

Advantage Inspections Plus



123 Dream Street
Fulshear 77441
Prepared for:

Tuesday, February 20, 2018

PROPERTY INSPECTION REPORT

Prepared For: _____
(Name of Client)

Concerning: 123 Dream Street, Fulshear 77441
(Address or Other Identification of Inspected Property)

By: Jim Mortensen, Lic #TREC License #10257 02/16/2018
(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, bathroom, 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 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.

Report Identification: Sample Recent Construction, 123 Dream Street, Fulshear,

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: All directions perspectives are based on facing the front of the house.

Time of Inspection: 8:30 AM

Temp. During Inspection: 70 Degrees Fahrenheit

Individuals Present During Inspection: Buyers

Front of house faces the east direction.

I=Inspected

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NP=Not Present

D=Deficient

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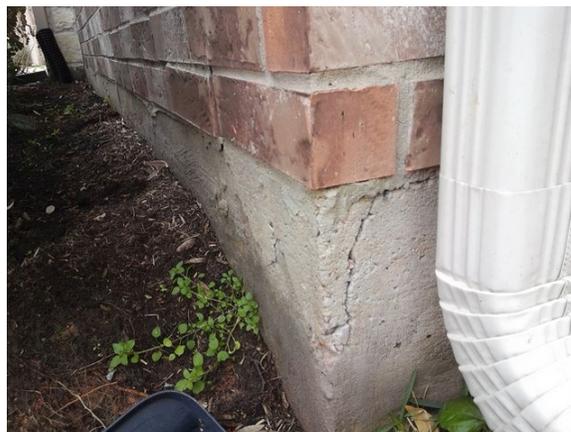
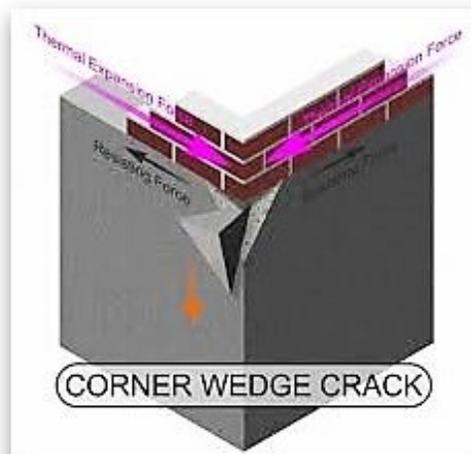
I. STRUCTURAL SYSTEMS

A. Foundations

Type of Foundation(s): Slab on grade- Post Tension Cables

Comments:

1. The foundation appears to be functioning according to its design.
2. Remember that proper maintenance of the foundation includes maintaining the moisture content of the ground that supports the foundation. Too much water is equally damaging as not enough water.
3. The crack on the corner of the foundation is often called a "shovel crack", "corner crack" or "corner wedge crack" and is very common with a post-tension slab foundation. There are steel cables that run from the front to the back of the house and from side to side of the house. After the concrete is poured, the cables are tightened to 14 tons of pressure to give the foundation rigidity and strength. The force often causes the corner of the slab to crack. For this reason, these cracks are sometimes called "corner cracks".



4. Cracks are visible in the exposed concrete slab. It is a common occurrence. These cracks are called shrinkage cracks, curing cracks, or hydration fissures. These cracks are a normally occurring side effect of how concrete cures. While they are normal, these cracks

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should be monitored for movement. If the crack widens, or if there is horizontal displacement, a structural engineer may need to evaluate the slab.



B. Grading and Drainage

Comments:

1. High soil is visible in a few areas around the house. There should be four to six inches of exposed slab beneath the bricks. The lack of the exposed concrete makes it difficult to detect wood destroying insects and other insects.



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2. This lot is drained with a shallow ditch called a swale. In the backyard, the ground is sloped away from the house and away from the fence. These slopes form the shallow ditch. This swale is supposed to surround the house on the back and carry water away from the house, down the sides of the house to the street where it goes into the storm sewer.
 - There were a couple of areas in the swale that were low and were holding water.



3. Poor grass growth is noted on the lot. This can be caused by several factors including lack of sunlight, lack of moisture, too much moisture, erosion, heavy traffic, and poor soil chemistry (amongst other causes). Determine the cause of the poor grass growth, and then treat the yard with the appropriate treatment.



