



Licensed Professional Inspector TREC 22337, 23360, 23043 Licensed Mold Assessment Consultant MAC 1451

Licensed Certified Applicator TDA 0786822, Licensed Termite Technician TDA 772239

Certified Professional Inspector NACHI17010333 - Certified Moisture Intrusion Inspector - Certified Commercial Inspector - Certified Owens Corning Roof Data Technician - Certified Pool/Spa Inspector

Certified Thermography Inspector



7027 Brockington Dr, Katy, TX 77494 Inspection prepared for: Kathy Hernandez Real Estate Agent: Amy Lookabaugh -

Date of Inspection: 7/20/2019 Time: 9:30 AM

Order ID: 1673

Inspector: Joe Bates

License #23360

Email: jbates@nationspec.com















PROPERTY	INSPECTION	REPORT

	<u> </u>				
Prepared For:	Kathy Hernandez				
	(Name of Client)				
Concerning:	7027 Brockington Dr, Katy TX, 77494				
_	(Address or Other Identification of Inspected Property)				
By:	Joe Bates, License #23360	7/20/2019			
	(Name and License Number of Inspector)	(Date)			

PURPOSE, LIMITATIONS AND INSPECTOR / CLIENT RESPONSIBILITIES

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

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

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

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

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

THIS PROPERTY INSPECTION IS NOT A TECHNICALLY EXHAUSTIVE INSPECTION OF THE STRUCTURE, SYSTEMS OR COMPONENTS. 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.

Promulgated by the Texas Real Estate Commission (TREC) P.O. Box 12188, Austin, TX 78711-2188 (http://www.trec.texas.gov).

(512) 936-3000

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

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

TEXAS REAL ESTATE CONSUMER NOTICE CONCERNING HAZARDS OR DEFICIENCIES

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

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

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

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

Contract forms developed by TREC for use by its real estate licensees also inform the buyer of the right to have the home inspected and can provide an option clause permitting the buyer to terminate the contract within a specified time. Neither the Standards of Practice nor the TREC contract forms require a seller to remedy conditions revealed by an inspection. The decision to correct a hazard or any deficiency identified in an inspection report is left to the parties to the contract for the sale or purchase of the home.

INFORMATION INCLUDED UNDER "ADDITIONAL INFORMATION PROVIDED BY INSPECTOR", OR PROVIDED AS AN ATTACHMENT WITH THE STANDARD FORM, IS NOT REQUIRED BY THE COMMISSION AND MAY CONTAIN CONTRACTUAL TERMS BETWEEN THE INSPECTOR AND YOU, AS THE CLIENT. THE COMMISSION DOES NOT REGULATE CONTRACTUAL TERMS BETWEEN PARTIES. IF YOU DO NOT UNDERSTAND THE EFFECT OF ANY CONTRACTUAL TERM CONTAINED IN THIS SECTION OR ANY ATTACHMENTS, CONSULT AN ATTORNEY.

ADDITIONAL INFORMATION PROVIDED BY INSPECTOR

NI NP D

I. STRUCTURAL SYSTEMS



A. Foundations

Type of Foundation(s):

Post tension slab foundation Comments:

A.1. It is the opinion of the inspector that the foundation is performing its intended function at the time of inspection. This is no guarantee of any unforseen issues or future movement.

A.2. Recommend sealing all honeycombing or extrusions using an approved material with an epoxy bonding agent. These areas can corrode and create gaps inside the foundation wall where moisture and insects can potentially enter.

A.3. Corner Pop observed. This is not a structural issue. It is caused by the thermo-expansion of the brick and that expansion of the brick, cracks the corner of the foundation which is the weakest area. Recommend repairing this area with an approved material for this type of application (generally "epoxy based cement")

A.4. Exposed cable ends observed. The tendon end should be covered / sealed with an epoxy based cement. This will help prevent the tendon end from being exposed to moisture because capillary action will craw it into the slab between strands where it can eventually cause failure of the tendon.



Right side, honeycombing



Right rear, corner pop



Left side, exposed cable end should be sealed



Zip level placed approximately center of house



Zeroed in



East wall (front door), -0.1

NI NP D



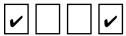
South wall (Lt middle bedroom window), -0.3



West wall (rear door), -0.3



North wall (between master bathroom sinks), -0.4



B. Grading and Drainage

Comments:

B.1. Grade level above or partially covering the weep holes

B.2. Grading is too high in areas (see photos). IRC R404.1.6 Height above finished grade. Concrete and masonry foundation walls shall extend above the finished grade adjacent to the foundation at all points a minimum of 4 inches (102 mm) where masonry veneer is used and a minimum of 6 inches (152 mm) elsewhere.



