

# **Texas Real Estate Commission Professional Inspector License #22646**



15200 Moonlight Trail

**Prepared for: Bryon Bauer** 

# **DualCheck Inspections LLC**

# PROPERTY INSPECTION REPORT

**Prepared For:** Bryon Bauer

**Concerning:** 15200 Moonlight Trail Conroe, Texas 77384

**Inspection Date:** 06/25/2019

By: Inspector Name: Tyler Noyes License Number: 22646 Date:

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Signature:

Phone: 832-331-0738 E-Mail: tylern@dualcheckinspections.com

### 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 sellers 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 ASAN 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

I NI NP D

# I. STRUCTURAL SYSTEMS

# $\square$ $\square$ A. Foundations

Type of Foundation: Slab on Grade Comments:

- The foundation walls should be exposed at a minimum 4" for masonry siding (Brick, Stone, Stucco), and a minimum of 6" for non-masonry siding material. Recommend removing excess grade for proper exposure and to assure proper drainage away from the foundation walls and to deter wood destroying insects.
- The tension cables installed within the foundation were observed to be exposed at the front of the structure at the visible foundation wall. The cable end should be properly sealed with epoxy to prevent exposure and rapid deterioration to the cables. Repair as needed.
- There was spalling and settling noticed at the exposed foundation wall near the patio, between the garage and home. This does not appear to be causing any structural issues at this time. Repair as needed.
- The garage floor was noticed to have minor cracks in the surface of the concrete. These appear to be hydration/shrinkage cracks or settling, and are not an issue at this time. Cracking is inevitable and expected, however these areas should be sealed and monitored for further deterioration.
- The foundation appears to be performing as intended at the time of the inspection, common settling was noticed.



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Type of Foundation(s): (continued)

Foundation not exposed

Cracks (garage)

Garage and home were coupled not pread to the coupled not pread to th

Note: Weather conditions, drainage, leakage, and other adverse factors are able to effect structures, and differential movements are likely to occur. The inspectors opinion is based on visual observations of accessible and unobstructed areas of the structure at the time of the inspection. Future performance of the structure cannot be predicted or warranted.

SUGGESTED FOUNDATION MAINTENANCE & CARE: Proper drainage and moisture maintenance to all types of foundations due to the expansive nature of the area load bearing soils. Drainage must be directed away from all sides of the foundation with grade slopes. In most cases, floor coverings and/or stored articles prevent recognition of signs of settlement cracking in all but the most severe cases. It is important to note, this was not a structural engineering survey nor was any specialized testing done of any sub-slab plumbing systems during this limited visual inspection, as these are specialized processes requiring excavation. In the event that structural movement is noted, client is advised to consult with a structural engineer who can isolate and identify causes, and determine what corrective steps, if any, should be considered to either correct and/or stop structural movement.

Note: DualCheck Inspectors are not structural engineers and are not acting as a structural engineer. All statements relating to structural movement are based on the professional opinion of this company.

### **B. Grading and Drainage** - Comments:

- There appears to be improper grading and drainage of the property at the front, right and rear side of the main house, and also at the left and rear side of the garage. The property should be graded so that surface water will drain away from foundation walls at a minimum slope of 6" within 10'. Lot drainage should divert to the street as to not create a hazard on the property. A few subsurface drains were noticed around the yard, effectiveness can not be determined.
- Trees/foliage too close to the structure. There should be a clear barrier of 18" from external walls and 36" from gutters and roof surface. Trim or remove as needed.
- The gutters installed at the apartment/garage, were noticed to be full of debris. Recommend clearing the gutters for proper drainage.
- The gutter guards at the front of the house, were observed to be damaged. Repair/Replace as needed.
- The section of gutters above the balcony, was observed to be damaged and starting to separate from the structure, causing Page 4 of 45

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I NI NP D

B. Grading and Drainage (continued)

the a negative slope. Repair/Replace as needed.



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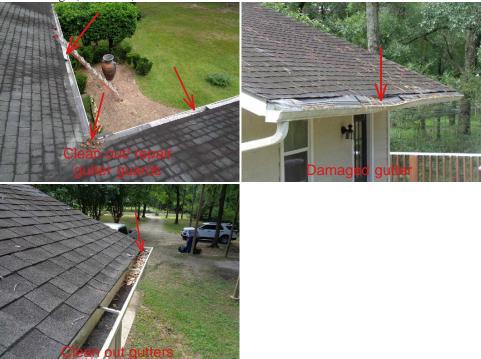
NI=Not Inspected

**NP=Not Present** 

**D=Deficient** 

## I NI NP D

B. Grading and Drainage (continued)



Note: This inspection does not include the efficiency or operation of underground or surface drainage systems, detention/retention ponds, area hydrology or the presence of underground water. Grading and drainage was examined around the foundation perimeter only. Information as to where this property lies in reference to the flood plain is not determined by this inspection.

### 

Type of Roof Covering: Shingles Viewed from: Roof Surface Comments:

- -Exposed nail heads were observed at the roof surface at both the house and apartment. Recommend sealing all exposed heads to prevent moisture penetration into the attic space. Correct as needed.
- The plumbing vent pipes at the rear side of the house were not the appropriate height. Plumbing vent pipes should extend between 6-12" above the roof surface. Correct as needed.
- Trees were observed to be in contact with the roof surface. Recommend trimming trees to give 36" clearance to prevent rapid deterioration of the roof covering material. Correct as needed.
- Raised flashing was observed at several vents and penetrations at the roof. Flashing helps prevent moisture penetration, and should be sealed periodically as a part of regular homeowner maintenance. Repair and seal as needed.
- There appears to be improper flashing at the chimney. See illustration. Repair as needed.
- A few areas on the roof were noticed to have damaged, loose or missing shingles. Repair/Replace as needed.
- There should be a 2" space of exposed underlying flashing where the exterior siding meets the roof surface. The spacing allows for visual inspection of the flashing and to prevent rapid deterioration of the siding and roof covering. Repair/Replace as needed.