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4. Consider creating the ideal drainage/foundation maintenance system. This would involve utilizing the gutters on the house, installing a sprinkler system and adding an underground drain line system at the same time as the sprinkler is installed. This will be tremendously less expensive than adding it separately, since the required equipment is already being utilized.
 - The sprinkler system waters the lawn and makes sure the foundation is properly maintained.
 - The underground drain line would have catch basins on the corners of the house and in area that tend to hold water.
 - The gutters should be tied into the underground drain line so rain water is drained directly to the street via the underground drain line,

C. Roof Covering Materials

Types of Roof Covering:

Dimensional/Architectural Asphalt Shingles

Viewed From:

Walked Roof Surface

Comments:

1. There are a few shingles that are damaged. The granules appear to have been knocked off, but damage does not appear to have gone through into the asphalt layer. This is typical of excessive foot traffic or walking on hot shingles (softer asphalt).



2. There are nail heads that need to be sealed with roofing cement. This comes in tubes and can be applied with a caulk gun.



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3. The tree branches are too close to the house. If tree branches contact the shingles, they can cause damage. Trim the tree branches as part of normal homeowner maintenance.



4. As part of normal homeowner maintenance, the roof plumbing vents need to be caulked and painted. Monitor these areas to make sure the rubber gaskets are consistently protected from damaging UV light.



5. Splash blocks are missing from beneath the gutter downspouts. This will help prevent erosion and direct water away from the foundation.



6. The gutters have damage on the right side of the roof line.

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D. Roof Structures and Attics

Viewed From:

Attic Entry

Approximate Average Depth of Insulation:

10 inches

Comments:

1. The attic insulation is polyurethane foam insulation.
2. This house was designed with the building envelope going all the way to the roof and including the attic. Most houses are built where the building envelope does not include the attic and stops at the ceiling of the second floor. This is significant because it means the house should not have a ventilated roof.
3. The unconditioned attic space above the garage has soffit vents, but needs a roof vent to allow the soffit vents to function properly.
4. The attic has three different areas that are accessible. :
 - One is above the garage and is accessed through a scuttle hole.



- There is an attic space on the left side of the upstairs game room, which is accessed through a small door. This area houses the water heater.

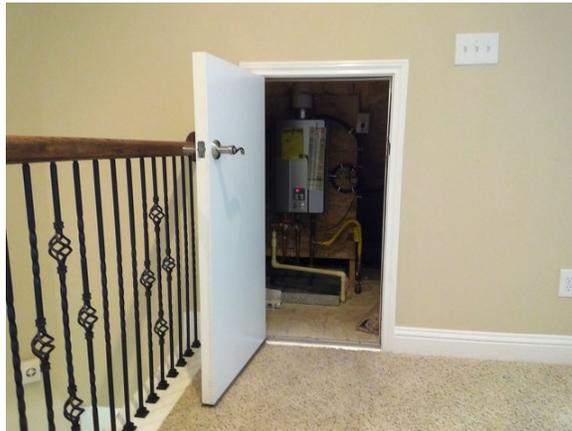
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- The last area is on the right side of the game room. It is also accessed through a small door, but this contains the HVAC system of the house.



Due to the mechanical systems of the house, there is limited access to the attic areas. There is no decking (which is typical) so use caution when going in this area.

5. The areas above the game room as well as to the left of the game room and above the living room is not accessible. There should be a scuttle hole (like in the garage) and a door in the closet (where the camera feeds are) to allow access to these areas.

E. Walls (Interior and Exterior)

Comments:

1. The exterior of the house is brick veneer, stone veneer and cement fiberboard siding with cement fiberboard trim.
2. The exterior of the house needs to be cleaned with a product like "Jomax". This is used in a low-pressure sprayer. Avoid using a high-pressure washer that damages paint and material. This product is available at most home improvement stores in the painting section. It will clean the mildew that grows on the exterior of the house.
 - For more information, visit the following website: <http://www.rustoleum.com/product-catalog/consumer-brands/jomax/jomax-house-cleaner-and-mildew-killer>
 - This typically needs to be done periodically. .
3. The faux shutters are starting to fade. They need to be refinished. Because they are wood,

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they need to be sanded, stained and then sealed. Sanding preps the surface, stain provides protection against the UV light from the sun and sealant (varnish) protects against moisture damage.