Front, grading is too high



Front, grading is too high/partially covering weep holes



Rear, grading is too high

C. Roof Covering Materials

Type(s) of Roof Covering:

Asphalt composition shingles noted Viewed From:

Roof

Ladder

Comments:

- C.1. Ridge vents were noted at the time of the inspection
- C.2. Current standards mandate all plumbing vents stacks extend a minimum of {6"} above the roof
- C.3. Some shingles appear loose, damaged, ripped, and/or lifting at one or more areas
- C.4. Grauale loss observed at areas. See photos.
- C.5. Galvanized steel gutters and downspouts were noted
- C.6. All exposed flashing, vents, and/or raw metal should be painted to prohibit any further rust and/or corrosion
- C.7. Tree branches should be cut far back away from the roof to prevent future damage to shingles
- C.8. Flashing repairs and/or sealant needed in areas.
- C.9. Roof covering is approximately 13 years old. Shingles appear to be aging well and the roof is serviceable at the time of inspection. Asphalt or composition shingles have a service life from {15-20} years depending upon the shingle quality, installation and maintenance. If shingles begin to lose the granular covering and curling; the roof should typically be considered for replacement. No more than {2} layers of asphalt shingles should be installed at one time.



Front, exposed valley flashing is rusted needs paint



Front, overview



Exposed nails have been resealed, recommend painting vent

NI NP D



Vents should be painted, vent stacks are less than 6"



Detail



Detail



Rear, exposed nails needs sealant



Top ridge vent is lifting and should be re-secured



Rear, tree branches should be cut far back from roofing material



Front, tree branches should be cut far back from roofing material



Front, overview



Front, overview



Rear, overview



Front middle, gutters with gaurds installed



Front, exposed flashing/rusted needs paint

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NI NP D



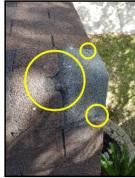
Front, granule loss



Front exposed flashing is rusted and needs paint



Front, ripped shingle



Front, damaged shingle exposed nails



Left side, headwall flashing should be re-seated and sealed

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

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D. Roof Structure and Attics

Viewed From:

Attic

Roof

Ladder

Ground

Approximate Average Depth of Insulation:

Insulation is 10 inches deep

Fiberglass batt insulation was noted at {4"} Comments:

- D.1. The fascia board has some deterioration and/or damage on more than one location on the structure
- D.2. The soffit material is damaged in one or more locations on the roof structure and should be repaired
- D.3. The attic structure was observed to be conventionally framed with rafters, purlins and collar ties
- D.4. One or more of the roof structure rafters were observed to be pulling apart from the ridge board
- D.5. Cracks / hole(s) in roof sheathing, shingled over.
- D.6. The attic insulation is lower than typical and it is recommended that additional insulation be added to acheive the minimum of an R-30 rating
- D.7. Split and/or broken framing members (see photos) observed and should be corrected
- D.8. Could not access all areas of the attic due to limited space.
- D.9. The pulldown attic ladder is not insulated or weather stripped at this time. This is an "As Built" condition that does not meet current energy standards. It is recommended to insulate the hatch door after taking ownership of the property
- D.10. Recommend review by a qualified professional for repair or replacement
- D.11. No soffit vents were installed at the time of the inspection except for on the rear of the structure. Soffit vents are installed to provide a fresh air intake that introduces air to the attic which is typically exhausted through other ventilation devices installed higher in the roof. Without a fresh air intakes installed low in the roof, the existing ventilation system is not very effective. The Inspector recommends that ventilation devices be installed low in the roof to improve overall attic ventilation
- D.12. Top ridge board was observed to split and should be further reviewed/repaired

NI NP D



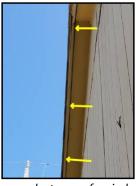
Front, soffit/fascia boards are slightly deteriorated



Left side, fascia board deterioration needs repair



Left side, deterioration to wood



Left side, gap between fascia board and soffit, needs to be re-secured and/or sealed



No soffit(except rear) and/or gable vents observed around structure



Rear, soffit vent



Left side, gap between fascia board and soffit, needs to be re-secured and/or sealed



Attic ladder is not insulated and/or weatherstripped



Ridge board is curved/split

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NI NP D



Detail split ridge board



Hole in roof decking, shingled over



Ridge board, rafters, collar ties



Daylight visible



Hole in roof decking, shingled over



Mutiple rafters pulling from ridge board



Insulation blown-in and bat



Hole in roof decking shingled over



Purlin bracing and struts



Detail



E. Walls (Interior and Exterior)

Wall Materials:

Exterior brick veneer and/or structural walls noted

Exterior wood lap siding noted

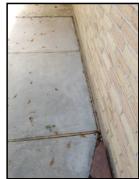
Exterior Hardiboard (fiber cement) siding noted

Drywall walls noted on interior Comments:

