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MECHANICAL INSPECTION

4547 Bermuda Dr
Sugar Land TX 77479

Gary Turner & Debra Turner

SEPTEMBER 2, 2020

Inspector
Scott Gillis
TREC#22819
281-355-9911
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PROPERTY INSPECTION REPORT

Prepared For: Gary Turner & Debra Turner
(Name of Client)

Concerning: 4547 Bermuda Dr, Sugar Land TX 77479
(Address or Other Identification of Inspected Property)

By: Scott Gillis - TREC#22819 09/02/2020 9:00 am
(Name and License Number of Inspector) (Date)

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. This 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. If is recommended that you obtain as much information as is available about this property, including seller's disclosures, previous inspection reports, engineering reports, building/remodeling permits, and reports performed for and 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 license holders 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

Hedderman Engineering Inc.:
>It is the purpose of this report to give our client my educated and experienced opinion of the condition and function of the stated property as visually inspected by Hedderman Engineering Inc. The inspection performed on this property is of a general nature and includes the following systems: electrical, mechanical, and plumbing. This does not include any specialized inspections and/or inspections of any hazardous materials (such as done in environmental inspections) or any of the following; structural systems, mold, audio/visual components, hazardous materials and gases, rated walls, led paint, destructive insects or pest, security items, water or air treatment systems, etc. This inspection is limited to those components which were visible and accessible at the time of the inspection. It is noted that this report contains the opinions of this inspector of the stated property as it appeared on the day of the inspection and is in no way a warranty of any component in the days and future following the inspection. All mechanical

components are judged on the basis of age, condition, and the function of those items as they appeared on the day of the inspection and are not guaranteed to continue functioning in that manner in the future. It is recommended that the our client purchase a home warranty policy to protect oneself from both unexpected and anticipated problems that may occur in the future.
>It is noted that Hedderman Engineering Inc. is not responsible for any problems found in the house during or after components are opened up, disassembled, uncovered, made visible, or made accessible by another entity after the inspection is completed.
>If a builder or service contractor examines an area of question and comes to the conclusion that there is no repair needed, have them present to you in writing that the item is in compliance with a prevailing code and is functioning properly, not in need of repair.
>It is the intent of this inspector to work in compliance with the Standards Of Practice For Real Estate Inspectors. It is not required of this company to exceed these standards. You may obtain a copy of the document referred to above by contacting the Texas Real Estate Commission. It is also noted that this inspection is not a "code inspection", but rather an inspection of the condition and function of the stated property.
>Although this report may include observations of some building code violations, total compliance with mechanical, plumbing, electrical codes, specifications, and/or legal requirements are specifically excluded. We do not perform "code" inspections, and since building codes change every few years, our inspections are not performed with the intention of bringing every item in the property 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 are in need of repair. This is particularly applicable to Home Warranty policies, where the standards of the Home Warranty service company are often different than 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 appropriate service companies for a more in-depth analysis of what may be required to meet their standards should a claim be made against the policy.
>If there are any questions or concerns please contact Hedderman Engineering, Inc. at 281-355-9911 or Office@HeddermanEngineering.com.

I. STRUCTURAL SYSTEMS

☐ ☒ ☐ ☐ **A. Foundation**
Comments:

☐ ☒ ☐ ☐ **B. Grading and Drainage**
Comments:

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

☐ ☒ ☐ ☐ **D. Roof Structures & Attics**
Comments:

☐ ☒ ☐ ☐ **E. Walls (Interior and Exterior)**
Comments:

☐ ☒ ☐ ☐ **F. Ceilings and Floors**
Comments:

☐ ☒ ☐ ☐ **G. Doors (Interior and Exterior)**
Comments:

☐ ☒ ☐ ☐ **H. Windows**
Comments:

☐ ☒ ☐ ☐ **I. Stairways (Interior and Exterior)**
Comments:

☐ ☒ ☐ ☐ **J. Fireplaces and Chimneys**
Comments:

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

The structural portions of this property were inspected by an engineer from Hedderman Engineering Inc. per the inspection agreement between this firm and our client. All comments regarding the structure and property grade are found in the structure report that is created and provided by the engineers at Hedderman Engineering Inc.

According to HAR, the house was built in 1987.
Orientation - House Facing East:
For the purpose of the inspection, North is considered to be the right side of the house.