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**D=Deficient** 

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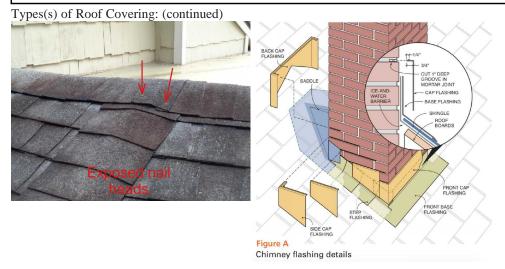
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Types(s) of Roof Covering: (continued) amaged shin sted/raised flashing

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Note: This inspection is not meant to determine the remaining life of the roof covering, age of the roof covering, identify latent hail damage, determine the number of layers of roof covering material, or provide an exhaustive list of previous repairs and locations of water penetrations/leakage. Roof covering life expectancies can vary depending on several factors (i.e. sun, wind, rain, etc.). The visual inspection of the roof covering thus does not preclude the possibility of leakage. The roof covering will be viewed from the ground if the inspector may damage the roof covering or cannot safely reach or stay on the roof surface.

Note: Gutters should be cleaned frequently to prevent the accumulation of leaves and debris. Improperly secured gutters, as a result of weight from the accumulation, may cause potential damage to the adjacent exterior/roof.

# 

Viewed from: In the Attic, some areas were inaccessible due to head space and missing decking/platforms Approximate Average Depth of Insulation: Could not record average depth, insufficient insulation Comments:

- There was deflection observed at the house and apartment roof, after inspecting the roof structure in the attics, it appears the roof structure is not adequately supported and should have struts/purlins installed that will help reduce the sag the roof. The roof was not holding water and no leaks were present at the time of the inspection. However, I do recommend a licensed and insured roofer/framer further evaluate the roof structure and make any necessary repairs.
- The loose fill and batt insulation at both attics, was noticed to be displaced, missing and contain a lot of trash/debris in several locations. Insulation should be evenly installed throughout the attic space so the proper R-value is achieved at all required locations.
- The attic access door was not insulated. Recommend installing insulation or a properly rated cover to prevent AC/heat loss.
- The ladder for the attic access was noticed to be damaged. This is a safety concern, repair/replace as needed.
- The vent covers for the exhaust pipes, were observed to have daylight coming through. All vents at the roof should be properly sealed to prevent moisture from entering the home. Correct as needed.
- Moisture marks were observed on the rafters and decking at both attics. There was no moisture detected at the time of the inspection. Recommend consulting with seller to determine if these areas were repaired in the past.

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**D=Deficient** 

I NI NP D



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Viewed From: (continued)



# I NI NP D

Viewed From: (continued)



Note: It is considered beyond the scope of this inspection and unsafe to enter attics and unfinished spaces where access is less than 22" x 30", head room is less than 30", operate power ventilators, or provide an exhaustive list of locations of water penetrations. Current building code calls for a minimum of R-30 insulation, or 10-12 (more in colder climates). However, a principle of energy efficient building in hot, humid climates such as Houston is to utilize less insulation (R-19/6-8) with a radiant barrier on the attic ceiling.

# **E.** Walls (Interior and Exterior) - Comments:

Exterior walls:

- Several areas of the wood siding was observed to be soft and deteriorated due to moisture damage. All areas were not documented with pictures. Recommend Replacing siding to prevent further deterioration.
- The siding was observed to be loose and wavy at the left side of the apartment above the garage. Repair/Replace as needed.
- The fascia board above the balcony is starting to separate from the structure. the damaged/sagging gutter system is the cause of the damage and should be repaired to prevent further deterioration.

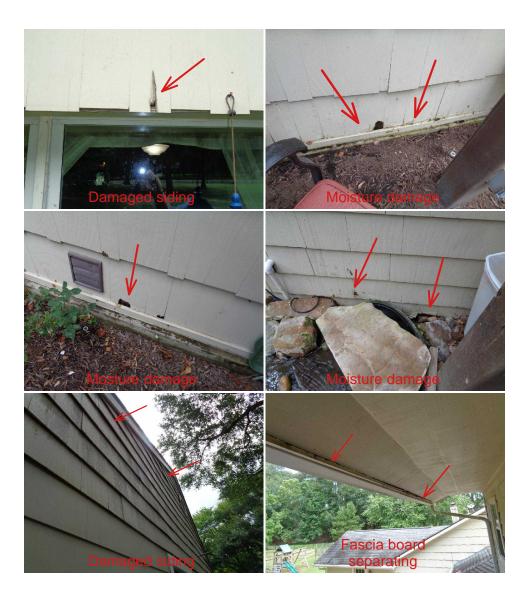
Interior walls:

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## I NI NP D

- E. Walls (Interior and Exterior) (continued)
  - The garage had several frame issues at the time of the inspection (Not all areas were documented with pictures). I recommend a professional and insured framer further evaluate the structure and make any necessary repairs. See list of issues below.
    - There were several studs, top plates, and joists that were bored or notched incorrectly.
  - There was areas of missing fire-blocking between the garage and the apartment above. The bottom of the tub basin was visible from the garage, leaving an opening to the apartment above. Fire-blocking does not prevent the spread of fires throughout a structure, but it does slow it down to allow for personnel to get to safety. This is a safety issue and should be corrected as soon as possible.
  - The support beam that runs through the middle of the garage ceiling, was not properly supported by the studs or post below it. The studs and post must be the same width or wider than the beam they are supporting above.
    - The support post at the center of the garage was not properly secured to the beam or the foundation.
  - When electrical wiring and plumbing are run through a stud, joist, or top plate they should be properly protected by metal plates to prevent damage by nails. The requirements for installing protective plates over bores and notches differs with depth.



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I NI NP D

E. Walls (Interior and Exterior) (continued)



Note: Cosmetic defects are not a part of the scope of a T.R.E.C. inspection. However, cosmetic defects are sometimes included as they may be a symptom of conditions that are part of a T.R.E.C. inspection such as leaks and water penetration.

# **▼□□▼ F. Ceilings and Floors** - Comments:

### Ceilings:

- The ceilings appear to be performing as intended at the time of the inspection. Minor settling was observed in the form of drywall cracks and screw pops.

### Floors:

- The flooring at the apartment was observed to be slightly uneven/sloped at the kitchen and living- room. This could be from the float beneath the finished flooring or a possible issue with the subfloor decking.



Note: Cosmetic defects are not a part of the scope of a T.R.E.C. inspection. However, cosmetic defects are sometimes included as they Page 14 of 45

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## I NI NP D

may be a symptom of conditions that are part of a T.R.E.C. inspection such as leaks and water penetration.

Note: Floor coverings were not removed/relocated for inspection. The inspector did not determine the condition of floor or ceiling coverings unless such conditions affect structural performance or indicated water penetration.