- E.1. Elastomeric caulking improvements are recommended between the exterior veneer and the window frames. See photos.
- E.2. NOTE: The areas between the exterior cladding / veneer and ALL wall penetrations need to be properly sealed such as utility connections, downspouts, hose bibs, lighting fixtures, receptacles, etc with an exterior grade elastomeric sealant
- E.3. It was observed that one or more areas of the exterior wood surfaces was in need of repair and/or painting
- E.4. The steel lintels above the exterior doors and windows should be painted to prohibit corrosion
- E.5. There were no weepholes observed in the lower course of the masonry veneer in one or more areas of the structure. Under current building standards; there should be open weepholes not less than {3/16"} in diameter on the lower course of the masonry wall and spaced no more than {33"} apart to drain excess water from the interior of the wall voids.
- E.6. Mortar improvements/brick pointing is required on the exterior masonry veneer. See photos.
- E.7. The ACI standards document for this is ACI 117-90, Standard Specifications for Tolerances for Concrete Construction and Materials. This is a very extensive standards document and for the cases of the foundation ACI specifies that the foundation should be constructed so that the "lateral Alignment" of the foundations footer will cause no more than a 1/2 hangover of the brick.



Right side, brick overhangs brick ledge by 1"



Front, form board left installed conducive conditions for WDI



Front, needs caulk

NI NP D



Front, recommend painting lintels



Front, window sill needs mortar pointing



Left side, needs mortar pointing



Left side, wood trim is deteriorated and needs repair



Left side, detail



Left side, detail



Front, light fixtures should be caulked



Front corners, brick overhangs brick ledge by 1.5"



Right side, seperation crack needs mortar pointing



Right side, detail



Right side, needs caulk



Right side, needs caulk improvements



Right side, paint peeling



Right side, bottom trim board paint peeling



Rear, cement board



Rear, needs caulk



Rear, needs caulk



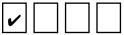
Left side, weep holes are sealed



Left side, expansion joint needs caulking improvements



Left side, window needs caulking improvements



F. Ceilings and Floors

Ceiling and Floor Materials:

Ceiling is made of drywall with popcorn and/or texture finish

Floors had carpet covering in various locations

Floors had laminate and/or engineered wood flooring in one or more locations

Floors had tile and/or stone covering in one or more areas Comments:

F.1. There is evidence of painting and patching to the interior finish which could limit the Inspectors visual observations and ability to render an accurate opinion as to the performance of the structure

NI NP D



Left side middle bedroom closet, previous ceiling repairs observed



G. Doors (Interior and Exterior)

Comments:

- G.1. The garage entry door is not equipped with a self closing device
- G.2. Exterior doors at one or more locations were observed to need proper weatherstripping and/or bottom sweep
- G.3. An interior door was observed to be missing
- G.4. One or more closet doors were observed to not have a bottom guide/track
- G.5. One or more doors needs a strike plate adjustment

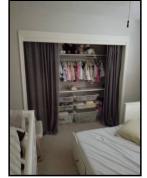


Front door, daylight visible





Master closet doors are missing bottom Rear door, daylight visible and deadbolt guides/tracks strike plate needs adjustment



Back left bedroom, missing closet doors



Left side middle bedroom, closet doors have no bottom guide/track

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I NI NP D				



H. Windows

Window Types:

Windows are made of aluminum

Windows are vinyl clad

Windows are single hung type Comments:

H.1. One or more of the thermal pane windows were observed to have lost their seals. This has resulted in condensation or a fog like film to develop between the panes of glass. The thermal pane windows are no longer functional as designed when the seal is lost and replacement may be necessary

H.2. NOTE: Signs of lost seals in the thermal pane windows may appear and disappear as temperature and humidity changes. Some windows with lost seals may not be evident at the time of this inspection. Windows are checked in a non-exhaustive manner for obvious fogging. When lost window seals are noted herein; it is recommended that all windows be re-checked by a window specialist prior to the expiration of any time limitations such as warranty and/or option periods.

H.3. Weather stripping and/or glazing was either damaged and/or missing at one or more windows

H.4. Some windows were not accessible due to personal belongings

H.5. One or more of the window screens were observed to be damaged and/or missing

H.6. Safety glass is required in an individual or fixed panel adjacent to a door where the nearest vertical edge is within a {24"} arc of the door in a closed position and the bottom edge is less than {60"} above the floor or walking surface



Left side, window glazing is damaged



Master bedroom, lost seal



Cannot verify if mirror is made of safety glass



Back left bedroom, restriction

- I. Stairways (Interior and Exterior)
- J. Fireplaces and Chimneys

Locations:

Fireplace is located in the living room Types:

Fireplace is a natural gas operated chamber Comments:

- J.1. It was noted that excessive tree branches are in close proximity of the chimney and need to be trimmed to a minimum of {10'} from the chimney opening
- J.2. Could not fully inspect the chimeny due to its height
- J.3. It was noted that the storm collar needs to be properly sealed and painted



Chimney is rusted should be painted



Storm collar needs sealant



Tree branches need to be cut back

NI NP D



Fireplace





Damper closed



Damper open



Functional



Gas valve in wall



K. Porches, Balconies, Decks, and Carports

Comments:

K.1. Concrete sidewalks were noted

K.2. Concrete driveway was noted

K.3. Cracks were visible in the driveway and rear patio that appear larger than normal settlement cracking and should be monitored



Rear patio



Rear patio, crack



Garage, restrictions

NI NP D



Garage, restrictions



Detail



Sidewalk



Front porch, crack



Garage, crack



Detail



Front walkway



Driveway, cracks



Detail



Front porch



Front patio area, not orginal construction

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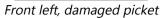


Materials:

(6') wood stockade fence noted Comments:

L.1. One or more wood pickets damaged and/or missing in fence line













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II. ELECTRICAL SYSTEMS

~			A. Service Entrance and Panel
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Panel Locations:

Electrical panel is located in the rear of the structure Materials and Amp Rating:

100 amp

- A.1. Service entrance wiring is underground
- A.2. The aluminum wiring in the service panel was not treated with anti-oxidant sealant
- A.3. No ARC fault breakers (AFC) were observed at the service panel at the time of the inspection; although this may not have been a requirement when the home was built. Beginning in 2008; AFCI breakers are required in the panel for 15A/20A branch circuits providing power to family rooms, dining rooms, living rooms, libraries, dens, bedrooms, sunrooms, recreation rooms, closets and hallways. ARCI breakers provide fire protection by opening the circuit when an arcing fault is detected
- A.4. The service panel is NOT completely and/or properly labeled. All breakers must be specifically identified as to appliances, lighting and receptacles
- A.5. Some level of corrosion/rust was observed in the service panel recommend further review
- A.6. The grounding connector on the ground rod is loose and should be corrected
- A.7. There are white conductors in the panel that should be labeled as hot wires
- A.8. Although familiarity with electrical systems is a fundamental part of home inspection, inspectors are not trained to the same extent as electricians, and will not be familiar with all of the many different electrical systems and components installed over the years. The electrical system a home may be affected by the following: building Code requirements; local building practices; installation workmanship; adequate maintenance practices; original construction budget; and changes made by homeowners; Electrical standards and codes have evolved over the years and home electrical systems and their components are required to comply only with codes that were in effect at the time the home was originally built, or additional work requiring a permit was performed. We always recommend checking with a licensed electrician rior to the expiration of any option period.
- A.9. Undersized wiring for the circuit is considered a Safety Hazard and should be repaired by a licensed electrician

NI NP D



Rear, 100 amp panel, not properly labeled





Aluminum 2 AWG for main service conductors, no antioxidant grease present



Undersized conductors for a 50 amp breaker. 10AWG



White conductors not marked as hot





Corrosion/rust observed on breaker screw sets



Grounding rod, some connections appear to be loose

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I NI NP D				



B. Branch Circuits, Connected Devices, and Fixtures

Type of Wiring:

Copper wiring Comments:

- B.1. The GFC (ground fault circuit interrupter) breaker is not properly functioning
- B.2. Under current standards; exterior GFCI protected receptacles require a weatherproof bubble type cover
- B.3. Missing and/or non-functional exterior light fixture at front door
- B.4. Missing and/or non-functional light fixture in garage
- B.5. The doorbell(s) was functional at the time of the inspection
- B.6. Gas meter was not observed to be bonded and/or grounded. Recommend further review by a licensed electrician.

250.104 Bonding of Piping Systems and Exposed Structural Steel.

- (A) Metal Water Piping. The metal water piping system shall be bonded as required in (A)(1), (A)(2), or (A)(3) of this section. The bonding jumper(s) shall be installed in accordance with 250.64(A), (B), and (E). The points of attachment of the bonding jumper(s) shall be accessible.

 (1) General. Metal water piping system(s) installed in or attached to a building or structure shall be
- bonded to
- (1) the service equipment enclosure,
- (2) the grounded conductor at the service,
- (3) the grounding electrode conductor where of sufficient size,
- (4) or to the one or more grounding electrodes used.
- The bonding jumper(s) shall be sized in accordance with Table 250.66 except as permitted in 250.104(A)(Ž) and (A)(3).
- (B) Other Metal Piping. If installed in, or attached to, a building or structure, a metal piping system(s), including gas piping, that is likely to become energized shall be bonded to

(1)the service equipment enclosure;