4. The trim on the garage needs to be painted. The bevelled area needs to be painted so water cannot penetrate the wood grain and cause the area to rot.



5. There are various drywall imperfections in the house that are typical of a house of this age. These include visible drywall seams, previous repairs, nail pops, settling cracks and normal wear and tear.

F. Ceilings and Floors

Comments:

1. There are nail pops visible in the ceiling. These should be considered cosmetic in nature. Remove the nail, install a drywall screw and then prepare and paint the area.

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- Noted in camera feed closet.

2. There are carpet, tile and wood laminate noted in the house.
3. There are areas of tile grout that need to be cleaned. Though this is a common occurrence in a house that is lived in, it can be cleaned by using a product called Ajax Oxygen Bleach. Use this to scrub the floors to return the floor to its original condition.

For manufacturer's information, visit this website:

<http://www.colgatecommercial.com/Ajax%C2%AE-Oxygen-Bleach-Cleanser-Heavy-Duty-Formula-14278.aspx>

4. Cracked tiles noted in the master water closet.



5. Take precautions to protect wood laminate floors.
 - There can be damage from water damage. These precautions can include:
 - I. A kill switch for the AC condensate pan.
 - II. Braided stainless steel appliance water supply lines.
 - III. Safety pans for washing machines, water heaters, and air conditioning units.
 - IV. Alarms can be installed under dishwashers and plumbing fixtures that detect leaks.
 - Wood laminate floors are softer and less durable than tile floors. They can be scratched or damaged by pets or moving furniture. Be sure to use protective pads under furniture feet to minimize any damage or marks.
 - Wood laminate floors consist of a plank with a finished top layer, an MDF core and then a finished bottom layer. These types of flooring are more susceptible to water damage

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due to the nature of MDF to swell when it gets wet. Use great caution to keep these floors as dry as possible.

Extra material is noted in the garage.

6. The oil stains in the garage concrete can be removed by a chemical process known as extraction. The material needed is lacquer thinner and floor absorbent material (for oil stains; available in the auto section). Pour a small amount of lacquer thinner on the stain. This will dissolve the oil. Use the floor absorbent material to soak up the lacquer thinner with the oil in it. For best results, crush the floor absorbent material into a powder with flat-soled shoes. This process may have to be repeated a few times. The stain may still be visible, but it will fade much faster than the straight oil stain.
7. The carpet may eventually have stains. There are various cleaning products that can be utilized for this purpose. One very effective carpet cleaner is called "Folex" and can be purchased from Home Depot or Lowe's. Check with the manufacture for recommended products and test in inconspicuous areas for color fastness. For more information visit: <http://www.folexcompany.com/>

G. Doors (Interior and Exterior)

Comments:

1. The overhead garage door needs to be lubricated. Always refer to manufacturer's instructions, but typically this means spraying all the metal, moving parts with a silicon or other dry lubricant every three months. The hinges, wheels, and springs are especially important, as this is where the wear and tear occurs. If one side of the track has more friction than the other, the door can be damaged.
2. Doors can need to be adjusted seasonally. As humidity changes, this can cause some doors to not latch that previously worked without issue.
3. Adjust the garage entry door so the reveal is consistent and the door latches properly. The gap between the door and the door jamb is known as the reveal. It should be consistent around the door and measure about 1/8th of an inch.



4. The Kwikset brand Smart Key series is recommended for new door hardware. It has been specially engineered. It is designed to be re-keyed with a simple kit instead of requiring a locksmith. The re-key kits are less than \$10 and are very easy to use. A keyless entry deadbolt is available that can also be controlled with many home security/automation

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systems (Z-wave compatible). For more information, visit:

<http://www.kwikset.com/smartsecurity/re-key-technology.aspx>

- The double door hardware needs to be lubricated as part of normal homeowner maintenance. These doors are closed and held in place with friction from a piece of hardware. This spring-loaded ball holds the door in place due to friction against the door catch at the top of the door jamb. If the ball pops loose, the door will not stay closed. This threaded insert can move if there is friction on this area. Proper maintenance is needed to avoid this. Spray silicon lubricant on these areas periodically to minimize this issue.



- Current codes require garage doors to shut automatically.

H. Windows

Comments:

Double Pane Low E Squared Vinyl Frame Windows

- The window stools need to be caulked to minimize moisture damage (Window sills are on the exterior of a house and window stool is on the inside). Remove the loose or cracked caulk and then replace. Any rotten wood or flaking paint on the stool should be repaired or replaced as well.