Note: The Inspector does not move, lift, or relocate any furniture or personal items. This is an exhaustive measure and outside the requirements of a TREC professional Inspector

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#### Exterior doors:

- The apartment entry door did not have a key to operate the lock on the doors at the time of the inspection. Any keyed locks for exterior doors should be changed to manual locks that do not require a key to operate from the inside. These doors are main paths of egress and pose a potential safety hazard if the home needs to be evacuated. Correct as needed.
- The apartment entry door was observed to rub against the jamb. Adjust the door for proper function.
- The left and right side doors were observed to have air gaps where visible sunlight was coming through when the door was closed. recommend adjusting door/weather stripping for proper seal.
- The front entry door knob was loose. Repair as needed.
- The left side entry door was not latching when closed. Adjust as needed.

### Interior doors:

- The interior doors appeared to be performing as intended at the time of the inspection.



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I NI NP D

G. Doors (Interior and Exterior) (continued)



H. Windows - Comments:

- Several windows throughout both structures were observed to have stains on the interior sides of the panes. This is the result of broken seals. A broken seal does not diminish the integrity of the windows. However it does lose the majority of its energy efficiency features once the seal is broken. Repair/Replace as needed.



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Notes: Current codes have established a minimum windowsill height of 42 inches in an effort to reduce the number of young children that fall through windows. Care should be taken when considering placement of "climbing" items, with finger and toeholds, (such as furniture) to the adjacent area. It should be noted that establishment of a sill height may limit the access to the window and reduce its effectiveness as an emergency.

# **I. Stairways (Interior and Exterior)** - Comments:

- The exterior stairway was performing as intended at the time of the inspection.

# **☑ ☐ ☐ J. Fireplaces and Chimneys** - Comments:

- The fireplace was performing as intended at the time of the inspection.
- The chimney was performing as intended at the time of the inspection.

Note: If the fireplace is used extensively, it should be cleaned and serviced regularly by a professional that is certified by the Chimney Safety Institute of America. For more information go to www.csia.org.

Note: No determination could be made regarding adequate "fire-stopping" or "fire-blocking," as the areas were not accessible at the time of the inspection. In addition, the inspector did not make a determination of the adequacy of the draft or perform a chimney smoke test.

# **⊠ ☐ K. Porches, Balconies, Decks, and Carports** - Comments:

- The porches and balcony appear to be performing as intended at the time of the inspection.

# L. Other - Comments:

- There is evidence of possible rodents or squirrels on the attic. Several pieces of insulation was chewed or damaged. Recommend asking owners if the home has a history of rodents in the attic space.



Note: The inspector did not inspect any yard enclosures/fences.

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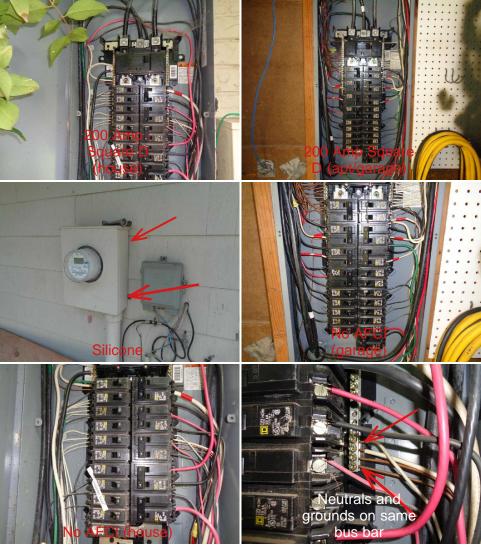
# II. ELECTRICAL SYSTEMS

# A. Service Entrance and Panels - Comments: Copper,

Panel: 200 amp / Square D (house)

Panel: 200 amp / Square D (garage/apartment)

- The electrical meter box and panel should have caulk or silicone around the perimeter to prevent moisture or pests from entering the home. Correct as needed.
- There were no AFCI breakers installed at the time of the inspection. AFCI breakers were not required in older residential construction. However, they are required in all living areas of the home, such as bedrooms, living rooms, study, game-room, hallways, etc. Recommend a licensed Electrician come out and make all necessary repairs.
- Grounds and Neutrals should be secured to the provided bus bars (ground to ground bar) (neutral to neutral bar). Correct as needed.



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I NI NP D

A. Service Entrance and Panels (continued)



Note: It is beyond the scope of the inspection to determine present or future sufficiency of service capacity amperage, voltage, or the capacity of the electrical system; perform voltage drop calculations; determine accuracy of the labeling; operate and verify effectiveness of overcurrent devices.

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

Type of Wiring: Copper

Comments:

### Fixtures/Switches:

- All exterior electrical fixtures/switches should have silicone around them to prevent moisture from getting behind the fixture/switch and into the wall space. Correct as needed.
- Several light fixtures throughout the home were not functioning at the time of the inspection. Possibly bulb related. Repair/replace as needed.
- The doorbell did not function at the time of the inspection. Repair/Replace as needed.

#### Outlets/Wiring:

- There were no GFCI protected outlets installed at the following areas. GFCI protected outlets are required to prevent electrical shock. GFCI protected outlets should be installed at all exterior, garage, kitchen, bathroom, laundry room, and wet bar outlets. Recommend a licensed and insured electrician further evaluate the electrical system and make any necessary changes/repairs.
  - Exterior outlet at front porch
  - Exterior outlet at garage would not reset
  - Laundry room outlets
- Several outlets were noticed to be loose when testing them Repair as needed.
- Unused wires were observed at the rear side of the garage. Appear to be for a hot tub. Secure or remove unused wires.
- All accessible outlets were checked for open grounds, open neutrals, open hot, hot/ground reverse, hot/neutral reverse, and proper GFCI requirements.

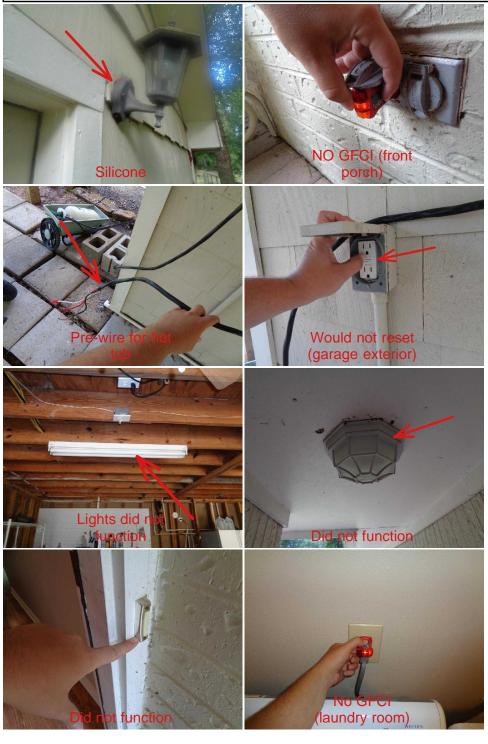
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I NI NP D



I NI NP D

Type of Wiring: (continued)



Note: Inspection of outlets, switches and accessory connections could be limited due to concealment.

