.1.2 Height.

- The PVC sewer vent pipes above the surface of the roof had not been painted.
    - Information: The PVC pipes must be painted to protect the PVC from degradation by the ultra violet rays of the sun



- The flue pipes and roof jacks were not painted on rooftop.

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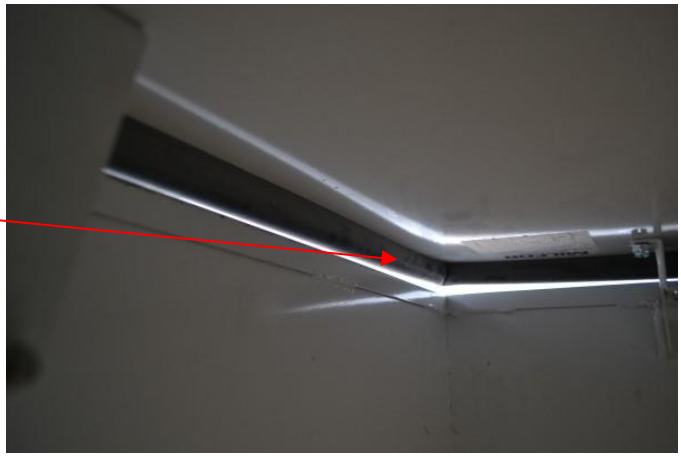
- Daylight gaps at roof hatch when closed. Properly repair to help prevent water intrusion during wind driven rain storms.

☒ ☐ ☐ ☒ **D. Roof Structures & Attic**

Viewed From: Accessible floored area of the attic
Approximate Average Depth of Insulation: Polyurethane foam (SPF) insulation installed with no visible ventilation
Comments: Attic was entered from 3rd floor attic walk-in door.
Conventional framed rafters and joists with Purlin system and radiant barrier roof decking.
Attic was visually inspected from accessible areas. The condition of the visible elements appears to be generally adequate at time of inspection except as noted below

Note: Not all areas of attic were accessible for inspection.

Note: Insulation covered some structural, electrical and mechanical components in the attic. This precluded an inspection of these components.

- Cosmetic: Remove trash from attic.


- The attic was inadequately ventilated in my opinion.
  - Information: R806.2 Minimum area. The total net free ventilating area shall not be less than 1/150 of the area of the space ventilated except that reduction of the total area to 1/300 is permitted, provided that at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation area may be reduced to 1/300 when a vapor barrier having a transmission rate not exceeding 1 perm (5.7 × 10-11 kg/s · m2 · Pa) is installed on the warm-in-winter side of the ceiling.

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☒	☐	☐	☒	**E. Walls (Interior & Exterior)**

Comments: Exterior: Appears to be brick veneer, cement fiber siding and some stucco.

Interior: appears to be drywall

Note: Cosmetic: Noted minor hairline cracks at sheetrock joints. This implies that structural movement of the building has occurred. The rate of movement cannot be predicted during a one-time inspection

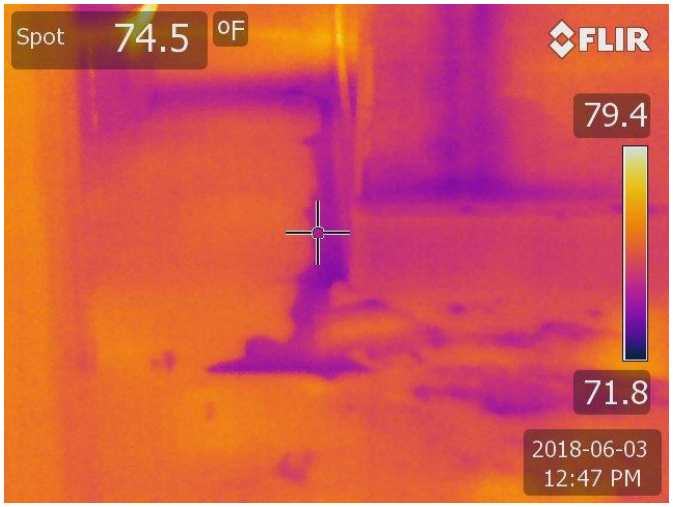
❖ Note: Inspection is strictly visual. There may be hidden damage to the interiors of walls that was not readily detectable at time of inspection. Such damage may not be revealed until remodeling occurs. Note: Inspection does not include checking the property for any kind of biogrowth or mold, or their byproducts. Client may wish to have basic mold testing done here, to be satisfied that there are no biogrowth hazards in the dwelling. Effective January 1, 2005, persons conducting mold assessment or mold remediation in Texas, unless exempt, are required to be licensed. Inspector is neither trained nor licensed to perform mold assessment in the State of Texas. Further information regarding licensees and mold-related matters can be found here at the Texas Department of State Health Services: www.dshs.state.tx.us/mold/default.shtm.

- This is not a cosmetic inspection; however, some items noted may be cosmetic in nature or not yet finished out. Recheck and secure/seal around all wall penetrations at walls/ceiling and refinish blemishes at walls/ceiling around penetrations (such as at thermostat wire) at outlets, switches, other wall covers, under sinks at plumbing at walls/panels, utility room at exhaust vents, A/C registers, etc. and under sinks at cabinets, islands, wall, panel and shelf joints.

Under kitchen cabinet far left side

Garage closet elevator equipment

- Water leak at master bathroom glass wall partition. Find cause and repair as needed.



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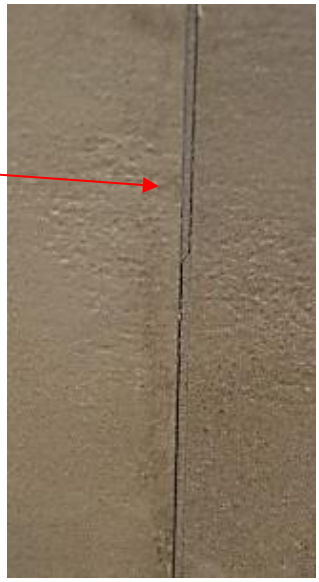
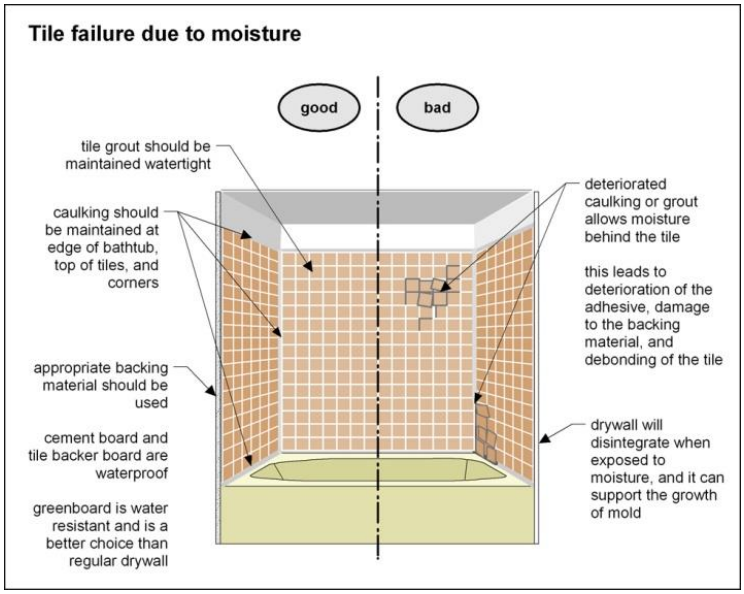
- Observed cracked tile in 2nd floor guest bathroom shower tile with gaps & cracks at grout at lower portion of shower walls. Also, gaps in master bathroom tile work. Properly repair/ re-grout as needed to help prevent water penetration behind shower wall.





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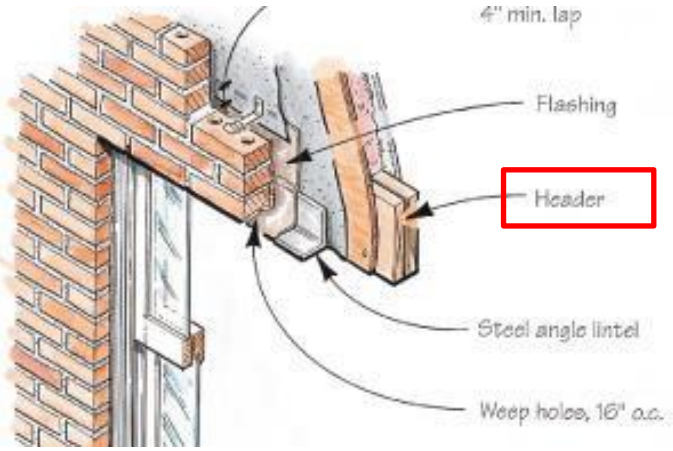
- We did not visually observe through wall flashing at steel lintels above garage, at 3rd floor balcony windows and at base of brick wall at 3rd floor balcony (brick sitting on steel lintels at base of wall). Note: if flashing is missing, the steel lintel will corrode over time and cause the expansion of steel lintels which in turn will cause gaps/separation of brick mortar due to expansion of corroded steel lintels.
  - Information: The window frames, door frames and other wall penetrations installed in the brick veneer were not properly flashed or drained. Standards require the installation of through wall flashing above the window and door frames and below the window sill. **<u>The through wall flashing should extend from behind the wall sheathing and should terminate on the exterior of the veneer.</u>** **<u>Weep holes, for drainage of the wall cavity at the window frames, are required to be formed in the veneer above the window frames and below the sills</u>**. Lintels are structural support members for the veneer and are not intended for use as drains.



  - Information see IRC Sections R703.7.5, R703.7.6 and R703.8
  - Information: Referenced Standard - Brick Manufacturers Assn., Tech Note 7A - Continuous flashing should be installed to cover the angle , Typical thickness of plastic flashings are 20 mil to 40 mil , Metals in contact with concrete or cinder walls and floors, cold-formed steel framing or other corrosive material shall be protected against external corrosion by a protective sheathing or wrapping or other means that will withstand any reaction from lime and acid of concrete, cinder or other corrosive material

6-Mil poly should be draped over the <u>TOP</u> of the lintel to be used as lintel flashing

<u>Above garage door</u>

<u>Above 3rd floor balcony windows/doors</u>

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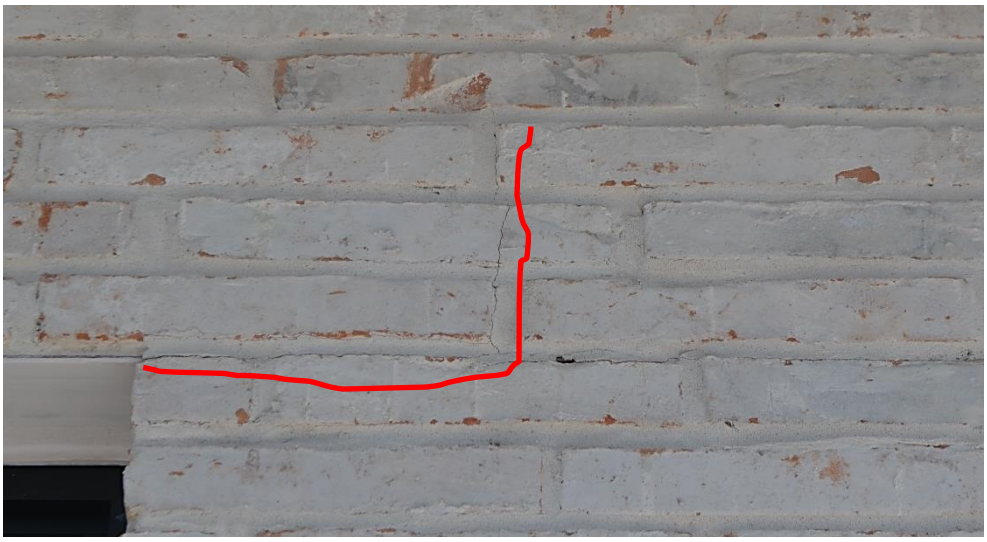
I	NI	NP	D

Below 3rd floor balcony walls at steel lintels



- Observed vertical crack at brick veneer mortar joints above garage steel lintel and 3rd floor balcony over windows. Could not determine cause of cracks, possibly caused from settlement. The structural components of the wall/framing system are not accessible for inspection. Future movement is not predictable. Recommend monitoring over time for future movement.

Above 3rd floor balcony left side door

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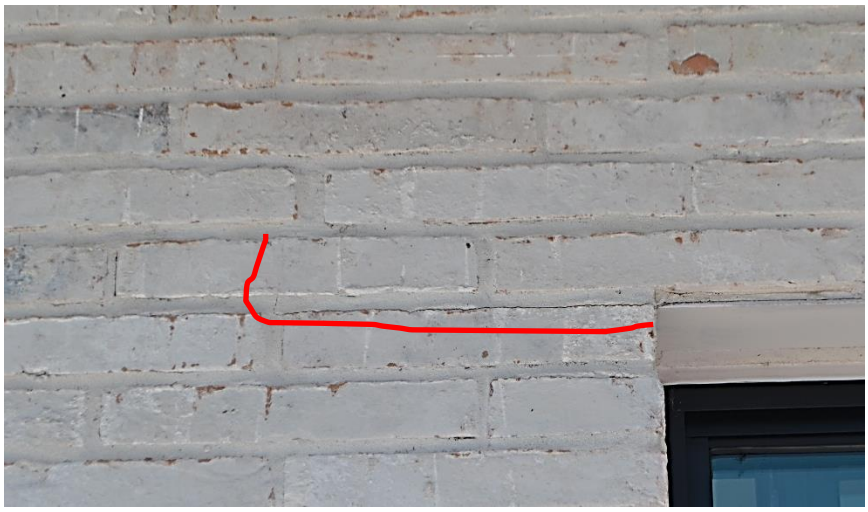
Above 3rd floor balcony right side door



Above garage door

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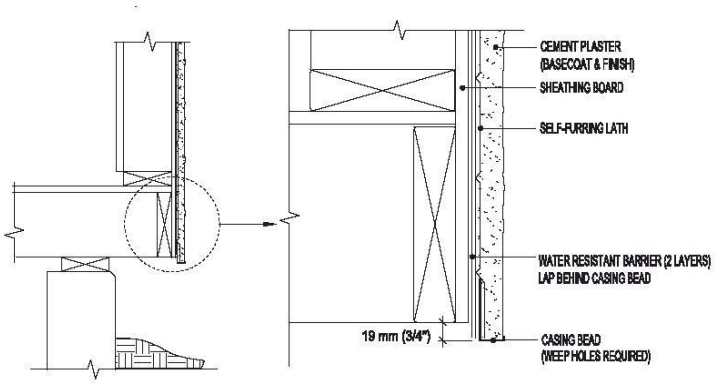
- We did not observe drainage plane above front wall.
  - Information: IRC R703.6 Exterior plaster. Installation of these materials shall be in compliance with ASTM C 926 and ASTM C 1063 and the provisions of this code.
  - Information: ASTM A2.2.3 Where vertical and horizontal exterior plaster surfaces meet, both surfaces shall be terminated with casing beads with the vertical surface extending at least 1.4 in. (6 mm) below the intersecting horizontal plastered surface, thus providing a drip edge. The casing bead for the horizontal surface shall be terminated not less than 1.4 in. from the back of the vertical surface to provide drainage.