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

I	NI	NP	D

II. ELECTRICAL SYSTEMS

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

Comments:

Electrical System Description :

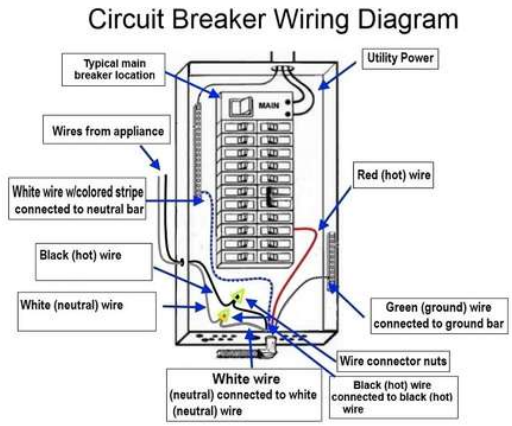
The electrical service is provided by a 120/240 volt, single-phase, 150-ampere underground service to an electric meter located at the rear of garage.

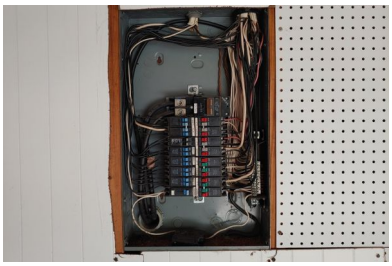
Electrical Wiring Information

Service Wires	Branch Circuit Wires	Grounded or Ungrounded System
2/0 Aluminum	copper	grounded

Breaker Panel Information

Location	Manufacturer	Rating
Garage	Westinghouse	150- amperes





Breaker Panel Equipment - Acceptable :

The interior of the breaker panel equipment was inspected and the breakers were all properly sized for the circuits they were protecting, the grounding and bonding were properly connected, no knockout clips were missing, and the wiring appeared to be in acceptable condition at the time of the inspection.

Breakers - Routine Check:

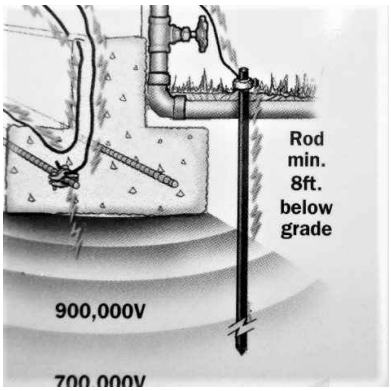
It is a general recommendation that all circuit breakers be tripped off and on at least once a year to ensure that they are still physically able to trip off. Occasionally, the points on a breaker will fuse to the main bus in the panel, preventing the breaker from tripping off, even if there is an overload on the circuit. If this condition occurs, it can be a fire hazard.

AFCI Breakers Not Present - House built pre-AFCI :
The breaker panel(s) did not contain any Arc Fault Circuit Interrupters (AFCI). This is an "as-built" condition, that does not meet current building code standards. AFCI devices are intended to protect against fires caused by electrical arcing in the wiring, by shutting off the power to the circuit when an electrical arc is detected in the circuit. Homes built prior to 2002 were not required by the National Electrical Code (NEC) to be protected by AFCI devices. Since this house was built prior to 2002, the breaker panel is not required to be retrofitted with new AFCI breakers. If adding AFCI breakers is desired, it is recommended that you contact an electrician for further information.

GFCI Breaker - Functional:
The Ground Fault Interrupt Circuit breaker was operating properly at the time of the inspection and tripped off when the test button was pushed. The breaker protects the following items: Jacuzzi.

Breaker panel legend :
The circuit breakers were labeled to identify the circuits they were protecting. We did not trip off every breaker and, therefore, could not verify the accuracy of the labeling. If further investigation is desired, it is recommended that an electrician be contacted.

1: Ground Rod - Not flush with grading
The ground rod was sticking out of the ground a few inches, and, since ground rods are typically 8 feet long and all 8 feet of the rod are required to be in the ground, it is recommended that the ground rod be pounded down flush with the top of the ground. The clamp on the rod should be an acorn clamp is approved for direct burial in the ground.
Obtain Cost Estimate



2: Meter Loose
The meter base was loose on the wall and needs to be properly secured.
Obtain Cost Estimate

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

Comments:
Type of Wiring: Copper - Non-metallic sheathed

GFCIs - Functional:
Outlets that were protected by ground fault circuit interrupt (GFCI) devices were present and functioning properly at the time of the inspection. The GFCI devices were checked and the power to the outlets turned off when the test buttons were pressed. It is pointed out that GFCI devices can stop tripping/resetting properly at any point and should be tested periodically and replaced when necessary. Locations included: kitchen, bathrooms, exterior of the house, garage

Ceiling Fans - Functional :
No items that were in need of repair were observed for the operation of the ceiling fan(s) at the time of the inspection.

Light Fixtures - Functional:
The light fixtures throughout the house were operated and were observed to be functional at the time of the inspection.

1: GFCI - Missing at outlet
Utility Room
GFCI outlets were not installed at one or more locations that are currently required to have GFCI protection. It is recommended that an electrician install GFCI devices at all of the currently required locations.
Obtain Cost Estimate

2: Smoke detectors - Current standards not met
The house does not meet the current code concerning smoke alarms. This house is an older home and, if bringing the house into current standards is desired, it is recommended that you contact a service contractor to make all of the needed repairs. Smoke detectors are currently required to be connected in a manner that causes one detector to engage each other detector should an alarm be tripped, They are also required to be hardwired into the electrical system and contain a battery back up. Lastly, smoke detectors are required inside each bedroom, outside of bedroom areas, hallways, stairwells, and at each level of the structure.
Obtain Cost Estimate

3: Carbon Monoxide Detectors - Currect standards not met
Carbon monoxide detectors were not installed at all of the currently required locations and it is recommended that approved carbon monoxide detectors be installed. Currently, carbon monoxide detectors are required outside each sleeping area.
Obtain Cost Estimate

4: Low Voltage Systems - Not inspected
It is pointed out that low voltage systems, low voltage wiring, and low voltage connections were not included in the scope of the inspection and were not checked, including: audio/visual systems, alarm systems, data lines, and phone lines. If further investigation is desired, it is recommended that a service company be contacted.

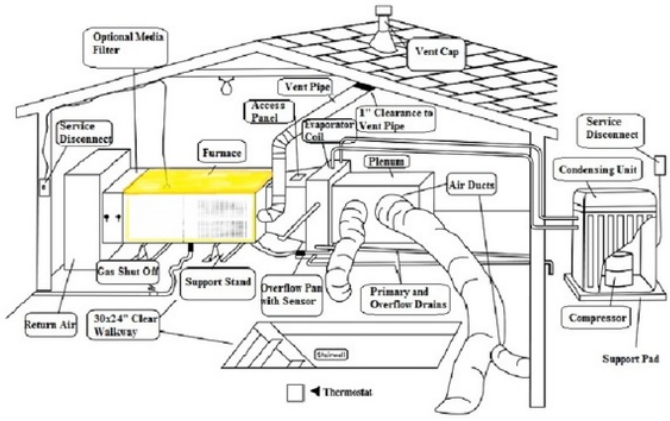
III. HEATING, VENTILATION & AIR CONDITIONING SYSTEMS

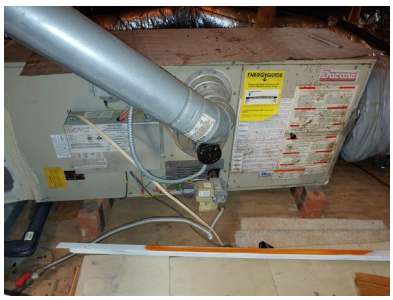
☒ ☐ ☐ ☒ **A. Heating Equipment**
Comments:
Type of System: Forced Air
Energy Sources: Natural Gas

Gas Furnace Description :

The heating for the property was provided the following natural gas-fired equipment:

ZONE	BRAND	BTU	DATE	LOCATION
1st flr	Ducane	100K	2003	Attic
2nd flr	Ducane	75K	2003	Attic





Heating Equipment - Functional:
The heating equipment was observed to be operating and functional at the time of the inspection. The heating equipment responded to the thermostat and the equipment appeared to be heating the air adequately.

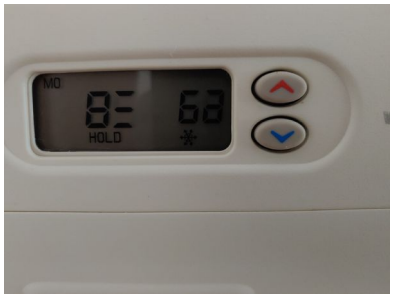
Heat Exchanger - Information:
Gas furnaces are constructed in such a way that the units must be dismantled in order to view the entire heat exchanger inside. The equipment was not dismantled, and the heat exchanger was not able to be viewed for evidences of cracks. If further investigation is desired, it is recommended that a service company be contacted to dismantle the equipment. It is pointed out, for safety purposes, the heat exchanger should be inspected by an HVAC service company once a year.

Limited visual inspection:
It is pointed out that our inspection of the air conditioning and heating system(s) is a limited, visual inspection where we check the equipment as it has been installed to determine whether or not the system(s) is cooling and/or heating at the time of the inspection. Our inspection is necessarily a cursory inspection, as we do not determine the sizing, adequacy, or design of any component in the system, or the compatibility of the individual components, nor the installation of the system(s) to be in conformity to the latest building code requirements. If you desire an in-depth analysis of the HVAC system(s), then it is recommended that a service company be contacted to analyze the system(s). This is particularly important if the system(s) is an older system and has only a limited amount of remaining life due to its age and/or condition.

I	NI	NP	D

1: Heat Exchanger - Limited Life
Both Units
The furnace is constructed such that the unit must be dismantled in order to view the entire heat exchanger. The unit was not dismantled, and the heat exchanger was not able to be viewed for evidences of a crack. If further investigations are desired, then it is recommended that a service company be contacted to dismantle the unit. Due to the age and/or condition of the furnace, it is recommended that a service company be contacted to dismantle the furnace and view the heat exchanger for cracks.
Obtain Cost Estimate

2: Thermostat - Damaged
2nd Floor
The thermostat was damaged and needs to be repaired or replaced.
Obtain Cost Estimate

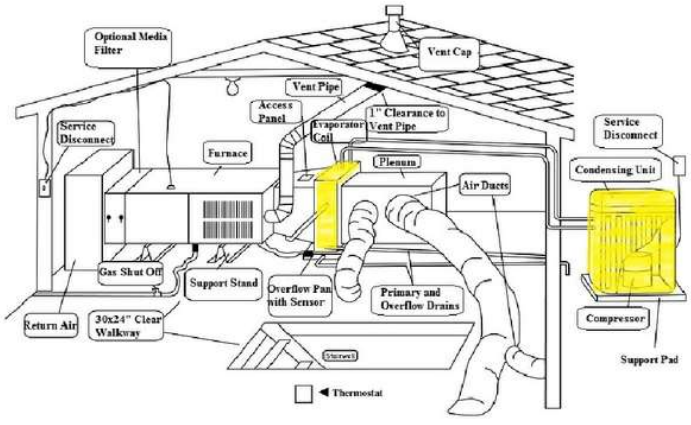


Read out malfunctioning

☒ ☐ ☐ ☒ **B. Cooling Equipment**
Comments:
Type of System: Split system

A/C Equipment Description :
The type of air conditioning for the property is a forced air split system. The cooling equipment for the property was as follows:

Zone	Brand	Size/Age Condenser	Size/Age Coil	Temp Drop
1st flr 2nd flr	Kenmore Kenmore	4-ton 2003 3-ton 2003	4-ton 2003 3-ton 2003	20 Degrees 19 Degrees



2nd

Condensing Unit Equipment - Functional:
The condensing unit equipment was functional at the time of the inspection. The equipment responded to the corresponding thermostat, and the compressor components and fan motor components were operating.

South Side

Condensing Unit Equipment - Limited Life:
Due to the age and/or condition of the equipment, it is our opinion that the equipment has only a limited amount of life remaining. It would be prudent to have the equipment thoroughly checked by a licensed air conditioning service company and further investigation is recommended.

Coil Equipment - Functional:
The coil equipment was operating and was providing a degree of cooling at the time of the inspection.

Coil Equipment - Limited Life:
Due to the age and/or condition of the equipment, it is our opinion that the equipment has only a limited amount of life remaining. It would be prudent to have the equipment thoroughly checked by a licensed air conditioning service company and further investigation is recommended.

Cooling Performance - Acceptable :
The cooling performance of the equipment was observed to be adequate according to industry standards. The air conditioning equipment was observed to be cooling 19-20 degrees across the indoor coils at the time of the inspection.

Overflow Pan - Water sensor present:
The overflow pan under the evaporator coil was equipped with a water sensor that is intended to shut off the air conditioning equipment if the pan fills with water.

Cooling Performance:
We measure the temperature drop (ΔT) across the indoor coil(s) at the time of the inspection and our observations have been recorded in this report. It is pointed out that our measurements of the cooling performance of the equipment is only at a "point in time", and cannot reflect whether the equipment has been recently serviced, or what the future performance of the equipment will be after the day of the inspection. Further investigation with the homeowner is recommended to determine when the equipment was last serviced.

1: R22 Refrigerant

The condensing unit label indicate that the equipment operates with the old R-22 refrigerant, rather than the currently required R410A refrigerant. R-22 is no longer the current standard in the industry and will be more expensive to refill when servicing. It is recommended that a service company be contacted for further investigation.
Further investigation is recommended

2: Insulation partially missing at refrigerant line

The insulation for the low pressure refrigerant line is partially missing and needs to be replaced to prevent condensation from dripping from the line and to promote proper refrigeration cycling.

Obtain Cost Estimate


3: Overflow Pan - Rust

2nd floor System

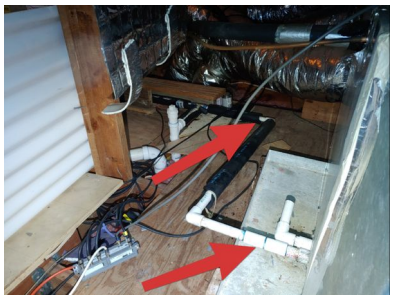
Excessive rust was observed in the overflow pan under the coil, apparently due to water backing up at the primary drain line and overflowing into the pan. No water was observed in the overflow pan at the time of the inspection, however since the equipment was only operated for a short time during the inspection, It is recommended that the primary drain line and the coil be checked by an air conditioning service company and that the rusted overflow pan be replaced.