- This house has double pane, low e-square windows. This means the windows have a special coating that reflects heat out of the house. This coating can get contaminated and appear to be a dirty or foggy window, often with a purple hue to it. This is considered a defective window even though the glass is not broken. Contaminated window film noted in the game room.

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3. Some of the windows are tight and require more force than necessary to raise.



Side living room window, for example.

4. There are professional style window cleaning kits available to homeowners. Visit this website for more information on professional window cleaning:

Tools needed:

<http://www.ettore.com/consumers/products/window-cleaning/squeegees-washers/>

Technique needed:

<http://www.ettore.com/consumers/how-to-clean/>

These products are available from home improvement centers and can cut cleaning time considerably.

I. Stairways (Interior and Exterior)

Comments:

No issues present at the time of the inspection.

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J. Fireplaces and Chimneys

Comments:

1. The direct vent fireplace is not a traditional fireplace. It is a metal fireplace that burns gas through ceramic logs. It does not have a damper or any readily accessible parts. It is essentially a decorative furnace behind glass. This particular model operates with a wall switch.



2. Note the gas valve with the key to the left side of the fireplace.

K. Porches, Balconies, Decks, and Carports

Comments:

The patio needs to be cleaned as part of normal homeowner maintenance.

L. Other

Comments:

1. Be sure to keep the survey in a safe place that is easy to find. If/when the time comes to sell, this survey can be used in the next transaction. A survey can cost from \$500 to \$1200 depending on the property and circumstances.
2. Consider adding a glass breakage sensor to the alarm system, instead of multiple sensors on the windows or a motion detector. This will detect if any glass breaks in the house, not just the windows with sensors.
3. As a note, the kitchen drawers use dovetail joints. This is not typical and much better than typical cabinet drawers.

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II. ELECTRICAL SYSTEMS

A. Service Entrance and Panels

Location of Service Panel:

Located in the garage

Type of Electrical Service:

Underground service (known as service laterals)

Size of Electrical Service:

1/0 AWG aluminum wiring

Comments:

1. One hundred and twenty-five Amp service noted in the main panel.



2. Currently required arc-fault protection is missing (AFCI). - The Texas Real Estate Commission (TREC) requires the lack of arc-fault circuit interrupting devices serving family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreations rooms, closets, hallways, or similar rooms or areas to be noted as a deficiency. These arc-fault circuit interrupting devices were required in new construction for the first time in 2003 in bedrooms, then more areas in 2009 and then again more areas 2014 (including a combination AFCI and ground fault circuit interrupter protection). Before this time, it was not required to have these devices installed on the house. It usually is not realistic to expect a buyer to upgrade their electrical panel to current requirements. An arc-fault breaker is designed to detect when electricity does not flow properly and circumstances that can lead to an electrical fire.



3. The white wire on the shared 220 Volt circuit should be marked to indicate it is being used as a "hot" wire and not a neutral. White wires are designated for use as a neutral wire, but if used otherwise should be marked (black electrical tape or colored black with marker) so that

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if removed from the breaker, there is no doubt what it is used for.



4. Ground wire lug in electrical panel is not used.



5. The service terminals should have anti-oxidant paste. These wires are aluminum and can oxidize. When aluminum is used to bring electricity to the house it is okay. Branch circuit wiring is copper: does not have aluminum wire issues.



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B. Branch Circuits, Connected Devices, and Fixtures

Type of Wiring:

Copper

Comments:

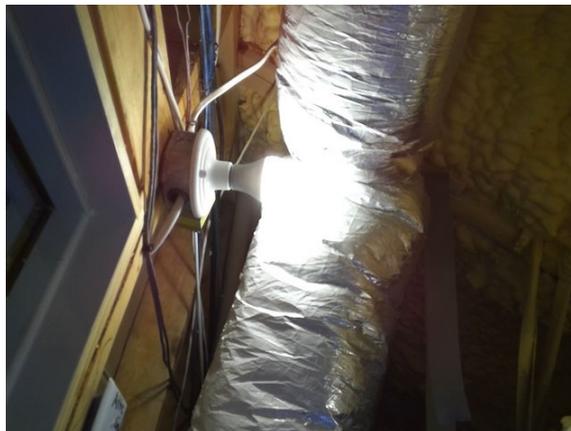
1. GFCI protection was not present in all required areas.