GROUND FAULT CIRCUIT INTERRUPTER (GFCI): Devices provide protection from shock or possible electrocution by detection slight current leakage and "breaking" the circuit. GFCI protection is both a code (NEC) and a common sense requirement for all exterior outlets, bathroom outlets, any outlet in a pool or hot tub area, kitchen/bar outlets, laundry room outlets, and garage outlets.

Note: Refrigerators and freezers, no matter where they are located, are two appliances that should never be plugged into a GFCI circuit. They have a bad habit of causing the protective device to trip, or turn off and may result in spoiled food.

# III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

# **□□□** A. Heating Equipment

Type of Systems: Forced air

Energy Sources: Natural gas, Electric

Comments:

Unit #1

Approx. age: 2015 (4 years) (gas)

- The gas line for the furnace was noticed to be missing its drip leg. The drip leg helps prevent blockage and should be installed to prevent build-up of sediment inside the gas line. Install for proper functionality.
- The heating equipment appears to be performing as intended at the time of the inspection.

Unit #2

Approx. age: 2006 (13 years) (electric)

- The heating equipment is an older unit and is past its usual life expectancy. Recommend getting the equipment serviced by a licensed HVAC technician if not done so in the past year.
- The heating equipment appears to be performing as intended at the time of the inspection.

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### I NI NP D





**⊠**□**⊠** B. Cooling Equipment

Type of Systems: Central A/C Comments:

Unit #1 (4 Ton) (house)

Approx. age: Condenser - 2016 (3 years) Evaporator coils - 2016 (3 years)

- The opening for the A/C lines where they pass through the exterior wall, should be fully sealed to prevent pests from entering the home. Repair as needed.
- The debris and foliage should be removed from the outdoor fan and allow 12-24" of clearance for proper air flow. Correct as needed.
- The insulation for the suction line at the attic was observed to be deteriorated or damaged. Repair/Replace to prevent condensation.
- The drain line for the HVAC system was observed to be connected to a flexible pipe. Drain lines should be rigid material that does not allow flex in the line or kinks to better prevent clogs, and to ensure the proper slope to drain.

Ambient air test was performed by using thermometers on the air handler of the system to determine if the difference in temperatures of the supply and return air are between 15 degrees and 20 degrees, which indicates if the unit is cooling as intended. this is called a Delta T test.

Supply Air Temp: 54F Return Air Temp: 72F Temp. Differential: 18F

- The Cooling equipment was performing as intended at the time of the inspection.
- The thermal revealed no leaks from the condenser or exposed liquid/suction lines at the time of the inspection.

Unit #2 ( 1 1/2 Ton) (apartment)

Approx. age: Condenser - 2005 (14 years) Evaporator coils- 2006 (13 years)

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### I NI NP D

- B. Cooling Equipment (continued)
  - The opening for the A/C lines where they pass through the exterior wall, should be fully sealed to prevent pests from entering the home. Repair as needed.
  - There was a plant growing out of the secondary drain line for the HVAC system. Recommend clearing drain lines to prevent moisture from overflowing from the drain pan.

Ambient air test was performed by using thermometers on the air handler of the system to determine if the difference in temperatures of the supply and return air are between 15 degrees and 20 degrees, which indicates if the unit is cooling as intended. this is called a Delta T test.

Supply Air Temp: 60F Return Air Temp: 78F Temp. Differential: 18F

- The Cooling equipment was performing as intended at the time of the inspection.
- The HVAC system is past its manufacturers normal life expectancy, and should be fully evaluated by a licensed and insured HVAC technician.
- The thermal revealed no leaks from the condenser or exposed liquid/suction lines at the time of the inspection.



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I NI NP D

Type of Systems: (continued) Remove debris/folia Damaged insulation 54.1 °F 78.1 Supply 54F avg (house) piping 53.9

I NI NP D

Type of Systems: (continued) 75.4 **51.8** °F 57.6 °F 73.8 Supply 54F avg Supply 54F avg 51.7 (house) (house) **\$FLIR** 56.4 OFLIR 52.0 °F 69.5 **72.7** °F 78.3 Return 72F avg (house) 51.0 ¢FLIR 71.1 80.9 **59.9** °F 106 ~60.1 °F Supply 60F avg Supply 60F avg (apartment) 59.5 59.5 CFLIR 77.7 °F 82.7 **84.9** °F 84.8 Return 78F avg (apartment) 75.4 **\$FLIR** (house/apt) **SFLIR** 

I NI NP D

Type of Systems: (continued)



Note: Please verify that HVAC equipment has been serviced recently, preferably in the last year. Neglect of annual servicing for the HVAC equipment may not allow the systems to provide and maintain maximum efficiency and may lessen the serviceable life span.

Note: The inspector did not program digital-type thermostats or controls or operate setback features on thermostats or controls. The inspector did not inspect the pressure of the system coolant or determine the presence of leaks in the system.

# **◯ ◯ ◯ C. Duct Systems, Chases, and Vents** - Comments:

- The filters were observed to be dirty and in need of replacement. Recommend replacing filters every 3-6 months for maximum efficiency of the system.
- The ductwork should be suspended from the rafters and not resting on the ceiling joists. This helps to prevent kinks and warped ducts for better air flow of the system. Correct as needed.
- Duct work touching / overlapping at several locations. These areas should be separated with batt insulation to prevent the buildup of condensation between the ductwork.
- There were no supply vents noticed at the master bathroom or laundry room. Recommend installing ducts to these rooms for better air balance and comfort in the home.