Obtain Cost Estimate

4: Primary Drain Line - Missing insulation

A portion of the primary condensate drain line was missing insulation which can cause the drain line to "sweat" and drip water. The drain line should be insulated for the first 10 feet to prevent condensation from forming on the drain line.

Obtain Cost Estimate



5: Primary Drain Line - Terminated in plumbing trap in attic

The primary condensate drain lines terminate into a plumbing trap in the attic. This condition can allow sewer gases to back up into the house and HVAC system. The drain lines should be rerouted to an approved location.

Obtain Cost Estimate

6: Primary Drains - Connected together in attic

The primary condensation drain line for the evaporator coils connect together in the attic rather than terminating independently. The condition can reduce drain performance. Consideration be given to separating the drain lines and terminating each drain line independently in an approved manner.

Obtain cost estimate

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

Comments:

Type: Flex Duct

Return Air - Acceptable :

The return air system in the house had no visible items that were in need of repair and appeared to be performing as intended at the time of the inspection.

1: Ducts - No clearance between ducts

We observed that some of the air ducts in the attic were in contact with each other, which can cause condensation to form on the outside of the ductwork. It is recommended that the ducts that are touching be separated. Typically, this is done by inserting a piece of fiberglass batt insulation or duct board between the ducts.

Obtain Cost Estimate

2: Ducts - Not supported properly

The ducts were laying on the insulation and ceiling joints and are not supported properly. The ducts should be supported in accordance with the manufacturer's installation instructions, which typically includes hanging the ducts from the rafters supported by 1 ½ inch straps spaced approximately every

four feet. Have a service company make the necessary repairs.
Obtain Cost Estimate

3: Return Air - Not sealed
The chase was not sealed properly and was drawing unconditioned air from the floor and/or wall cavities into the system. Have the chase sealed against air leaks.
Obtain Cost Estimate

4: Air filters - Dirty
The filters were dirty and need to be replaced. Dirty filters can allow the evaporator coils to become dirty along with the ductwork systems, which can affect the performance of the systems.
Obtain Cost Estimate

IV. PLUMBING SYSTEMS

☒ ☐ ☐ ☒ **A. Plumbing Supply, Distribution Systems, and Fixtures**
Comments:
Location of water meter: The curb
Location of main water supply valve: South Side
Static water pressure reading: 50 PSI
Water Supply Material: Copper

A plumbing system typically consists of three major components, including the potable water supply piping; the waste or drain piping; and the plumbing fixtures. The distribution piping brings the water from the public water main or a private well to the individual fixtures throughout the house. The water distribution system is under pressure, usually from 40 psi to 70 psi. The waste or drain piping carries the waste water and products underground to the sewer system or septic tank, and the waste piping is

not under pressure, but operates by gravity flow. We typically run water down the drains from the sinks, tubs, showers, and toilets, but this cannot simulate the waste flow characteristics of full occupancy. There may be partial blockage of the underground waste lines from debris, broken pipes, or tree roots that cannot be detected by a visual inspection. If you desire a more in-depth inspection, it is recommended that you contact a qualified plumber.

Shut Off Valve - Exterior location:

The shut-off valve for the main inlet water line was located at the exterior South Side of the house upstream of the water treatment system.

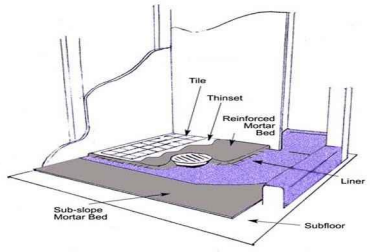
Static Water Pressure :
The static water pressure to the house at the time of the inspection was measured with a pressure gauge at the hose bibb nearest the shut off valve, and the static pressure was observed to be 50 PSI.

Sinks & Lavatories - Functional:
No items requiring repair were visible at the time of the inspection to the operation of the sinks and/or lavatories. The sinks were filled with water, and were observed to be draining properly, with no leaking piping or slow drains.

Toilets - Functional:
No items requiring repair were visible at the time of the inspection to the operation of the toilets. The toilets were flushing properly, with no leaks visible in the plumbing, the wax seal, or the internal valves.

Tub/Shower - Functional:
No items requiring repair were visible for the tub and/or shower at each bathroom. The tubs were partially filled with water and water was run in the showers, and they were observed to be operating adequately at the time of the inspection.

Shower - No evidence of shower pan leak:
No evidence of a current shower pan leak were visible at the time of the inspection for the shower(s). It is pointed out, our shower inspection is limited to a visual inspection and we did not perform a shower pan leak test. It is recommended that a plumber be contacted to perform a shower pan leak test to determine if any water is leaking past the shower pan.



1: Vacuum Breaker - Missing

The atmospheric vacuum breaker devices were missing at one or more of the hose bibbs, and it is recommended that they be installed to prevent cross connections, which can allow contaminated water to enter the potable water supply.

Obtain Cost Estimate

2: Water Stains - High moisture detected

2nd floor closet adjacent to bathroom

Water damage/stains were observed indicating a current or previous leak. The source of the condition was not determined, with certainty, at the time of the inspection. The stains were checked with a moisture meter and elevated moisture levels (15% or higher) were observed at the time of the inspection. Further investigation is recommended with a contractor to determine the source of the condition and to make any necessary repairs to correct the moisture condition and, if present, any secondary damage.

Obtain Cost Estimate

3: Water Treatment System - Not inspected

South Side

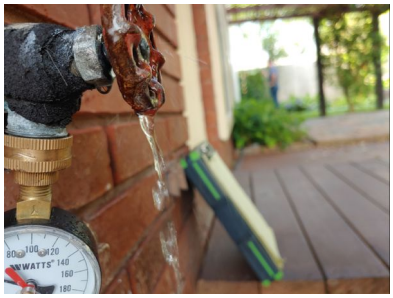
The water treatment system was not checked at the time of the inspection and is omitted from the scope of this inspection. If it is desirable to you to determine if the unit is operational and is softening the water, then it is recommended that water samples be taken and analyzed by a testing laboratory.

4: Hose Bibb - Leaking at valve stem

Back Porch

A leak was observed at a hose bibb around the valve stem.

Obtain Cost Estimate



5: Water Valve - Handle damaged

Utility Room, Master Bath at right sink

The handle on the water valve was damaged and needs to be replaced.

Obtain Cost Estimate

6: Sink Drain - Leak at stopper linkage

The drain line was leaking at the point where the stopper linkage attaches to the sink drain.

Obtain Cost Estimate

7: Sink Drain Stopper - Linkage disconnected
Half Bathroom
The linkage was disconnected on the drain stopper, and the stopper was nonfunctional.
Obtain Cost Estimate

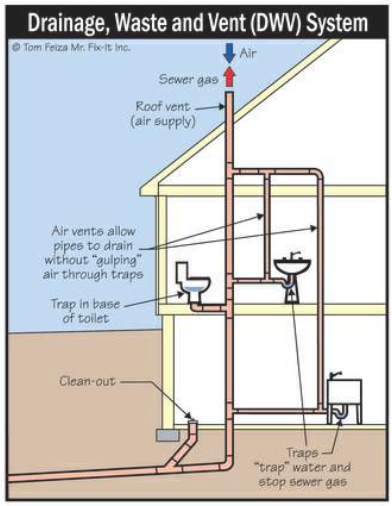
8: Tub/Shower - Water leaks past diverter
2nd Floor Bathroom
The diverter valve was leaking water past the valve when the valve was turned to the shower.
Obtain Cost Estimate

9: Shower/Tub - Valve leaking
Master Bath
The faucet was leaking at the one or more of the valve stems and needs to be repaired.
Obtain Cost Estimate

☒ ☐ ☐ ☐ **B. Drains, Wastes, & Vents**
Comments:
Sewer Piping Material: PVC Observed

Sewer System - Functional:
No items requiring repair were visible for the operation of the drain system at the time of the

inspection. No evidences of a system wide problem were observed when the system was operationally checked by running water through each of the plumbing fixtures during the duration of the inspection. It is noted that most of the drain waste system in the walls, under the floors, and in the ceilings is not visible. If further investigation is desired, it is recommended that a plumber be contacted to perform an in depth survey with a camera or hydrostatic test.



Sewer Clean Out - Present :

A sewer clean out was present. The clean out is needed in the event of a stoppage in the main sewer drain line, and the clean out is where a sewer snake would be utilized to remove a clog in the sewer line.

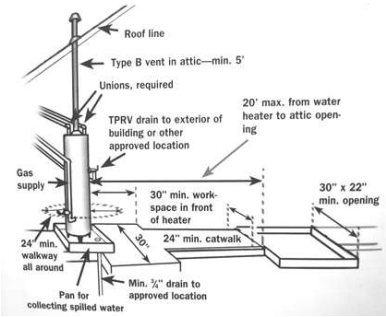
Rear of House

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

Comments:
Energy Source: Natural Gas
Capacity: 40 Gallons

Gas Water Heater Description:
The hot water for the property was provided by the following natural gas fired gas water heater(s):

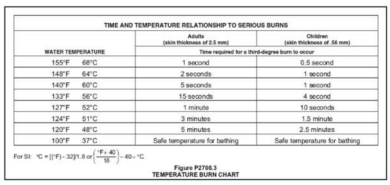
Location	Brand	Capacity	Age	Energy Type
Attic	Rheem	40 gal	2019	Gas



Water Heater Equipment - Functional:
The water heater equipment was functional at the time of the inspection and providing hot water to the applicable plumbing fixtures.

Hot water - Temperature :
The generally recommended maximum temperature setting for a hot water heater, to prevent accidental scalding, is 120-125 degrees. It is recommended that the water heater thermostat be adjusted to and maintained in this temperature range.

The temperature of the hot water at the kitchen sink was degrees.



TIME AND TEMPERATURE RELATIONSHIP TO SERIOUS BURNS

WATER TEMPERATURE	Adults (skin thickness of 2.5 mm) Time required for a third-degree burn to occur	Children (skin thickness of .56 mm) Time required for a third-degree burn to occur
155°F 68°C	1 second	0.5 second
148°F 64°C	2 seconds	1 second
140°F 60°C	5 seconds	1 second
133°F 56°C	15 seconds	4 second
127°F 52°C	1 minute	10 seconds
124°F 51°C	3 minutes	1.5 minute
120°F 48°C	5 minutes	2.5 minutes
100°F 37°C	Safe temperature for bathing	Safe temperature for bathing

Figure P2708.3
TEMPERATURE BURN CHART

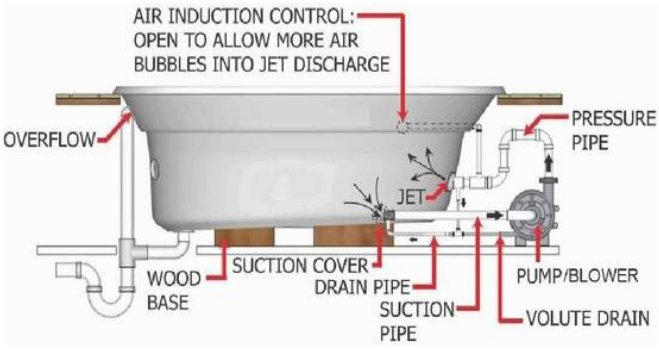
Temp/Pressure Relief Valve - Information :
Temperature/pressure relief valves are not operationally checked by this firm during the inspection. Valves typically do not reseat properly when they are operated, which causes the valves to leak. It is best to replace the temperature/pressure relief valves for water heaters every 2-3 years to prevent them from getting clogged with mineral deposits.

1: Relief Valve -Flexible drain line
A portion of the drain line for the temperature/pressure relief valve was a flexible drain material and needs to be replaced with an approved material for this application.
Obtain Cost Estimate

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

The whirlpool tub was functional, and the recirculation pump and aerators were operating properly when we engaged the controls. Also, the equipment was protected by a Ground Fault Circuit Interrupt

device and the device was functioning properly at the time of the inspection.





No Visible leaks at trap area.

No access to pump/blower:
Access to the pump/blower was not provided at the time of the inspection, therefore the pump/blower, wiring, and all of plumbing under the tub were not visually checked. If further investigation is desired, it is recommended that access to the underside of the tub be made. It is pointed out, if repairs become necessary, an access opening will need to be installed.

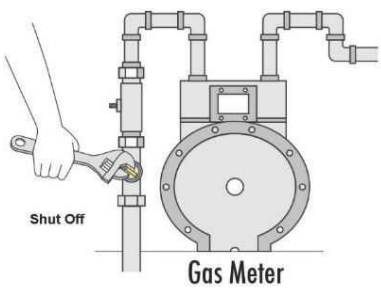
☒ ☐ ☐ ☒ **E. Gas Supply System**

Comments:

Gas Meter Location :

The main gas shut off valve was located at the inlet side of the gas service meter.

South Side

Gas System Inspection :
A cursory visual inspection was performed on the gas supply piping. The inspection was limited to the gas pipes that were visible and accessible at the time of the inspection. The use of specialized equipment to detect leaks is not included in the scope of this inspection, nor is determining the gas supply pressure or adequacy. If further investigation is desired, it is recommended that a plumber be contacted.

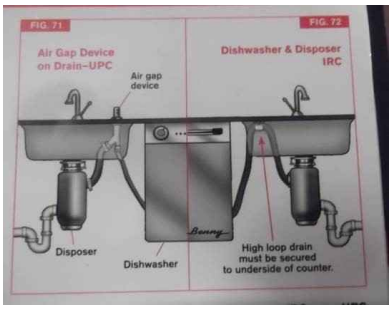
1: Unused gas valve - Need to cap
Utility Room
An unused gas valve that was not capped was observed. The unused gas valve needs to be properly capped to prevent accidental gas leaks.
Obtain Cost Estimate

V. APPLIANCES

☒ ☐ ☐ ☒ **A. Dishwashers**
Comments:
Functional :

The dishwasher was functioning and responded to the controls. The unit was run through a cycle at the time of the inspection and appeared to be operating properly.