- A ground fault circuit interrupter (GFCI) is a device that can detect when electricity is not flowing properly. When this happens, it will interrupt the power flow to the outlet. It is required for all wet areas, including exterior outlets, garages, bathrooms, kitchen counter tops and islands.
- New electrical codes now require GFCI protection for all kitchen appliances. When this house was constructed, this was not a requirement.
- None of the exterior outlets have GFCI protection, but the GFCI reset outlet in the garage functions. This is usually what provides the GFCI protection to the exterior outlets. .



- Also, outlets in the utility room indicate they have GFCI protection, but they do not (now they are required as well).

2. The light in the closet is very close to the duct. Because this is an LED light, it most likely will not be an issues (overheating or damaging the duct). Monitor this area periodically.



3. There were various loose outlets throughout the house.

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Noted in master bedroom, for example. Also, the right picture shows a GFCI outlet that is not needed in this location.

4. Smoke detectors should be replaced every five years. They should be in each bedroom, in the hallway outside each bedroom and one on each floor. They should be wired to the electrical system so the battery is only used as a backup. They should also be interconnected, which means when one smoke detector goes off, all the smoke detectors should go off.
 - As a matter of convenience, purchase the same brand so the connections will be the same. This makes replacing the smoke detectors much easier.
5. There are new switches that can be installed in areas for greater safety or convenience:
 - Motion sensors can be installed in place of light switches in closets, hallways or utility rooms to turn the light on without using hands. One example of this product can be found by visiting the following website:
<http://www.lutron.com/en-US/Products/Pages/Sensors/Occupancy-Vacancy/MaestroOccVacSensors/overview.aspx>
 - Timers can be installed for exhaust fans in bathrooms and utility areas to minimize loss of conditioned air. For an example, please visit the following website:
http://www.leviton.com/OA_HTML/SectionDisplay.jsp?section=44956&minisite=10251
 - A spring-loaded switch can be installed for the garbage disposal so it only operates when the switch is pressed down. It will shut off automatically when not pressed down.

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III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

A. Heating Equipment

Type of Systems:

Central

Energy Sources:

Natural Gas

Comments:

1. It is recommended to service the furnace equipment every fall to make sure it is operation and perform any preventative maintenance required. Doing so will maximize the lifespan of the equipment and is considered part of proper homeowner maintenance.
 2. The furnace started without any incident. The standards and practices of the industry are to remove the cover and observe the flame pattern of the burner at the heat exchanger. This particular model is a 90-95% efficient unit. It has a second heat exchanger and neither of them is visible. Therefore, the flame pattern could only view the flame through a small window.
- It removes enough heat from the combustion process to use PVC pipes to vent the exhaust gases to the exterior of the house.



B. Cooling Equipment

Type of Systems:

Central

Comments:

1. It is strongly recommended to have the air conditioning serviced in the spring. A technician can ensure the system is running properly and efficiently. The condensate lines need to be cleared and the freon levels need to be checked. Often, by the time one notices the air conditioning is not operating properly, the significant damage to the system is done. Preventative maintenance will extend the lifespan of the equipment.
2. According to the label, the condenser was built in 2015, and is a 5 ton unit.

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3. Consider adding a water sensing kill switch that will shut the AC unit down if the unit does not function properly. This may help avoid costly drywall repairs (water damage). It would immediately indicate a possible problem with the AC system, possibly preventing damage to the AC system.



- Rust is noted in the safety pan.

4. The AC differential should be between 15-20 degrees. This refers to the temperature of the air that goes into the return air duct and the different temperature of the cooled air that comes out of the supply duct in the various rooms.

The return air was 69 degrees and the lowest register was 49 degrees.

- The differential on this unit was 20 degrees.

5. As the air conditioner removes heat and humidity from the house, it must be removed safely. This water goes down the primary condensate drain line.

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The primary condensate drain line starts in the attic by the AC unit. It then connects to the plumbing drain lines under the master bathroom sink.



The pipe on the exterior of the house that is raised above the first floor is called the secondary or emergency condensate drain line. If water is flowing out of this pipe, there is a problem with the primary condensate drain line.



Having the system serviced once a year will lessen the risk of water over flowing and causing damage to the interior of the house.