- (2)the grounded conductor at the service;
- (3) the grounding electrode conductor, if of sufficient size;
- (4) or to one or more grounding electrodes used.
- B.7. This may be an as built condition but is required as of 2004 per the NEC. GFCI protection is required on 15A/20A circuits providing power to kitchens, bathrooms, garages, laundry rooms, exterior receptacles, pools, spas and whirlpool tubs.
- B.8. Light fixture covers were observed to be missing in one or more locations. Light fixture covers missing in a closet is considered to be a safety/fire hazard. Recommend installing light fixture covers
- B.9. Receptacles were observed to be loose in mutiple locations. Receptacles should be repaired/re-scured
- B.10. One or more locations were observed to have unknown switch functions. See photos
- B.11. Inadequate smoke alarm coverage was observed and it is recommended that additional smoke detectors and CO2 detectors be installed in accordance with current building standards. The NFPA {National Fire and Protection Agency} recommends one smoke alarm on each level, every bedroom and adjoining hallway, above stairwells and a CO2 detector in the garage and outside each bedroom with fuel fired appliances. A primary fire extinguisher is recommended on each level with a UL rating of 2-B:C.

NI NP D



Rear, gas meter does not appear to be bonded and/or grounded



Rear, no bubble cover, receptacle has no power/non-operational



Front, no GFCI protection



Garage, light is non-operational



Garage, no GFCI protection and receptacle is loose in wall



Laundry, unknown switch function



Laundry, no GFCI protection



Kitchen, no GFCI protection



Front door, light is non-operational



Front bedroom, closet no cover on light fixture



Living room, loose receptacle



Master bedroom, missing smoke alarm

NI NP D



Master bathroom, no GFCI protection



Left middle bedroom, missing light cover



Hallway bathroom, GFCI is nonfunctional

III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

			~	A. Heating Equipment
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Type of Systems:

Gas fired forced hot air Energy Sources:

The furnace is gas powered Comments:

A.1. The functional testing and/or inspection of the heating system was unable to be conducted due to an outside temperature in excess of {80} degrees. A limited visual inspection was performed

A.2. The flex gas supply was observed entering the heating unit enclosure and is not a safe and acceptable practice under current mechanical standards. Only black rigid gas pipe shall enter the heating unit cabinet

A.3. Missing sediment trap. IRC G2419.4 (408.4) Sediment trap. Where a sediment trap is not incorporated as part of the appliance, a sediment trap shall be installed downstream of the appliance shutoff valve as close to the inlet of the appliance as practical. The sediment trap shall be either a tee fitting having a capped nipple of any length installed vertically in the bottom-most opening of the tee or other device approved as an effective sediment trap.

A.4. The emergency safety shut-off switch was either malfunctioning, inoperable or out of sight of the unit



Gas valve, no sediment trap, flex gas line enter unit, romex is properly secured to housing



Carrier furnace

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I NI NP D				



B. Cooling Equipment

Type of Systems:

The home has a split system. Comments:

- B.1. The outside condenser unit was noted as out-of-level and should be corrected
- B.2. The secondary condensate drain was discharging water to the exterior indicating a possible problem with the primary drain
- B.3. No P-Trap was visible on the condensate line and is required under current mechanical standards
- B.4. Rust and/or corrosion was noted in the condensate drip pan
- B.5. Refrigerant lines are missing insulation at the outside unit
- B.6. Float switch was not present during the inspection. A float switch is essentially an electronic water sensor for your HVAC system. What it does it gives your AC system the ability to detect if it has a clogged drain, and if the switch detects a clogged drain scenario, it immediately shuts the system off. Recommend installing a float switch
- B.7. Temperature differential registered at 9 degrees on 1st floor. This is below the recommended 14-22 degree accepted average. This can be influenced by many factors including outdoor temperature, low coolant levels, programming or a system failure. Recommend further review with HVAC contractor.
- B.8. The system also uses the older style R-22 refrigerant as opposed to the newer R-410A. R-22 refrigerant will not be available after 1/1/2020.



Left side, RUUD condenser



Disconnect



Missing insulation on refrigerant line

NI NP D



Condenser is not level



Data plate, manufactured 1998, 4 ton, max 50 amp breaker, R22 refrigerant



Return, 74.9



Supply, 66.4



Supply, 65.0



Supply, 67.4



Supply, 69.7



Supply, 65.1



Supply, 66.2



Supply, 64.7



Supply, 66.0



Supply, 67.5

NI NP D



Primary drain, no p-trap, secondary drain from unit, pan(rusted an full of water), secondary drain from pan.



Detail of rusted pan and water observed Evaporator, data plate, manufactured in pan 2000 in pan

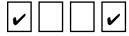




Carrier furnace



HVAC return filter



C. Duct Systems, Chases, and Vents

Comments:

C.1. HVAC ductwork is in contact with each other. Provide air space on all sides of ducts when they run through unconditioned spaces such as attics. Avoid fully or partially covering ducts with insulation or abutting against other ducts. This is more important in humid climates. Moisture can condense on ducts that do not have adequate air flow on all sides. This moisture can damage surrounding material and contribute to fungal growth.