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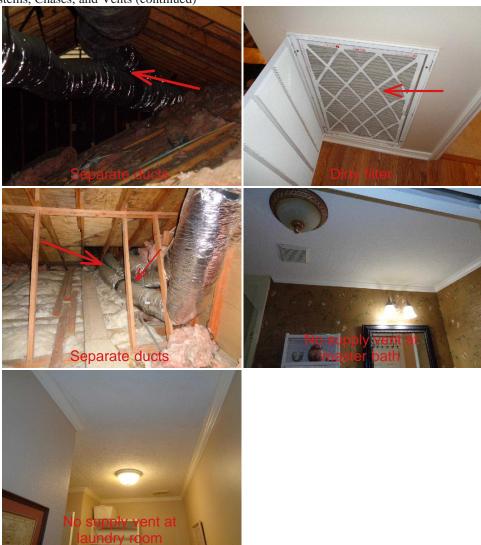
NI=Not Inspected

**NP=Not Present** 

**D=Deficient** 

I NI NP D

C. Duct Systems, Chases, and Vents (continued)



# IV. PLUMBING SYSTEM

# **□ □ A.** Plumbing Supply, Distribution Systems and Fixtures

Location of water meter: N/A

Location of main water supply valve: Left side of house Static water pressure reading: 40-80 psi (normal range)

Comments: Copper, Galvanized

Bathtubs, Showers, and Sinks:

- The glass door for the shower enclosure would not close and seal against the weather stripping. Recommend adjusting door to prevent moisture from getting outside the shower enclosure.
- The diverter valve for the master bathroom bathtub was not operating correctly. The valve would not close completely in order to divert the water to the above shower fixture. Repair as needed.

Commodes:

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# I NI NP D

A. Plumbing Supply, Distribution Systems and Fixtures (continued)

- The flush lever for the hallway bathroom commode was observed to be loose. Repair/replace as needed.

### Washing Machine Connections:

- The washing machine connections could not be inspected at the apartment. Inaccessible.
- The washing machine connections were performing as intended at time of inspection.

## **Exterior Plumbing:**

- The hose bibs located at the exterior were noticed to be missing the proper insulation material around the exposed pipe. Recommend installing to prevent freezing during lower temperatures.
- The exterior hose bibs did not have anti-siphon devices installed. These are required on all exterior supply fixtures to prevent dirty water from backing up into the clean water supply. Install as needed.



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# I NI NP D

Location of water meter: (continued)



**B. Drains, Wastes, and Vents** - Comments:

- All drains, wastes, and vents were performing as intended at time of inspection.

# **□□□** C. Water Heating Equipment

Energy Sources: Natural gas, Electric Capacity: 38 gal (house) 30 gal (apartment)

Comments:

Unit #1 (30 gal - electric)(apartment) Approx. Age: 2003 (16 years)

- The hot/cold lines for the water heater should be insulated to prevent condensation. Correct as needed.
- The water heater is beyond its normal life expectancy and should be fully evaluated by a licensed plumber for an accurate estimate on remaining life expectancy.
- The water heater was operating as intended at the time of the inspection.

Unit #2 (38 gal - gas)(house) Approx. Age: 2005 (14 years)

- The gas line for the water heater was noticed to be missing its drip leg/sediment trap. The drip leg helps prevent blockage and should be installed to prevent build-up of sediment inside the gas line. Install for proper functionality.
- Debris/insulation was observed in the drainage pan. Recommend removing debris to prevent blockage in the drain line.
- The water heater is beyond its normal life expectancy and should be fully evaluated by a licensed plumber for an accurate estimate on remaining life expectancy.
- The water heater was operating as intended at the time of the inspection.

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NI=Not Inspected

**NP=Not Present** 

**D=Deficient** 

### I NI NP D





Note: Manufacturers recommend testing the water heater temperature and pressure relief valve routinely to ensure that waterways are clear and the device is free of corrosion deposits. Manufacturers also strongly recommend that a qualified plumbing contractor remove T&P valves over 3 years of age and inspect them for corrosion or sediment buildup and proper condition. It has been our experience that valves, which have not been properly maintained or are in excess of 3 years of age do not reseat themselves or may later begin to leak. The danger of a defective T&P valve is that water in a closed system (water heater tank) and under pressure has a much higher boiling point, which varies with pressure.

		D. Hydro-Massage	Therapy	Equipment -	Comments:
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Note: Due to possible health hazards associated with using the hydrotherapy equipment, proper disinfecting and cleaning is recommended prior to use.

	$\square \boxtimes$	E.	Other -	<ul> <li>Comments</li> </ul>
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NI=Not Inspected

I=Inspected
I NI NP D

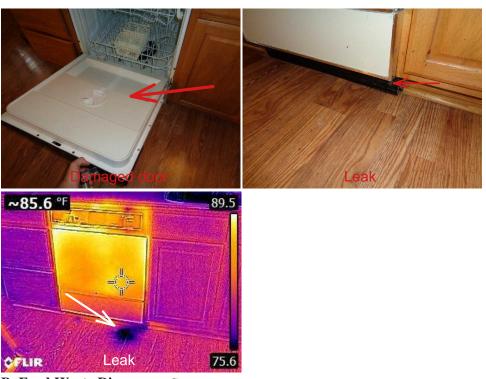
NP=Not Present D=Deficient

# V. APPLIANCES

Note: Appliances were tested using normal operating settings and only for a short period. Thermostats, timers, self-cleaning cycles and other features and controls are not tested for operation.

# **A. Dishwashers** - Comments:

- The dishwasher at the house completed a full cycle and was performing as intended at the time of the inspection.
- The dishwasher for the apartment was noticed to have damaged door and was also leaking at the time of the inspection. Repair/Replace as needed.



**□ □ B. Food Waste Disposers** - Comments:

- The Garbage Disposals appeared to be performing as expected at the time of the inspection.

# C. Range Hood and Exhaust Systems - Comments:

- The Range Hood appeared to be performing as expected at the time of the inspection.

# **□ D. Ranges, Cooktops, and Ovens** - Comments:

- Both Ranges appears to be performing as intended at the time of the inspection.

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I NI NP D

### **E.** Microwave Ovens - Comments:

- Both Microwaves appear to be performing as intended at the time of the inspection.

## **F. Mechanical Exhaust Vents and Bathroom Heaters** - Comments:

- All of the exhaust fans terminate into the attic area. All exhaust fans should terminate to the exterior of the structure to prevent warm moist air from being trapped in the attic space. Correct as needed.



G. Garage Door Operators - Comments:

Note: As of January 1, 1991, federal law requires manufactures of garage doors to provide an internal reversing mechanism that causes the door to reverse when it hits an obstruction.

Also, federal law requires that all residential garage door openers sold in the United States since 1993 must include an additional protection against entrapment, such as photoelectric eyes or a sensing edge. The law also requires that, if these sensors become inoperative, the opener will not function. Your garage door opener can be dangerous if it does not have these safety devices in place and can result in injury or death.