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C. Duct Systems, Chases, and Vents

Comments:

1. The filter installed in this system is known as a media filter. It is four inches thick and has pleated filter material inside it. It should be checked every 3 months, but typically only needs to be replaced every six months to a year. It depends on the lifestyle and cleaning habits of the occupants.



2. Place insulation between the ducts to reduce condensation that forms when ducts are in contact with each other.

I=Inspected

NI=Not Inspected

NP=Not Present

D=Deficient

I NI NP D



3. This house was designed with special ducts that run from the bedrooms into a common hallway or directly into the return air plenum. This allows the pressure to equalize in the bedrooms. Houses that do not have this will often have the door slam shut when the AC turns on or will have stains in the carpet under the door.
4. The thermostat was located downstairs. When a two-story house has only one unit, the thermostat is typically upstairs. This is better to control the upstairs temperature. If the thermostat is located downstairs, as the heat rises, the thermostat is less likely to detect it and turn the AC on. This can cause the upstairs to be uncomfortably warm.
When the thermostat is placed upstairs, it creates a different issue:
 - As the furnace heats the air, it rises from downstairs to upstairs. This causes the downstairs to be cooler. The thermostat senses the hot air that has risen and will turn the furnace off. If the temperature on the thermostat is raised, more hot air is introduced into the house and goes upstairs.
 - Turning the thermostat fan to "on" from "auto" will circulate the hot air from upstairs to downstairs, making the entire house more comfortable.
5. The dampers in the ducts need to be adjusted. The secondary bedroom measured 49 degrees, but the master measured 60. More cold air needs to be pushed into the master bedroom. This is known as "balancing the system". The system is cooling properly, but is not distributing the cold air properly.

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IV. PLUMBING SYSTEMS

A. Plumbing Supply, Distribution Systems and Fixtures

Location of water meter: Close to street
Location of main water supply valve: Front right exterior of house
Static water pressure reading: 54 PSI (Should be between 40-80 PSI)
Comments:

1. The plumbing supply lines in this house are PEX (cross linked polyethylene).
2. One of the anti-siphon devices is missing from the exterior hose bibs.
 - An anti-siphon device is designed to protect the home drinking water supply from contaminants. Hose bibs, dishwashers, sprinkler system and pool supply lines are required to have them.



3. Main water shut off noted below.



4. - These pipes are a rubberized plastic that is very effective.
 - There is also a manifold style distribution system, which means individual fixtures can have the water shut off without having to shut water off to the entire house.

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5. Master bath shower head leaks.



6. Both of the master sink stoppers do not function.

7. As a note, because the water heater supply valve was shut off, only the cold water could be tested on the house.

8. The left hall bath sink stopper does not function.

B. Drains, Wastes, and Vents

Comments:

1. Water was run on each plumbing fixture to determine if there are any leaks in the fixture or drain line and to see if the fixture drains properly.

- Slow drain noted in the master tub and the hall bath tub.

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I	NI	NP	D
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2. A sewer clean-out cap with a relief valve has been installed. This may allow an escape for sewage in the event of a stopped-up line.



C. Water Heating Equipment

Energy Sources:

Natural Gas

Capacity:

Unlimited- Tankless

Comments:

- 1, The water heater is located in the attic.



I=Inspected

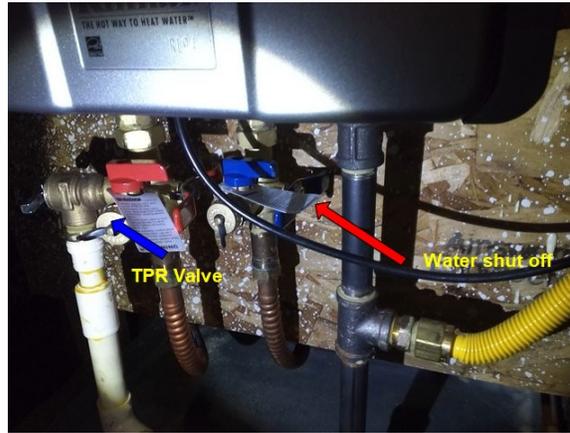
NI=Not Inspected

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I	NI	NP	D
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2. The cold water supply to the water heater is shut off.



3. The TPR (temperature pressure relief) valve is a device that will release pressure in the event of a malfunction. It prevents water heaters from exploding. The drain should discharge to the exterior of the house or to a proper drain line. It should terminate no more than six inches from the ground, be gravitational drained and not have threads on the end of the drain.