C.2. HVAC ducts need to be lifted off floor in attics on both sides of home at least 4" as per IRC 1601.4.7



Ducts touching and laying on attic floor



Ducts touching



Ducts touching

IV. PLUMBING SYSTEM



A. Plumbing Supply, Distribution System and Fixtures

Location of Water Meter:

Front near sidewalk Comments:

A.1. Hose bib handle leaks when turned on and should be repaired

A.2. 82PSI. The anti static water pressure readings are typically at {40-80 psi} in the normal operating range. Pressure exceeding these limits or higher than {80 psi} is likely to put excessive pressure on the household water system. It is recommended that a licensed plumber and/or the city water department further evaluate in the event a pressure reducing valve is required for safety concerns.

A.3. The tub spout and/or diverter was leaking at the time of inspection in both bathrooms

A.4. Hall bathroom- sink stoppers in both sinks were either non-operational and/or missing

A.5. Copper plumbing observed for the supply side and \underline{PVQ} plumbing observed for drain/waste side



Front near sidewalk, water meter



Right side, no backflow preventer



Static water pressure, 82PSI



Right side, hose faucet handle leaks when turned on



Rear, no backflow preventer



Master bathroom, shower/tub diverter handle leaks

NI NP D



Master bathroom sinks, stoppers are missing and/or nonoperational



Hallway bathroom, shower/tub diverter handle leaks



B. Drains, Wastes, and Vents

Comments:

B.1. The exterior main cleanout was located at the rear of the structure

B.2. Subsurface moisture readings were observed to be high in the hall bath and master bathroom as the bathtub was draining. This could potentially be caused by a variety of influences including but not limited to high retained mc at the material, over watering of the grounds or possibly a subsurface leak. Recommend further review by a licensed plumber.



Rear, main waste cleanout



Master bathroom control, 7%



Master bathroom tub, 21%



Hallway bathroom control, 23%



Hallway bathroom tub, 25%

C. Water Heating Equipment

Energy Source:

Water heater is natural gas

Water heater is located in the laundry room

NOTE: You should keep the water temperature set at a minimum of 120 degrees Fahrenheit to kill microbes and a maximum of 125 degrees to prevent scalding. Capacity:

Unit is 40 gallons Comments:

C.1. It was noted that the water heater was not equipped with a corrosion resistant drain pan to discharge on the exterior

C.2. Corrosion was noted on the hot and cold supply couplings

C.3. Missing sediment trap. IRC G2419.4 (408.4) Sediment trap. Where a sediment trap is not incorporated as part of the appliance, a sediment trap shall be installed downstream of the appliance shutoff valve as close to the inlet of the appliance as practical. The sediment trap shall be either a tee fitting having a capped nipple of any length other device approved as an effective sediment trap.

C.4. Missing lower cover at the time of inspection

C.5. Water heater was manufactured in 1996. The water heater appears to be reaching the end of its serviceable life. The typical life expectancy and/or operational life of a water heater is approximately {10} years depending on usage and maintenance



Laundry, American/MOR-FLO 40 gallon gas water heater



Cold water valve, supply lines, vent hood, exhaust vent



Some rust/corrosion on couplings

NI NP D



TPR valve and drain line



Gas valve, no sediment trap, heat control, missing lower cover, no pan and drain line to the exterior



Data plate



Manufactured in 1996



Kitchen, 126.3°

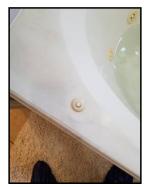
D. Hydro-Massage Therapy Equipment

Comments:

- D.1. It was observed that no access panel(s) were readily available to view the motor and/or equipment lines. This does not meet current building standards Code E4109.3 and its recommended for further evaluation
- D.2. There was no GFCI receptacle for the hydromassage component. Current electrical standards mandate the installation of a GFCI for safety reasons
- D.3. The on/off button was not functioning properly



Functional



On/off button not functioning properly, have to hold button down to operate



No access panel

NationSpec			7027 Brockii	ngton Dr, Katy, TX
l=Inspected	NI=Not Inspected	NP=Not Present	D=Deficient	1
I NI NP D	_			
	E. Other			

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

V. APPLIANCES



Comments:

A.1. Lack of a proper <u>air gap</u> noted and/or high loop drain line at dishwasher. In the event of a sewer backup this device prevents sewer matter from entering into dishwasher. Recommend having a qualified plumber install a air gap to prevent possible contamination.







Functional

No high loop and/or air gap



Comments:

B.1. Operational and functional at the time of the inspection



Functiona

C. Range Hood and Exhaust Systems

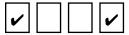
Comments:

C.1. The range hood was functional at the time of the inspection

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Functional



D. Ranges, Cooktops, and Ovens

Comments:

D.1. Oven stovetop: Natural gas

D.2. Anti-Tip devises became a UL (Underwriters Laboratories) safety standard requirement in 1991.

D.3. Anti-tip bracket is missing from range installation. All free-standing, slide-in ranges include an anti-tip device and is essential in the safe operation of the range. It provides protection when excess force or weight is applied to an open oven door



Oven set to 350, within acceptable range 359.6



Functional



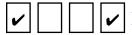
E. Microwave Ovens

Comments:

E.1. Built-in microwave ovens are tested using normal operating controls. Unit was tested and appeared to be serviceable at time of inspection. Leak and/or efficiency testing is beyond the scope of this inspection. If concerned, client should seek further review by qualified technician prior to closing.



Functional



F. Mechanical Exhaust Vents and Bathroom Heaters

Comments:

- F.1. The vent fan terminated in the attic space and should be vented to the exterior as per current building standards
- F.2. Exhaust fan vibrates or is excessively noisy. This may indicate a worn armature or bearings and may eventually require replacement



Master bathroom, exhaust fan is noisy/vibrates



Exhaust vent terminates in attic



G. Garage Door Operators

Door Type:

Two {7'} upgraded insulated steel door Comments:

G.1. The overhead garage door{s} were functional at the time of the inspection



Only one garage door opener noted





Dryer vent





Dryer installed/restriction



Washer supply and drain lines

VI. OPTIONAL SYSTEMS



Comments:

A.1. One or more of the sprinkler heads were either damaged, missing, and/or PVC pipes were damaged/leaking

A.2. Water flow and/or low pressure areas were observed

A.3. The sprinkler system requires further evaluation by a licensed irrigation contractor



Right side, high loop and main irrigation valves



Garage, Rain-bird old style dial controller



Zone 1



Zone 1, broken sprinkler head



Zone 2



Zone 3



Zone 3



Zone 4, broken sprinkler head



Zone 5



Zone 5, broken sprinkler head



Zone 5, broken sprinkler heads



Zone 6



Zone 6, broken sprinkler head and/or underground pipe

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

C. Outbuildings

Materials:

Composite/Rubbermaid shed in rear Comments:

C.1. Shed was functional at the time of inspection





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

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I=Inspected	NI=Not Inspected	NP=Not Present	D=Deficient		
I NI NP [2 20		
	F. Other				

REI 7-5 (05/4/2015)

Glossary

Term	Definition
AFCI	Arc-fault circuit interrupter: A device intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected.
Air Gap	Air gap (drainage): The unobstructed vertical distance through free atmosphere between the outlet of the waste pipe and the flood-level rim of the receptacle into which the waste pipe is discharged.
GFCI	A special device that is intended for the protection of personnel by de-energizing a circuit, capable of opening the circuit when even a small amount of current is flowing through the grounding system.
PVC	Polyvinyl chloride, which is used in the manufacture of white plastic pipe typically used for water supply lines.

Report Summary

The summary below consists of potentially significant findings. These findings can be a safety hazard, a deficiency requiring a major expense to correct or items I would like to draw extra attention to. The summary is not a complete listing of all the findings in the report, and reflects the opinion of the inspector. Please review all pages of the report as the summary alone does not explain all of the issues. All repairs should be done by a licensed & bonded tradesman or qualified professional. I recommend obtaining a copy of all receipts, warranties and permits for the work done.

	3 1 3	
ELECTRICAL	SYSTEMS	
Page 20 Item: A	Service Entrance and Panels	A.9. Undersized wiring for the circuit is considered a Safety Hazard and should be repaired by a licensed electrician
Page 23 Item: B	Branch Circuits, Connected Devices, and Fixtures	B.11. Inadequate smoke alarm coverage was observed and it is recommended that additional smoke detectors and CO2 detectors be installed in accordance with current building standards. The NFPA {National Fire and Protection Agency} recommends one smoke alarm on each level, every bedroom and adjoining hallway, above stairwells and a CO2 detector in the garage and outside each bedroom with fuel fired appliances. A primary fire extinguisher is recommended on each level with a UL rating of 2-B:C.
HEATING, VE	NTILATION ANI	O AIR CONDITIONING SYSTEMS
Page 25 Item: A	Heating Equipment	A.4. The emergency safety shut-off switch was either malfunctioning, inoperable or out of sight of the unit
Page 26 Item: B	Cooling Equipment	B.7. Temperature differential registered at 9 degrees on 1st floor. This is below the recommended 14-22 degree accepted average. This can be influenced by many factors including outdoor temperature, low coolant levels, programming or a system failure. Recommend further review with HVAC contractor.
		B.8. The system also uses the older style R-22 refrigerant as opposed to the newer R-410A. R-22 refrigerant will not be available after 1/1/2020.
PLUMBING SY	YSTEM	
Page 30 Item: B	Drains, Wastes, and Vents	B.2. Subsurface moisture readings were observed to be high in the hall bath and master bathroom as the bathtub was draining. This could potentially be caused by a variety of influences including but not limited to high retained mc at the material, over watering of the grounds or possibly a subsurface leak. Recommend further review by a licensed plumber.
Page 31 Item: C	Water Heating Equipment	C.5. Water heater was manufactured in 1996. The water heater appears to be reaching the end of its serviceable life. The typical life expectancy and/or operational life of a water heater is approximately {10} years depending on usage and maintenance
APPLIANCES		
Page 35 Item: D	Ranges, Cooktops, and Ovens	D.3. Anti-tip bracket is missing from range installation. All free-standing, slide-in ranges include an anti-tip device and is essential in the safe operation of the range. It provides protection when excess force or weight is applied to an open oven door
OPTIONAL SY	STEMS	
Page 38 Item: A	Landscape Irrigation (Sprinkler) Systems	A.3. The sprinkler system requires further evaluation by a licensed irrigation contractor