1: No Anti-Siphon
The drain line under the sink was not equipped with an anti-siphon device, nor was it looped up so that the top of the loop is at least six inches above the entrance of the drain line into the disposal. It is recommended at least that the drain line be looped to prevent the water from the garbage disposal from siphoning back into the dishwasher, or an anti-siphon device installed.
Obtain Cost Estimate



☒ ☐ ☐ ☐ **B. Food Waste Disposers**
Comments:
Functional:

The disposal was operating and responded to the controls at the time of the inspection.

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

Downdraft Vent - Functional:
The downdraft vent was turned on and was functioning at the time of the inspection. The equipment responded to the controls and vented to the outside.

1: Flexible vent pipe - Replace
One or more sections of the vent pipe for the equipment was a flexible vent material, rather than rigid sheet metal vent pipe. An approved sheet metal vent pipe is required. Flexible vents can to allow a buildup of grease in the joints of the flex duct, which is a known fire hazard.
Obtain Cost Estimate

2: Vent Pipe - Cover damaged
The exterior vent cover was damaged and should be repaired or replaced.

Obtain cost estimate

☒ ☐ ☐ ☐ **D. Ranges, Cooktops, and Ovens**
Comments:
Electric Cooktop - Functional:
The electric cooktop was functional at the time of the inspection and responded to the controls. All of the elements and controls were operational at the time of the inspection.

Electric Oven - Functional:
The electric oven was oberved to be functioning and no items requiring repair were visible at the time of the inspection.

Oven - Calibrated properly:
No repair was needed to the calibration of the oven thermostat. The thermostat was set at 350 degrees, and the oven heated to within the allowable ±25 degrees. The oven was checked with an oven thermometer and found to heat to 350 degrees.

I	NI	NP	D

☒ ☐ ☐ ☐ **E. Microwave Ovens**

Comments:

Functional:

No items requiring repair were visible at the time of the inspection for the heating operation of the microwave. A cup of water was placed in the unit, and the microwave heated the water adequately. It is pointed out that the unit was not checked for microwave leakage.

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

Comments:

Mechanical Vents - Functional:

The mechanical vent fans were functional at the time of the inspection. The bath vent fans responded to the switches and were functional at all the bathrooms.

1: Loose in ceiling

2nd Floor Bathroom

The exhaust vent was loose in the ceiling it needs to be secured.

Obtain Cost Estimate

☒ ☐ ☐ ☐ **G. Garage Door Operators**

Comments:

Funtional - Autoreverse and sensors:

The garage door opener equipment was functional at the time of the inspection and opened/closed when the controls were operated. The auto-reverse mechanism was operational, and the sensitivity setting on the mechanism was adequate. Also, the infrared auto reverse mechanism was functional.

☒ ☐ ☐ ☐ **H. Dryer Exhaust Systems**

Comments:

Dryer Vent :

The dryer vent appeared to be properly installed at the time of the inspection. It is pointed out that a portion of the dryer pipe was not visible where it entered the wall/ceiling. Also, dryer vents need to be cleaned periodically for safety reasons and to allow the dryer to operate properly.

☒ ☐ ☐ ☐ **I. Other**

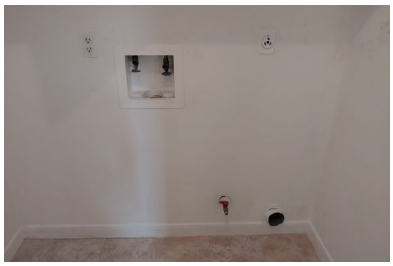
Comments:

Non Built-in Equipment - Not inspected :

It is pointed out that non built-in refrigerators, wine coolers, small refrigerators, clothes washers, and clothes dryers are not included in the scope of this inspection and were not checked. If further investigation is desired, it is recommended that a service company be contacted.

Further investigation is recommended

Dryer Connections - Electric 3 Prong and Gas:
The 240-volt outlet for the electric dryer connections was observed to be the older style 3-prong outlet rather than the newer 4-prong outlet. You may want to check your clothes dryer to determine if you have the correct power cord for this outlet. A gas connection was installed. It is pointed out that the gas valve was not operationally checked.



INFORMATION FROM HEDDERMAN ENGINEERING INC.

Closing Comments :
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 recommended that a Home Warranty Policy be provided to protect the appliances and mechanical equipment against unforeseen breakdowns during the first year. Check with your agent for details.

Items identified in the report as Deficient and 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, Obtain 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.

As an additional service, we strongly 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 Repair Pricer 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 Repair Pricer. 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