# H. Dryer Exhaust Systems - Comments:

- Was not able to inspect for proper function or lint build up. Dryer was connected at the time of the inspection. (apartment)
- The dryer exhaust was observed to have lint build up. This can create a fire hazard if the exhaust gets completely compromised. Correct as needed.

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NI=Not Inspected

**NP=Not Present** 

**D=Deficient** 

I NI NP D

H. Dryer Exhaust Systems (continued)



Note: Dryer vents should be periodically checked for excessive lint buildup. Cleaning the dryer's lint screen before each use will prevent lint buildup and saves energy.

# **I. Other** - Comments:

- Several smoke detectors were missing throughout the house and apartment. Smoke detectors are required in all bedrooms outside all bedrooms and at least one on each floor of the structure. This is a safety issue and should be corrected as soon as possible.



Note: Refrigerators and similar appliances are not inspected for operation, as they are not included in the "general scope" of this inspection.

I NI NP D

# VI. OPTIONAL SYSTEMS

# **△ A.** Landscape Irrigation (Sprinkler) Systems - Comments:

Panel located at garage - 6 zones

- The insulation for the backflow diverter, was observed to be deteriorated. Correct as needed.
- Several zones have sprinkler heads that are in need of adjustment. heads should not lean, be installed above grade, spray structures, flat concrete surfaces, or fences. This helps with preventing damage, wasting water, and deteriorating surrounding features. adjust as needed.
  - -Zone 1
  - -Zone 2
  - -Zone 4
  - -Zone 6
- The following zones have sprinkler heads that are damaged. Repair/Replace as needed.
  - -Zone 2
  - -Zone 3



NI=Not Inspected

**NP=Not Present** 

**D=Deficient** 

I NI NP D

A. Landscape Irrigation (Sprinkler) Systems (continued)



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:

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## I NI NP D

D. Private Water Wells (continued)

Type of Storage Equipment:







**⊠**□□**⊠** E. Private Sewage Disposal (Septic) Systems

Type of System: Aerobics

Location of Drain Field: drain field located behind structure (50 yards)

Comments: Appears to be operating normally

- The handle for the lid of the aerobics pump, was observed to be damaged. Repair/replace as needed.
- Trees were observed to be within the perimeter of the drain field. Trees should not be located in or near the drain field to prevent damage to subsurface drain piping.
- The rear right spray head for the septic system would not retract back inot the housing compartment. Repair/Replace as needed.
- The septic system appears to be performing as intended at the time of the inspection.



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REI 7-5 (Revised 05/4/2015)

I=Inspected NI=Not Inspected N

NP=Not Present

**D=Deficient** 

I NI NP D

Type of System: (continued)



F. Other - Comments:

- Pond is not retaining the water and starting to drain out towards the front driveway/walk.



Report Identification: 15200 Moonlight Trail - Conroe, Texas 77384

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

I NI NP D

#### Definitions

The following definitions of comment descriptions represent this inspection report. Any recommendations by the inspector to repair or replace suggests a second opinion or further inspection by a qualified contractor. All costs associated with further inspection fees and repair or replacement of item, unit or component should be considered before you purchase the property. All comments by the inspector should be considered before purchasing this home.

Inspected (I) = I visually observed the item, component or unit and if no other comments were made then it appeared to be functioning as intended allowing for normal wear and tear.

Not Inspected (NI)= I did not inspect this item, component or unit and made no representations of whether or not it was functioning as intended and will state a reason for not inspecting.

Not Present (NP) = the item, component or unit is not in this home or building.

Deficient (D) = this item, component or unit is not functioning as intended, or needs further inspection by a qualified contractor. Items, components or units that can be repaired to satisfactory condition may not need replacement.

#### 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; and \* lack of electrical bonding and grounding.

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.

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.

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# Summary

### I. STRUCTURAL SYSTEMS

### A. Foundations

- The foundation walls should be exposed at a minimum 4" for masonry siding (Brick, Stone, Stucco), and a minimum of 6" for non-masonry siding material. Recommend removing excess grade for proper exposure and to assure proper drainage away from the foundation walls and to deter wood destroying insects.
- The tension cables installed within the foundation were observed to be exposed at the front of the structure at the visible foundation wall. The cable end should be properly sealed with epoxy to prevent exposure and rapid deterioration to the cables. Repair as needed.
- There was spalling and settling noticed at the exposed foundation wall near the patio, between the garage and home. This does not appear to be causing any structural issues at this time. Repair as needed.
- The garage floor was noticed to have minor cracks in the surface of the concrete. These appear to be hydration/shrinkage cracks or settling, and are not an issue at this time. Cracking is inevitable and expected, however these areas should be sealed and monitored for further deterioration.
- The foundation appears to be performing as intended at the time of the inspection, common settling was noticed.

### B. Grading and Drainage

- There appears to be improper grading and drainage of the property at the front, right and rear side of the main house, and also at the left and rear side of the garage. The property should be graded so that surface water will drain away from foundation walls at a minimum slope of 6" within 10'. Lot drainage should divert to the street as to not create a hazard on the property. A few subsurface drains were noticed around the yard, effectiveness can not be determined.
- Trees/foliage too close to the structure. There should be a clear barrier of 18" from external walls and 36" from gutters and roof surface. Trim or remove as needed.
- The gutters installed at the apartment/garage, were noticed to be full of debris. Recommend clearing the gutters for proper drainage.
- The gutter guards at the front of the house, were observed to be damaged. Repair/Replace as needed.
- The section of gutters above the balcony, was observed to be damaged and starting to separate from the structure, causing the a negative slope. Repair/Replace as needed.

### C. Roof Covering Materials

- -Exposed nail heads were observed at the roof surface at both the house and apartment. Recommend sealing all exposed heads to prevent moisture penetration into the attic space. Correct as needed.
- The plumbing vent pipes at the rear side of the house were not the appropriate height. Plumbing vent pipes should extend between 6-12" above the roof surface. Correct as needed.
- Trees were observed to be in contact with the roof surface. Recommend trimming trees to give 36" clearance to prevent rapid deterioration of the roof covering material. Correct as needed.
- Raised flashing was observed at several vents and penetrations at the roof. Flashing helps prevent moisture penetration, and should be sealed periodically as a part of regular homeowner maintenance. Repair and seal as needed.
- There appears to be improper flashing at the chimney. See illustration. Repair as needed.