- Noted in the blue arrow in the previous photo.
- This valve should be checked as part of a home inspection. This test cannot be performed, however, because of the hard water conditions in the Houston area. If the valve is opened, the hard water deposits present will cause the valve to stay open. It often has to be replaced. Since no destructive testing can be done as part of a home inspection, this part of the water heater is observed only. There were no visible issues noted with the valve itself.

4. Be sure to read and under the specific requirements and abilities of the tankless water heater. There should be a homeowner's manual available on the manufacturer's website.

D. Hydro-Massage Therapy Equipment

Comments:

E. Other

Comments:

1. Avoid using chemical cleaners of any kind in the toilet tanks. These chemicals break down the seals and can cause water to leak from the tank into the toilet bowl. While this is not a leak that will damage the house, it is a waste of water (and money).
2. Consider using an in-line water filter. It would be installed between the water supply line and the refrigerator.

For an example of this filter visit:

<http://www.homedepot.com/p/GE-In-line-Water-Filtration-System-for-Refrigerators-or-Icemakers-GXRTDR/202073877>

3. Take precautions to preserve the shower glass. When water evaporates, the minerals remain

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I	NI	NP	D
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as spots. It is important to remove the water from glass. Using a shower spray or squeegee daily is recommended. Applying car wax or Rain-X to the glass will keep water from sticking to the glass.

4. Leak detectors are recommended to minimize any water damage in the event of a leak. These can be placed in the utility room, attic space (by water heater) and in the kitchen. There are different models available that have audible alerts, can send alerts to smart phones through a wi-fi component or can be attached to a servo that will shut off a pipe. Discuss with a plumber or home automation expert the pros and cons of the different systems to find out which is best.
5. A gas cap is needed for the clothes dryer gas line.



6. The gas meter is located on the left side of the house.



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I	NI	NP	D
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V. APPLIANCES

A. Dishwashers

Comments:

No issues present at the time of the inspection.

B. Food Waste Disposers

Comments:

No issues present at the time of the inspection.

C. Range Hood and Exhaust Systems

Comments:

No issues present at the time of the inspection.



D. Ranges, Cooktops, and Ovens

Comments:

1. The cook top is a gas appliance.



2. The double wall oven is an electric appliance.

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I	NI	NP	D
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3. Oven accuracy is tested by setting the thermostat to 350 degrees and then measuring the temperatures. Acceptable temperatures fall between the range of 325 and 375.
 - The upper is a microwave oven. .
 - The lower oven reached 330 degrees Fahrenheit.

E. Microwave Ovens

Comments:

Microwave is integrated into the oven.

F. Mechanical Exhaust Vents and Bathroom Heaters

Comments:

1. This house contains a fan/light/heater unit not found in most modern construction houses.



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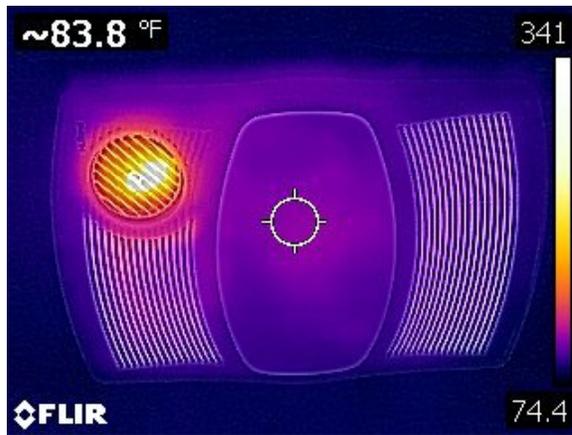
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2. When measured with an infrared thermometer, the heater was degrees 282 Fahrenheit.



Infrared indicates the hottest point is 341 degrees. Use caution with this appliance. Read the owner's manual for any specific safety instructions.

G. Garage Door Operators

Comments:

No issues present at the time of the inspection.

H. Dryer Exhaust Systems

Comments:

No issues present during the time of the inspection.

I. Other

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VI. OPTIONAL SYSTEMS

A. Landscape Irrigation (Sprinkler) Systems

Comments:

B. Swimming Pools, Spas, Hot Tubs, and Equipment

Type of Construction:

Comments:

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: