



# Property Inspection Report

**Amos Benjamin Charles  
5411 Marble Acres Ct.  
Houston, TX 77059-1413  
Reserve at Clear Lake**

**October 01, 2017**

**Phase Inspection:**

- Phase I: Foundation Pre-pour
- Phase II: Open Frame
- Phase III: Final Inspection

**Date**

July 01, 2017  
August 01, 2017  
October 01, 2017



**Clay M. Collins**

**Professional Inspector, TREC License #7147**

**Grace Home Inspection Services, LLC**

**ASHI Certified Inspector #250932**

**ICC Certified Combination Residential Inspector # 8061161**

**ICC Certified Commercial Building Inspector # 8061161**

**ICC Certified Energy Conservation Inspector/Plans Examiner #8061161**

**Certified Level 1 Unbonded Post-Tensioning Inspector #912090009**

**NSPF Certified Pool/Spa Operator Inspector CPO-464063**

**American Tile Institute Certified Tile Installer**

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# PROPERTY INSPECTION REPORT

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**Prepared For:** Amos Benjamin Charles  
(Name of Client)

**Concerning:** 5115 Marble Acres Ct., Houston, TX 77059  
(Address or Other Identification of Inspected Property)

**By:** Clay M. Collins, TREC # 7147 October 01, 2017  
(Name and License Number of Inspector) (Date)

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## 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](http://www.trec.texas.gov).

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

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

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

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

ITEMS IDENTIFIED IN THE REPORT DO NOT OBLIGATE ANY PARTY TO MAKE REPAIRS OR TAKE OTHER ACTIONS, NOR IS THE PURCHASER REQUIRED TO REQUEST THAT THE SELLER TAKE ANY ACTION. When a

deficiency is reported, it is the client's responsibility to obtain further evaluations and/or cost estimates from qualified service professionals. Any such follow-up should take place prior to the expiration of any time limitations such as option periods.

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

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

### TEXAS REAL ESTATE CONSUMER NOTICE CONCERNING HAZARDS OR DEFICIENCIES

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

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

**Inspection Date:** 10/13/2016      **Start Time:** 08:07 AM/PM      **End Time:** 11:14 AM/ PM

**Description:** Single Family, 2 floor

**Square Footage:** 3,678      **Structure Age:** 2016      **Builder:** CalAtlantic

**Bedrooms (#):** 4      **Baths (#):** 4

**Occupied?** Unoccupied - New construction      **Garage:** No Garage

**Temperature:** 78°F      **Rain within last three (3) days?**  Yes  No

**For orientation purposes, front door faces:** East, at approximately 90°

**Present at inspection:**  Buyer     Buyer's Agent     Other: Contractors

This report shall supersede any written or verbal conversations, comments and or reports that were provided prior to providing this written report. Additional pages may be attached to this report. Read them very carefully. This report may not be complete without the attachments. Comments may be provided by the inspector whether or not an item was deemed deficient.

We recommend that the Builder provide the Buyer with all owner's manuals, instruction manuals, and manufacturer's warranties at or before closing. Publications should cover shingles, appliances, ceiling fans, overhead garage door, heat & A/C, siding, windows, countertop, fireplace, etc.

Unless otherwise noted, all code references, if any, are taken from;

- |   |  |
|---|--|
| <b>2009 International Residential Code (IRC)</b>          | Adopted by the State of Texas 07/01/2012 |
| <b>2014 National Electric Code (NEC)</b>                  | Adopted by the State of Texas 09/01/2014 |
| <b>2009 International Energy Conservation Code (IECC)</b> | Adopted by the State of Texas 07/01/2012 |

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I	NI	NP	D
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## I. STRUCTURAL SYSTEMS

**A. Foundation**

Type of Foundation(s): Slab

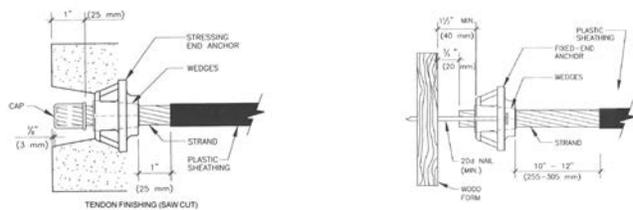
**Comments:**

An opinion on the performance of the foundation at the time of inspection is not a warranty against future settlement or movement. We cannot predict future performance or represent the stability of this foundation based on a single observation.

Because floor coverings such as carpet, tile, wood flooring and vegetation, exterior porches and decks often prevent direct observation of the foundation, in addition to an inspection of the foundation perimeter, we rely on an inspection of symptoms of movement and damage to determine the condition and performance of your foundation.

This inspector evaluated foundation based on visible evidence of distress phenomena during an inspection of the perimeter of the foundation, walls and ceilings for cracks or buckling, inspection of frieze and trim for movement, inspection of doors and windows for fit and an operational test of each door and accessible window for binding. No evaluation of the foundation's elevation or slope was performed. We are unable to comment on the design intention of this foundation and restrict comments to the observable indications of deficiencies or movement.

*Information:* The Post Tensioning Institute (PTI) notes a requirement for a brass plate or stamp within the concrete floor of the garage space or metal tag on the water line noting: **Post Tension Slab: Do not cut or core.** Note that this requirement is for protection against repairs which may damage the cables and create additional damage to the foundation. These marking were not observed and the determination of the type of reinforcement was based this inspector's inspection of the form before placement of the concrete.



**Written Opinion**

The foundation serves to provide support and serve as a buffer between the earth and structure. Cracks and movement can be caused by thermal stress, loading of the structure and changes in the moisture content of the framing lumber as well as changes in moisture content in the soil. Some movement can usually be tolerated before any structural damage occurs. Cracks and separation may be related to issues other than foundation movement and positively determining the cause may not be possible.

The Texas Real Estate Commission's Standards of Practice (Rule §535.227) defines Functioning as performing in an expected or required manner; carrying out the design purpose or intended operation of a part, system, component or member. *In this inspector's opinion, the foundation was functional and at the time of this inspection.*

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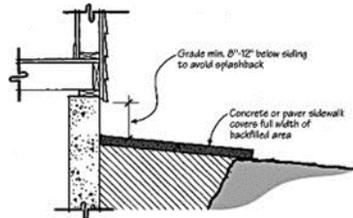
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**B. Grading and Drainage**

**Comments:**

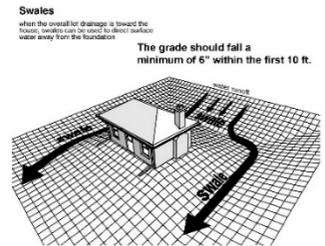
*Maintenance:* A brick veneer house should have about 4" of clearance between the soil and the first course of bricks, and wood walls should have 6" of clearance between the wood and the soil. We urge caution in landscaping to ensure the proper clearance is maintained.

*Maintenance:* Lots should be graded to drain surface water away from the foundation walls. The grade should fall a minimum of 6" within the first 10'. While the grade was adequate at this time, swales may be eliminated over time and may need to be re-cut.

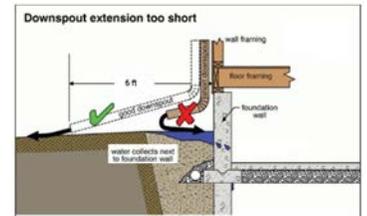


◀ Grading

Drainage ▶



One downspout in the gutter system directed water less than 5ft away from the slab (the splash block was missing in the front garden bed). This may cause erosion at the foundation and allow undesirable movement.



*Maintenance:* Two downspouts ended about 1 foot above ground. Because of the angle of the downspout elbow, run-off may over shoot the splash block and erode the ground. We recommend lowering the discharge.



*Maintenance:* We noted the presence of underground drain lines. These lines, however, could not be tested in any manner consistent with significant rainfall or flooding and should not be considered to have been inspected. Note that underground drains are specifically excluded from this inspection by the Texas Real Estate Commission's Standards of Practice. The drain covers must be kept clean of vegetation, leaves and detritus to minimize the risk of obstructing the drain lines.

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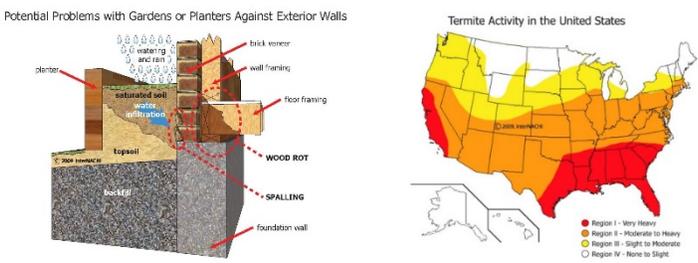
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*Maintenance:* Shrubs planted too close to the foundation will hide the slab from view as they mature, creating conditions conducive to infestation by Wood Destroying Insects (WDI). Shrubs should not be planted closer to the slab than half of the mature width of the shrub.



*Maintenance:* Grading and drainage conditions frequently contribute to the attraction of Wood Destroying Insects (WDI) the highest infestation of which within the United States is located here along the Gulf Coast. This inspector recommends a periodic inspection, preventative treatment or treatment for active infestations as necessary.



**C. Roof Covering Materials**

*Type of Roof Covering:* Asphalt - Laminated (Architectural)  
*Viewed From:* Roof and ladder

**Comments:**  
*Approximate age of roof cover:* 2016

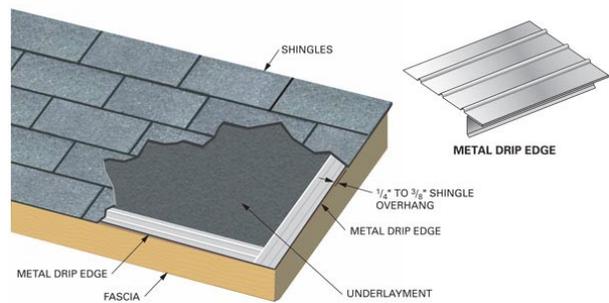
**IMPORTANT NOTICE:** *The Roof Covering Material has a useful life cycle based on the type of roof covering.* This limited visual inspection is not a certification or warranty, expressed or implied, that the roofing surfaces will not leak. Simply viewing a roof surface from any angle cannot tell if it leaks or not. The Texas Inspection Standards of Practice for property inspections is not designed for the purpose of underwriting or insurability.