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## REI 7-5 (Revised 05/4/2015)

- A few areas on the roof were noticed to have damaged, loose or missing shingles. Repair/Replace as needed.
- There should be a 2" space of exposed underlying flashing where the exterior siding meets the roof surface. The spacing allows for visual inspection of the flashing and to prevent rapid deterioration of the siding and roof covering. Repair/Replace as needed.

#### D. Roof Structures and Attics

- There was deflection observed at the house and apartment roof, after inspecting the roof structure in the attics, it appears the roof structure is not adequately supported and should have struts/purlins installed that will help reduce the sag the roof. The roof was not holding water and no leaks were present at the time of the inspection. However, I do recommend a licensed and insured roofer/framer further evaluate the roof structure and make any necessary repairs.
- The loose fill and batt insulation at both attics, was noticed to be displaced, missing and contain a lot of trash/debris in several locations. Insulation should be evenly installed throughout the attic space so the proper R-value is achieved at all required locations.
- The attic access door was not insulated. Recommend installing insulation or a properly rated cover to prevent AC/heat loss.
- The ladder for the attic access was noticed to be damaged. This is a safety concern, repair/replace as needed.
- The vent covers for the exhaust pipes, were observed to have daylight coming through. All vents at the roof should be properly sealed to prevent moisture from entering the home. Correct as needed.
- Moisture marks were observed on the rafters and decking at both attics. There was no moisture detected at the time of the inspection. Recommend consulting with seller to determine if these areas were repaired in the past.

#### E. Walls (Interior and Exterior)

### Exterior walls:

- Several areas of the wood siding was observed to be soft and deteriorated due to moisture damage. All areas were not documented with pictures. Recommend Replacing siding to prevent further deterioration.
- The siding was observed to be loose and wavy at the left side of the apartment above the garage. Repair/Replace as needed.
- The fascia board above the balcony is starting to separate from the structure. the damaged/sagging gutter system is the cause of the damage and should be repaired to prevent further deterioration.

#### Interior walls:

- The garage had several frame issues at the time of the inspection (Not all areas were documented with pictures). I recommend a professional and insured framer further evaluate the structure and make any necessary repairs. See list of issues below.
  - There were several studs, top plates, and joists that were bored or notched incorrectly.
- There was areas of missing fire-blocking between the garage and the apartment above. The bottom of the tub basin was visible from the garage, leaving an opening to the apartment above. Fire-blocking does not prevent the spread of fires throughout a structure, but it does slow it down to allow for personnel to get to safety. This is a safety issue and should be corrected as soon as possible.
- The support beam that runs through the middle of the garage ceiling, was not properly supported by the studs or post below it. The studs and post must be the same width or wider than the beam they are supporting above.
  - The support post at the center of the garage was not properly secured to the beam or the foundation.
- When electrical wiring and plumbing are run through a stud, joist, or top plate they should be properly protected by metal plates to prevent damage by nails. The requirements for installing protective plates over bores and notches differs with depth.

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### F. Ceilings and Floors

# Ceilings:

- The ceilings appear to be performing as intended at the time of the inspection. Minor settling was observed in the form of drywall cracks and screw pops.

#### Floors:

- The flooring at the apartment was observed to be slightly uneven/sloped at the kitchen and living- room. This could be from the float beneath the finished flooring or a possible issue with the subfloor decking.

### G. Doors (Interior and Exterior)

#### Exterior doors:

- The apartment entry door did not have a key to operate the lock on the doors at the time of the inspection. Any keyed locks for exterior doors should be changed to manual locks that do not require a key to operate from the inside. These doors are main paths of egress and pose a potential safety hazard if the home needs to be evacuated. Correct as needed.
- The apartment entry door was observed to rub against the jamb. Adjust the door for proper function.
- The left and right side doors were observed to have air gaps where visible sunlight was coming through when the door was closed. recommend adjusting door/weather stripping for proper seal.
- The front entry door knob was loose. Repair as needed.
- The left side entry door was not latching when closed. Adjust as needed.

#### Interior doors:

- The interior doors appeared to be performing as intended at the time of the inspection.

### H. Windows

- Several windows throughout both structures were observed to have stains on the interior sides of the panes. This is the result of broken seals. A broken seal does not diminish the integrity of the windows. However it does lose the majority of its energy efficiency features once the seal is broken. Repair/Replace as needed.

## II. ELECTRICAL SYSTEMS

### A. Service Entrance and Panels Copper,

Panel: 200 amp / Square D (house)

Panel: 200 amp / Square D (garage/apartment)

- The electrical meter box and panel should have caulk or silicone around the perimeter to prevent moisture or pests from entering the home. Correct as needed.
- There were no AFCI breakers installed at the time of the inspection. AFCI breakers were not required in older residential construction. However, they are required in all living areas of the home, such as bedrooms, living rooms, study, game-room, hallways, etc. Recommend a licensed Electrician come out and make all necessary repairs.

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- Grounds and Neutrals should be secured to the provided bus bars (ground to ground bar) (neutral to neutral bar). Correct as needed.

#### B. Branch Circuits, Connected Devices, and Fixtures

#### Fixtures/Switches:

- All exterior electrical fixtures/switches should have silicone around them to prevent moisture from getting behind the fixture/switch and into the wall space. Correct as needed.
- Several light fixtures throughout the home were not functioning at the time of the inspection. Possibly bulb related. Repair/replace as needed.
- The doorbell did not function at the time of the inspection. Repair/Replace as needed.

#### Outlets/Wiring:

- There were no GFCI protected outlets installed at the following areas. GFCI protected outlets are required to prevent electrical shock. GFCI protected outlets should be installed at all exterior, garage, kitchen, bathroom, laundry room, and wet bar outlets. Recommend a licensed and insured electrician further evaluate the electrical system and make any necessary changes/repairs.
  - Exterior outlet at front porch
  - Exterior outlet at garage would not reset
  - Laundry room outlets
- Several outlets were noticed to be loose when testing them Repair as needed.
- Unused wires were observed at the rear side of the garage. Appear to be for a hot tub. Secure or remove unused wires.
- All accessible outlets were checked for open grounds, open neutrals, open hot, hot/ground reverse, hot/neutral reverse, and proper GFCI requirements.

### III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

### A. Heating Equipment

Unit #1

Approx. age: 2015 (4 years) (gas)

- The gas line for the furnace was noticed to be missing its drip leg. The drip leg helps prevent blockage and should be installed to prevent build-up of sediment inside the gas line. Install for proper functionality.
- The heating equipment appears to be performing as intended at the time of the inspection.