T4 - Termination at Cantilevered Wall

- Weep holes appear clogged with mortar above garage doors & windows, Weepholes must be cleaned to allow for the escape of any moisture that may have penetrated the masonry veneer. As moisture will adversely affect the integrity of the wall if not removed from the wall assembly.
  - Information: ref: IRC R703.7.4.2 Air space.

☒ ☐ ☐ ☐ **F. Ceilings & Floors**

Comments:

FLOORS: (tile/engineered wood) cannot inspect under floor coverings, inspection is limited to visual inspection only.
CEILING: Sheetrock.

Note: Cosmetic: Noted hairline cracks and nail pops noted. This implies that structural movement of the building has occurred. The rate of movement cannot be predicted during a one-time inspection.

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☒ ☐ ☐ ☒ **G. Doors (Interior & Exterior)**

Comments:

INTERIOR: Doors appear operable, except as noted below.
EXTERIOR: Doors appear operable, except as noted below.

- Garage utility door missing door stop. Currently door handle hits drywall.
- 2nd floor W central bedroom door binding at top.

☒ ☐ ☐ ☐ **H. Windows**

Comments: Double pane casement and fixed windows.

-No Screens noted at time of inspection.

NOTE: Double-pane windows have a layer of gas (usually argon or air) trapped between two panes of glass and should be insulated enough to prevent the accumulation of condensation. Failed thermal pane seals in insulated glass windows are not always readily detectable. The visible moisture between panes in a failed seal situation may be apparent or not due to variations in atmospheric conditions. Windows are reported as they are observed at the time of the inspection only. No warranty is implied. If you have present or future concerns regarding the integrity of thermal pane seals, it is strongly suggested that you consult with a Professional Fenestration Specialist for further evaluation of all other windows.

Note: Inspection for safety glass is not and was not inspected by this company. Inspector is not sufficiently qualified to determine whether glass that is not labeled safety glass is safety glass since some tempered and particularly laminated safety glass is not permanently labeled or glass (such as at skylights or sun room covers) is not accessible to inspect for labels. The Buyer may want to consult a glass company if concerned to determine whether particular glass is safety glass at proper locations.

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I	NI	NP	D

☒ ☐ ☐ ☒ **J. Fireplace and Chimney**

Comments:

-Fireplace consists of stone tile/face apron with metal firebox and metal lined flue with ceramic inserts with ceramic gas logs, remote control operated.

- Manufacturer recommends sealing holes/gaps under firebox where gas line penetrates firebox enclosure with non-combustible material for draft stop.

☒ ☐ ☐ ☐ **K. Porches, Balconies, Decks, and Carports**

Comments:

☒ ☐ ☐ ☐ **L. Other**

Comments:

II. ELECTRICAL SYSTEMS

☒ ☐ ☐ ☒ **A. Service Entrance and Panels**

Comments: AFCI's noted and were tested.

Service supply enters below above with Square D 200-amp main in outside with main 200 amp main in garage with aluminum feeder wires and copper branch wires.

- No ground outside of garage adjacent to panel box.

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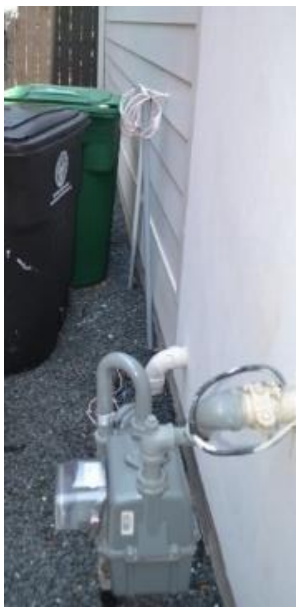
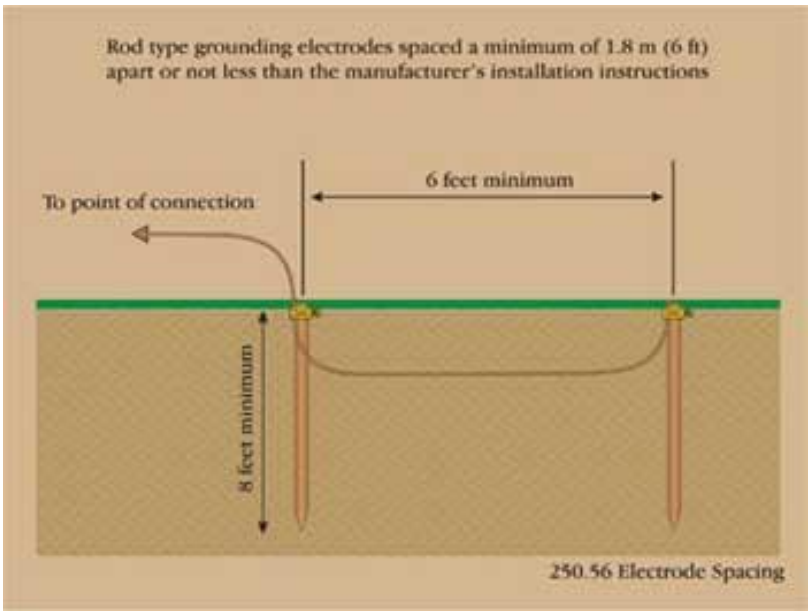
- Note that modern standard requires a second grounding electrode unless testing shows <25 ohms resistance at existing electrode. We did not observe supplemental electrode (Rod type grounding electrodes spaced a minimum of 6 feet apart)
    - Information: 250.52(A)(1) through (A)(4). NEC 250.56 where resistance needs to be 25 ohms or less.





- Panel box lower right dead front cover does not engage to secure screw.

☒ ☐ ☐ ☒ **B. Branch Circuits, Connected Devices, and Fixtures**

Type of Wiring: Copper
Comments:

Note: This inspection was made on the physical condition of electrical switches, switch cover plates and convenience outlets that were accessible without moving furniture, fixtures, or appliances. All functional equipment, in operable condition, was operated in at least one, but not necessarily every mode to demonstrate its condition. Compliance with codes and/or adequacy of wiring and circuitry is beyond the scope of this inspection and report and is specifically excluded. Low voltage (telephone, intercom, speaker, security, alarm, television antennae, coaxial cable, satellite, computer, etc.) wiring and circuits above 120 volts are NOT tested or reported on as part of this inspection. If more in-depth information is desired or required on the electrical system or systems, it is recommended that a qualified electrician be consulted.

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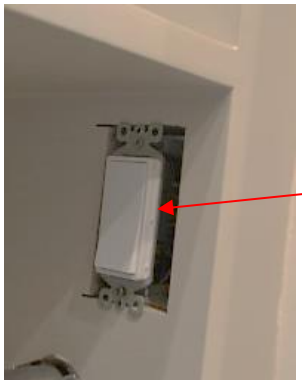
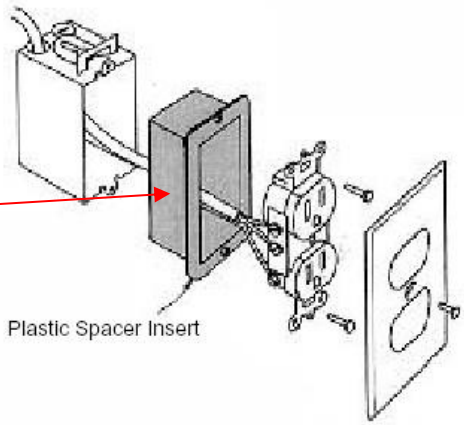
- Current building standards require Ground Fault Circuit Interruption (GFCI) protection at all but not limited to the following locations. All exterior outlets, bathrooms, kitchen counters, kitchen island, wet bar counters, whirlpool tubs etc... Missing or inoperative GFI protection will be listed below under Recommended Repairs as required by the Standards of Practice.
    - All bathrooms 1st 2nd & 3rd floor have no GFCI protection.
    -
- No electrical outlet installed by laundry room sink.

- We did not observe box extenders installed at master bathroom closet switch wood panel.
    - Information: In walls and ceilings constructed of wood or other **combustible material**, boxes shall be flush with the finished surface or project there from. Reference NEC 1993 - 370.20, Reference NEC 2008 - 314.20 & IRC E3806.5. (Microwave cabinet, under kitchen sink, under stove top and all kitchen counter tops).



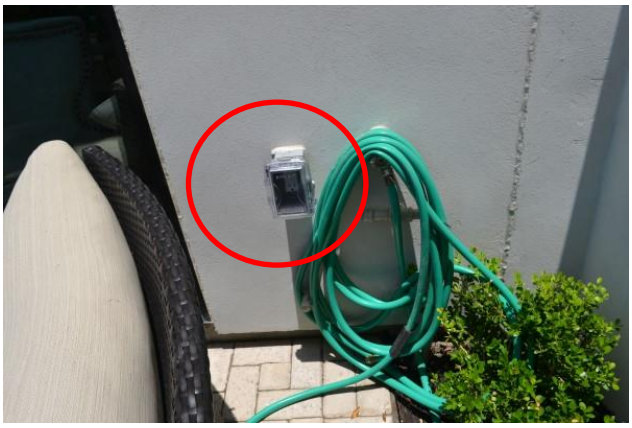


- Missing faceplate at outlet servicing 2nd floor family room W wall.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

I	NI	NP	D

- No power at outlets servicing front & left sides of house. These should also be GFCI protected once they have power.



- Observed hose bib connection installed over electric outlet, also inaccessible.

III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

☒ ☐ ☐ ☒ **A. Heating Equipment**

Type of System: Forced air system
Energy Source: Natural Gas.
Comments: A complete evaluation of the heat exchanger in gas fired heating appliances requires dismantling of the heater and is beyond the scope of visual inspection.

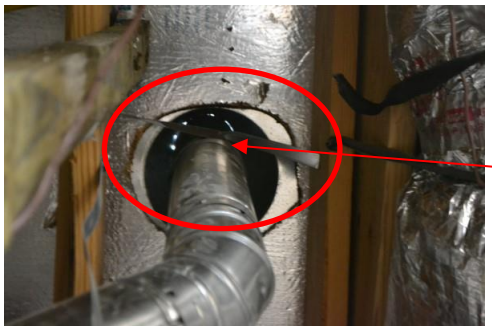
Heaters are forced air-induced furnace located in attic.

Lennox 110,00 BTU Furnace manufactured in 2017 located in attic

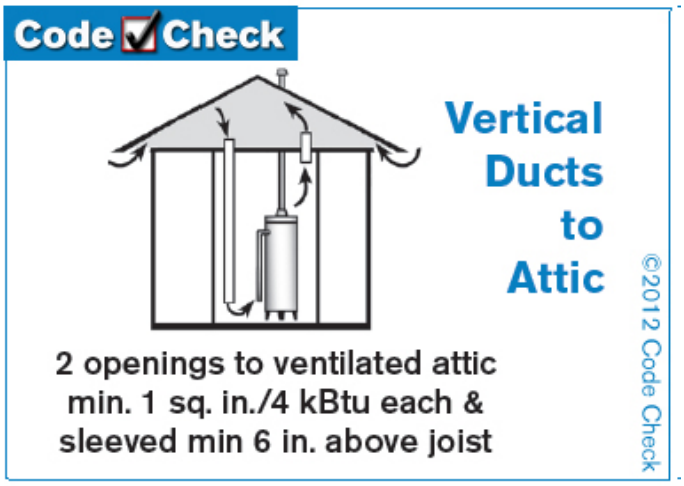
I=Inspected NI=Not Inspected NP=Not Present D= Deficiency

I	NI	NP	D

- Daylight gaps noted at flu pipe to collar connection at roof decking. Seal with proper fire rated sealant to help prevent water intrusion into attic during wind driven rain and/or storms. Currently water stain under flue pipe.



- Insufficient opening for combustion air observed for proper exhaust of CO gases through flu pipe in my opinion. Currently one pipe from roof jack extending 4 feet off floor. (Heater 110,000 Btu's and Tankless water heater 199,000 Btu's)
    - Information: M1702.2 Confined space. Where the space in which the appliance is located does not meet the criterion specified in Section M1702.1, two permanent openings to adjacent spaces shall be provided so that the combined volume of all spaces meets the criterion. One opening shall be within 12 inches (305 mm) of the top and one within 12 inches (305 mm) of the bottom of the space, as illustrated in Figure M1702.2. Each opening shall have a free area equal to a minimum of 1 square inch per 1,000 Btu/h (2201 mm2/kW) input rating of all appliances installed within the space, but not less than 100 square inches (64 415 mm2).



☒ ☐ ☐ ☒ **B. Cooling Equipment**

Type of System: Split system
Comments: Central HVAC system
Note: Annual maintenance and servicing is recommended.

Note: The inspector did not determine the efficiency, adequacy or capacity of the system. The inspector did not determine the uniformity of the supply of conditioned air to the various parts of the units nor determine the types of materials contained in the insulation, wrapping of pipes, ducts, jackets, boilers and wiring. The inspector did not operate venting systems unless the ambient air temperature or other circumstances were conducive to safe operation without damage to the equipment. The systems were not dismantled for inspection and zoned air systems, if present were not inspected for operation.

Systems:

-Type air-conditioning evaporator coil unit **in attic**. Lennox –60,000 BTUs. (5.0 ton) manufactured in 2017

-Type air-conditioning condensing unit **outside on roof.** Lennox –60,000 BTUs. (5.0 ton) manufactured in 2017

I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

I	NI	NP	D

-1st floor: Temperatures: at Return is 74 °F and temperature at supply registers is 61°F - ***13 °F differential***
-2nd floor: Temperatures: at Return is 74 °F and temperature at supply registers is 62°F – ***12 °F differential***
-3rd floor: Temperatures: at Return is 76 °F and temperature at supply registers is 62°F – ***14 °F differential***

- Information: The acceptable operation range is between 16°F and 21°F (ΔT).

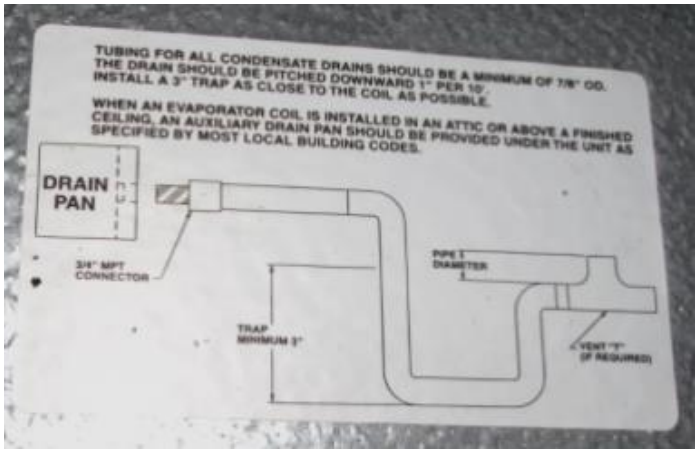
- The temperature drops measured across the evaporator coils were from **13°F** for 1st, floor, **12°F** for 2nd floor and **14°F** for 3rd floor, which is normally considered to be an indication that **the system is not operating in the acceptable range**. The evaporator coils should be cleaned and inspected for concealed damaged. The system should be serviced by an HVAC technician for proper operation and refrigerant levels.
  - Information: The acceptable operation range is between 16°F and 21°F (ΔT)).
- Excess condensate on A/C plenum in attic, (water beading on plenum). Have HVAC technician find cause and properly repair as needed.

- Noted HVAC system sitting in pan, should be installed or raised on rubber footing
  - IRC M1411.3.3 Appliances, equipment and insulation in pans. Where appliances, equipment or insulation are subject to water damage when auxiliary drain pans fill, those portions of the appliances, equipment and insulation shall be installed above the flood level rim of the pan. Supports located inside of the pan to support the appliance or equipment shall be water resistant and approved.

I=Inspected NI=Not Inspected NP=Not Present D= Deficiency

I	NI	NP	D

- We did not observe a trap at primary drain lines in accordance with manufacturer's (Lennox) installation instructions to help prevent conditioned air blowing into attic or into lavatory basin traps, this is to help in energy efficiency and to prevent gurgling sound at bathroom lavatory basin. Cleanouts should be downstream from traps



☒ ☐ ☐ ☒ **C. Duct System, Chases, and Vents**

Comments: Flex duct

Specific Limitations: Not all ducts were accessible or visible during this inspection. Ducts in inaccessible areas of the attic, those concealed by insulation or stored items, and those enclosed in chases, walls, et al were not inspected.

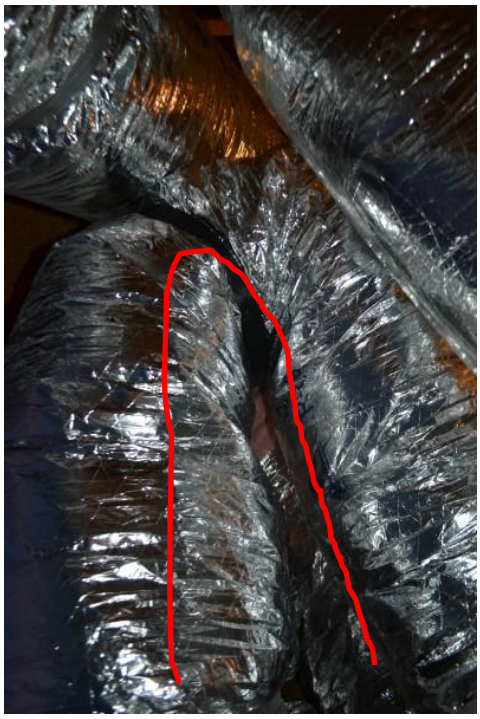
Noted Media filter in attic at coil. Filter size: 20” X 25” X 4”

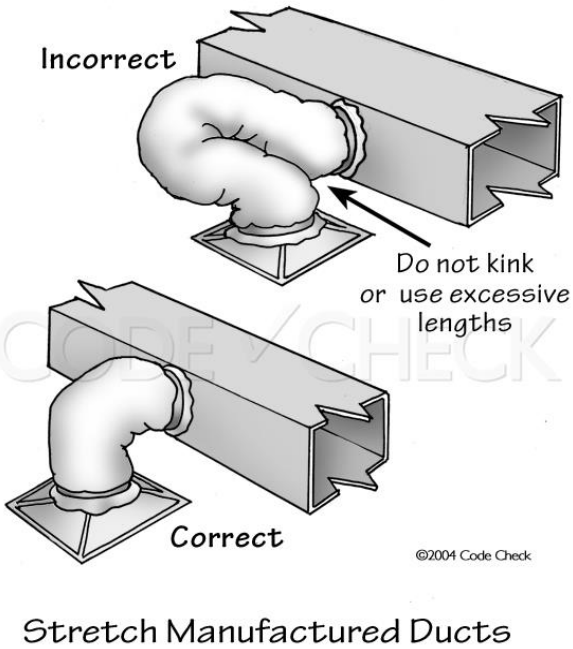
- One duct resting on top of another duct can create zones where condensation can occur. This moisture then drips into the insulation; reducing the R-value of the insulation; and may possibly create a potential microbial hazard condition. Flexible ducts are not designed to support the weight of another duct. The ducts should be separated, made as straight and tight as possible and the ducts should be properly supported. There should be a minimum of 1" clearance between ducts.
  - Information: Air flow ducts in contact with each other or other insulation material generate sweating to ceilings at the point of contact with each other or other building materials. Clearance or separation from contact with each other by strapping with HVAC nylon strapping material prevents sweating. [ref: IRC M1601.2 factory made ducts; IMC 603.11 “provisions shall be made to prevent the formation of condensation on the exterior of any duct”. **Where ducts are separated by insulation blankets condensation moisture is generally increased (as the insulation traps hot air against the cooler ducts).**

I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

I	NI	NP	D

- Install duct fully extended, do NOT install in the compressed state or use excess lengths. Some flex duct observed to be inadequately supported in attic, droops excessively or lies on attic floor. This will noticeably increase friction losses. Avoid bending ducts across sharp corners or incidental contact with metal fixtures, pipes or conduits. Radius at center line of bend shall NOT be less than one duct diameter. If suspended, product shall be supported at no less than 5' intervals by hanger, saddle, or ceiling joist or other commonly used support of no less than 1-1/2" width at contact points with maximum permissible sag of 1/2" per lineal foot of spacing between supports to eliminate "snaking" drooping of flex duct. (Ref: Air Diffusion Council Flexible Duct Performance and Installation Standards).





I=Inspected	NI=Not Inspected	NP=Not Present	D= Deficiency

I	NI	NP	D

IV. PLUMBING SYSTEM

☒ ☐ ☐ ☒ **A. Plumbing Supply, Distribution Systems and Fixtures**

Location of water meter: By street right of way
Location of main water supply valve: in garage S wall.
Static water pressure reading: 56 p.s.i.
Comments: Visible supply line PEX "PEX" is a generic term for cross linked polyethylene with Vanguard "PEX" Vanguard "PEX" Manabloc water supply system noted with manifold in 3rd floor attic.

Static water pressure was 56 p.s.i. Pressure may be different at other times. Adequate static pressure (over 40 p.s.i.) is *not* a predictor of adequate functional flow at fixtures at the dwelling, as pipe size and other restrictions can affect flow, no matter what the static pressure is.

➢ Note: The following are all outside the scope of the inspection and specifically excluded. Plumbing components, which were not visible or not accessible, (for example: plumbing lines underground, in the slab, concealed by walls or insulation, storage, etc.), proper sizing or design of the "system", water quality or potability, the effect of the lead content in solder and or supply lines, operation of any main valves, branch valves, shut-off valves, inspection of any system that was shut down or otherwise secured, and determination as to the effectiveness of any anti-siphon or backflow prevention devices.

Important Note: It is impossible to determine whether all fittings/connections are accessible and have been evaluated by this inspector. Serviceability of this water supply system cannot be guaranteed, and no warranty is provided by this inspector. Any evidence of moisture in the future should be addressed immediately. We recommend that our Clients consider additional, optional insurance coverage for potential mold, which may otherwise be excluded from your policy.

- 2nd floor guest bathroom has Hot & Cold reversed.
- Flex gas line under BBQ grill should not be extended through the side of brick. This should be metal hard piped in, then connected to flex pipe.

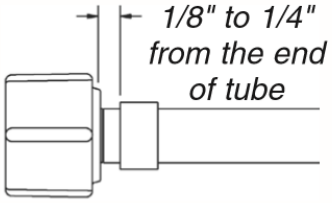
- Observed hose bib connection installed over electric outlet, also, hose bib connection is inaccessible.

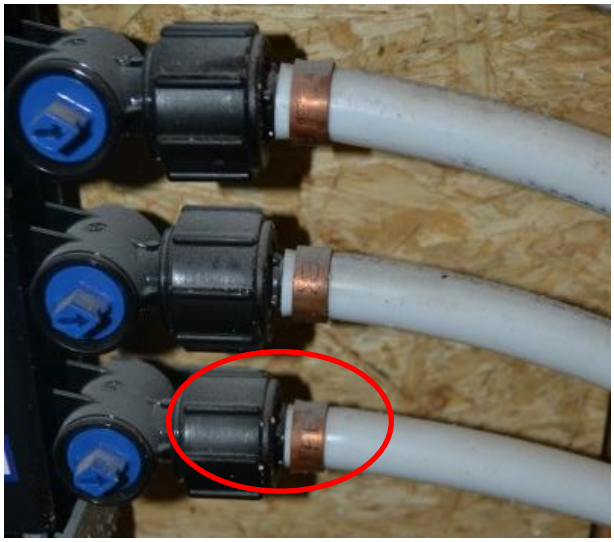
I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

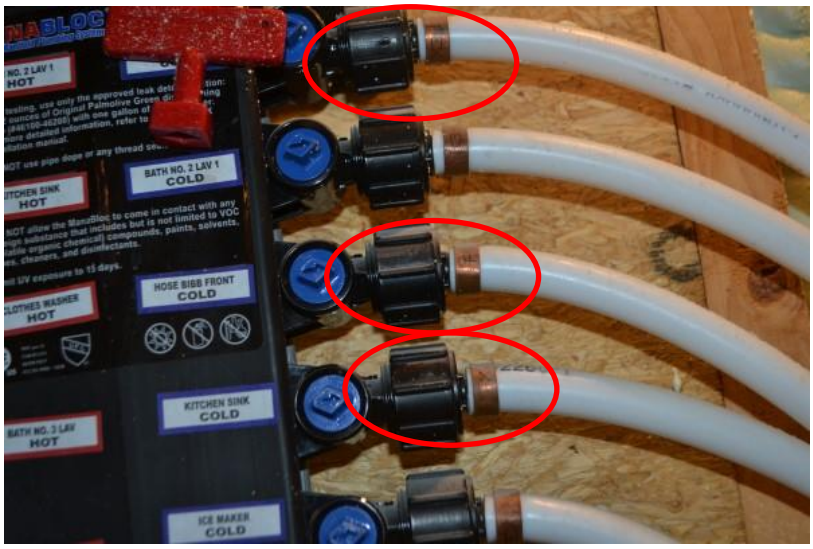
I	NI	NP	D

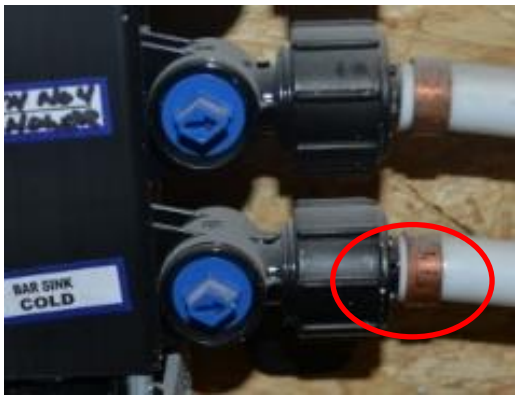
- Observed multiple improperly installed PEX crimps at the PEX manifold in 3rd floor attic. Improper positioning of Crimp fitting on the PEX tubing
  - Information: A 1/8" to ¼" inch of tubing should project past the inside of the crimp per the manufacturer installation instructions. Manufacturer indicates crimp ring at end of tube does not cover enough fitting ribs to mount/hold the pipe. [ref: IRC R102.4 - manufacturer installation instructions] ["The PEX tubing must be placed to the fitting shoulder. For fittings without a shoulder, the PEX tubing must be placed far enough to cover all the fitting barbs. The crimp ring is placed 1/8" to 1/4" from the shoulder or end of the PEX tubing."] Recommend checking all PEX water lines at the crimp rings. *see example image below from manufacturer and photo images*

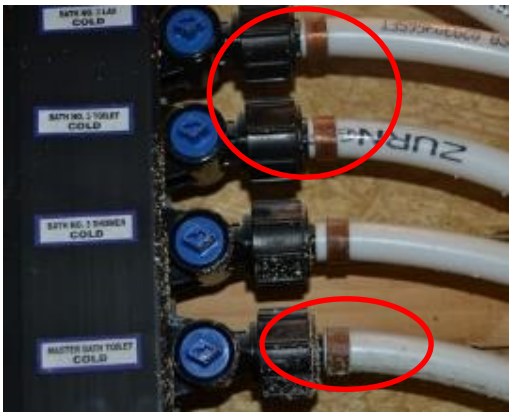
3. Slide the swivel nut (D) back to brass adapter and slide the crimp ring (C) to within 1/8" to 1/4" from the end of tube. Crimp the ring with an appropriately sized full-circle crimp tool.
DO NOT CRIMP TWICE.











I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

I	NI	NP	D

- Water leak at shower head connections in 2nd floor guest bathroom & in 3rd floor bathroom

- **Note:** Recommend use of stainless steel wire braided "no burst" clothes washer water supply lines to reduce chance of water damage.
- **Note:** recommend Caulking around tub spouts, fixture valve escutcheon and where shower wall tile meets sheetrock wall in all bathrooms.
- **Note:** Recommend replacing water fixture supply lines at toilet reservoir tank with stainless steel braided water supply lines and the connection at both ends in lieu of plastic connectors.

☒ ☐ ☐ ☒ **B. Drains, Wastes, and Vents**

Comments: Appears to be PVC

This inspection does not include buried sewer/drain lines, or washer drains. Sewer cleanout located back of house.

- A cleanout is a capped access point in a drain system that allows snaking and cleaning of the lines. Cleanouts are an important aspect of the sanitary

- Kitchen drain line draining uphill. Have plumber properly pitch drain line under kitchen sink.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

I	NI	NP	D

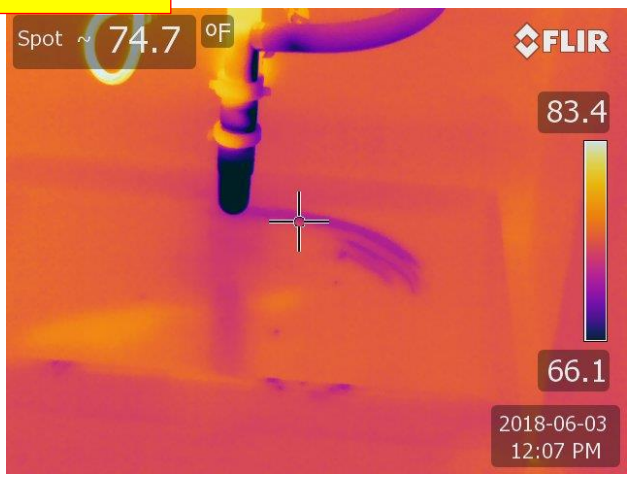
- Escutcheons were missing from supply and drain pipes. Escutcheons are plates used to seal the opening between the pipe and the wall. They are required as "rodent blocks". Escutcheons should be installed to seal the openings between the supply and drain pipes and the wall covering materials

- Slow drain in 1st floor guest bathroom lavatory basin.

- Water leak under 1st floor guest bathroom lavatory basin, and 2nd floor master bathroom right side lavatory basin. Have plumber find cause of leak and properly repair as needed. Note: There may be hidden damage to the interiors of walls or under cabinet that was not readily detectable at time of inspection. Such damage may not be revealed until remodeling occurs.

1st floor guest bathroom

2nd floor master bathroom right side lavatory basin



I=Inspected	NI=Not Inspected	NP=Not Present	D= Deficiency

I	NI	NP	D

-Unless stated, this inspection does not determine the condition or material type of inaccessible or underground piping. Location, presence or adequacy of cleanout provisions is not determined. Refer to the seller's disclosure for possible information pertaining to past drain performance and repairs.

☒ ☐ ☐ ☒ **C. Water Heating Equipment**

Energy Source: Natural Gas

Capacity: (1 Rinnai tankless unit) Recovery rate 202.3 gallons per hour maximum.

Comments: Note: Carbon monoxide detectors are recommended in houses with gas fired heaters or appliances

(1) Tankless Rinnai *water heater located in 3rd floor attic.*
Recovery rate 202.3 gallons per hour maximum, 199,000 BTU/hr. maximum
Manufactured in 2018 - Model RL94ii Serial # JD CA-049721
Temperature control located on unit. Currently set at 120

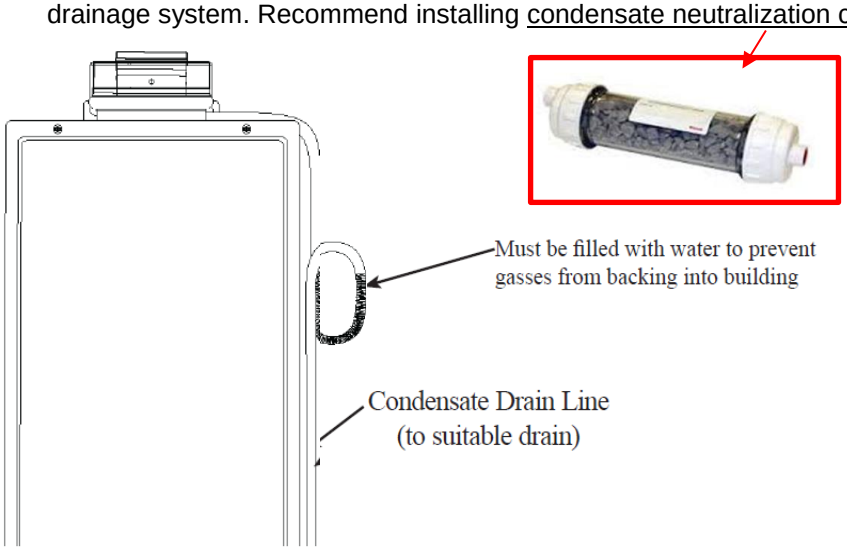
❖ The quality of plumbing fixtures varies dramatically. The mineral content of water can shorten the life expectancy of water heaters and clog showerheads. Also, some finishes may require special maintenance with approved cleaning agents per the manufacturers in order to last their expected service life span.

- We did not observe continuation of bonding jumper between hard pipe gas line and stainless steel semi-rigid (flexible) appliance connector at water heaters.
  - Information: All metal piping systems, including the water and gas pipes are required to be bonded to the breaker panel or grounding electrode to equalize the differing electrical potentials on all elements that are capable of carrying electricity. These systems also include the telecommunications systems, cable systems and satellite systems, etc. Without bonding, a person or a flammable item could be the medium through which the potentials are equalized, which could result in a shock, electrocution and/or fire. Proper bonding should be installed for safety. **Note stainless steel semi-rigid (flexible) appliance connector is not an approved bonding conduit to connect to gas control valve.**
  - Information: SECTION G2411 (310) ELECTRICAL BONDING. G2411.1 (310.1**)** Gas pipe bonding. Each above-ground portion of a gas piping system that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. Gas piping shall be considered to be bonded where it is connected to gas utilization equipment that is connected to the equipment grounding conductor of the circuit supplying that equipment. References: E3509.6, E3509.7 Bonding other metal piping

I=Inspected NI=Not Inspected NP=Not Present D= Deficiency

I	NI	NP	D

- Condensation drain line draining into drain pan. Condensate drain is acidic and should be draining into the house drainage system. Recommend installing condensate neutralization capsule filter/housing.



Information from manufacturer:
- Always attach a drain hose to the drain fitting and plumb the hose to a sanitary sewer drain
- The drain tube is fashioned into a "pigtail" trap and must be filled with water to prevent flue gases from emitting into the building prior to operating the appliance (see diagram)

- Daylight gaps noted at flu pipe to collar connection at roof decking. Seal with proper sealant to help prevent water intrusion into attic during wind driven rain and/or storms.

☐ ☐ ☒ ☐ **D. Hydro-Massage Therapy Equipment**
Comments:

☐ ☒ ☐ ☐ **E. Other**
Comments:

I=Inspected NI=Not Inspected NP=Not Present D= Deficiency

I	NI	NP	D

V. APPLIANCES

☒ ☐ ☐ ☐ **A. Dishwasher**
Comments: Bosch brand

Unit was activated on a complete normal wash cycle with heated drying; no operational problems were noted on the day of inspection.

☒ ☐ ☐ ☐ **B. Food Waste Disposer**
Comments: ISE brand. Switch operated

Appears operable

☒ ☐ ☐ ☐ **C. Range Hood and Exhaust Systems**
Comments: Thermador brand

Appears operable and vents outside

☒ ☐ ☐ ☐ **D. Ranges, Cooktops, and Ovens**
Comments: GE brand

Broiler operational
Note: Self-cleaning feature and convection, if any, and clock/ timer functions are not checked.

Stove top/Oven: Thermador brand
Energy source: Natural gas

- Oven: Temperature 350ºF when set to 350ºF

Note: Max allowed for oven is ±25ºF when set to 350º

☒ ☐ ☐ ☐ **E. Microwave Oven**
Comments: Bosch brand

No operational problems were noted except as noted below.

Unit was operated in normal heating mode. Unit heated in a small container of water. Timer and variable power settings were not checked.

Note: This unit was not checked for radiation leakage. The accuracy of the clock/timer, analog/digital controls were not checked. The electrical connections were not inspected, since they are most often located inside the cabinet or wall. This unit was checked by heating water only and appeared to operate properly.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

I	NI	NP	D

☒ ☐ ☐ ☐ **F. Mechanical Exhaust Vents and Bathroom Heaters**

Comments: Current standards require bathroom exhaust fans to vent outside the structure or have a functional window.

☒ ☐ ☐ ☒ **G. Garage Door Operators**

Comments: (1) Liftmaster brand

(1) Automatic garage door opener noted with photoelectric sensors.

Safety Information: Garage doors are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injuries, your safety and the safety of others depend on you reading the information in your manufacturers owner's manual. If you have questions or do not have a clear understanding of the information presented, call your nearest service representative.

-Unit properly reverses when hitting an object and when electric beam is broken across tracks.

- We did not observe Warning Label next to wall button as required by manufacturer's installation instructions in single car garage. Warning information for child safety.

Sample photo for illustration purposes

- Manual garage door lock should be disabled on garage doors with automatic openers.

I=Inspected NI=Not Inspected NP=Not Present D= Deficiency

I	NI	NP	D

☒ ☐ ☐ ☐ **H. Dryer Exhaust Systems**

Comments: The dryer vent terminated to the outside.