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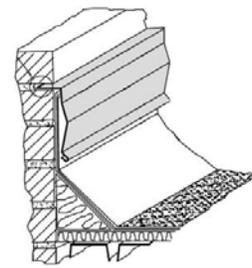
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**Information:** These asphalt shingles (architectural type), engineered with additional layers laminated to create a distinct three dimensional appearance, have a life expectancy between 25 and 30 years, barring acts of God, including windstorms, hail storms, impact damage, etc.

**Notice:** The underlayment should extend down to and over the drip edge at the eave and be installed beneath the drip edge at the rake. The installation of the drip edge at eaves and rakes could not be observed or evaluated in all areas without damage to the seal(s) beneath the shingles. These shingles were sealed at the eave and the underlayment could not be observed or evaluated. Note that, in this inspector's opinion, having the shingles sealed to minimize wind event damage is preferable to observation of the underlayment.



**Notice:** We could not positively determine that the counter flashing was set into reglets or tucks in the masonry veneer. The caulk seal at the top of the counter flashing should be considered temporary and will require periodic replacement.



No material and adverse conditions requiring repair.

**D. Roof Structure and Attics**

*Viewed From:* Attic, service passage and decking

*Approximate Average Depth of Insulation:* 14.5 inches

**Comments:**

- Type of insulation:*                      Fiberglass, loose fill
- Prevalent roof sheathing:*              Solid decking, radiant barrier type
- Attic Framing:*                              Conventional
- Attic Ventilation:*                         Soffit and ridge-type vents

An attic is inherently dangerous. Access to the attic space is typically limited by the design of the space, the lack of safe passage, service decking and the placement of mechanical equipment. This, in turn,

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limited our ability to view all areas of the attic space. We inspected the attic space from the scuttle or stairway and all service deck spaces. Spaces outside of these areas were inspected to the best of our ability with concern for personal and property safety of paramount importance.

**Ventilation**

*Information:* The attic appeared to be well ventilated using a combination of vent types. As a rule of thumb, the temperature within the attic space should be within 20°F of the temperature outside. A poorly ventilated attic may shorten the useful life of the roof cover. The vents should not be blocked during the winter season to prevent the increase in humidity which will have a biological impact in the attic space.



**Insulation**

*Information:* An Installer's Certificate was posted.

*Information:* Minimum standards for insulation depth for new construction have been established as an R-value of 30 within Zone 2 (this zone). An R30 rating requires approximately 11" of fiberglass insulation. The insulation observed met or exceeded this minimum standard.



*Information:* LP Techshield Radiant Barrier decking was used as the roof decking.



*Information:* The stairway door did not have a retainer installed to prevent loose fill insulation from spilling into the living space when the attic access is opened.

*No material and adverse conditions requiring repair.*

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

**Comments:**

*Wall Structure:*            Wood

*Predominate siding:*    Stone and stucco

**Interior**

**Exterior**

Eaves, soffits and fascia were inspected and deficiencies may be reported as a component of the exterior walls.

Isolated wall cladding was missing above the back patio cover. This must be repaired.



**Construction detail**

This was NOT a Code inspection; however, some items will be presented as a comparison against minimum Code standards. Items identified may not meet these standards but do follow common construction practices. The inspection Standards of Practice requires reporting deficiencies but do not define specifics in all cases. We may present these items, then, without recommendations for repair.

Flashing was either missing or improperly installed above cavities in the masonry veneer. Flashing above cavities in masonry walls should be installed above the steel lintel and should extend through the wall out to the front edge of the steel lintel. Note that we were not able to evaluate the window or door wraps behind the masonry which may be intended to serve as flashing. While technically deficient we make no recommendation for repair. [2009 IRC §R703.8.1]

*Maintenance:* Steel lintels are installed over windows and doors in masonry walls to provide support to the masonry above. Should the lintels corrode, the expansion or failure of the steel during this process may cause brick and mortar cracks and affect the wall integrity. The life of these lintels will be preserved through normal paint and maintenance which includes addressing any corrosion promptly.



**ADDENDUM**

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The bottom edges of the service meter box and the service disconnect boxes had been caulked. These boxes should not be sealed at the *bottom edge*. The caulk on the top and sides is intended to prevent water from passing behind the box and reentering the building envelope, but the bottom edge should be open to allow any moisture that does pass through, to exit. We recommend that the bottom seal be cut and removed.

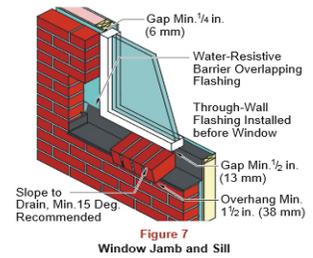


◀ Meter or panel box

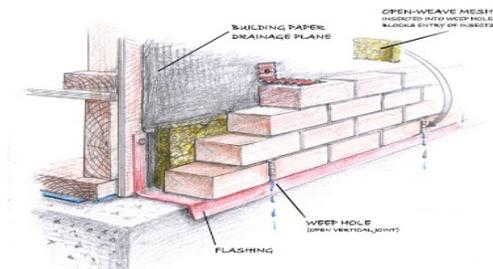
A/C service disconnect(s) ▶



No flashing or weep holes were observed beneath the brick rowlock-type sills beneath the windows set into masonry walls. While technically deficient, there was no evidence of moisture penetration at the time of this inspection and we make no recommendation for repair. [Brick Institute of America – Technical Note 36](#)



*Maintenance:* Weep holes should be located “in the outside wythe of masonry walls at a maximum spacing of 33 inches on center” and should not be less than 3/16” in diameter and should be located immediately above the flashing. The purpose of weep holes is to allow water which may penetrate behind the brick veneer to drain outside the structure. These should not be plugged or sealed, doing so may prevent moisture drain from behind the masonry and will not prevent insect infestation. Mulch, soil, etc. should not be allowed to cover these holes to minimize the risk of Wood Destroying Insects (WDI) infestation. [\[2009 IRC §R703.7.6](#)



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**F. Ceilings and Floors**

**Comments:**

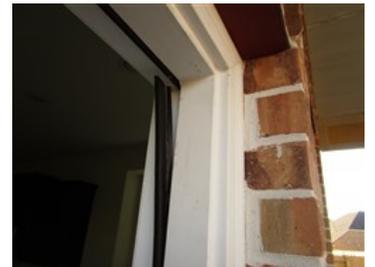
*Information:* There were angular joints in ceiling covers within several rooms. Such joints may develop hairline “drying” cracks over the first years of occupancy as the HVAC system is utilized and removes the humidity from the raw building materials. These are typically cosmetic and do not reflect structural movement unless greater than about ¼”.

No immediate evidence of a Deficiency was observed.

**G. Doors (Interior and Exterior)**

**Comments:**

The weather stripping at the back door was damaged, or improperly installed. We recommend that this be repaired.



**H. Windows**

**Comments:**

**Notice:** Signs of lost seals in thermal pane windows may not be apparent at all humidity and temperature levels. Windows were only checked for obvious signs of seal damage, such as fogging, at the time of inspection. Note that most window manufacturers will void any warranty on thermal pane (double pane) windows if tint, film, reflective blinds, etc. are used. These products increase the heat through the vacuum and may damage the seals or other structural components.

No immediate evidence of a Deficiency was observed.

**I. Stairways (Interior and Exterior)**

**Comments:**

No immediate evidence of a Deficiency was observed.

**J. Fireplaces and Chimneys**

**Comments:**

*Type of chimney:*            Factory Built

*Optional equipment:*      Gas log set

*Additional controls:*        Remote control

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**Notice:** The gas supply had not been connected to the fireplace and the appliance could not be tested. The Builder should demonstrate its performance during the final walkthrough.



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

**Comments:**

No immediate evidence of a Deficiency was observed.

**L. Cabinets**

**Comments:**

**Notice:** Cabinetry is specifically excluded by the Texas Standards of Practice which governs this inspection. Cabinets are not structural components and are generally considered cosmetic in the same manner as floor, wall or ceiling covering, countertops, etc. While visible failure of hung cabinets may be reported, we cannot determine failure points or warranty the performance. Care should be exercised in storing items in wall hung cabinets.

**II. ELECTRICAL SYSTEMS**

**A. Service Entrance and Panels**

**Comments:**

- Distribution Panel Location:*    Garage
- Panel Brand:*    Square D
- Service Conductors:*    Copper

**Notice:** The minimum standards for electrical service continue to evolve for the safety of the homeowner. Changes to the code are intended to make each home safer from fire and shock hazards. The Texas Real Estate Commission (TREC) has adopted Standards of Practice which may require an Inspector to report conditions as "Deficient" when performing an inspection for a buyer or seller, if they can be reasonably determined, without regard to the Code at the time the house was built. The adequacy of the electrical service and load calculations are outside of the scope of this inspection.

**A knockout was missing from the bottom of the meter can.** We recommend that this be repaired for safety.

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**The breaker utilized by the oven was incorrectly sized.** The actual breaker size was 40 amps but should be 30 amps per the manufacturer's specifications (i.e. 7.2 Kw = 30 amps). The branch-circuit load for one wall-mounted oven or one counter-mounted cooking unit shall be the nameplate rating of the appliance. We recommend that the properly sized breaker be installed.

One or more white conductor was used as an ungrounded, or "hot", wire. Insulation on ungrounded conductors should be a continuous color other than white, gray or green. There are exceptions that allow a white or gray conductor which is part of a cable to be permanently re-identified as an ungrounded conductor at all terminations and at each location where the conductor is visible and accessible. [\[2014 NEC 200.6\]](#)

**Grounding and Bonding**

**Grounding:** The process of making an electrical connection to the general mass of the earth. This is most often accomplished with ground rods, ground mats, concrete encased electrodes or some other grounding system. Low resistance grounding is critical to the operation of lightning protection techniques. (Definition: National Electric Code, International Residential Code)

**Bonding:** The process of making an electrical connection between the grounding electrode and any equipment, appliance, or metal conductors: pipes, plumbing, flues, etc. Equipment bonding serves to protect people and equipment in the event of an electrical fault. (Definition: National Electric Code, International Residential Code)

**Service entrance and panels.** The inspector shall report as Deficient, deficiencies in bonding and grounding. [TAC §535.229\(a\)\(1\)\(G\)\(v\)](#) and [§535.229\(b\)\(1\)\(E\)\(iii\)](#)

**§535.227(5) (A)(iii) Departure** – An inspector may depart from the inspection of a component or system required by the standards of practice only if, in the reasonable judgment of the inspector, conditions exist that prevent inspection of an item.

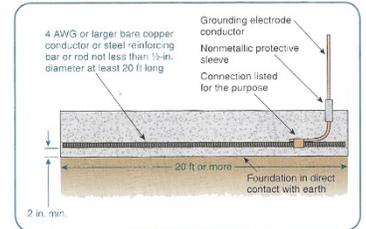
Bonding conductors cannot be observed in finished buildings to determine serviceability, continuity or connecting fittings and clamps. While we may be able to identify missing Grounding and Bonding, we cannot affirm, nor do we warranty, that all pipes, either gas, including CSST, or water, plumbing, metal flues, metal framing, appliances or similar conductive materials are bonded.

**A concrete encased electrode was installed in a slab not in full contact with the earth.** "Metallic components shall be encased by at least 50 mm (2 inches) of concrete and shall be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components that are in direct contact with the earth. *NEC Informational Note: Concrete installed with insulation, vapor barriers, films or similar items separating the concrete from the earth is not considered to be in "direct contact" with the earth.*" While the builder may have left a portion of the grade beam uncovered by a vapor barrier, we are not able to determine whether a) the

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I	NI	NP	D
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exposed area provides enough contact, or b) whether damage may result in the event of high voltage discharge such as by lightening. The limited earth contact may not provide resistance-to-ground of less than 25 ohms. We recommend that resistance to ground be measured and if more than 25 ohms, then a second ground rod be installed [2014 NEC 250.52\(A\)\(3\)](#)



This should not be considered an all-inclusive or exhaustive list of deficiencies in the electrical system and many of these items may be technical deficiencies without real need for repair.

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

Type of Wiring: Copper

**Comments:**

Low voltage wiring systems, which may include garden lights, alarm systems, video/audio media conductors including intercom systems, and HVAC control conductors, are specifically excluded from this inspection by the Texas Real Estate Commission’s Standards of Practice.

**Outlets, Switches, Luminaries, Fans and Other Fixtures**

A receptacle cover was missing at the A/C condensing equipment.



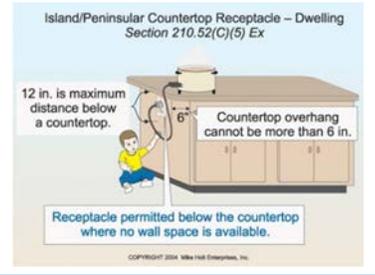
The HVAC equipment service switch in the attic space was upside down. While not technically deficient, it would be expected to make it awkward to determine whether the switch was on or off. We recommend that the switch be turned over for convenience.

One or more receptacles on the back side of the peninsular counter at the kitchen sink was improperly placed. *In kitchens and dining rooms* (IRC 2006) or *In kitchens, pantries, breakfast rooms, dining rooms and similar areas or dwelling units* (IRC 2009 and IRC 2012), an outlet may be located no more than 12 inches below the countertop only when the countertop extends no more than 6” beyond its support base. [\[2009 IRC §E3901.4 through §E3901.4.5 Exception\]](#) [\[2012 IRC §E3901.4 through §E3901.4.5 Exception\]](#)

**ADDENDUM**

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

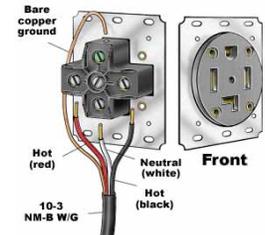
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*Information:* These outlets were tamper-resistant receptacles. These devices have shutters installed which prevent insertion unless two prongs enter the device at the same time. These often are initially resistant to plugs and we recommend care in first use. This may require no more than "wiggling" the plug during insertion. Otherwise, the shutters may be damaged.



*Information:* The electric outlet/receptacle at the clothes dryer connection was a 4-prong outlet.



**Ground Fault Circuit Interrupters (GFCIs)**

*Information:* GFCIs are intended to protect persons from accidental electrocution in areas susceptible to moisture.

**Ground Fault Circuit Interrupt (GFCI) Protection:**

- |               |   |                             |  |
|---------------|---|-----------------------------|--|
| Bathrooms:    | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Reset located at: 2 <sup>nd</sup> floor, hall bathroom |
| Garage:       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Reset located at: garage                               |
| Outdoors:     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Reset located at: distribution panel                   |
| Kitchen:      | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Reset located at: kitchen (2 circuits or devices)      |
| Dishwasher:   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Reset located at: distribution panel                   |
| Disposer:     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Reset located at: distribution panel                   |
| Laundry room: | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Reset located at: distribution panel                   |

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I	NI	NP	D
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**Information:** There were GFCI protected receptacles which were not marked as being protected. Such markings help the homeowner understand that there is a Reset button which must be used to restore power following a fault condition.

**Safety:** Monthly testing of GFCI devices is typically required by the manufacturer. We recommend that these be tested at least twice a year.



**Typical GFCI Installation**  
(read label on device)

Receptacle type ▶  
(most common)



◀ Panelboard type

**Arc Fault Circuit Interrupters (AFCIs)**

**Safety:** Monthly testing of AFCI devices is typically required by the manufacturer. We recommend that these be tested at least twice a year.



**Typical AFCI Installation**  
(read label on device)

Panelboard type ▶  
(most common)



No material and adverse conditions requiring repair.

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**C. Smoke, Fire and Carbon Monoxide Alarms**

**Comments:**

**Notice:** This excludes alarms, or detectors, that are a part of a monitored security systems. Monitored alarms typically do not have an integral Test button. When there is doubt that these are un-monitored, we may depart from the standard and not test these devices, but will report that below. Otherwise, all accessible devices are tested with the integral Test button as recommended by the manufacturer.

Smoke/fire alarms:	#: 5	No. tested: 4	No. failed: 0
Combination alarms	#: 4	No. tested: 4	No. failed: 0
CO alarms	#: 0	No. tested: N/A	No. failed: N/A

**Life Expectancy – Smoke Alarms:** The U.S. Fire Administration for Homeland Security, the National Fire Protection Association (NFPA), the National Electrical Manufacturers Association (NEMA) and the Red Cross agree after working for 87,000 hours (about 10 years), normal environmental conditions in the home can have an impact on the performance of your smoke alarm.

**Life Expectancy – Carbon Monoxide (CO) Alarms:** When CO alarms were introduced into the market, they had a limited lifespan of 2 years. Technology developments have increased this and many now advertise up to 7 years. Beginning in March 2007, UL 2034, the standard for single and multi-station

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CO alarms, required that all CO alarms have an audible “end of life” warning. The end of life warning alerts you that the unit has reached its expiration and should be replaced. Any CO alarm manufactured after April 2007 with a UL listing must include an end of life warning.”

**Testing:** Smoke and Carbon Monoxide alarms should be tested regularly per the manufacturer’s instructions; typically weekly or monthly. At a minimum, alarms should be tested per the National Fire Protection Association’s recommendations; test every six months and replace batteries every year.

No immediate evidence of a Deficiency was observed.

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

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- 
- 

#### A. Heating Equipment

*Type of Systems:* See Addendum for description of the equipment

*Energy Sources:* Gas

**Comments:**

**Notice:** The gas supply had not been connected to the Heating Equipment and the appliance could not be tested. The Builder should demonstrate its performance during the final walkthrough

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#### B. Cooling Equipment

*Type of Systems:* See Addendum for description of equipment

**Comments:**

**Notice:** The Texas Real Estate Commission’s Standards of Practice, to which we must adhere, specifically excludes verifying compatibility of components, tonnage match of indoor coils and outside coils or condensing units, or determining sizing, efficiency, or adequacy of the system. Performance of this equipment is based on *an evaluation at the time of the inspection.* Recent service, which may include adding refrigerant, may allow the equipment to perform in an acceptable manner and hide performance or lifespan concerns.

The Texas Real Estate Commission requires that an inspection include an evaluation of the cooling equipment performance in the reasonable judgment of the inspector. This is not an evaluation of the system’s operation against manufacturer’s standards; to do so would require a licensed HVAC contractor. This is a simple evaluation against a “rule of thumb” which would expect a 15° F – 20° F drop between the Return Air temperature and the Supply Air with the higher end of the range required as the ambient humidity level rises. [Source: Construction Science Department, College of Architecture | Texas A&M University] The temperature differential is typically measured at the duct work as close to the evaporator as feasible. A Cooper Atkins Mode DPP800W thermometer, and/or a FLIR C2 Thermal Imager was used for these measurements.

**System 1:** Return = 75° F,      Supply = 57° F,      Differential = 18° F

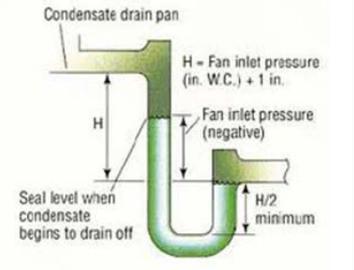
We operated the system(s) over time and determined that the systems did cool the rooms from the initial temperature point.

Both the international Plumbing Code (IPC) and the Uniform Plumbing Code (UPC) require that the condensate piping, as an indirect drain line, be trapped. Note that these drain lines discharged to the underside of a bathroom lavatory or lavatories which did incorporate traps.

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I	NI	NP	D
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*Maintenance:* This inspector recommends that the air conditioner's primary condensate drain lines be flushed of bacterial clogs by pouring a 1:9 mixture of household bleach and water through the line every month or so during cooling season. There was a vent in the drain line at the evaporator coil (located in the attic) for this purpose.



No immediate evidence of a Deficiency was observed.

**C. Duct Systems, Chases, and Vents**

**Comments:**

While the HVAC duct system was evaluated visually, including any notation of damaged duct, constricted duct and poorly run or hung duct, a complete determination of air flow or balance was outside of the scope of this inspection.

Information: This was a zoned system with thermostats located on both the first floor.

*Information:* This HVAC system incorporates a high efficiency, large surface area air filter located within the attic space, immediately before the furnace unit. While significantly more expensive than regular filters, these are designed to last as long as 6-12 months. The manufacturers of Media Air Filters state that these should not be used in conjunction with the larger surface area filters. To do so may slow air flow and affect heating and cooling.

<b>Brand</b>	Honeywell
<b>Model</b>	F100 2010
<b>Size</b>	20" x 25"
<b>Replacement</b>	FC100A 1037



No immediate evidence of a Deficiency was observed.

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### IV. PLUMBING SYSTEM

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

*Location of water meter:* Street right-of-way on left

*Location of main water supply valve:* Garage

*Static water pressure reading:* 70 psi

**Comments:**

*Primary water supply pipe:* PEX tubing

*Location of gas meter:* Left side, near the front corner

**Notice:** The type or condition of plumbing materials in inaccessible areas such as underground gas, water supply or drain/waste/vent piping was not determined.

**Notice:** Plumbing fixtures may not be operated if appliances or timers were connected to them, or if operating the fixtures may cause water spillage. Typical fixtures that may not be operated were clothes washer connections and refrigerator ice-maker connections. The water supply was tested by operating two or more fixtures at one time; typically, all fixtures in the master bathroom are run simultaneously.

*Information:* The water pressure measured represents a single point in time and is not represented as a constant. Factors in pressure may include time of day and demand on the system including use of dishwasher, clothes washer, irrigation systems, etc. Acceptable pressure is between 40 and 80 psi.



**Notice:** The water lines are PEX, a cross-linked polyethylene material. Developed in the 1960s, PEX tubing has been in use in many European countries for plumbing, radiant heating and snow melt applications since that time. *It was accepted by American building codes in the early 1980s.* It is impossible to determine whether all fittings/connections are accessible and have been evaluated by this inspector. Serviceability of this water supply system cannot be guaranteed and no warranty is provided by this inspector.



No immediate evidence of a Deficiency was observed.

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I	NI	NP	D
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**B. Drains, Wastes, and Vents**

**Comments:**

**Notice:** While some water was run down the drains, this cannot simulate the waste flows characteristic of full occupancy. Unless specified, fixtures and vessels were not filled to capacity for leak testing in order to prevent inadvertent water damage to the property. This means that some leaks may go undetected.

**Notice:** There no access to the underside of one or more baths. As observed during the pre-drywall inspection, the drain lines were cemented plastic pipe and no access is required.

No immediate evidence of a Deficiency was observed.

**C. Water Heating Equipment**

*Energy Sources:* Gas

*Capacity:* Tankless

**Comments:**

*Supply temperature:* Not measured

**Notice:** The gas supply had not been opened at the Water Heating Equipment and the appliance could not be tested. The Builder should demonstrate its performance during the final walkthrough

The temperature and pressure relief valve (T&P), or valves, were tested and appeared to be functional.

**Safety:** Manufactures typically require that temperature and pressure relief valves be tested at least annually, with more frequent testing preferred. Most require that these valves be removed and inspected by a qualified plumber every 3 years. If the valves were found to be worn or defective as the result of testing and/or inspection, they should be replaced. When a T&P valve is not tested regularly, the build-up of mineral deposits is extremely likely to prevent proper reseating of the valve and may allow water to leak.



Normal position



Test position



Point of discharge

**D. Hydro-Massage Therapy Equipment**

**Comments:**

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I	NI	NP	D
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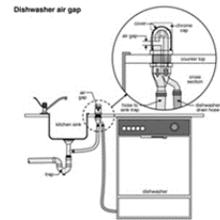
## V. APPLIANCES

**A. Dishwasher**

**Comments:**

The dishwasher was secured to the cabinets on either side, but would tilt back and forth as the door was opened and closed. We recommend that the dishwasher legs be adjusted to prevent this movement.

*Maintenance:* This appliance incorporated an air-gap mounted on top of the counter to prevent water from the sink returning to the dishwasher. Should water discharge from the device, the line between the air-gap and the drain's tail piece should be cleaned and cleared.



**B. Food Waste Disposer**

**Comments:**

No immediate evidence of a Deficiency was observed.

**C. Range Hood and Exhaust Systems**

**Comments:**

*Range Hood Configuration:* Ducted, feature of microwave

No immediate evidence of a Deficiency was observed.

**D. Ranges, Cooktops and Ovens**

**Comments:**

*Type of equipment:* Oven and Cooktop

*Oven temperature measured at a 350°F bake setting:* Not tested

*Oven temperature measured at a 350°F bake setting:* Not tested

**Notice:** The wall oven had not been installed in the cabinet and the appliance was not tested. The Builder should demonstrate its performance during the final walkthrough.

**E. Microwave Ovens**

**Comments:**

*Information:* A metal cooking rack was installed within the microwave. The manufacturer's instruction requires that this rack be removed unless in immediate use. Based on this inspector's observations, to leave this rack in place will reduce the appliance's useful life.

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I	NI	NP	D
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No immediate evidence of a Deficiency was observed.

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

**Comments:**

**Safety:** The mechanical exhaust vent fan motors should be periodically cleaned of dust to avoid an accumulation which would increase the risk of combustion.

No immediate evidence of a Deficiency was observed.

**G. Garage Door Operators**

**Comments:**

**Notice:** This inspection does not determine the number of remote control devices present, nor does it include a test of these devices unless they were readily accessible. The operators were otherwise tested with hard-wired controls only. We recommend that the buyer ask for all remote devices along with keys, etc.

No immediate evidence of a Deficiency was observed.

**H. Dryer Exhaust Systems**

**Comments:**

**Safety:** We recommend periodically checking dryer ducts, baffles and hoods to ensure that they are not bound with lint. An accumulation of lint may create a fire and personal safety hazard.

No immediate evidence of a Deficiency was observed.

**VI. OPTIONAL SYSTEMS**

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

**Comments:**

The controller was "Off" and workmen were caulking and painting the exterior. The Builder should demonstrate its performance during the final walkthrough.

- Brand:* Rain Bird
- Zones:* Nine (9) – not verified through operation
- Backflow Preventer:* Observed
- Rain sensor:* Observed



**Maintenance:** The sprinkler heads should be observed during operation to ensure that the water is not directed upon the structure.

## Equipment and Appliance Inventory

This inventory of equipment is not required by the Standards of Practice and is provided as a convenience only. The age of the equipment may be derived from third-parties and Grace Home Inspection Services cannot assume responsibility for its accuracy. Note that some information may be provided for equipment which was not inspected.

### HVAC EQUIPMENT

#### Air Conditioner Condenser

Brand	Carrier
Model	CA16NA060 A
Serial Number	3516E 26308
Approximate Age	08/2016
BTU's	60,000 (5 tons)
Refrigerant	R 410A
Approximate SEER <sup>1</sup>	14.5 – 16.0

#### Air Conditioner Evaporator

Brand	Carrier
Model	CNPHP6024ALAAAAA
Serial Number	2116X 27420
Approximate Age	05/2016

#### Heating Equipment

Brand	Carrier
Model	58CVA155 22
Serial Number	3816A 15623
Approximate Age	09/2016
Approximate AFUE <sup>2</sup>	80.0
Energy Source	Gas

### WATER HEATING EQUIPMENT

#### Water Heater

Brand	Rheem
Model	RTG 95DVLN 1
Serial Number	W271611541
Approximate Age	07/2016
Capacity	N/A – On demand
Energy Source	Gas

### KITCHEN EQUIPMENT

#### Dishwasher

Brand	GE
Model	GDF610PSJ2SS
Serial Number	RG750011B
Approximate Age	08/2016

#### Oven/Range

Brand	GE
Model	GEJK3500SF3SS
Serial Number	RG613549Q
Approximate Age	08/2016
Energy Source	Electric

#### Cooktop

Brand	GE
Model	JGP333SET2SS
Serial Number	GF705226Q
Approximate Age	04/2015
Energy Source	Gas

#### Microwave

Brand	GE
Model	JVM7195SF1SS
Serial Number	DG201746B
Approximate Age	02/2016

#### Refrigerator

Brand	
Model	
Serial Number	
Approximate Age	

<sup>1</sup>SEER = Seasonal Energy Efficiency Ratio

<sup>2</sup>AFUE = Annual Fuel Utilization Efficiency

<sup>3</sup>EER = Energy Efficiency Ratio (window units only)