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Plumbing		
Brass	40-70+ yrs	
Copper	50+ yrs	
Galvanized Steel	20-50 yrs	
Cast Iron	75-100 yrs	
Polyvinyl Chloride (PVC)	50-80 yrs	
Lead	100 yrs	
CPVC	50-80 yrs	
Faucets	10-15 yrs	
PEX	40 yrs	

Roofing		
Asphalt Shingles (3 tab)	20 yrs (15 in our area)	
Asphalt (architectural)	20-25 yrs	
Metal	40-70 yrs	
Slate	60 to 150 yrs	
Clay/Concrete	100+ yrs	
EPDM (rubber)	15 to 25 yrs	

The life expectancy of a roof can vary based on several factors such as weather, material storage and ventilation. Warmer climates significantly reduce the life of asphalt shingles.

Appliances		
Hot Water Heater (Gas or Electric)	7-12 years	
Ranges (Gas or Electric)	14-18 yrs	
Dishwashers	8-10 yrs	
Gas Ovens	10-18 yrs	
Exhaust Fans	5-10 yrs	
Microwave Ovens	9-12 yrs	

Electrical		
Bare Copper	100+ yrs	
Copper-Clad Aluminum	100+ yrs	
Copper-Plated	100+ yrs	
Ground Fault Circuit Interrupters (GFCI)	30 yrs	
Service Panel	60 yrs	

Copper-plated, copper-clad aluminum an bare copper wiring are expected to last a lifetime. Electrical accessories and lighting controls may need to be replaced after 10-15 years.

HVAC		
Furnace (Gas or Oil Fired)	15-20	
Central AC Unit	12-15 yrs	
AC Compressor	12-15 yrs	
Heat Pump/Forced Air Furnace	12-18 yrs	
Window Unit	5-8 yrs	
Baseboard Systems	15-20 yrs	

MISC	
Concrete Patios	15-25 yrs
Concrete Walkways	10-20 yrs
Fences	10-15 yrs
Garage Door Openers	8-12 yrs
Garbage Disposals	8-10 yrs
Smoke Detectors	5-10 yrs
Sprinkler Systems	10-14 yrs
Clothes Washers	12-15 yrs



Safety Recommendations:

- Place fire extinguishers in proper places of home; inspect as recommended & know how to use.
- Install smoke detectors & carbon monoxide detectors where recommended; test as recommended.
- Place fire extinguishers in proper places of home; inspect as recommended & know how to use.
- Place fire starter items in safe place & away from open flame such as lighters, matches, candles, etc
- Place flashlights & backup batteries at nightstand, near each bed & in several area of home.
- Purchase weather alert radios or sign up for phone calls from local weather stations to be alerted in the event of a weather emergency.
- Have a fire escape plan prepared & practiced. Go to www.nfpa.org/education.
- Have an escape ladder for any window or balcony above ground level.
- Make a disaster kit and store in a safe place, check and refill every 6 months. Go to www.nsc.org or www.nfpa.org/education and www.sparky.org
- Keep small appliances when using away from water source such as radio near bathtub or hair dryer near sink. Don't overload outlets or use adapters.
- Have all cords/wiring checked for damage & repair immediately. Use child safety products to protect children from all outlets or other electrical sources
- Use a fireproof & waterproof safe for your valuables.
- Store chemicals safely & do not mix. Read all labels before using & be familiar with warnings & disposal. Store flammables safely, far away from open flame and out of reach of children.
- Follow gas leak warning steps. Leave home immediately if you small a gas leak, smells like rotten eggs, do
 NOT turn anything on or off that has a power source. Get members out of home immediately & call 9-1-1
 outside the home not from your home telephone. If you detect small leak then immediately open windows &
 doors & telephone emergency services from away from the home by dialing 9-1-1 & gas company.
- Have gas & electrical appliances inspected as manufacturer recommends. Clean & inspect gas appliances routinely.