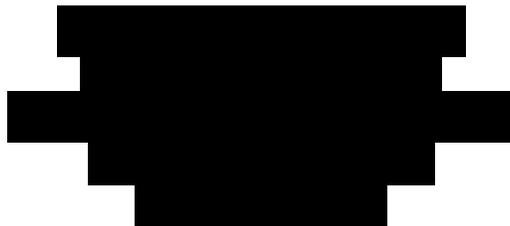




Property Inspection Report



Thursday, January 22, 2015



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
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PROPERTY INSPECTION REPORT

Prepared For:

(Name of Client)

Concerning:

(Address or Other Identification of Inspected Property)

By:

Clay M. Collins, TREC # 7147

(Name and License Number of Inspector)

Thursday, January 22, 2015

(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

Promulgated by the Texas Real Estate Commission (TREC) P.O. Box 12188, Austin, TX 78711-2188 (512) 936-3000
(<http://www.trec.texas.gov>).

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.

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: 01/22/2014 Start Time: 9:34 AM/ PM End Time: 1:29 AM/ PM

Style: 1 story 1 1/2 story 2 stories 3 stories Other:
 Single family Condo Townhome Mobile/Mod. Other:

Square Footage: 3,717 Structure Age: 2001 Builder:

Bedrooms (#): 4 Baths (#): 3 1/2

Occupied?: Unoccupied Garage: Detached, via breezeway

Temperature: 61°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 Seller Seller's Agent WDI Inspector
 Others:

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 were not aware whether this house had ever flooded. While there may not have been visible evidence of moisture damage, repairs may hide such evidence. Refer to the Seller's Disclosure. A C.L.U.E.® Report (Comprehensive Loss Underwriting Exchange) may offer additional information. We recommend that you check with your Realtor® for more information.

There were no tests for environmental agents such as lead paint which may be present in homes built before 1978. While lead-based paint has well publicized health hazards, this may not be a factor unless modifying the wall covering (cutting, drilling or removing drywall). We recommend that a qualified contractor with knowledge and experience dealing with such paint be contracted for any such repair and removal of materials.

Photographs provided as a convenience and are representative of issues and may not depict all occurrences of a condition.

There was light to heavy rain over the course of this inspection.

A Wood Destroying Insect (WDI) report prepared by Termite Control, Inc., 1111 Clinton Dr., Galena Park, TX 77547-3420, (713) 451-0900, has been hand delivered under separate cover to: Mr. and Mrs. Martin.

Key

Indicates a deficiency as defined by the TREC Standards of Practice.

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

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I. STRUCTURAL SYSTEMS

A. Foundation

Type of Foundation(s): Slab

Comments:

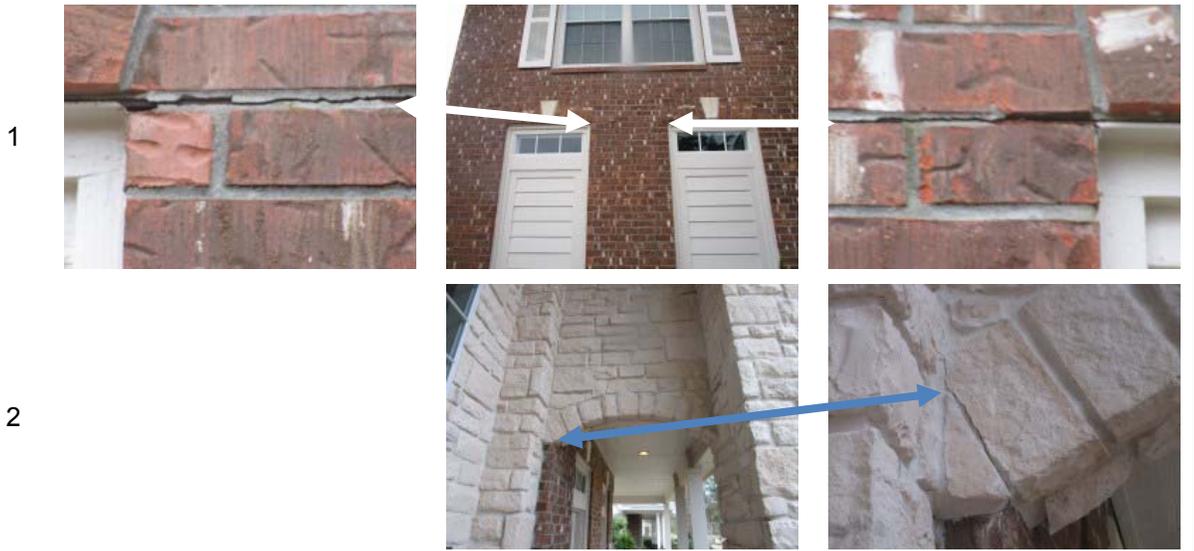
An opinion on the performance of the foundation at the time of inspection is not a warranty against future settlement or movement. We cannot predict future performance or represent the stability of this foundation based on a single observation.

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.

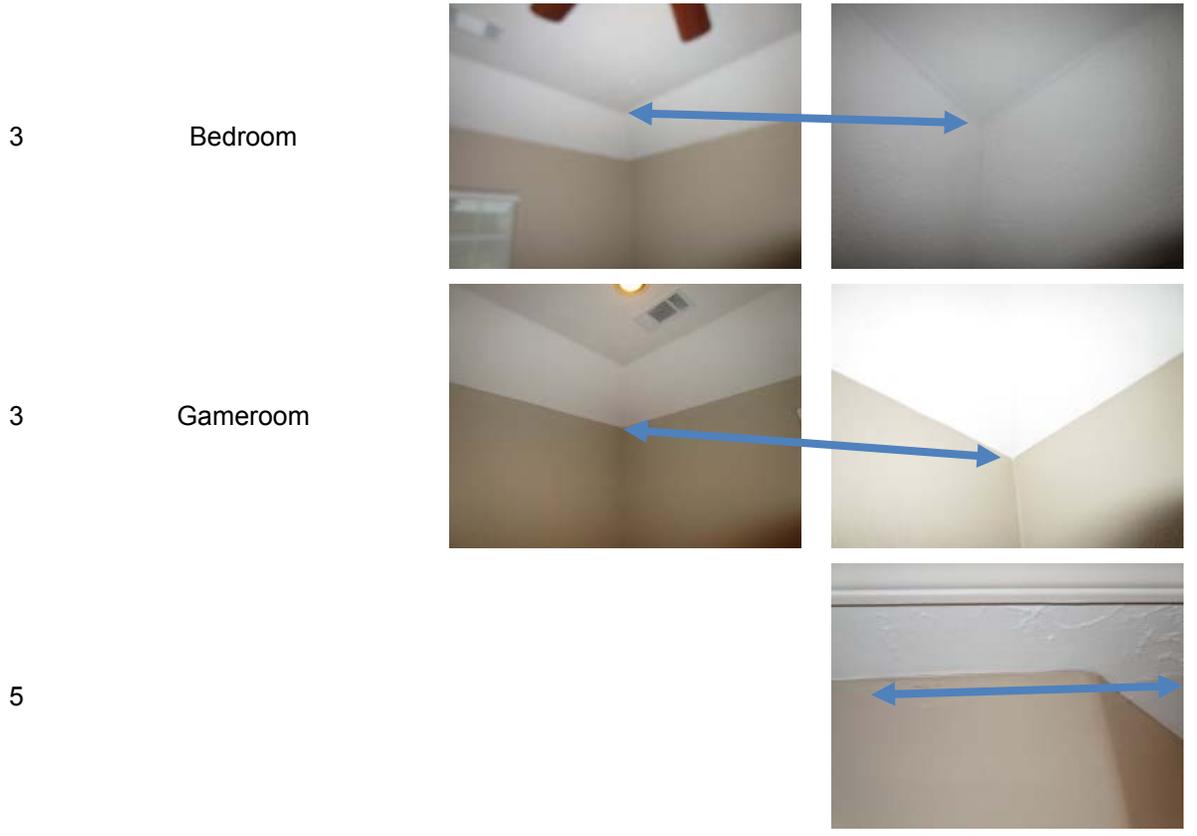
Present and visible indications, but not an exhaustive list, used to render this inspector's opinion of adverse performance included:

1. cracks in masonry veneer at lintel(s) between the two left-most front windows (See [I. Structural Systems E. Walls](#))
2. small crack in mortar above north/south arch at front door (See [I. Structural Systems E. Walls](#))
3. cracks in angled ceiling cover of 2nd floor, left-most bedroom and game room (See [I. Structural Systems F. Ceilings and Floors](#))
4. 3 windows did not latch without the use of force (breakfast room, left-most bedroom, back-right bedroom (See [I. Structural Systems H. Windows](#)))
5. drywall crack(s) on ceiling at attic pull-down stairway



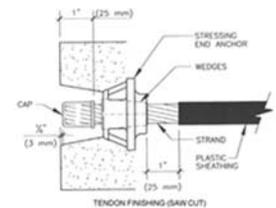
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There was exposed reinforcing steel and/or tendons in the grade beam. This foundation was strengthened by post tensioned cables. The Post-Tensioning Institute (PTI) recommends that tendon ends be covered with at least 1" of grout. These should be sealed to prevent corrosion and potential failure of the cable. Do *not* use bagged cement or any product containing calcium chloride or other material deleterious to pre-stressing steel. See the illustration of the tendon "anchor" and "live" ends.

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.



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Maintenance: Spalling found within 12" of the foundation's corners may occur because of bonds between the brick and brick ledge and differential thermal movement. Spalling was noted at self-evident corners. This damage did not appear structurally significant and was not in need of repair at the time of this inspection.



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.

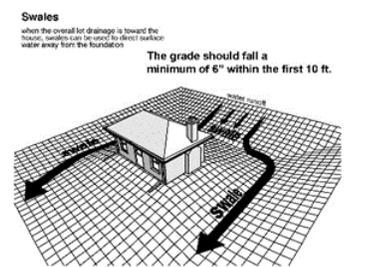
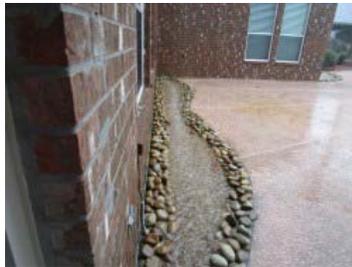
The Texas Real Estate Commission's Standards of Practice (Rule §535.227) defines *Functioning* as performing in an expected or required manner; carrying out the design purpose or intended operation of a part, system, component or member. *In this inspector's opinion, the foundation was functional and without immediate need of remediation at the time of this inspection.*

Note that observed evidence of movement may be perceived differently by a Buyer or Inspector at the time of re-sell. You have the option of having this foundation further inspected by a licensed structural engineer. His report may serve as a baseline against future observations of movement. Otherwise, you are accepting this foundation on an "as is" basis and may find repairs necessary in the future.

B. Grading and Drainage

Comments:

This lot did not appear to have the proper slope for drainage at all points along the foundation grade beam; this may lead to foundation distress. 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'. Note that swales may have to be periodically re-cut to address the accumulation of yard clippings, mulch, leaves and other organic materials.



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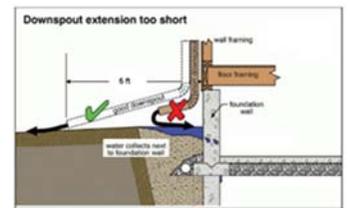
An underground drain was observed, but standing water indicated poor performance.



The soil levels were high against isolated areas of the foundation grade beam. When soil levels and vegetation are high against the face of the foundation it promotes water penetration, wood rot and insect infestation. Brick veneer wall cladding should have about 4" of clearance between the soil and the first course of bricks, and other materials should have 6" of clearance between other materials and the soil.



Maintenance: Gutters and downspouts were installed at some eaves of this structure. We recommend, however, that as a structural improvement, gutters be installed on all horizontal fascia and that the downspouts direct water at least 5' away from the structure. This will improve drainage and reduce erosion and ponding which adversely affect foundations, driveways and sidewalks.



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.



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C. Roof Covering Materials

Type of Roof Covering: *Asphalt - Laminated (Architectural)*

Viewed From: *Roof and ladder*

Comments:

Approximate age of roof cover: 2001

Notice: 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. We would have no knowledge if this roof leaks or not under a limited visual inspection. We recommend that you view (or ask for) any disclosure form or statement to see if any repairs may have been made to this roof which might indicate to you past or continual problems and in the case of a fairly new roof a copy of the contractors and manufacturer warranty to see if any warranty can be transferred or is available. The Texas Inspection Standards of Practice for property inspections is not designed for the purpose of underwriting or insurability.

Information: Architectural shingles such as these are engineered with a the appearance of a standard 3-tab composition shingle layered with additional tabs to create a distinct three dimensional appearance. These have a life expectancy, barring extream weather conditions, or about 30 years [Source: InterNACHI].

Information: There was light to heavy rain over the course of this inspection. While this may have facilitated observation of the leaks noted below, it also rendered some portions (i.e. steep pitched areas) inaccessible. It also caused the surface to appear darker and this may have obscured some evidence of wear or damage.

Information: There was evidence of previous repair to the roof cover including replacement of shingles and caulking (non-typical) of drain waste vent flashing.



Water penetration was observed in the attic space.

1. In the south end attic space, just above the walk-through attic door (proximate to a repair noted above)

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- In the attic space above the 2nd floor HVAC equipment proximate to a repair noted above
- At the drain waste vent at the top of the pull-down attic stairway



1

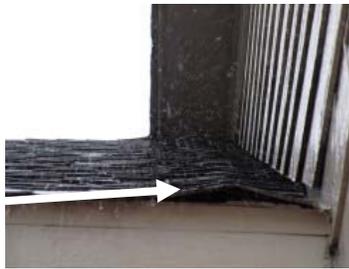


2



3

The flashing noted between the side walls and roof was hemmed (also known as "J" or "L" flashing). Flashing against a vertical sidewall should be the *step-flashing type or method*, a minimum of 4" high and a minimum of 4" wide and turned out at the end of the vertical sidewall in a manner that directs water away from the wall and onto the roof and/or gutter. **NOTE:** While this flashing may be acceptable by Authorities Having Jurisdiction and Code, it may not meet the manufacturer's installation requirements.



Maintenance: There were one or more dish-type antennas, or antenna mounting brackets installed on the roof. Items mounted to the roof such as satellites, antennas, basketball backboards, etc., may allow water penetration. As these items move (wind, adjustments to position, use, etc.), screws and bolts may enlarge mounting holes. While not in immediate need of repair, we recommend closely monitoring these areas and making repairs as soon as possible when necessary.

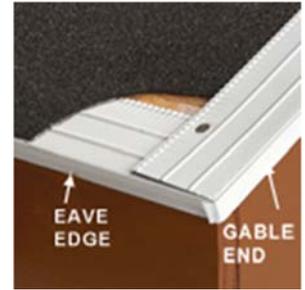
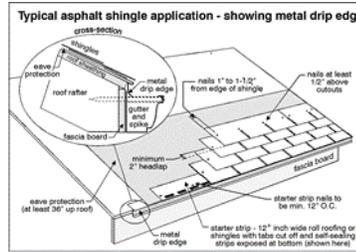


☰ The underlayment should extend down to and over the drip edge at the eave and be installed beneath the drip edge at the rake. The installation of the drip edge at eaves and rakes could not be observed or evaluated in all areas without damage to the seal(s) beneath the shingles. These shingles were sealed at the eave and the underlayment could not be observed or evaluated. Note

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that, in this inspector's opinion, having the shingles sealed to minimize wind event damage is preferable to observation of the underlayment.



D. Roof Structure and Attics

Viewed From: Attic, service passage and decking

Approximate Average Depth of Insulation: 10 inches

Comments:

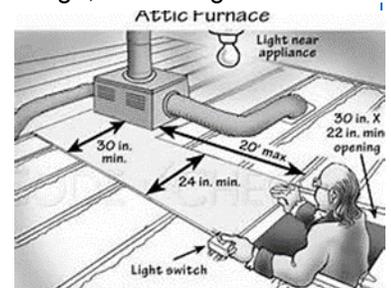
- Type of insulation:* Fiberglass, loose fill
- Prevalent roof sheathing:* Solid roof deck
- Attic Framing:* Conventional
- Attic Ventilation:* Soffit and ridge vents

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, 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.

Attic Access

There was not a continuous, unobstructed or safe passageway between the head of the stairway and mechanical equipment. When equipment, which may require service, is located within the attic space, a continuous passageway at least 22" wide should extend from the attic access to the equipment which should be located no more than 20' distant.

There was no landing platform at the top of the attic stairway. Decking should be installed at the top of the stair to minimize the risk of stepping onto, and falling through, the ceiling cover.



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There was no access to the attic space above the finished garage space. Attic spaces greater than 30" high measured from the top of ceiling framing to the underside of the roof framing, and larger than 30 sq ft require a minimum of a 22" x 30" opening.

Attic Stairways

This, or these, pull-down stairways had a load rating of less than 350 pounds. Some Authorities Having Jurisdiction (AHJ) require a minimum load rating when there is mechanical equipment, such as HVAC systems or Water Heaters, located in the attic space. Regardless, the stairway should be capable of allowing safe access to the attic space.

The stairway was not labeled as a fire-rated assembly. The Code addresses separation between the garage and attic, garage and dwelling and habitable areas and attic spaces, in terms of gypsum thickness, door thickness or 20-minute fire rated doors including attic stairs.

The stairway's well end header was not flush with the well frame. The header at the top of the stair should be flush with the attic well joist for holding strength.

The attic stairway was improperly installed utilizing screws, finishing nails or pneumatic staples or nails. These fasteners do not have the same shear strength as nails and are not, therefore, as safe. Manufacturers typically require the use of 16d nails or 1/4" lag bolts and that 16 penny nails or 1/4" lag bolts be installed through the corner brackets for personal safety.

The stairway door was insulated with batt-type fiberglass insulation which is not acceptable to some Authorities Having Jurisdiction and is a potential trip hazard. We recommend that only rigid insulation be used for personal safety.



◀ Batt insulation

Not flush to well head ▶



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.

Ventilation

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.



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E. Walls (Interior and Exterior)

Comments:

Wall Structure: Wood

Predominate siding: Masonry, cementitious board

Interior

Cabinets were inspected and deficiencies may be reported as a component of the interior walls.

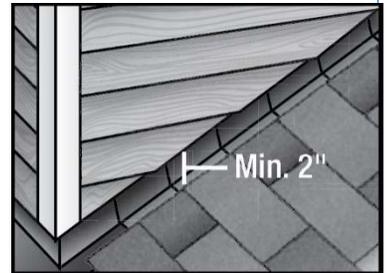
Exterior

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

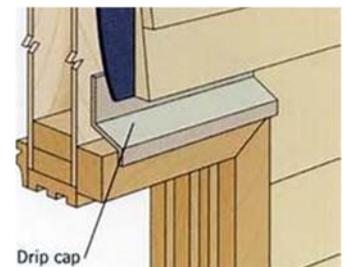
Construction detail

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.

The vertical wall siding above the roof was in contact, or near contact, with the roof cover. The James Hardie Corporation's installation instructions state that a "minimum 2" clearance between James Hardie products and roofs, decks, paths, steps and driveways." This is intended to prevent wicking of water run-off which may degrade the material and shorten its useful life. [Manufacturer's Installation Instructions](#)



There was no flashing installed above projecting wood trim. Flashing shall extend to the surface of the exterior wall finish, continuously above all projecting wood trim.



The fiber-cement siding was installed beneath the trim rather than butting to the trim. [Manufacturer's Installation Instructions](#)

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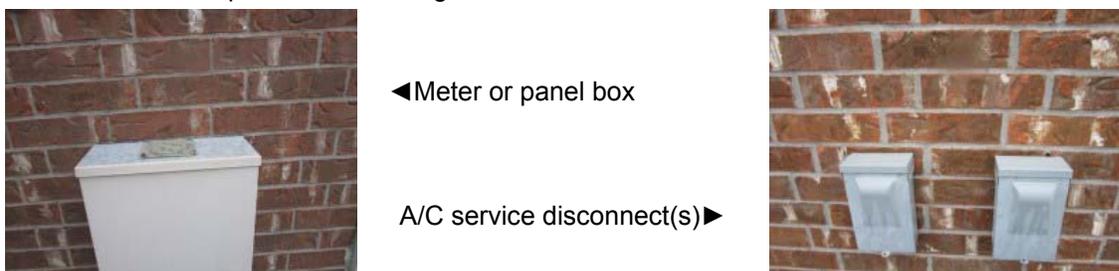


Flashing was either missing or improperly installed above cavities in the masonry veneer. Flashing above cavities in masonry walls should be *installed above* the steel lintel and should *extend through the wall out to the front edge* of the steel lintel. Note that we were not able to evaluate the window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

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.



There was no flashing installed or sealant applied above either/or the electric service panel, meter box or A/C condenser's service disconnect. Such flashing is intended to prevent moisture from passing through the masonry veneer behind the service disconnect. We recommend applying an exterior grade, permanently flexible caulk to seal the top and sides, but *not the bottom*, to minimize the risk of moisture penetration through the wall cover.



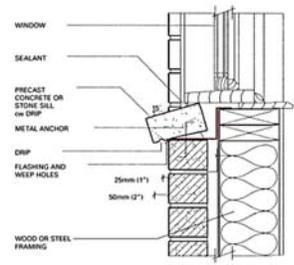
The masonry window sills had a slope less than 15°. This slope is recommended by the *Brick Institute of America* to ensure proper moisture run-off minimizing the risk of penetration and damage. We recommend that window-to-wall joints be monitored and re-caulked or otherwise sealed as necessary to minimize water penetration, reduce draft and improve energy efficiency

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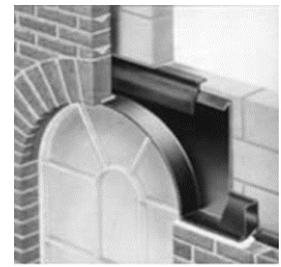
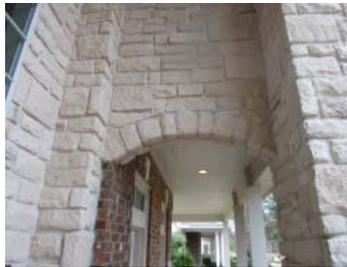
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at these areas. While technically deficient, the slope was positive (i.e. away from the window) and we make no recommendation for repair.

There was no flashing or weep holes observed beneath the masonry sill. While technically deficient, we make no recommendation for repair.

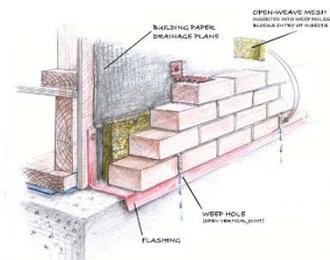


Masonry over openings shall be supported by steel lintels, reinforced concrete or masonry lintels or masonry arches, *designed to support load imposed*. We are not able to determine the design strength and limit our evaluation to visible evidence of movement or failure. *The arches appeared to be performing at the time of this inspection.*



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.



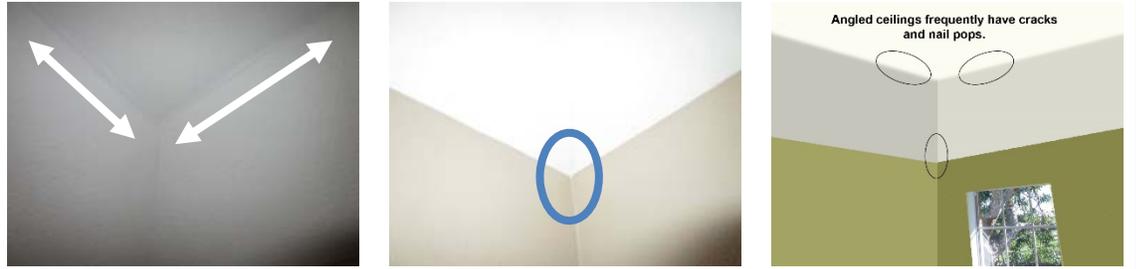
I = Inspected NI = Not Inspected NP = Not Present D = Deficient

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F. Ceilings and Floors

Comments:

Information: There were cracks and/or nail pops within the angular ceiling joints of one or more rooms. Cracks in angular joints in ceiling covers are typically a result of the house's dehumidification process and thermal movement and not necessarily an indicator of settlement or structural movement requiring repair. Such cracks observed, in this inspector's opinion, were not deemed to be deficient or in immediate need of repair.



There was evidence of previous repair to the ceiling cover above the master bathroom. While we were not able to determine the cause of this damage, we noted that this area was immediately beneath a 2nd floor bathroom. There was no evidence of an ongoing issue. No staining was visible on the ceiling cover as observed from the very limited view within the attic space.



Information: This was NOT a mold inspection. Any moisture related problem may result in mold, fungi, noxious odors, etc. and should be further inspected. The Environmental Protection Administration (EPA) has a booklet entitled *A Brief Guide to Mold, Mildew and Your Home*. It is available as a downloadable pdf file and may be found at:

<http://www.epa.gov/mold/moldguide.html>

Should there be a concern, we recommend that a qualified, licensed mold inspector further evaluate these areas and make recommendations for remediation and repair as necessary.

No immediate evidence of a Deficiency was observed.

G. Doors (Interior and Exterior)

Comments:

No immediate evidence of a Deficiency was observed.

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

I	NI	NP	D
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H. Windows

Comments:

Three window sashes did not seat flush in the window seat and could not be latched without the use of force. There was no evidence of structural movement around the windows. We were not able to determine the condition of these windows when installed, and this deficiency may be related to workmanship, movement or both.

One or more 2nd floor windows were less than 24" from the floor. The lowest part of operable windows located more than 72" above the finished grade should be at least 24" above the finished floor of the room in which the window is located *by current standards*. Glazing between the floor and 24" should be fixed or have openings no larger than 4". We recommend caution with infants and children around these windows.



The window sills had been drilled for the installation of alarm contacts. Manufacturers of most window frames specifically prohibit drilling holes in the window sill for installation of alarm contacts. We were not able to determine whether there was any hidden latent damage caused by this condition. We recommend that each of the contacts be caulked as a preventative measure against moisture damage.



I. Stairways (Interior and Exterior)

Comments:

No immediate evidence of a Deficiency was observed.

J. Fireplaces and Chimneys

Comments:

Note that this inspection of these fireplaces was a visual inspection only and is not a warranty or guarantee that this fireplace, chimney and termination cap had been properly or safely built. We

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

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recommend a complete fireplace inspection by a qualified "Fireplace Inspector" before operating this fireplace with either gas or solid fuel.

Family Room

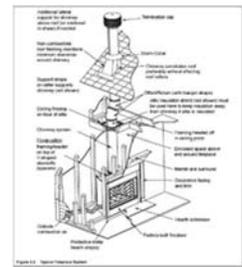
Type of chimney: *Manufactured*
 Optional equipment: *Gas log set*
 Additional controls: *Wall Switch*

The glass hearth cover appeared scorched. This typically reflects a poor burn pattern and may be the result of poor placement of sand and lava rock.



Insulation was in direct contact with the gas flue.

The combustion air vent was not properly installed. The exterior air intake for a fireplace shall not be located at an elevation higher than the firebox and shall be capable of supplying all combustion air from the exterior of the dwelling or from spaces within the dwelling ventilated with outside air such as non-mechanically ventilated crawl or attic spaces. Note that manufacturers may allow alternative design and methods and points of termination. The owner's manual was not available for evaluation.



Master Bedroom

Type of chimney: *Manufactured*
 Optional equipment: *Gas log set*
 Additional controls: *Wall Switch*

Note that the direct-vent type fireplace does not typically require a combustion air vent.

K. Porches, Balconies, Decks and Carports

Comments:

No immediate evidence of a Deficiency was observed.

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I NI NP D

II. ELECTRICAL SYSTEMS

A. Service Entrance and Panels

Comments:

Panel Location: Right side, behind porte-cochere
 Panel Brand: Cutler Hammer
 Service Conductors: Copper

Note that 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 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.

The breaker utilized by the oven was incorrectly sized. The actual breaker size was 40 amps but should be 25 amps per the manufacturer's specifications (i.e. 5.4 Kw = 25 amps). The branch-circuit load for one wall-mounted oven or one counter-mounted cooking unit shall be the nameplate rating of the appliance. [TREC Standards of Practice reporting requirement.](#)

Branch conductors through large knockouts and were not secured to the panel cabinet. Such constriction of conductors may generate excessive heat and de-rate the amperage of the cables. Each cable is to be secured to the panel box.

Circuit conductors were not grouped. Conductors of multiwire branch circuits (both grounded and ungrounded) must be grouped together with cable ties, or by some other means, at every place where splices or terminations are made. If the routing through openings makes this clear, cable ties are not required.



There were multiple conductors, specifically neutral conductors, improperly affixed beneath at least one lug. Each conductor (including neutral conductors) should be individually lugged.

There were white conductors used as "hot" wires. 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.

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

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◀ Multiple neutrals on one lug



White as hot ▶

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. §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.

There was no ground rod visible; the conductor disappeared behind the masonry column adjacent to the door beneath the porte-cochere. We could not determine if the panel box was properly grounded.

The rod and pipe electrodes shall be installed such that at least 8' of length is in contact with the soil. The upper end of the electrodes shall be flush with or below ground except where the aboveground end and the grounding electrode conductor attachment are protected against physical damage.



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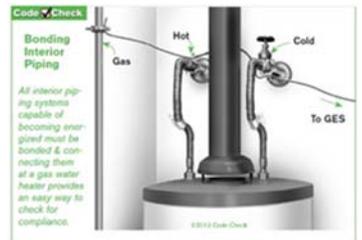
Important: *The gas pipe at the service meter and at the fireplace appeared to be grounded, but we could not determine whether they were properly bonded.*

The ground rods at the gas meter and fireplace were not fully driven into the ground.

The clamps at the ground rods did not appear to be proper (i.e. rated for ground rods). The clamp observed was listed as a pipe clamp for metal water or gas lines. We recommend the use of a brass "acorn" style clamp, U.L. listed and approved for direct burial, on the ground rod for a more secure, longer lasting connection.



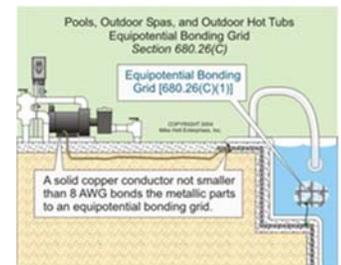
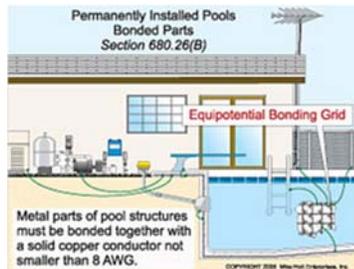
Metallic water pipes were not bonded across the Water Heater.



Metal window frames within 5 feet of the pool did not appear to be bonded.

The diving board did not appear to be bonded.

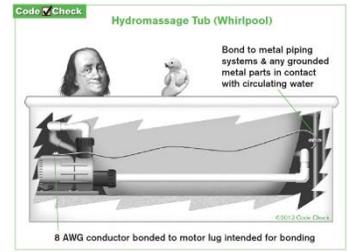
Bonding conductors were observed on each of the pool pumps, heating equipment and air blower, but we could not determine whether the conductor properly connected to the pool's bonding grid (buried system not visible). Metal parts of electrical equipment associated with pool, spa and hot tub water circulating systems, including pump motors, should be bonded with a minimum of solid 8 AWG conductor.



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We could not determine whether the Hydro-massage Tub equipment (i.e. circulation pump) was properly bonded; there was no immediate access to the pump.



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. A qualified, licensed electrical contractor should be selected to further evaluate these service panels, and the conditions noted in § II. *Electrical Systems B. Branch Circuits* below and make repairs and replacements as necessary.

B. Branch Circuits, Connected Devices, and Fixtures

Type of Wiring: Copper

Comments:

Note that furnishings, etc. may limit access to outlets within this occupied property.

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

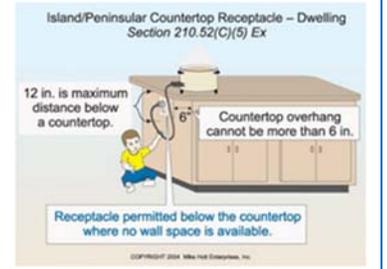
There was at least one improper outlet cover installed out-of-doors. In wet locations, outlets should be equipped to prevent moisture from entering or accumulating within the box. Where installed in a wet location, receptacles should, by today's standards, have an enclosure that is weatherproof whether or not the attachment plug cap is inserted.



An outlet, on the back side of the peninsular counter at the kitchen sink, was improperly installed. 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. The intent is that the receptacle will be available for small appliances used on the countertop while minimizing the risk of snagging and pulling the appliance off the countertop. This outlet was 28" below a 4" overhang.

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Ground Fault Circuit Interrupters (GFCIs)

GFCIs are intended to protect persons from accidental electrocution in areas susceptible to moisture. Installations of these devices in the locations specified are recommended as safety upgrades. These locations include: *All kitchen countertop receptacles, and bathroom receptacles, receptacles within 6' of water, all outdoor receptacles and all receptacles outlets, including ceiling receptacles for any overhead garage door operators.* Missing GFCIs per today's standard is a [TREC Standards of Practice reporting requirement](#).

Ground Fault Circuit Interrupt (GFCI) Protection:

- Bathrooms: Yes No Reset located at: *master and each guest bathroom*
- Garage: Yes No Reset located at: *garage*
- Outdoors: Yes No Reset located at: *garage*
- Kitchen Yes No Reset located at: *kitchen (2 circuits or devices)*
- Bath spa: Yes No Reset located at: *master bathroom closet*
- Wet bar: Yes No Reset located at: *dedicated device*
- Pool Equip. Yes No Reset located at: *dedicated device*

There were missing GFCI devices at required areas. Note that a single device may protect additional outlets downstream of the GFCI.

- **Not all receptacles within the garage space were GFCI protected.** [TREC Standards of Practice reporting requirement](#).

There were receptacles protected by a GFCI which were not marked as being protected. Outlets which are GFCI protected should be marked as protected. This helps the homeowner understand that there is a Reset button that must be used to restore power following a fault condition.

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

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. A qualified, licensed electrical contractor should be selected to address these conditions and any noted in § II. *Electrical Systems Service Entrance and Panels* above and make repairs and replacements as necessary.

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C. Smoke, Fire and Carbon Monoxide Alarms

Comments:

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.

Without regard to the age of the house, or standards in place at that time, single or multiple station alarms should be installed in each sleeping room, outside each separate sleeping area in the immediate vicinity of the sleeping rooms (i.e. hallways or common areas) and in the living space of each story of the building. Missing alarms per these standards is a deficiency per the [TREC Standards of Practice](#) and must be reported as such.

Smoke/fire alarms:	#: 7	No. tested: 7	No. failed: 2
CO alarms	#: 0	No. tested: N/A	No. failed: N/A
Combination alarms	#: 0	No. tested: N/A	No. failed: N/A

Two alarms were not functional (master bedroom, 2nd floor left-hand bedroom). The U.S. Fire Administration, a department of FEMA, states that smoke and fire alarms have a life span of about 8 – 10 years after which the entire unit should be replaced. Manufacturers typically state that their devices should be replaced after 10 years. At least four of these appeared to be original to this building.

Safety: This building should have carbon monoxide alarms. While not a reportable deficiency, single and multiple station alarms would now be installed outside of each bedroom (i.e. the hallway) and on each floor. It is now common to use *combination* smoke/carbon monoxide alarms in those areas.

Safety: The alarms should be tested regularly per the manufacturer’s instructions; typically weekly. At a minimum, alarms should be tested per the National Fire Protection Association’s recommendations; test every six months and replace batteries every year.

III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

A. Heating Equipment

Type of Systems: See Addendum for description of the equipment

Energy Sources: Gas

Comments:

Thermostats were used in manual mode only.

The gas heating cycle was checked by placing the system into the heating mode, adjusting the thermostat to demand heat and observing a) flame ignition, b) fan operation, c) heat generation and d) cessation of fan operation when the demand was withdrawn.

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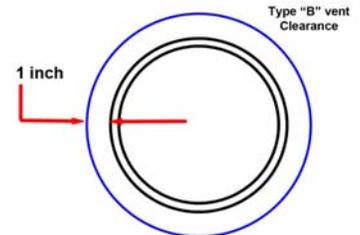
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Flame impingement, uplifting flame, improper flame color, or excessive scale buildup may reflect damage to the heat exchanger and the general condition of the unit(s) and will be reported if observed. *A full and complete evaluation of a heat exchanger requires that the furnace unit be dismantled and is, therefore, beyond the scope of this inspection.* Note that without regard to performance at the time of this inspection, the age of the unit(s) must be considered in considering remaining life.

The heating cycle appeared to be performing as intended within acceptable limits. (only one photographed)



The first floor furnace's gas flue was in direct contact/near contact with the combustible roof deck. Type B Gas Vent requires a minimum of one-inch clearance to combustibles.



B. Cooling Equipment

Type of Systems: See Addendum for description of equipment

Comments:

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 DeltaTRAK RoHS compliant and NIST traceable HACCP tool was used for these measurements.

Note that while the systems did fall within acceptable levels, the low ambient temperatures, while above 60°F, may prevent a more accurate reflection of system performance.

System 1: Return = 66° F ,	Supply = 51° F ,	Differential = 15° F
System 2: Return = 64° F ,	Supply = 49° F ,	Differential = 15° F

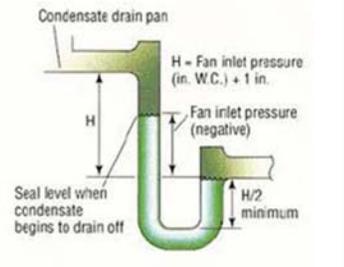
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We operated the system(s) over time and determined that the systems did cool the rooms from the initial temperature point.

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. Only one of two pair pictured below.

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. Only one of two pair pictured below.



Maintenance: The first floor system vibrated during the cooling cycle but did not vibrate during the heating cycle. We were not able to immediately determine the cause.

The refrigerant HCFC 22 (also known as R-22) is considered to be an ozone depleting compound and will be phased out over the ten-year period between 2010 and 2020. Note that while there is no requirement to replace existing equipment just to switch to the new refrigerants, supplies of HCFC 22 will become more limited over the course of this period which should be expected to cause the rise in price of the refrigerant. More information may be available at:

<http://www.epa.gov/Ozone/title6/phaseout/hcfcfaqs.html>

No immediate evidence of a Deficiency was observed.

C. Duct Systems, Chases, and Vents

Comments:

System 1: 20" x 20"; 20" x 30"

Total sq in.: 1,000

System 2: 20" x 30"

Total sq in.: 600

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.

Portions of the duct within the attic space were in contact with other runs, or were separated only by insulation batting. Moisture can condense on flex duct that does not have adequate airflow around it. This moisture can damage surrounding materials and can contribute to fungal growth. This is more important in humid climates than in dryer climates. While the insulation may reduce condensation, the insulation may still absorb moisture and allow fungal growth. We recommend

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that the duct be separated by air space. Note that the photos below are representative and may not reflect all deficiencies.



Six or more supply registers were installed backwards and should be turned 180°. Supply register placement along an interior wall with supply throw toward the outside walls is the proper orientation in a cooling climate such as Texas. Manual T (Air Distribution Basics) from ACCA supports this air pattern. Air conditioning supply registers are intended to wash the outside walls; that is, to direct air against the outside walls and windows and to return that hot air to the system for removal of that heat.

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: Master bedroom closet
Static water pressure reading: 60 psi

Comments:

Primary water supply pipe: Copper pipe
Location of gas meter: Left side, near the front corner

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

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.

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 also tested by operating all fixtures in the master bath simultaneously, then flushing the toilet. There was no appreciable decrease in the water flow.

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

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◀ Master bedroom



60 psi ▶

The valve handle was missing from the dishwasher's supply line beneath the kitchen sink.

The toilet tank in the Jack-n-Jill style bath was not secure; it was braced against the back wall but could lean forward too easily. Note that this might not be worth trying to tighten at the risk of damage to the porcelain tank.

B. Drains, Wastes, and Vents

Comments:

☰ 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. Comprehensive water leak testing, including hydrostatic testing, is available from licensed plumbers, but typically takes 24 hours. Such testing is recommended in older homes (40+ years), homes with previous foundation repair and homes with evidence of poor foundation performance.

There was limited, undersized or no access to the underside of one or more baths. Fixtures with concealed slip-joint connections shall be provided with an access panel or utility space as least 12" in its smallest dimension or other approved arrangement so as to provide access to the slip connections for inspection and repair. We were not able to evaluate these drain lines or determine whether they were slip joint or cemented.

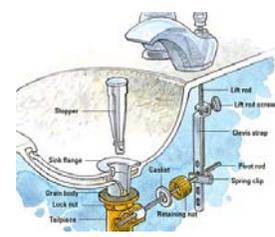
The left hand sink in the master bathroom drained very slowly.

The hydro-massage therapy tub (aka "spa") was slow to drain.

A drain line beneath the kitchen sink leaked at a jamb nut.

One sink in the Jack-n-Jill bath leaked, apparently at a jamb nut or drain body.

The lift rod was not assembled at the right hand sink in the master bathroom.



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

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There was an unlisted drain line installed beneath the right hand master bathroom sink. Flexible drain lines are considered to be temporary repairs due to the propensity of the ridges to trap oils, hair, debris, etc. leading to blockage. We recommend that temporary drain lines be replaced.



C. Water Heating Equipment

Energy Sources:	Gas	Gas
Capacity:	40 gallons	40 gallons

Comments:

Temperature measured:	117°F	N/A – appliances installed in parallel
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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. (Date Code: 0131E = 2001 – applied to both).



D. Hydro-Massage Therapy Equipment

Comments:

This inspector did not have immediate access to the circulation pumps. Access shall be proved to circulation pumps in accordance with the fixture manufacturer’s installation instructions. A door or panel shall be permitted to close the opening. The front panel of this fixture can be removed for access and service by cutting through the caulked seal.

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No immediate evidence of a Deficiency was observed.

V. Appliances

A. Dishwasher

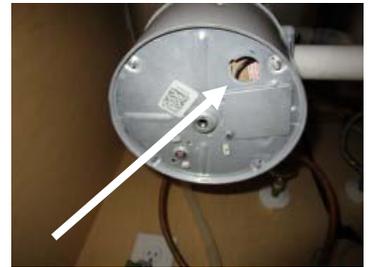
Comments:

No immediate evidence of a Deficiency was observed.

B. Food Waste Disposer

Comments:

The disposer did not have a cord and plug installed and the appliance could not be operated.



C. Range Hood and Exhaust Systems

Comments:

Range Hood Configuration: Ducted

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: 320° F.

The oven temperature, while set at a Bake setting of 350°, was measured at 320° a difference of 30°F. The Texas Real Estate Commission (TREC) requires that a variance of more than +/- 25° when tested at an oven setting of 350° be reported as a deficiency. On electronic ovens, the

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adjustment is typically programmable. See your appliance's manual, or this document's Addendum, for instructions.

E. Microwave Ovens

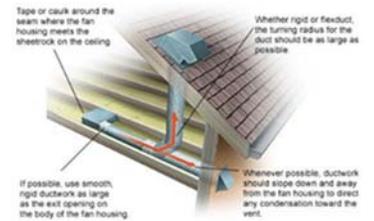
Comments:

No immediate evidence of a Deficiency was observed.

F. Mechanical Exhaust Vents and Bathroom Heaters

Comments:

One or more bathroom exhaust fans did not terminate outside the building. We were not able to view the point of termination for *some* of the bathrooms' exhaust fans to allow a full inspection and evaluation, but there were no roof or wall jacks observed which could have served as a point of termination. These vents, therefore, were also presumed to terminate within the attic or at the soffit. The air removed by every mechanical exhaust system should be discharged to the outdoors. Air should not be exhausted into an *attic, soffit, ridge vent* or *crawl space*.



One louver was missing from one vent cover on the left side.



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

G. Garage Door Operators

Comments:

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.

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

I NI NP D

The door lock, or locks, was not disabled on doors with operators present. Locks, on garage doors controlled by a garage door opener, should be disabled or removed. Attempting to open a locked door may result in damage to the door, or the unit may be pulled from its mounting causing property damage or personal injury.

A bolt through the hole indicated will effectively disable the lock.



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.

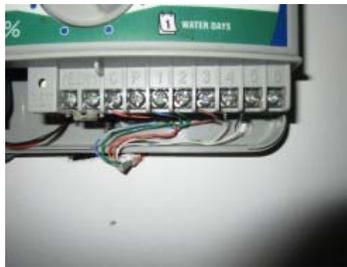
VI. Optional Systems

A. Landscape Irrigation (Sprinkler) Systems

Comments:

This was an evaluation of the controller and sprinkler heads. We are not able to determine whether there are hidden or buried defects within the water lines or heads that did not rise from the ground.

Brand: Hunter
Zones: Five (5)
Backflow Preventer: Observed



The appliance did not operate. While there were bars on the left side of the display, no other characters were displayed in any of the controller's switch positions. The low voltage control wires appeared to pass through the drywall and into the attic space to a ceiling receptacle intended for an overhead door operator.

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

I	NI	NP	D
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B. Swimming Pools, Spas, Hot Tubs, and Equipment

Type of Construction: In-ground

Comments:

Filter type: Cartridge
Heater energy source: Gas

The water level was observed at a single point in time with no reference as to when water was last added, or how much water was last added. This inspector is not able, therefore, to evaluate the integrity of the pool surface, coping or piping. Reporting of leaks is limited to visible water leaks at exposed pipes and equipment.

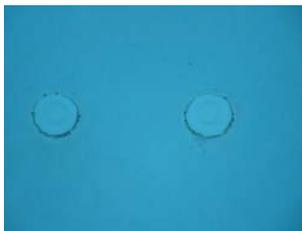
The water quality in pool water fluctuates and must be monitored and adjusted constantly. Loss or addition of water will concentrate or dilute chemicals used to balance the pool system. Evaluating the chemical levels is outside of the scope of this inspection.

Tests to evaluate the time required to turn over the water, or determine the circulation pattern of the water is a time consuming test, which would then require adjustment of the chemical balance in the water and is outside of the scope of this inspection.

No information on the design and construction of the pool was available and this inspection was limited to visible evidence of defects or damage.

Circulation valves were only operated at the circulation control equipment in the Service mode.

The drain cover(s) observed appeared to be some form of anti-entrapment cover but we could not determine whether it/they comply with ASME/ANSI A112.19.8-2007 for pools or ASME/ANSI A112.8-2007 for spas.



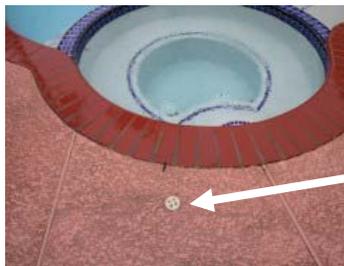
Pool



Spa



The spa-side control pad did not appear functional.



The air-blower was functional, but the cover had corrosion damage which may have reduced the appliance's useful life.



Heating Equipment

During the cycle start-up, clicking of the igniter was observed, but the Heating Equipment did not light.

There was corrosion on the bottom of the door panel and some within the equipment housing.

There was no temperature and pressure relief valve (T&P) in the circulation line at the heating equipment.

Pool Safety

We recommend removal of the diving board for personal safety and to protect against liability and claims.



The pool barrier(s) were not proper for personal safety and protection against liability claims. There are specific requirements regarding locks and access to exterior areas providing direct access to swimming pools. Complete information on barrier and door requirements when there is a pool is located in the Addendum.

Gates opened in toward the pool ►



Information: The pool fill valve was located at the left, front corner. There was a backflow preventer observed.



- ☰ Pool Safety Resources available at: [Pool Safety](#)
- Backyard Pool: Always Supervise Children
 - Prevent Child In-Home Drowning Deaths
 - Hair Entrapment in Drain Covers
 - Swimming Pool Safety Alert
 - Spas, Hot Tubs and Whirlpools
 - How to Plan for the Unexpected: Preventing Child Drowning
 - Your Pool, Your Family's Safety
 - Safety Barrier Guidelines for Home Pools

☰ A swimming pool will *typically* need to be re-plastered every 7 – 10 years, depending on the quality of maintenance. Natural ground movement may create conditions that will negatively impact the deck, tile and coping. This is *generally* considered normal wear and maintenance. No immediate evidence of damage or decay was observed.

☰ This is not presented as a complete list of issues with regard to the pool and pool systems. The pool circulation system, valves, controls, etc. was not tested in all positions. Some features or systems may not have been fully tested and not all problems may have been identified. We recommend that a qualified pool service company regularly inspect the pool system and to maintain the water quality and equipment and circulation systems and condition.