Unit #2

Approx. age: 2006 (13 years) (electric)

- The heating equipment is an older unit and is past its usual life expectancy. Recommend getting the equipment serviced by a licensed HVAC technician if not done so in the past year.
- The heating equipment appears to be performing as intended at the time of the inspection.

## B. Cooling Equipment

Unit #1 (4 Ton) (house)

Approx. age: Condenser - 2016 (3 years) Evaporator coils - 2016 (3 years)

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### REI 7-5 (Revised 05/4/2015)

- The opening for the A/C lines where they pass through the exterior wall, should be fully sealed to prevent pests from entering the home. Repair as needed.
- The debris and foliage should be removed from the outdoor fan and allow 12-24" of clearance for proper air flow. Correct as needed.
- The insulation for the suction line at the attic was observed to be deteriorated or damaged. Repair/Replace to prevent condensation.
- The drain line for the HVAC system was observed to be connected to a flexible pipe. Drain lines should be rigid material that does not allow flex in the line or kinks to better prevent clogs, and to ensure the proper slope to drain.

Ambient air test was performed by using thermometers on the air handler of the system to determine if the difference in temperatures of the supply and return air are between 15 degrees and 20 degrees, which indicates if the unit is cooling as intended. this is called a Delta T test.

Supply Air Temp: 54F Return Air Temp: 72F Temp. Differential: 18F

- The Cooling equipment was performing as intended at the time of the inspection.
- The thermal revealed no leaks from the condenser or exposed liquid/suction lines at the time of the inspection.

Unit #2 (1 1/2 Ton) (apartment)

Approx. age: Condenser - 2005 (14 years) Evaporator coils- 2006 (13 years)

- The opening for the A/C lines where they pass through the exterior wall, should be fully sealed to prevent pests from entering the home. Repair as needed.
- There was a plant growing out of the secondary drain line for the HVAC system. Recommend clearing drain lines to prevent moisture from overflowing from the drain pan.

Ambient air test was performed by using thermometers on the air handler of the system to determine if the difference in temperatures of the supply and return air are between 15 degrees and 20 degrees, which indicates if the unit is cooling as intended, this is called a Delta T test.

Supply Air Temp: 60F Return Air Temp: 78F Temp. Differential: 18F

- The Cooling equipment was performing as intended at the time of the inspection.
- The HVAC system is past its manufacturers normal life expectancy, and should be fully evaluated by a licensed and insured HVAC technician.
- The thermal revealed no leaks from the condenser or exposed liquid/suction lines at the time of the inspection.
- C. Duct Systems, Chases, and Vents
  - The filters were observed to be dirty and in need of replacement. Recommend replacing filters every 3-6 months for maximum efficiency of the system.
  - The ductwork should be suspended from the rafters and not resting on the ceiling joists. This helps to prevent kinks and warped ducts for better air flow of the system. Correct as needed.

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REI 7-5 (Revised 05/4/2015)

- Duct work touching / overlapping at several locations. These areas should be separated with batt insulation to prevent the buildup of condensation between the ductwork.
- There were no supply vents noticed at the master bathroom or laundry room. Recommend installing ducts to these rooms for better air balance and comfort in the home.

# IV. PLUMBING SYSTEM

### C. Water Heating Equipment

Unit #1 (30 gal - electric)(apartment) Approx. Age: 2003 (16 years)

- The hot/cold lines for the water heater should be insulated to prevent condensation. Correct as needed.
- The water heater is beyond its normal life expectancy and should be fully evaluated by a licensed plumber for an accurate estimate on remaining life expectancy.
- The water heater was operating as intended at the time of the inspection.

Unit #2 (38 gal - gas)(house) Approx. Age: 2005 (14 years)

- The gas line for the water heater was noticed to be missing its drip leg/sediment trap. The drip leg helps prevent blockage and should be installed to prevent build-up of sediment inside the gas line. Install for proper functionality.
- Debris/insulation was observed in the drainage pan. Recommend removing debris to prevent blockage in the drain line.
- The water heater is beyond its normal life expectancy and should be fully evaluated by a licensed plumber for an accurate estimate on remaining life expectancy.
- The water heater was operating as intended at the time of the inspection.

### V. APPLIANCES

### A. Dishwashers

- The dishwasher at the house completed a full cycle and was performing as intended at the time of the inspection.
- The dishwasher for the apartment was noticed to have damaged door and was also leaking at the time of the inspection. Repair/Replace as needed.

#### F. Mechanical Exhaust Vents and Bathroom Heaters

- All of the exhaust fans terminate into the attic area. All exhaust fans should terminate to the exterior of the structure to prevent warm moist air from being trapped in the attic space. Correct as needed.

#### H. Dryer Exhaust Systems

- Was not able to inspect for proper function or lint build up. Dryer was connected at the time of the inspection. (apartment)
- The dryer exhaust was observed to have lint build up. This can create a fire hazard if the exhaust gets completely compromised. Correct as needed.

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### REI 7-5 (Revised 05/4/2015)

#### I. Other

- Several smoke detectors were missing throughout the house and apartment. Smoke detectors are required in all bedrooms outside all bedrooms and at least one on each floor of the structure. This is a safety issue and should be corrected as soon as possible.

# VI. OPTIONAL SYSTEMS

A. Landscape Irrigation (Sprinkler) System	ms
--------------------------------------------	----

Panel located at garage - 6 zones

- The insulation for the backflow diverter, was observed to be deteriorated. Correct as needed.
- Several zones have sprinkler heads that are in need of adjustment. heads should not lean, be installed above grade, spray structures, flat concrete surfaces, or fences. This helps with preventing damage, wasting water, and deteriorating surrounding features. adjust as needed.
  - -Zone 1
  - -Zone 2
  - -Zone 4
  - -Zone 6
- The following zones have sprinkler heads that are damaged. Repair/Replace as needed.
  - -Zone 2
  - -Zone 3
- E. Private Sewage Disposal (Septic) Systems Appears to be operating normally,
  - The handle for the lid of the aerobics pump, was observed to be damaged. Repair/replace as needed.
  - Trees were observed to be within the perimeter of the drain field. Trees should not be located in or near the drain field to prevent damage to subsurface drain piping.
  - The rear right spray head for the septic system would not retract back inot the housing compartment. Repair/Replace as needed.
  - The septic system appears to be performing as intended at the time of the inspection.

# F. Other

- Pond is not retaining the water and starting to drain out towards the front driveway/walk.

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