Note: recommend checking dryer hoses and cleaning ducts every six months or so. Hoses should be replaced every five years; tag them with the date you installed them, so you will not forget. A dryer can erupt in flames if lint builds up inside the machine or its ducts.

Note: Exhaust duct terminations shall be equipped with a back-draft damper. Screens shall not be installed at the duct termination.

- ➢ Please see "SAFETY ALERT" link from CPSC concerning fires caused from dryer use due to lack of maintenance http://www.cpsc.gov/PageFiles/118931/5022.pdf
- ❖ Clean the lint screen/filter before or after drying each load of clothes.
- ❖ Clean the dryer vent and exhaust duct periodically.
- ❖ Clean behind the dryer, where lint can build up.
- ❖ Replace plastic or foil, accordion-type ducting material with rigid or corrugated semi-rigid metal duct.
- ❖ Take special care when drying clothes that have been soiled with volatile chemicals

☐ ☒ ☐ ☒ **I. Other**

Comments: refrigerator checked for temperature only.

Thermador refrigerator freezer with ice maker, temperature 12ºF and refrigerator temperature at 35ºF

- GE wine cooler 2nd floor 55ºF
- Uline mini fridge/wine cooler 3rd floor wet bar 40ºF
- BBQ gas grill – DCS by Fisher & Paykel

- Water filter replacement light is on.

VI. OPTIONAL SYSTEMS

☒ ☐ ☐ ☒ **A. Landscape Irrigation (Sprinkler) Systems**

Comments:

Control Type - Toro control box system located in garage with rain gage outside. 4 active zones.

Back flow prevention device: Back siphon noted on S side of house. Be sure to insulate pipe & cap at back siphon during winter.

- ❖ Recommend builder demonstrate the new homebuyer how to operate the sprinkler system control box and how to set up the rain gage.

- Properly adjust sprinkler heads so it sprays away from house in front, also clear grass/dirt from sprinkler heads to prevent blockage. Note: It is necessary to periodically adjust the sprinkler heads to maintain the direction of water spray away from house walls and windows.

☐ ☐ ☒ ☐ **B. Swimming Pools, Spas, Hot Tubs, and Equipment**

Type of Construction:
Comments:

I=Inspected **NI=Not Inspected** **NP=Not Present** **D= Deficiency**

I	NI	NP	D	
☐	☐	☒	☐	**C. Outbuildings**

Comments:

☐	☐	☒	☐	**D. Private Water Wells (A coliform analysis is recommended.)**

Type of Pump:
Type of Storage Equipment:
Comments:

☐	☐	☒	☐	**E. Private Sewage Disposal (Septic) Systems**

Type of System:
Location of Drain Field:
Comments:

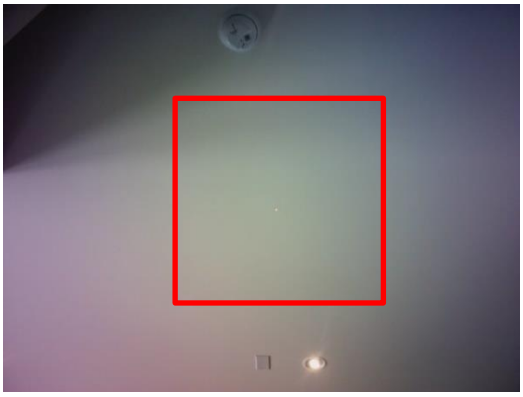
☐	☒	☐	☒	**F. Other**

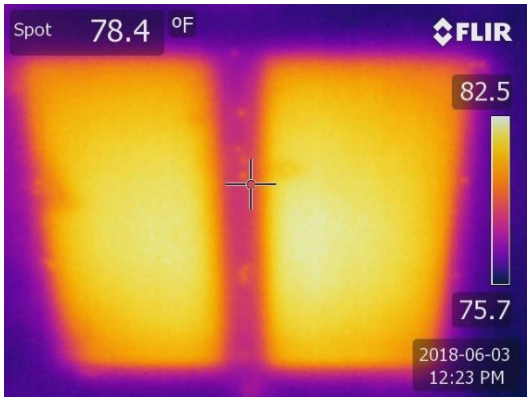
Comments:

- Elevator was functional all three floors.

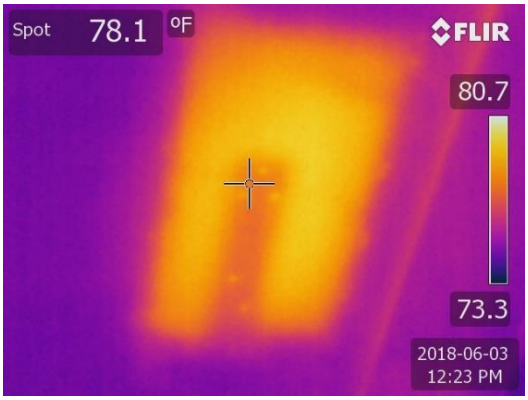
- Missing, folded, shallow or displaced insulation noted at ceiling in several rooms, these were detected with infrared Thermography camera. (bright yellow areas indicate missing, displaced or fallen insulation.)

3rd floor above hallway by smoke detector





3rd floor above elevator door



I=Inspected	NI=Not Inspected	NP=Not Present	D= Deficiency

I	NI	NP	D

05-04-15

APPROVED BY THE TEXAS REAL ESTATE COMMISSION (TREC)
P.O. BOX 12188, AUSTIN, TX 78711-2188

EQUAL HOUSING OPPORTUNITY

TEXAS REAL ESTATE CONSUMER NOTICE CONCERNING HAZARDS OR DEFICIENCIES

Each year, Texans sustain property damage and are injured by accidents in the home. While some accidents may not be avoidable, many other accidents, injuries, and deaths may be avoided through the identification and repair of certain hazardous conditions.
Examples of such hazards include:

- malfunctioning, improperly installed, or missing ground fault circuit protection (GFCI) devices for electrical receptacles in garages, bathrooms, kitchens, and exterior areas;
- malfunctioning arc fault protection (AFCI) devices; ordinary glass in locations where modern construction techniques call for safety glass;
- malfunctioning or lack of fire safety features, such as smoke alarms, fire-rated doors in certain locations, and functional emergency escape and rescue openings in bedrooms;
- malfunctioning carbon monoxide alarms;
- excessive spacing between balusters on stairways and porches;
- improperly installed appliances;
- improperly installed or defective safety devices;
- lack of electrical bonding and grounding; and
- lack of bonding on gas piping, including corrugated stainless-steel tubing (CSST).

To ensure that consumers are informed of hazards such as these, the Texas Real Estate Commission (TREC) has adopted Standards of Practice requiring licensed inspectors to report these conditions as "Deficient" when performing an inspection for a buyer or seller, if they can be reasonably determined.

These conditions may not have violated building codes or common practices at the time of the construction of the home, or they may have been ¡§grandfathered¡¨ because they were present prior to the adoption of codes prohibiting such conditions. While the TREC Standards of Practice do not require inspectors to perform a code compliance inspection, TREC considers the potential for injury or property loss from the hazards addressed in the Standards of Practice to be significant enough to warrant this notice.

Contract forms developed by TREC for use by its real estate licensees also inform the buyer of the right to have the home inspected and can provide an option clause permitting the buyer to terminate the contract within a specified time. Neither the Standards of Practice nor the TREC contract forms requires a seller to remedy conditions.

This form has been approved by the Texas Real Estate Commission for voluntary use by its licensees. Copies of TREC rules governing real estate brokers, salesperson and real estate inspectors are available from TREC. Texas Real Estate Commission, P.O. Box 12188, Austin, TX 78711-2188, 512-936-3000 (http://www.trec.texas.gov)