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 Unitary Products
 Model GCD60S21S2A
 Serial Number W0G8162190
 Approximate Age 07/2001
 BTU's 60,000 (5 tons)
 Refrigerant R 22
 Approximate SEER¹

Air Conditioner Evaporator

Brand ADP
 Model CT7860 M245
 Serial Number 6001L 18228
 Approximate Age 2001

Heating Equipment

Brand Bryant
 Model 373LAV060115
 Serial Number 4801A 54288
 Approximate Age 12/2001
 Approximate AFUE² 80
 Energy Source Gas

Air Conditioner Condenser

Brand Carrier
 Model PA13NR048 J
 Serial Number 3414X 64570
 Approximate Age 08/2014
 BTU's 48,000 (4 tons)
 Refrigerant R 22
 Approximate SEER¹ 13

Air Conditioner Evaporator

Brand CAC/BDP
 Model not legible
 Serial Number ?801? 31081
 Approximate Age 2001

Heating Equipment

Brand Bryant
 Model 373LAV048095
 Serial Number 3801A 62188
 Approximate Age 10/2001
 Approximate AFUE² 80
 Energy Source Gas

WATER HEATING EQUIPMENT

Water Heater

Brand Bradford White
 Model MI403S6EN12
 Serial Number XK0246526
 Approximate Age 10/2001
 Capacity 40 gallons
 Energy Source Gas

Water Heater

Brand Bradford White
 Model MI403S6EN12
 Serial Number XK0246579
 Approximate Age 10/2001
 Capacity 40 gallons
 Energy Source Gas

KITCHEN EQUIPMENT

Dishwasher

Brand KitchenAid
 Model KUDC20FVSS4
 Serial Number F03805014
 Approximate Age 09/2010

Oven/Range

Brand KitchenAid
 Model KEBS107SSS04
 Serial Number D03898144
 Approximate Age 09/2010
 Energy Source Electric

Cooktop

Brand KitchenAid
 Model KFGS306VSS02
 Serial Number F04863264
 Approximate Age 11/2010
 Energy Source Gas (electric present)

Microwave

Brand KitchenAid
 Model KCMS1555SSS 1
 Serial Number FG02707701
 Approximate Age 07/2010

Refrigerator

Brand
 Model
 Serial Number
 Approximate Age

¹SEER = Seasonal Energy Efficiency Ratio
²AFUE = Annual Fuel Utilization Efficiency
³EER = Energy Efficiency Ratio (window units only)

ADDENDUM

Report Identification: [REDACTED]

POOL EQUIPMENT

Filter

Brand Pentair
Model CCP420
Serial Number
Approximate Age 06/2002
Filter Type Cartridge

Heater

Brand Pentair
Model 400
Serial Number E06020664
Approximate Age
Energy Source Gas

In-line Chlorine Feeder

Brand Pentair
Model 320
Serial Number
Approximate Age

Air Blower

Brand Anzen
Model
Serial Number
Approximate Age

ADDENDUM

Information on your appliances...

While the age of an appliance can play *a part* in the decision whether to replace an appliance, much more important is its general condition (e.g. broken/missing parts, rusting, etc.) and previous service history. Do not use just the age as the sole criteria for replacement. If you have an appliance that has needed few repairs in the past and was in decent shape, chances are good it may be worthwhile to have small to medium repairs done to keep it operational for at least a few years yet.

Only for refrigeration appliances (fridge, freezer, air conditioner, etc.) should age be a major factor in the decision whether or not to replace them. A current model refrigerator for example could consume as little as 1/2 the energy of even just a 10-year old model! Few other appliance types will see this dramatic of energy savings when compared with a current model *of similar style*.

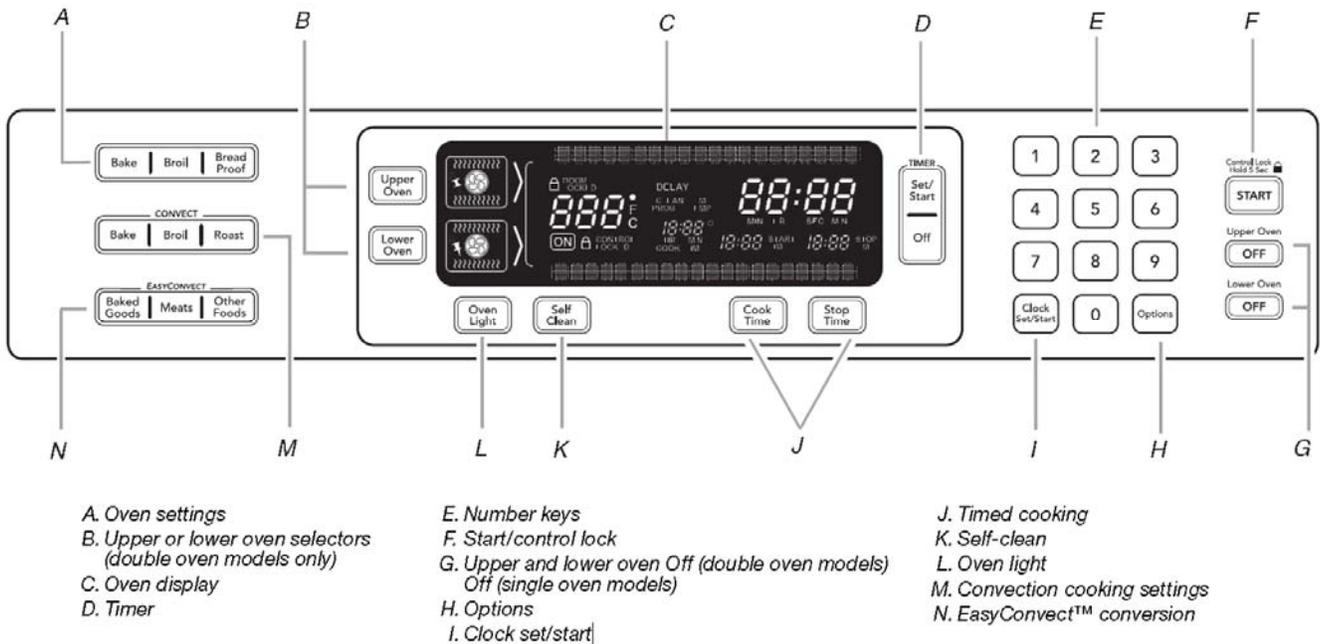
Source: Appliance 411, Appliance Information

Report Identification: [REDACTED]

To Adjust Oven Temperature Calibration:

1. Touch OPTIONS and then "6" to set the calibration.
2. On double ovens only, touch UPPER OVEN or LOWER OVEN to select oven. Each oven calibration can be independently set.
3. Touch "3" to increase and "6" to decrease the temperature.
4. Touch START to end calibration.

See illustration below



See the full KitchenAid Use and Care Guide at:

<http://www.kitchenaid.com/digitalassets/MLPDF/Use%20and%20Care%20Guide%20-%20W10162180.pdf>

2012 IRC APPENDIX G – Barrier Requirements - Swimming Pools, Spas and Hot Tubs §AG105

AG105.1 Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AG105.2 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1³/₄ inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1³/₄ inches (44 mm) in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1³/₄ inches (44 mm) in width.
6. Maximum mesh size for chain link fences shall be a 2¹/₄-inch (57 mm) square unless the fence has slats fastened at the top or the bottom which reduce the openings to not more than 1³/₄ inches (44 mm).
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1³/₄ inches (44 mm).
8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. **Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device.** Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
 - 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate; and
 - 8.2. The gate and barrier shall have no opening larger than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
9. Where a wall of a dwelling serves as part of the barrier, one of the following conditions shall be met:
 - 9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F 1346; or
 - 9.2. **Doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and/or its screen, if present, are opened.** The alarm shall be listed and labeled in accordance with UL 2017. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
 - 9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable as long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.